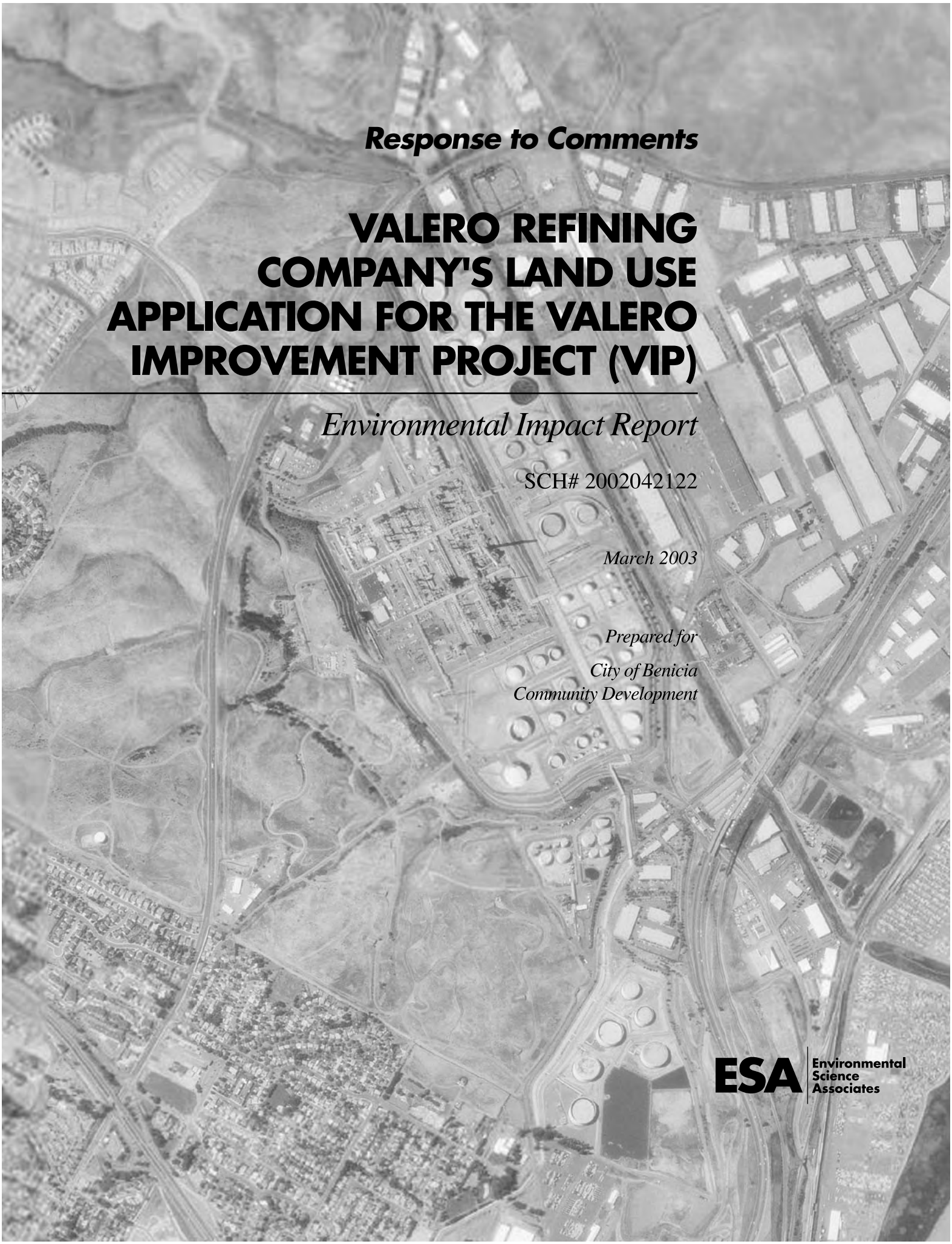


Response to Comments

VALERO REFINING COMPANY'S LAND USE APPLICATION FOR THE VALERO IMPROVEMENT PROJECT (VIP)

Environmental Impact Report

SCH# 2002042122

March 2003

Prepared for

City of Benicia
Community Development

ESA Environmental Science Associates

Response to Comments

VALERO REFINING COMPANY'S LAND USE APPLICATION FOR THE VALERO IMPROVEMENT PROJECT (VIP)

Environmental Impact Report

SCH# 2002042122

March 2003

Prepared for

City of Benicia
Community Development

225 Bush Street, Suite 1700
San Francisco, California 94104
(415) 896-5900

436 14th Street, Suite 600
Oakland, California 94612
(510) 839-5066

8950 Cal Center Drive, Building 3, Suite 300
Sacramento, California 95826
(916) 564-4500

4221 Wilshire Boulevard, Suite 480
Los Angeles, California 90010
(323) 933-6111

2685 Ulmerton Road, Suite 102
Clearwater, Florida 33762
(727) 572-5226

700 Fifth Avenue, Suite 4120
Seattle, Washington 98104
(206) 442-0900

1751 Old Pecos Trail, Suite O
Santa Fe, New Mexico 87505
(505) 992-8860

ESA Environmental Science Associates

202115

TABLE OF CONTENTS

VALERO REFINING COMPANY'S LAND USE APPLICATION FOR THE VALERO IMPROVEMENT PROJECT (VIP) ENVIRONMENTAL IMPACT REPORT: RESPONSE TO COMMENTS

Page

APPENDIX - MYTHS AND FACTS ABOUT NEW SOURCE REVIEW REFORM

LIST OF FIGURES

LIST OF TABLES

CHAPTER I
INTRODUCTION

A. CEQA PROCESS

On October 31, 2002, the City of Benicia released for public review a Draft Environmental Impact Report (Draft EIR) on the proposed Valero Refining Company's Land Use Permit Application for the Valero Improvement Project (VIP). The 45-day public review and comment period on the Draft EIR began on October 31, 2002 and closed on December 16, 2002.

The Final EIR is an informational document prepared by the lead agency that must be considered by decision makers before approving or denying a proposed project. California Environmental Quality Act (CEQA) *Guidelines* (Section 15132) specify the following:

> "The Final EIR shall consist of:
>
> (a) The Draft EIR or a revision of the draft.
>
> (b) Comments and recommendations received on the Draft EIR either verbatim or in summary.
>
> (c) A list of persons, organizations, and public agencies commenting on the Draft EIR.
>
> (d) The responses of the Lead Agency to significant environmental points raised in review and consultation process.
>
> (e) Any other information added by the Lead Agency."

This document has been prepared pursuant to CEQA *Guidelines*. This Final EIR incorporates comments from public agencies and the general public, and contains appropriate responses by the Lead Agency to those comments. The Valero Improvement Project EIR consists of the Draft EIR and this Response to Comments document.

The California Environmental Quality Act of 1970, as Amended[1], guides the process of environmental review in California. Under CEQA, all aspects of the preparation of the Draft EIR and its review, as well as the subsequent steps to prepare a Final EIR are specifically outlined by the CEQA Guidelines.[2]

---

1 Public Resources Code, Division 13, Sections 21000 – 21178, accessible at world wide web address http://ceres.ca.gov/topic/env_law/ceqa/stat/

2 Title 14. California Code of Regulations, Chapter 3, Sections 15000 – 15387 and Appendices, accessible at http://ceres.ca.gov/topic/env_law/ceqa/guidelines/

PUBLIC REVIEW AND RESPONSE TO COMMENTS

Public review is an integral part of the CEQA process. In response to the publication of the Draft EIR for public review, a number of Agency and public comments have been received. CEQA and its Guidelines set forth the obligations of the Agencies involved in the preparation of the Draft EIR, and the Agencies and the public in the review of the Draft EIR. The CEQA Guidelines also provide a focus for the review (Guideline Section 15204) and a framework for the consideration of the public and agency comments on the Draft EIR.

The CEQA Guidelines also describe the duties of the lead agency to prepare adequate responses to comments (Guideline Section 15088). The lead agency is to respond to significant environmental comments in a level of detail commensurate to that of the comment. However, it is not necessary for the lead agency to respond to personal opinions or speculation about the project, to provide all of the information requested by reviewers or to respond to comments presented without necessary factual support.

The City has used its best efforts to understand each comment and to respond appropriately. However, unless the comment addresses a significant environmental issue or makes a specific request, it may not be possible, nor is it necessary, to respond.

B. METHOD OF ORGANIZATION

This Final EIR for the VIP contains information in response to concerns raised during the public comment period.

Chapter II of this document contains an updated summary of environmental impacts.

Chapter III contains master responses that address the following topic areas: California Environmental Quality Act (CEQA); Project Description; Land Use/Sustainability; Air Quality Monitoring Data / Odors; Utilities / Water Supply; and Cumulative Analysis.

Chapter IV contains comment letters received during the comment period and the responses to each comment. Each comment is labeled with a letter and number in the margin and the response to each comment is presented immediately after the comment letter.

Chapter V contains oral comments received on December 5, 2002 during the City of Benicia Planning Commission hearing on the Draft EIR. The minutes of the Planning Commission hearing are presented in this section as well as overall responses to concerns expressed during this meeting. Each oral comment is labeled with a letter and number in the margin and the response to each comment is presented after the minutes of the Planning Commission.

Chapter VI contains text changes to the Draft EIR, reflecting necessary additions, corrections, and clarifications to the Draft EIR.

Chapter VII contains a list of agencies, organizations, and persons that received the Draft EIR.

C. AGENCIES COMMENTING ON THE DRAFT EIR

The following agencies submitted written comments on the Draft EIR during the public review period (the date of the letter is also presented):

Bay Area Air Quality Management District	December 11, 2002
California Regional Water Quality Control Board	December 11, 2002
California Department of Transportation	December 16, 2002
City of Benicia	November 01, 2002
State of California Governor's Office of Planning and Research State Clearinghouse	December 17, 2002

D. ORGANIZATIONS COMMENTING ON THE DRAFT EIR

The following organizations submitted written comments on the Draft EIR during the public review period (the date of the letter is also presented):

Bay Planning Coalition	December 02, 2002
Benicia Chamber of Commerce	December 02, 2002
Good Neighbor Steering Committee	
Dana Dean	December 16, 2002
Marilyn Bardet / Elizabeth Patterson	December 16, 2002
Marilyn Bardet	December 16, 2002
Sue Kibbe	Undated
Bradford MacLane	December 16, 2002
Mary Shaw	Undated
Edward Swenson	December 11, 2002
Susan Wickham	December 13, 2002
Marilyn Bardet / Elizabeth Patterson	December 17, 2002
Sierra Club (Jerri Curry)	December 05, 2002

E. APPLICANT COMMENTING ON THE DRAFT EIR

Valero Refining Company – California	December 11, 2002

F. INDIVIDUALS COMMENTING ON THE DRAFT EIR

The following individuals submitted written comments on the Draft EIR during the public review period (the date of the letter is also presented):

BeniciaNews.com reader	December 04, 2002
BeniciaNews.com reader	December 05, 2002
Tom Busfield	December 16, 2002
Robert Craft	December 16, 2002
Kevin A.Cullen	December 13, 2002
Ronald E. Glas	December 16, 2002
Will Gregory	December 04, 2002
Kitty Griffin	December 16, 2002
Linda Lewis	December 10, 2002
Catherine Machalinski	Undated

Donnell Rubay	December 06, 2002
Bev Sanders	December 16, 2002
Paul Slaight	December 16, 2002
Paul Slaight	December 19, 2002
Dan Smith	December 16, 2002
Roger Straw	December 02, 2002
Peter Weisberg	Undated
Sabina Yates	December 16, 2002
Nancy Yates	December 16, 2002
Haddon Zia	December 03, 2002

G. INDIVIDUALS COMMENTING AT THE DECEMBER 5, 2002 PLANNING COMMISSION HEARING

The following individuals submitted written materials or made oral comments at the December 5, 2002 Planning Commission Hearing:

Oral comments received

Commissioner Alan Schwartzman
Commissioner Fred Railsback
Richard Bortolazzo, 846 Dorsett Lane, representing the Benicia Chamber of Commerce.
Brad MacLane, 436 York Drive, Benicia.
Rod Cameron, Business Manager, Plumbers and Steamfitters of Napa/Solano County.
Dana Dean, Cambridge Drive, representing Good Neighbor Steering Committee.
Bob Craft, 323 Columbia Circle, Benicia.
Catherine Machalinski, 1561 Shirley, Benicia
Sue Kibbe, 22 Del Centro, Benicia
Linda Lewis, 282 West I Street, Benicia
Maggie Catt, 240 East K Street, Benicia.
Marilyn Bardet, 333 East K, Benicia.
Sam Hammonds, Valero Refining Company

CHAPTER II

UPDATED SUMMARY OF ENVIRONMENTAL IMPACTS

UPDATED SUMMARY OF IMPACTS OF THE PROPOSED PROJECT

This section provides a summary of the environmental impacts of the proposed Valero Improvement Project (VIP), as developed during this analysis. These impacts of the proposed project and the mitigation measures that are included as a part of the proposed project have been extracted from the analyses and evaluations presented and discussed in detail in Chapters 4, 5 and 6 of the Draft EIR and have since been updated to include all of the associated text changes to the Draft EIR identified in Chapter IV and shown in Chapter VI of this Response to Comment (RTC) document.

Each summary statement is a formal statement of impact and proposed mitigation as well as level of significance before and after mitigations are applied. This information is presented in tabular form in Table 2-1. The information in Table 2-1 is arranged in four columns: 1) environmental impacts; 2) level of significance without mitigation; 3) adopted or recommended mitigation measures; and, 4) level of significance with mitigation measures applied.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
1. Aesthetics, Visual Quality, Light and Glare			
Impact 4.1-1: The VIP would add new equipment and facilities to developed, industrial portions of the refinery. These new facilities, which could potentially alter the visual character of the setting, could be seen from public view corridors such as I-680, a designated scenic corridor. This would be a less than significant impact.	Less than Significant	None Required	
Impact 4.1-2: Refinery operations could cause flaring events. This impact would be less than significant.	Less than Significant	None Required	
Impact 4.1-3: Operation of the proposed new scrubber could create vapor plumes visible to surrounding residents and motorists. This impact would be less than significant.	Less than Significant	None Required	
Impact 4.1-4: The proposed development would introduce new lighting on-site. This impact would be less than significant.	Less than Significant	None Required	
Impact 4.1-5: The reasonably foreseeable projects at the Valero Refinery would expand the industrial appearance of the overall complex. However, none of the changes associated with individual projects would be expected to substantially affect visual resources. As such, the projects would be expected to produce a less than significant cumulative visual quality impact.	Less than Significant	None Required	
Impact 4.1-6: Other non-refinery cumulative projects, together with the VIP and other Valero Refinery projects, would combine to alter the general appearance of the southeast portion of the City. However, none of the changes would be considered to substantially impact visual resources. As such, the cumulative projects would be expected to produce a less than significant visual impact.	Less than Significant	None Required	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
2. Air Quality			
Impact 4.2-1: Construction activities associated with project construction would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions. This would be a potentially significant impact.	Significant	Mitigation Measure 4.2-1a: During construction, Valero should require the construction contractor to implement the following dust control procedures to maintain project construction-related impacts at acceptable levels. • Water all active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible. • Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). • Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. • Sweep all paved access roads, parking areas and staging areas at construction sites daily. Sweep City streets (with water sweepers using reclaimed water if possible) at the end of each day if visible soil material is carried onto adjacent paved public roads.	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
2. Air Quality (continued)		• If construction activities for any project component or group of components undergoing simultaneous construction will occur on a construction site greater than four acres in area, Valero shall require the construction contractor to implement the following enhanced dust control procedure: – Hydroseed or apply (non-toxic) soil stabilizer to inactive construction areas (previously graded areas inactive for ten days or more). – Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.) – Limit traffic speeds on unpaved roads to 15 mph. – Install sandbags or other erosion control measures to prevent silt runoff to public roadways. Replant vegetation in disturbed areas as quickly as possible.	
	Significant	4.2-1b: To mitigate impact of construction equipment exhaust emissions, the project sponsor should require its construction contractors to comply with the following requirements: • Construction equipment shall be properly tuned and maintained in accordance with manufacturers' specifications.	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
2. Air Quality (continued)		• Best management construction practices shall be used to avoid unnecessary emissions (e.g., trucks and vehicles in loading and unloading queues would turn their engines off when not in use). • Any stationary motor sources (such as generators and compressors) located within 100 feet of any residence shall be equipped with a supplementary exhaust pollution control system as required by the BAAQMD and CARB. In such cases, the project sponsor shall require construction contractors to mitigate diesel emission by measures such as the use of catalyzed diesel particulate filters, use of ultra-low sulfur diesel fuel, and/or use of EPA and CARB 1996 certified diesel engines.	
Impact 4.2-2: Operational activities associated with the implementation of the proposed project could lead to increase in regional air pollutant emissions into the air basin. This would be a potentially significant impact.	Significant	Mitigation Measure 4.2-2: As a condition of approval of the use permit for the VIP, Valero must implement the Light Ends Rail Rack Arm Drains project described in Section 3.6.1.3 of this document.	Less Than Significant
Impact 4.2-3: Operational activities associated with the implementation of the proposed project could lead to increase in odorous emissions. This would be a less than significant impact.	Less than Significant	None Required	
Impact 4.2-4: The proposed project, along with other ongoing and approved projects would lead to a net reduction in emissions relative to the baseline levels. This would constitute a net air quality benefit.	Benefit	None Required	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
3. Biological Resources			
Impact 4.3-1: Potential disturbance of western pond turtle and California red-legged frog could occur during construction at the Tank Farm retention pond site. This impact would be made less than significant by Mitigation Measure 4.3-1.	Significant	Mitigation Measure 4.3-1: Unless protocol surveys during the period May 1 through November 1 establish that the retention ponds are not occupied by either species, the modification of any Tank Farm retention pond should be preceded by a period of at least six months during which the pond is drained and minimal water allowed to collect in the basin.	Less than Significant
Impact 4.3-2: Potential disturbance of special status and protected native birds (e.g., tricolored blackbird and Suisun song sparrow) during the breeding season could occur at the Tank Farm retention ponds. This impact would be made less than significant by Mitigation Measure 4.3-2.	Significant	Mitigation Measure 4.3-2: Construction at the Tank Farm would be limited to the non-breeding season for most birds, *i.e.*, all work would occur September through February. Alternatively, if construction must occur during the breeding season, all vegetation that could be used for nesting would be removed during the September through February period preceding construction.	Less than Significant
Impact 4.3-3: Potential impacts to special status fisheries could occur with additional water discharges into Suisun Bay or from increased ship traffic associated with increased refinery capacity. The Suisun Marsh Protection Plan (BCDC, 1976) requires that the disposal of wastewater from any existing outfall follow the permit conditions from water quality oversight agencies. Therefore, by continued compliance with the discharge requirements of the refinery's NPDES permit this impact is less than significant.	Less than Significant	None Required	
Impact 4.3-4: Potential impacts to special status fisheries could occur with additional water discharges from other non-refinery industrial projects, together with cumulative refinery projects. By continued compliance with the discharge requirements of the refinery's NPDES permit this impact is less than significant.	Less than Significant	None Required	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
4. Cultural Resources			
Impact 4.4-1: Construction of the refinery modifications may cause substantial adverse changes to the significance of currently unknown cultural resources. This impact would be less than significant with application of mitigation measure 4.4-1.	Significant	Mitigation Measure 4.4-1: Pursuant to CEQA Guidelines 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and Valero shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of Valero and the qualified archaeologist and/or paleontologist would meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.	Less than Significant
5. Energy			
Impact 4.5-1: Operation of the VIP facilities would increase electricity consumption. This impact is less than significant.	Less than Significant	None Required	
Impact 4.5-2: Operation of the VIP facilities would increase natural gas and other fuels consumption. This impact would be less than significant.	Less than Significant	None Required	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
5. Energy (continued)			
Impact 4.5-3: Implementation of the VIP along with other projects at the Benicia Refinery will result in a net reduction in electrical demand during normal operating conditions, when the cogeneration unit is operating, and an increase in demand when the cogeneration unit is not operating. This impact would be less than significant.	Less than Significant	None Required	
6. Geology, Soils, and Seismicity			
Impact 4.6-1: In the event of a major earthquake in the region, seismic ground shaking could potentially injure persons at the project site due to structural damage or structural failure. Ground shaking could potentially expose persons and property to seismic-related hazards, including localized liquefaction, related ground failure and seismically-induced settlement. This impact would be made less than significant by mitigation measure 4.6-1a through 4.6-1e.	Significant	Mitigation Measure 4.6-1a: Seismic design consistent with current professional engineering and industry standards should be used in construction for resistance to strong ground shaking, especially for lateral forces. The implementation of the seismic design criteria as required by the California Building Code would reduce the potential for structural failure, major structural damage, and loss of life, and reduce the primary effects of ground shaking on structures and infrastructures to generally acceptable level. At a minimum, the California Building Code requirements or a more stringent building code should be followed during design and construction of all elements of the Valero Improvement Project. Additional requirements recommended by the project California Certified Engineering Geologist or Geotechnical Engineer, based on site-specific studies and specific project requirements, should be followed and become part of the project specifications.	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
6. Geology, Soils, and Seismicity (continued)		Mitigation Measure 4.6-1b: Appropriate grading and design, in accordance with the California Building Code requirements or a more stringent standard, should be used to reduce the secondary effects of ground shaking on structures and infrastructure. Subsurface site conditions should be investigated for all project facilities to identify poor foundation materials that may be susceptible to the effects of liquefaction, lateral spreading, and differential settlement. Poor foundation materials should be removed prior to construction or be subjected to ground improvement techniques. In addition, deep pile foundations should be driven through the poor foundation soils and into more competent materials.	Less than Significant
		Mitigation Measure 4.6-1c: Structural fill placed during the construction of the Valero Improvement Project should be designed to reduce fill settlement with keyways and subsurface drainage, and adequately compacted (i.e., Minimum 90 percent compaction as defined by American Society for Testing and Materials (ASTM D1557)).	Less than Significant
		Mitigation Measure 4.6-1d: All structural foundations, above-ground utilities, and underground utilities should be designed to accommodate estimated settlement without failure, especially across transitions between fills and cuts.	Less than Significant
		Mitigation Measure 4.6-1e: Final design of the proposed improvements should be made in conjunction with a design-level geotechnical investigation submitted to the City of Benicia for review prior to issuing any grading or construction permits.	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
6. Geology, Soils, and Seismicity (continued)			
Impact 4.6-2: Proposed foundation construction could be subjected to the geologic hazards related to expansive soils and natural settlement. This impact would be made less than significant by mitigation measures 4.6-1a through 4.6-1e.	Significant	Mitigation Measure 4.6-2: Implementing Mitigation Measures 4.6-1a through 4.6-1e for the design and construction of all Valero Improvement Project components would reduce this impact to a less than significant level.	Less than Significant
Impact 4.6-3: Construction of additional treatment units in the crude storage tank area and/or wastewater treatment plant area could potentially adversely effect the stability of slopes along the retention pond perimeter berms. This impact would be made less than significant by mitigation measure 4.6-3.	Significant	Mitigation Measure 4.6-3: To reduce potential slope instability hazards related to static and dynamic forces in the retention pond areas, a slope stability analysis of the retention pond perimeter berms should be conducted by a licensed professional engineer. All recommendations should be used in the design and construction of the tanks and submitted to the City of Benicia for review.	Less than Significant
7. Public Health			
Impact 4.7-1: Public exposure to toxic air contaminant (TAC) emissions from the VIP would result in an increase in health risks. The increases in health risks are the result of exposure to both carcinogenic and non-carcinogenic substances. However, the increases would be less than significant.	Less than Significant	None Required	
Impact 4.7-2: The proposed project, along with other ongoing and approved projects would lead to a net reduction in emissions of TACs when compared to TAC emissions from the Refinery under existing conditions. These TACs are responsible for public health impacts. The reduction in TAC emissions would constitute a net improvement in health risks, and the impact would be less than significant.	Less than Significant	None Required	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
8. Public Safety			
Impact 4.8-1: Possible accidental releases of acutely hazardous substances that might result from the VIP were evaluated, and none were found to cause an unhealthful offsite impact or would not occur within the expected 30 year life of the plant. The impacts would therefore be less than significant.	Less than Significant	None Required	
Impact 4.8-2: Other industrial projects in the region are located too far away from the refinery to cause potential cumulative public safety impacts. In most cases, impacts from fires, explosions, or toxic gas releases are limited to the property fenceline or near the fenceline. Also, the probability of an accidental release occurring from a cumulative project at the same time that an accident would occur at the VIP would be extremely low. Therefore, cumulative impacts would be less than significant.	Less than Significant	None Required	
Impact 4.8-3: As stated in the transportation impacts section above, the MTBE phase-out project will result in the elimination of two marine visits per month, thus resulting in a reduction of marine vessel trips to the refinery. Therefore cumulative public safety impacts related to marine transportation will be less than significant.	Less than Significant	None Required	
9. Hydrology and Water Quality			
Impact 4.9-1: In combination, additional processed wastewater and storm water runoff resulting from components of the project could potentially exceed the maximum hydraulic capacity of the system and exceed the capacity of the wastewater treatment retention area. This impact would be less than significant.	Less than Significant	None Required	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
9. Hydrology and Water Quality (continued)			
Impact 4.9-2: The proposed additional crude throughput and the additional wastewater associated with new and modified process units would increase the mass loading in the wastewater stream. The Wastewater Treatment Plant is required to adequately treat the increase in the mass loading so as not to exceed the limits required in the NPDES permit for the refinery's discharge. This impact would be less than significant.	Less than Significant	None Required	
Impact 4.9-3: The increase of crude throughput and the potential processing of a lower grade of crude would result in increased solids loading to the wastewater system. A portion of these solids are treated onsite within the Coker Unit and a portion is accumulated as a processed sludge that is disposed offsite. This impact is less than significant.	Less than Significant	None Required	
Impact 4.9-4: Depletion of groundwater supplies due to the increased impervious surface area could potentially decrease groundwater resources. This impact is less than significant.	Less than Significant	None Required	
Impact 4.9-5: Depending on the particular component of the proposed project, varying amounts of wastewater would be generated by construction activities. This wastewater could contain entrained sediment, petroleum constituents, or other contaminants generated during the construction operations. Provided the applicant adheres to the grading and construction plan and city policies and programs this impact is less than significant.	Less than Significant	None Required	
Impact 4.9-6: Wastewater treatment facilities are located in the 100-year floodplain and new facilities would be subject to flooding. This impact is less than significant.	Less than Significant	None Required	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
9. Hydrology and Water Quality (continued)			
Impact 4.9-7: The accumulative wastewater and storm water flows from the project and other refinery and non-refinery projects would increase pollutant discharges to the Bay. This would be a less than significant impact.	Less than Significant	None Required	
Impact 4.9-8: Cumulatively, the storm water generated from the VIP, together with other refinery projects and the storm water generated from other non-refinery projects may potentially have a downstream flooding effect. This would be less than significant.	Less than Significant	None Required	
10. Land Use, Plans and Policies			
Impact 4.10-1: Construction of new refinery components and on-site improvements may result in intermittent impacts to adjacent industrial uses and nearby residences due to traffic congestion, air emissions, noise increases, view disruptions and public safety. This impact is less than significant.	Less than Significant	None Required	
Impact 4.10-2: The project would not conflict with established plans, policies and ordinances in Benicia. No impact would occur.	No Impact	None Required	
Impact 4.10-3: The project would not potentially divide an established community. No impact would occur.	No Impact	None Required	
Impact 4.10-4: The project would not affect a habitat conservation plan or natural community plan. No impact would occur.	No Impact	None Required	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
11. Noise			
Impact 4.11-1: Construction activities would intermittently and temporarily generate noise levels above existing ambient levels in the project vicinity over the duration of the construction period. This potentially significant impact would be reduced to a less than significant level with the implementation of Mitigation Measure 4.11-1.	Significant	Mitigation Measure 4.11-1: Over the duration of pile driving activities, Valero should require the construction contractor to implement the following mitigation measures: To reduce the potential for noise impacts from pile driving, alternate methods of driving should be used, if feasible. Alternate measures may include pre-drilling of piles, the use of more than one pile driver to lessen the total time required for driving piles, and other measures. Pile driving activities should limited to daytime hours between 7 a.m. and 7 p.m., on weekdays. Pile driving shall be prohibited during weekends, state and federal holidays. Valero would also designate a construction complaint manager for the project for the duration of the construction activities.	Less than Significant
Impact 4.11-2: Operational noise associated with the VIP could increase at nearby noise receptors. This impact would be less than significant.	Less than Significant	None Required	
Impact 4.11-3: The proposed project together with proposed and planned future development at the Valero refinery could result in cumulative increase in noise levels. This impact is less than significant.	Less than Significant	None Required	
12. Public Services			
Impact 4.12-1: Implementation of the proposed project would not affect the Benicia Fire Department's ability to provide adequate fire suppression and emergency medical services to the project site and City as a whole. No impact.	No Impact	None Required	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
12. Public Services (continued)			
Impact 4.12-2: Implementation of the proposed project would not affect the ability of the Benicia Police Department to provide police protection services to the project site and City as a whole. No impact.	No Impact	None Required	
Impact 4.12-3: Implementation of the proposed project would not affect the ability of the BUSD to adequately provide educational services to residents of Benicia. No impact.	No Impact	None Required	
Impact 4.12-4: The proposed project would not degrade the quality of existing park and recreation facilities or require the provision of new or expanded facilities. No impact.	No Impact	None Required	
Impact 4.12-5: The project would not affect other public facilities. No impact would occur.	No Impact	None Required	
13. Transportation			
Impact 4.13-1: The proposed construction phase of the VIP would result in a potentially significant impact to the a.m. peak hour operations of I-680 northbound off-ramp/Bayshore Road in the 2004 plus project scenario. This impact can be mitigated to a less than significant level by implementation of Mitigation Measure 4.13-1.	Significant	Mitigation Measure 4.13-1: Since this significant impact would be temporary and only occur for a period of approximately 45 days, there are several measures that can be applied to improve intersection levels of service at the I-680 northbound off-ramp / Bayshore Boulevard intersection without the installation or construction of additional transportation facilities (e.g., lane widening, traffic signal installation, etc.). Implementation of these measures would effectively reduce the a.m. and p.m. peak hour construction traffic volumes at the project site.	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
13. Transportation (continued)			
Impact 4.13-2: The proposed construction phase of the VIP would result in a contribution of construction traffic volumes to one of the I-680 ramp junctions which are already forecast to operate at LOS F in the baseline (i.e., without project) condition. However, when the 2004 baseline and 2004 plus project ramp volumes are compared at the impacted ramps, the project's contribution would be nominal. Although not required for Impact 4.13-2, implementation of Mitigation Measure 4.13-1 would further alleviate any project impacts.	Less than Significant	None Required	
Impact 4.13-3: According to the Project Description, the minimal build out operational phase of the Valero Refinery is anticipated to generate 40 new daily trips, 20 new a.m. peak hour trips, and 20 new p.m. peak hour trips.	Less than Significant	None Required	
14. Utilities and Service Systems			
Impact 4.14-1: The Valero Improvement Project would increase demand for raw, untreated water from the City of Benicia in excess of the baseline refinery demand anticipated in the UWMP. In the future, the City's overall water demand may exceed available supplies from current sources in dry years. This impact would be significant. This impact could be altered to be less than significant if the City were to obtain additional water supplies or if the City were able to implement planned future water supply programs and projects. Some of these measures are beyond City control and some are within the control of the City and Valero. Because one or more of these planned water supply programs is considered likely to result in sufficient water to meet planned demand, including the VIP demand, the impact of the VIP increase would be less than significant.	Significant	Mitigation Measure 4.14-1a. The City would continue to move forward with obtaining the future water supplies as identified in the Water Study, the UWMP, and the 1996 Water System Master Plan.	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
14. Utilities and Service Systems (continued)		Mitigation 4.14-1b. The City of Benicia would continue to implement General Plan Program 2.36.A to pursue reuse of reclaimed wastewater where feasible, and the Valero Refinery would accept and use reclaimed water from a City reclamation project.	Less than Significant
		Mitigation 4.14-1c: Drought Contingency If a "water shortage" (as defined below) occurs, then Valero will take the steps necessary to reduce water consumption at the refinery by an amount equal to or greater than the amount of raw water that is being consumed due to implementation of the VIP during the period of the water shortage. This reduction would be in addition to any amount of reduction required by Condition WATER RES-2, approved by the California Energy Commission on October 31, 2001, for the Valero Cogeneration Project. Upon notification that a water shortage exists for any given year, Valero will provide prompt documentation to the City of: the amount of water expected to be consumed by the VIP during the year of the shortage; a description of the steps planned to reduce consumption; the amounts to be saved by the steps; and the timing of implementation. Valero will notify the City as the steps are implemented and will provide an annual report at the end of the year, verifying the amounts of water saved by the steps taken.	Less than Significant

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
14. Utilities and Service Systems (continued)		For purposes of this mitigation, "water shortage" means that all of the following conditions have occurred: a. The City is unable to secure, pursuant to Supplemental Water Rights Application 30681, rights to the amount of water projected to accommodate City demand for the year of the water shortage, as shown in Table 4.14-3 of the VIP EIR, plus the amount of water needed for the VIP; b. The City is unable to secure other water entitlements to the amount of water projected to accommodate City demand for the year of the water shortage, as shown in Table 4.14-3 of the VIP EIR, plus the amount of water needed for the VIP; c. Valero has not secured a separate water entitlement, valid for the year of the water shortage, adequate for the amount of water needed for the VIP; d. The City has not implemented the wastewater reuse project; and e. The City has announced a water alert, as defined by Benicia Municipal Code Title 13, Chapter 13.35, section 13.35.060(B), and has ordered implementation of conservation stage two pursuant to the City Code.	
Impact 4.14-2: The Valero Improvement Project would increase the amount of wastewater and the pollutant loading of the wastewater processed at the refinery's wastewater treatment plant. This would be reduced to a less than significant impact by the wastewater treatment processes that meet the discharge limitations of the NPDES permit.	Less than Significant	None Required	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
14. Utilities and Service Systems (continued)			
Impact 4.14-3: The Valero Improvement Project could increase the amount of wastewater treated at the City of Benicia's wastewater treatment plant. This impact would be less than significant.	Less than Significant	None Required	
Impact 4.14-4: The Valero Improvement Project would increase routine disposal of spent catalyst and of sludge from the refinery wastewater treatment plant. This impact would be less than significant.	Less than Significant	None Required	
Impact 4.14-5a: The Valero Improvement project, together with the Cogeneration Project and other refinery projects would increase demand for raw, untreated water from the City of Benicia in excess of the baseline refinery demand anticipated in the UWMP. Together with other future, non-refinery projects, the VIP would make a significant contribution to the cumulative shortfall in City water supply in dry years. This impact is potentially significant. This impact could be altered to be less than significant if the City were to obtain additional water supplies or if the City were able to implement planned future water supply programs and projects. Some of these measures are beyond City control and some are within the control of the City and Valero. Because one or more of these planned water supply programs is considered likely to result in sufficient water to meet planned demand, including the VIP demand, the impact of the VIP increase would be less than significant.	Significant	Mitigation Measures 4.14-a, -b and –c above.	Less than Significant
Impact 4.14-5b: The VIP, together with other refinery projects, would increase the quantity of pollutants and the amount of wastewater processed at the refinery wastewater treatment plant. This would be a less than significant impact due to NPDES discharge limitations.	Less than Significant	None Required	

TABLE 2-1 (Continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE BENICIA VALERO IMPROVEMENT PROJECT

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
14. Utilities and Service Systems (continued)			
Impact 4.14-5c: The VIP, together with other refinery and non-refinery projects within Benicia, could increase the amount of wastewater treated at the City wastewater treatment plant. This cumulative impact would be less than significant because the refinery contribution would be less than significant.	Less than Significant	None Required	
Impact 4.14-5d: The VIP would increase the refinery's routine disposal of spent catalyst and sludge from the refinery wastewater treatment plant at the Keller Canyon landfill. The VIP contribution to the cumulative waste disposed at the landfill would be less than significant.	Less than Significant	None Required	

CHAPTER III
MASTER RESPONSES

Nearly three dozen individuals, organizations and agencies submitted comments on the Draft EIR A number of these comments had common themes or topics. In response to these comments with common themes, a series of master responses are presented here to discuss the following topics:

CEQA
Project Description
Land Use / Sustainability
Air Quality
Utilities / Water Supply
Cumulative Analysis

The following master responses provide information about these topics.

A. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

The California Environmental Quality Act of 1970, as amended[1], guides the process of environmental review in California. All aspects of the preparation of the Draft EIR and its review, as well as the subsequent steps to prepare a Final EIR are specifically outlined by CEQA and the CEQA Guidelines[2]. The following sections deal with issues raised by commentors in the review of the Draft EIR for the VIP.

PUBLIC REVIEW AND RESPONSE TO COMMENTS

Public review is an integral part of the CEQA process. In response to the publication of the Draft EIR for public review, a number of Agency and public comments have been received. CEQA and its Guidelines set forth the obligations of the Agencies involved in the preparation of the Draft EIR and the Agencies and the public in the review of the Draft EIR. The CEQA Guidelines also provide a focus for the review and a framework for the consideration of the public and agency comments on the Draft EIR. The CEQA Guidelines also describe the duties of the lead agency to prepare adequate responses to comments.

Based on the following Guidelines excerpts, it is clear that the obligation of the lead agency is to respond to significant environmental comments in a level of detail commensurate to that of the

[1] Public Resources Code, Division 13, Sections 21000 – 21178, accessible at world wide web address http://ceres.ca.gov/topic/env_law/ceqa/stat/

[2] Title 14. California Code of Regulations, Chapter 3, Sections 15000 – 15387 and Appendices, accessible at http://ceres.ca.gov/topic/env_law/ceqa/guidelines/

comment. However, it is not necessary for the lead agency to respond to personal opinions or speculation about the project, to provide all of the information requested by reviewers or to respond to comments presented without necessary factual support.

The City has used its best efforts to understand each comment and to respond appropriately. However, unless the comment addresses a significant environmental issue or makes a specific request, it may not be possible, nor is it necessary, to respond.

RECIRCULATION OF AN EIR

A number of commentors stated that the Draft EIR should be recirculated for another round of public review and comment. Guidelines Section 15088.5 describes conditions under which the Draft EIR should be recirculated. Given that the EIR process contemplates the development of responses to the comments received on the Draft EIR, clearly the requirement to recirculate a Draft EIR is an exceptional circumstance. Excerpts from Section 15088.5 and its appended discussion follow:

> "A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term "information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation includes, for example, a disclosure showing that:
>
> (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
>
> (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
>
> (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
>
> (4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. (*Mountain Lion Coalition v. Fish and Game Com.* (1989) 214 Cal.App.3d 1043)" (CEQA Guidelines, Section 15088.5(a))
>
> "Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR." (CEQA Guidelines, Section 15088.5(b))

The CEQA process for the review and incorporation of public comments is well established. The EIR process makes provisions for the incorporation of public input into the document, including

the detailed process of responding to comments that have been received on the Draft EIR. The CEQA Guidelines describe in detail the circumstances under which an EIR would be recirculated. Although a number of commentors stated that the Draft EIR should be recirculated, the conditions established in the CEQA Guidelines under which the Draft EIR must be recirculated have not been met. As a result, it is not necessary to recirculate the Draft EIR.

GUIDELINES AFFECTED BY APPELLATE COURT DECISION 10/28/02

A recent Third District Court of Appeal decision invalidated several sections of the CEQA Guidelines and upheld others. This decision is summarized on the CEQA website, at http://ceres.ca.gov/ceqa/ceqa_update_2002.html. A number of commentors referenced the affected CEQA guidelines in making assertions about the resulting CEQA requirements. The aspects of this decision that are relevant to the Draft EIR are discussed in the specific responses to those comments, such as Response P13.

B. PROJECT DESCRIPTION

PROJECT COMPLEXITY / FLEXIBILITY

The project is described in Draft EIR Sections 3.4 and 3.5, pp. 3-20 through 3-56. The description, involving text and simplified graphics, provides an overview of all project components, each of which consists of a number of discrete components and actions. Together these comprise the elements that would be needed to modify the refinery to use different feedstocks and to satisfy the objectives of the project.

A refinery is a very complex manufacturing facility. The details of such extensive modifications to the refinery are necessarily complex. The project description presents the basic constituent parts of each of the 15 individual components simply and clearly; the complicating factor is whether or not each component part would be built. At first observation, this results in the project having a very large number of possible combinations of components that theoretically could result. However, in practice, the realities of petroleum chemistry and refinery operational considerations substantially limit the number of actual configurations that would be practical.

The focus of the Draft EIR's analysis was to identify the worst-case environmental impacts that could result from construction and operation of any of these feasible combinations of VIP components. As a result, it is clear that the VIP configurations of most concern were those that involved the construction of the Main Stack Components, those components associated with processing larger quantities of crude oil. The most important variation of that is the one that omits construction and operation of the Main Stack Flue Gas Scrubber. Combinations that do or do not include some of the other proposed project components result in relatively minor changes in the overall impact of the proposed VIP.

Some commentors have stated that the Project Description is misleading and inadequate, because Valero's stated requirement for flexibility means that the main stack scrubber, or any other

component of the VIP, may not be built. The need for flexibility, an important objective of the project, is clearly stated in the Draft EIR (see section 3.4.1, p. 3-20, section 3.4.3, pp. 3-25 to 3-39, and section 3.5.1, pp. 3-52 to 3-54).

CEQA Guidelines Section 15124, Project Description, provides clear directions that the description of the project in the EIR shall contain certain project information "…but should not supply extensive detail beyond that needed for evaluation and review of the environmental impact." The project description must reflect the project proponent's plan and identify the project elements, so the project description also must contain:

> "(b) A statement of objectives sought by the proposed project. A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project.
>
> (c) A general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals if any and supporting public service facilities."

PROJECT WATER USE

As stated on Draft EIR page 4.14-13, water usage for the scrubber would be 172,800 gallons per day, 81.5% of the total water use of the full VIP, which would be 216, 000 gallons per day or 242 acre-feet per year.

As stated in the project description of the EIR (Section 3.4.3.12), additional raw water from the City's existing allocation would be used if there were no other suitable source of supply. The project description clearly states that the analysis of the VIP is based on the increased use of City raw water from existing allocations.

The EIR fully discloses Valero's intent to use reclaimed wastewater when available and clearly states that no timetable has been set for construction of the City's wastewater reuse project. The EIR documents that it is not possible at this time to establish whether the construction of the wastewater reuse project would coincide with the construction of the VIP (Draft EIR Section 3.6.2.3) and presents current information regarding the City reuse program. (Eisenberg, Olivieri, & Associates, City of Benicia Effluent Reuse Project Action Plan, Draft, July 11, 2002).

Water supply and use is discussed in detail in Draft EIR Section 4.14. See also Master Response E, "WATER."

BAAQMD CONDITIONS FOR THE AUTHORITY TO CONSTRUCT AND PERMIT TO OPERATE THE VIP.

A number of comments have been directed to the role of the BAAQMD in the enforcement of project operating permits. The BAAQMD has drafted permit conditions, based on the current

application by Valero for the initial units of the VIP. As a part of the BAAQMD's approval process, the draft conditions will be published and circulated for a 30-day public review. After the end of the public review period, the District will make appropriate revisions in response to comments. The conditions then will be finalized by the BAAQMD. Given the time frame required to complete this process, there can be no assurance that the BAAQMD conditions will be final by the time this Final EIR is completed.

The following discussions consider three issues. The first is a comparison of BAAQMD and EIR emissions calculations, essential to understanding differences in the methodologies used by BAAQMD and by the Draft EIR. The second is a brief review and comparison of BAAQMD Permit Conditions with the Project that was analyzed in the Draft EIR. The third issue considers and presents an analysis of the environmental effects that could occur under a shipping variation permit condition for the VIP.

COMPARISON OF BAAQMD AND EIR EMISSIONS CALCULATIONS

Those individuals who elect to review the draft BAAQMD conditions should be aware that the BAAQMD applies its own methodology to calculate project emissions. This methodology differs in several ways from the methodology used in the Draft EIR. A minor difference is that the BAAQMD measures emissions increases against a baseline similar to the one-year baseline used in the VIP Draft EIR, but begins in the month the application is complete. An important difference is that BAAQMD treats all emissions reductions that occur at the refinery as "offsets." The BAAQMD then allows emission "offsets" to be applied to other increases in emissions or to be credited, to apply in the future. The concept of offset is not used in the analysis in the Draft EIR, which, in accordance with CEQA, accounts for emission increases or decreases when they occur, in order to reflect the actual environmental conditions in the existing conditions and at a specific future time. As a result, the BAAQMD's calculations yield project emissions that are higher than shown in the EIR, but those BAAQMD calculations also show that there will be no increased net emissions after the application of the offsets and, in fact, Valero expects to retain BAAQMD emissions credits for VOC's, particulate matter, and SO_2.

Overall, the BAAQMD's emissions analysis agrees with that of the Draft EIR, when the differences in methodologies are considered. Therefore, the BAAQMD analysis supports the Draft EIR conclusion that project emissions of criteria pollutants would be less than significant after mitigation, and that the project contribution to cumulative emissions would be less than significant.

COMPARISON OF BAAQMD PERMIT CONDITIONS AND EIR PROJECT

The following briefly compares the project examined in the Draft EIR and the draft BAAQMD conditions and notes any important differences. With one exception, the conditions would be the same as, or more stringent than considered in the Draft EIR. The exception results from a

limitation on ship emissions, a condition not considered in the Draft EIR. The analysis of the consequences of this exception is presented following this section.

Main Stack Conditions

The BAAQMD conditions include requirements for monitoring and reporting of emissions from the main stack; and provide new limits on main stack emissions.

The proposed BAAQMD emission limits are consistent with historic baseline emissions at the main stack and do not allow any increase over existing emissions. When the Main Stack Scrubber is completed, the limitation would be lowered for SO_2 emissions. The Main Stack emissions limitations would go into effect when any changes from the VIP that have the potential to increase main stack emissions are implemented. These include:

- processing more than 135,000 barrels of crude in any calendar day at the Pipestill;
- operation of a third air blower, or oxygen injection, to the FCCU Regenerator or the Coke Burner, indicating a change to the combustion process in these units;
- operation of any physical changes to the combustion processes at the existing CO furnaces.
- operation of the new Pipestill furnace.

These emissions limitations are the same as described and used in the Draft EIR analysis of the VIP, and of the "no scrubber" scenario.

Pipestill Furnace Conditions

- installing Best Available Control Technology (BACT) on the new Pipestill furnace;
- monitoring and reporting of emissions from the new Pipestill furnace; and,
- limiting emissions from the new Pipestill furnace.

Various Unit, Vessel and Reactor Conditions

- reporting throughput of the new Pressure Swing Absorption Unit;
- documenting throughput for each new fractionization / stripping source and each new hydrofining reactor process vessel;
- reporting daily sulfur production at each sulfur plant train;
- reporting throughput at the sulfur storage pit, the FCCU, and coke silos; and,
- limiting and reporting throughput of the activated carbon drums, the reformer unit, the hydrogen plant, and the dimersol unit.

Fuel Gas System Conditions

- installing BACT on the fuel gas system;
- monitoring and reporting of total reduced sulfur content in the fuel gas system.

Fugitive Equipment Conditions

- installing Best Available Control Technology (BACT) on hydrocarbon control valves

- reporting requirements for installed pumps, compressors, valves, and for flanges and connectors.

Storage Tank Conditions

- installing BACT on the VIP's storage tanks;
- monitoring and reporting of throughput at the storage tanks; and,
- limiting throughput and the type of material stored in the storage tanks.

Shipping and Dock Conditions

- monitoring and reporting throughput at the Main Benicia Crude Dock and at the Valero Coke Dock;
- new limits on the ship and barge emissions.

These new limits on ship and barge emissions are consistent with emissions used in EIR air quality and health risk calculations. The new emission limits could constrain Valero's current ability to choose between shipping and pipeline transport. Valero has requested a mechanism to offset increases above this limit by making further emission reductions at the main stack, or at other projects to fully offset any increased emissions due to ship traffic in excess of that proposed as part of the VIP. Although POC emissions could increase under this permit condition, the conclusions about the impacts of the VIP, including this variation, would not change. See the discussion immediately below.

ANALYSIS OF SHIPPING VARIATION PERMIT CONDITION

The BAAQMD conditions include new limits on the ship and barge emissions related to Valero operations and add a requirement to monitor and report throughput at the Main Benicia Crude Dock and at the Valero Coke Dock. Currently there are no limits on such emissions.

The new emission limits could constrain Valero's current ability to choose between shipping and pipeline transport. Valero has requested a mechanism to allow increases above the proposed limit by making further emission reductions at the main stack, or at other projects to fully offset any increased emissions due to ship traffic in excess of that proposed as part of the VIP.

The ship traffic described in the Draft EIR provides Valero's best estimate of the VIP's increase in ship traffic. However, it remains possible, due to unforeseen circumstances that Valero may need to increase ship traffic above the VIP estimate to obtain sufficient crude feedstocks. Under this draft permit condition, even if ship calls were to increase to the maximum (approximately 36 more ships per year than the VIP increase), contemporaneous emissions offsets would be required. Thus, with the possible exception of emissions of Precursor Organic Compounds (POC), the total emissions would not increase above the quantities analyzed in the Draft EIR. The additional POCs from this source could be offset by other emission reductions. POC emissions were included in VOC emissions calculations in the air quality analysis in the Draft EIR.

In the worst-case, this could result in a total refinery-wide increase in POC emissions of up to 3.1 tons per year above the amount reported in the Draft EIR. As noted in Table 4.2-13 in the Draft EIR, the VIP, as mitigated, would result in a VOC increase of 5 tons per year with respect to the 1-year baseline and a decrease of 5 tons per year with respect to the 3-year baseline. An increase of 3.1 tons in VOC emissions would bring these totals to 8 and –2 tons per year, respectively, both values less than the significance threshold of 15 tons per year.

The increased shipping traffic under this draft condition also would not result in any other new significant effect, including potential effects on Public Health and Public Safety. The increased ship traffic would, in the worst case (36 ships added to the proposed VIP increase of 24 ships per year), increase the mobile source cancer risk contribution by 0.21 in a million at the nearest residential receptor (see also Draft EIR Tables 4.7-8 and 4.7-9). This added increment would bring the total mobile source contribution of the VIP to 1.01 in a million and the combined total to 1.23 in a million. This is well below the significance criterion of 10 in a million, so the impact would remain less than significant.

Public Safety Section 4.9 discusses increased ship calls of the VIP and concludes that they would not result in a significant impact (see p.4.8-14). Proportioning the number of trips, the probability of an accidental release would increase by 0.0108, to a total of 0.0180. For the reasons discussed in the Draft EIR, p.4.8-14, the overall effect would be less than significant. The increased risk of collision in open waters, also as discussed on p.4.8-14, also would remain low and thus, be a less than significant impact.

Overall, this variation on the VIP would have essentially the same impacts as the VIP. There would be no significant impacts that would result from the adoption of this variation.

C. LAND USE / SUSTAINABILITY

A number of comments on the Draft EIR (DEIR) expressed concern regarding consistency of the VIP with adopted plans and policies, particularly with regard to the concept of sustainability and sustainable development as articulated in the Benicia General Plan. In an effort to provide a unified response to such comments, this master response is included in the Final EIR.

CEQA REQUIREMENTS

CEQA Guidelines, Section 15125(d), Environmental Setting, requires that: "The EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans…" Appendix G of the CEQA Guidelines indicates that a project may be deemed to have a significant impact on the environment if it will "conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect."

In carrying out the requisite analysis, the Benicia General Plan was reviewed with respect to each resource area identified in the Draft EIR. The specific policies relevant to those resource areas were identified in the DEIR, and determinations were made as to whether the VIP was consistent

or conflicted with those policies and regulations. General Plan buildout conditions were considered under cumulative impacts. The Draft EIR concluded that the VIP is consistent with the relevant goals and policies of the General Plan.

"SUSTAINABILITY" IN THE GENERAL PLAN

The General Plan contains the following relevant statements:

> "'Sustainability' in this General Plan conveys long-term interdependent economic and environmental goals that promote efficient land use." (Page 22)
>
> "Sustainable development implies urban areas that reflect a long-term economic horizon; result in efficient land use patterns that are not overly energy-intensive; have sufficient linkages to the local and regional economy to assure long-term job creation and economic vitality; support ecologically sensitive design features; and value the public realm." (Page 22)

Thus sustainability is viewed as a balancing of the economic and environmental factors involved, and as a concept that underlies the General Plan as a whole. This understanding is further articulated in the "Economic Development" section of the Plan where Goal 2.5 is as follows:

> "Facilitate and encourage new uses and development which provide substantial and sustainable fiscal and economic benefits to the City and the community while maintaining health, safety, and quality of life." (Page 41)

The discussion following Goal 2.5 includes this explanation:

> "This goal is the heart of the entire General Plan. It is a citywide expression of urban development policy. Nearly every policy and program in the General Plan, in some manner, serves to implement this goal." (Page 41)

Thus, the concept of sustainability is to be applied to development in the City of Benicia by means of the specific goals and policies contained in the various chapters of the Benicia General Plan. A project that is consistent with the goals and policies of the General Plan may be considered to be consistent with its overarching concept of sustainability.

General Plan Consistency Analysis

The Draft EIR analyzed the consistency of the VIP with applicable General Plan policies. Each aspect of this analysis considered the proposed project in the context of the existing refinery, which in turn is within the industrial area designated by the General Plan. Policies that related specifically to the various resource areas were analyzed as follows:

> Aesthetics, Visual Quality, Light and Glare – The General Plan contains policies intended to protect the visual character of neighborhoods and scenic vistas and to enhance the appearance of the Industrial Park. The Draft EIR concluded that the VIP equipment would blend visually with the existing refinery and would not cause a significant impact.

The VIP would cause an insignificant increase in vapor plumes, and the VIP would not increase flaring, so there would be no related visual impact. VIP site lighting would be subject to requirements of the Zoning Ordinance that are intended to prevent offsite impacts of light and glare. The VIP, therefore, would be consistent with General Plan policies related to visual resources.

Air Quality and Public Health – The General Plan contains goals and policies that support efforts to improve air quality in Benicia and in the region, including support for the BAAQMD Clean Air Plan. The General Plan also contains policies intended to avoid risks to the public from exposure to hazardous materials. The Draft EIR concluded that the project, as mitigated, would cause insignificant increases in criteria air pollutants. If the proposed flue gas scrubber is constructed, the project would cause a large decrease in refinery emissions of SOx. Similarly, the project with the scrubber would cause an insignificant increase in toxic air contaminants (TACs), while the project without the scrubber would lead to a small decrease in TAC emissions. The BAAQMD has analyzed the VIP and concluded that the project, with proposed conditions of approval, would comply with the District's rules and regulations and, by implication, would be consistent with the Clean Air Plan. Therefore, the VIP would be consistent with the General Plan in relation to air quality.

Biological Resources – The General Plan contains goals and policies to protect habitat of special-status plants and animals and to protect native vegetation. The VIP, as mitigated, would avoid significant biological impacts.

Cultural Resources - The General Plan contains policies to protect historic and archaeological resources. The VIP would not affect any known cultural resources. Mitigation measures are provided that would avoid significant impacts if any such resources should be found during construction.

Geology and Seismicity – The General Plan contains programs intended to limit and reduce vulnerability to geologic hazards. The Draft EIR determined that appropriate engineering design and construction would avoid any significant impacts in this area.

Public Safety – The General Plan contains policies intended to protect the public from risks related to hazardous materials. The Draft EIR found that the VIP does not pose the potential for a significant increase in risk of an explosion or release of hazardous material.

Hydrology and Water Quality – The General Plan contains policies designed to protect the quality of surface waters. The Draft EIR found that impacts of surface runoff and changes in wastewater discharge resulting from the VIP would not be significant, in part because the project would be subject to regulations and permit requirements of the City and the Regional Water Quality Control Board that would prevent significant impacts.

Noise – The General Plan contains policies designed to limit noise in the community. The Draft EIR concluded that VIP construction noise would be less than significant with mitigation, and operational noise would not increase perceptibly.

Public Services – The General Plan contains policies designed to maintain appropriate service levels in the school system, police and fire services, and emergency alert and notification. The Draft EIR concluded that the VIP would not affect those services.

Transportation – The General Plan contains policies intended to maintain adequate levels of service on streets and roads and to facilitate the movement of people and goods. The Draft EIR concluded that VIP construction traffic, with mitigation, would not cause a significant traffic impact, and project operation would not cause a significant traffic impact.

Utilities and Services – The General Plan contains policies designed to ensure an adequate water supply, adequate wastewater treatment capacity, and appropriate recycling and disposal of solid waste. The Draft EIR found that the VIP, as mitigated, would not have a significant impact on water supply. This Final EIR recommends additional mitigation to further ensure that such impacts would not occur. In addition, Valero has proposed to use treated City wastewater, if it becomes available, to offset the demands of the VIP and to reduce water use by the refinery as a whole. The impacts of the project on wastewater treatment capacity and solid and hazardous waste disposal were determined not to be significant.

Land Use – The VIP is consistent with the General Plan map, which designates the refinery for General Industrial use, and with General Plan policies that seek to preserve industrial land for industrial purposes and maintain compatibility with adjacent development. Because the VIP would be developed entirely within the existing refinery, the project would also be consistent with General Plan goals and policies intended to maintain open space, including a buffer around the refinery, and to "preserve Benicia as a small-sized city."

Finally, the Draft EIR concluded that the VIP would be consistent with General Plan Goal 2.5, regarding sustainability, previously quoted. The foregoing discussion shows that the VIP, as mitigated, would not cause significant environmental impacts in any of the resource areas evaluated in the EIR. Therefore, the VIP is consistent with General Plan policies that are intended to "maintain health, safety, and quality of life" per Goal 2.5. The VIP would help to ensure the continuing viability of the refinery, as well as providing new jobs and increasing the City's property tax base. Therefore, the VIP would be consistent with the first part of Goal 2.5, to "Facilitate and encourage new uses and development which provide substantial and sustainable fiscal and economic benefits to the City and the community…"

Although some commentors suggested that the VIP EIR should address the effects of the project with relation to sustainability issues at the national and global level, such an analysis is beyond the direct requirements and intent of CEQA and can only be addressed insofar as those larger issues are embodied in the specific goals and policies of the Benicia General Plan. The purpose of CEQA is to analyze the environmental effects of a project in the local area and the affected region.

The goals and policies of the General Plan do not imply or require that any proposed development project must be directly analyzed in the context of the global environment and economy. Rather, the General Plan recognizes the existence of these larger concerns and seeks to guide

development within the City of Benicia by means of specific goals and policies that are appropriate at the local level.

D. AIR QUALITY

AIR QUALITY MONITORING DATA

A number of comments received on the Draft EIR concerned several issues related to air quality monitoring data presented in the Draft EIR. These issues include:

- A concern that local pollutant measurements, i.e., sulfur dioxide (SO_2) and hydrogen sulfide (H_2S) data from Valero's three ambient air quality monitoring stations should be presented.
- A desire to see "wind rose" diagrams for the site.
- A concern as to whether data from a Vallejo station is or is not representative for Benicia and whether more and better information on existing pollutant concentrations is necessary in order to determine the air quality impacts of the VIP.
- A desire to see additional monitoring stations in Benicia to monitor Valero compliance with air quality emissions.

This master response is intended to address these concerns and expand further the approach used in the preparation of the Draft EIR. Additional data is presented to augment Table 4.2-6 and the discussions in Section 4.2 of the Draft EIR.

Valero's ambient air quality monitoring and meteorological station data.

Commentors have requested information that has been gathered from local air quality monitoring stations and also have asked about the effects of local wind conditions on air quality.

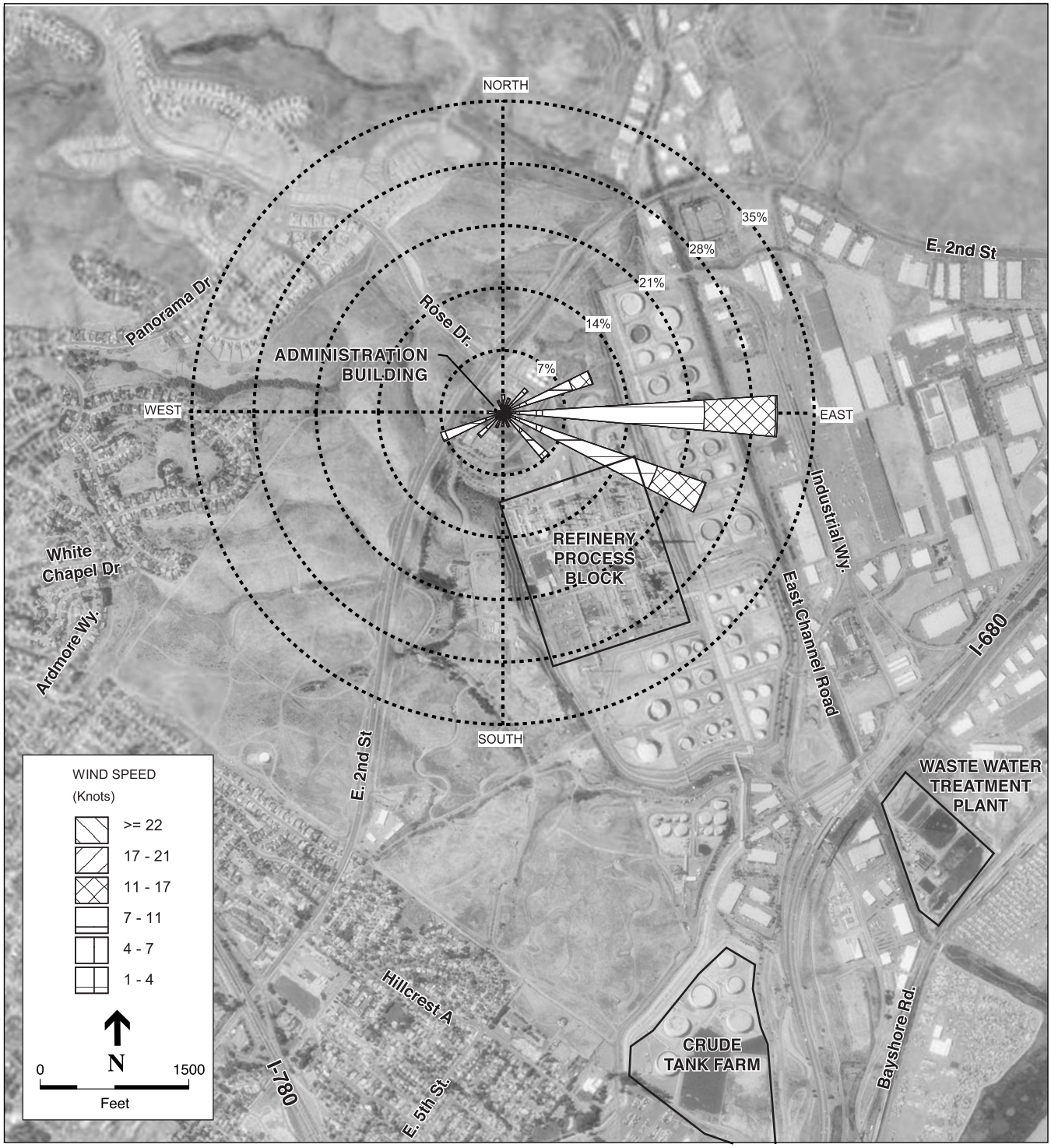
Valero operates two meteorological towers on-site: one at the administration building on the west side of the site and the other on the east side of the refinery site. The meteorological data gathered at these two towers are regularly reported to the BAAQMD. Wind speed and direction data have been summarized and converted into "wind rose" diagrams, which summarize and show the frequency with which various combinations of wind speed and wind direction occur at each station. These wind roses are shown on Figures 4.2-1 and 4.2-2, which are added to the EIR. These figures show the frequency of wind speed and wind direction for the most current three years of data on an annual basis. To assist the understanding of these figures, they have been configured to show the "flow vector", which stretches out in the direction that the wind is blowing, i.e., if the figure shows a directional radial stretching toward the east, this identifies a "west wind", a wind that blows from the west over the refinery and toward the east.

These wind data show clearly that there is a strong westerly wind (from west to the east) much of the time, with a weaker return flow, from the east to the west, over the refinery. Interestingly, there is an approximately 15 degree directional difference between the winds at the two stations

(west and east) with the difference most likely having to do with the winds flowing over and around the hill upon which the City and refinery are built.

The essential information that is revealed by these wind data is that the predominant flow of the winds tends to carry pollutants from the refinery away to the east, rather than toward the City. That predominant flow of the wind also brings to the City those pollutants created in locations to the west. Therefore, air quality conditions are influenced as much or more by pollutant sources within and to the west of the City, rather than by the refinery. However, during calm conditions or during return flow periods, the opposite is the case.

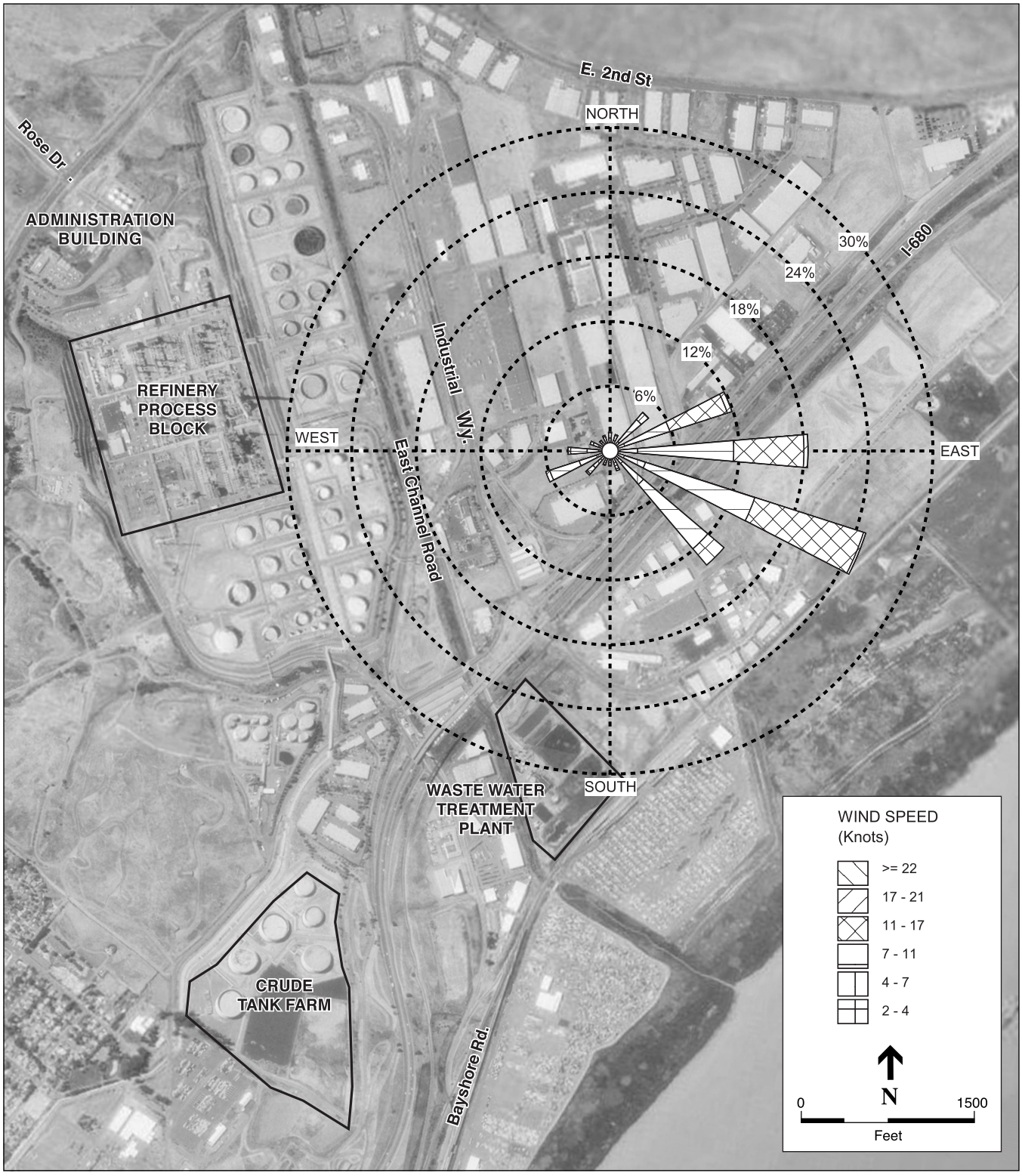
Valero monitors SO_2 and H_2S at each of three air quality monitoring stations near the Refinery. One station is located west of the refinery at a gas station near I-780 and East Second Street (station 1), the second is located in an industrial area to the east (station 2) and the third is located to the southeast on Industrial Way south of I-680. All three monitoring stations are outside the refinery boundary and are located within the community. The locations of these monitoring stations are shown on Figure 4.2-3, which is now added to the EIR. Valero has operated these monitors for many years as part of its BAAQMD permit compliance efforts. Data collected by Valero are routinely reviewed by the BAAQMD for validity and to determine any trends in pollutant concentrations. Tables 4.2-6A to C, which are now added to the EIR, show the most recent SO_2 and H_2S data collected by Valero at each of its three off-site monitoring stations for the five-year period 1997 to 2001.



The diagram shown on this figure depicts the annual frequency of wind speed and wind direction classes observed at the Valero meteorological monitoring station. The flow vectors stretch out in the direction that the wind blows over the station. For example, where the vectors stretch to the east, the frequency shown represents the percent of time the wind blows from the west to the east over the monitoring station.

SOURCE: Environmental Science Associates

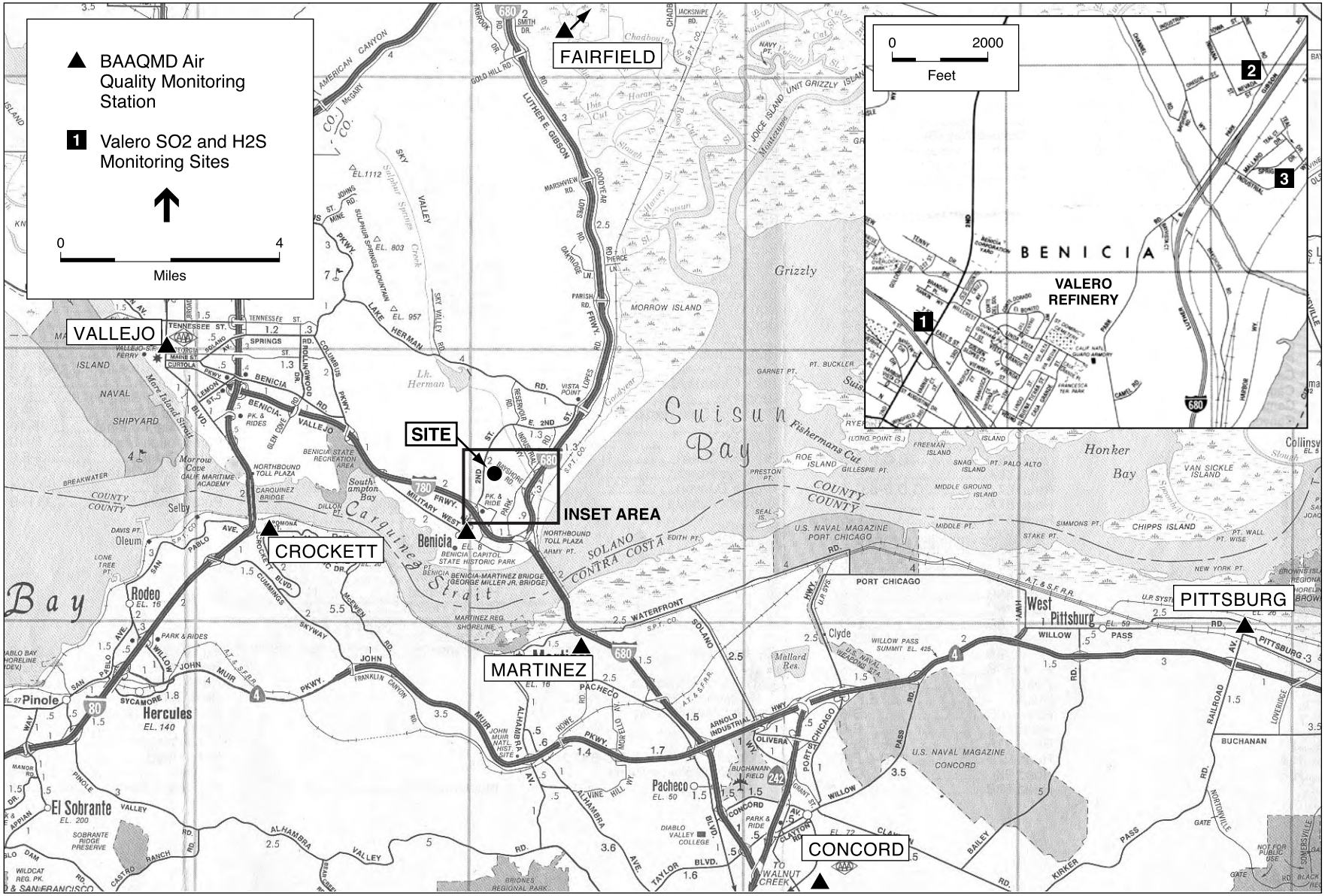
Figure 4.2-1
Valero Refinery Administration Building
Meteorological Station
Annual Flow Vector 1999-2001



The diagram shown on this figure depicts the annual frequency of wind speed and wind direction classes observed at the Valero meteorological monitoring station. The flow vectors stretch out in the direction that the wind blows over the station. For example, where the vectors stretch to the east, the frequency shown represents the percent of time the wind blows from the west to the east over the monitoring station.

SOURCE: Environmental Science Associates

Figure 4.2-2
Valero Refinery Warehouse Tower
Meteorological Station
Annual Flow Vector 1999-2001



SOURCE: Environmental Science Associates

Figure 4.2-3
Monitoring Station Locations

TABLE 4.2-6A
AIR QUALITY DATA SUMMARY (1997–2001) FOR VALERO STATION 1

Pollutant[b]	Standard[a]	Monitoring Data by Year				
		1997	1998	1999	2000	2001
Sulfur Dioxide						
Highest 1-Hour Average (ppb)		2	2	9	4	5
Highest 24-Hour Average (ppb)		1.3	1.8	1.9	1.7	1.2
Days over State Standard	40 ppb	0	0	0	0	0
Days over National Standard	140 ppb	0	0	0	0	0
Annual Average (ppb)	30 ppb	0.108	0.093	0.357	0.486	0.292
Hydrogen Sulfide						
Highest 1-Hour Average ($\mu g/m^3$)		4.2	11.1	13.9	11.1	19.5
Days over State Standard	43 $\mu g/m^3$	0	0	0	0	0
Frequency (hours) > odor threshold[c]		0	72	19	16	29
Annual Average (ppb)		0.86	1.41	1.50	1.62	2.73

[a] Generally, state standards are not to be exceeded and national standards are not to be exceeded more than once per year.

[b] ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter.

[c] The odor threshold for H_2S is 7 $\mu g /m^3$.

SOURCE: BAAQMD, Data Summaries, 1997, 1998, 1999, 2000, 2001

TABLE 4.2-6B
AIR QUALITY DATA SUMMARY (1997–2001) FOR VALERO STATION 2

Pollutant[b]	Standard[a]	Monitoring Data by Year				
		1997	1998	1999	2000	2001
Sulfur Dioxide						
Highest 1-Hour Average (ppb)		3	2	5	6	6
Highest 24-Hour Average (ppb)		1.4	1.1	2.3	1.5	1.5
Days over State Standard	40 ppb	0	0	0	0	0
Days over National Standard	140 ppb	0	0	0	0	0
Annual Average (ppb)	30 ppb	0.289	0.163	0.301	0.398	0.398
Hydrogen Sulfide						
Highest 1-Hour Average ($\mu g/m^3$)		11.1	22.3	29.2	22.3	11.1
Days over State Standard	43 $\mu g/m^3$	0	0	0	0	0
Frequency (hours) > odor threshold[c]		1	20	25	44	10
Annual Average (ppb)		0.50	0.86	0.66	0.47	0.36

[a] Generally, state standards are not to be exceeded and national standards are not to be exceeded more than once per year.

[b] ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter.

[c] The odor threshold for H_2S is 7 $\mu g /m^3$.

SOURCE: BAAQMD, Data Summaries, 1997, 1998, 1999, 2000, 2001

TABLE 4.2-6C
AIR QUALITY DATA SUMMARY (1997–2001) FOR VALERO STATION 3

Pollutant	Standard	Monitoring Data by Year				
		1997	1998	1999	2000	2001
Sulfur Dioxide						
Highest 1-Hour Average (ppb)		2	2	4	5	7
Highest 24-Hour Average (ppb)		1.4	1.5	1.1	1.4	1.5
Days over State Standard	40 ppb	0	0	0	0	0
Days over National Standard	140 ppb	0	0	0	0	0
Annual Average (ppb)	30 ppb	0.086	0.093	0.107	0.116	0.113
Hydrogen Sulfide						
Highest 1-Hour Average ($\mu g/m^3$)		13.9	16.7	11.1	12.5	29.2
Days over State Standard	43 $\mu g/m^3$	0	0	0	0	0
Frequency (hours) > odor threshold[c]		8	13	6	4	9
Annual Average (ppb)		0.32	0.51	0.59	0.48	0.46

[a] Generally, state standards are not to be exceeded and national standards are not to be exceeded more than once per year.
[b] ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter.
[c] The odor threshold for H_2S is 7 $\mu g /m^3$.

SOURCE: BAAQMD, Data Summaries, 1997, 1998, 1999, 2000, 2001

As shown in Tables 4.2-6A to 4.2-6C, for the most recent 5 years, the three Valero monitoring stations show no exceedances of air quality standards. The Valero hydrogen sulfide data, while below the standards, does show a low frequency of values above the odor threshold typically less than one percent of the time annually.

Is the data from the Vallejo station representative for Benicia?

One objective of the Draft EIR was to characterize the existing air quality setting and to establish the existing baseline conditions for the project. The Draft EIR presented existing air quality data from the Tuolumne Street station in Vallejo, only. The reason was stated on page 4.2-13 of the Draft EIR.

> "The Tuolumne Street station in Vallejo was chosen as a representative monitoring station for the Benicia area due to its proximity to Benicia and its full range of monitored pollutants."

To support the Draft EIR's choice to present only Vallejo data, a comparison of SO_2 data at Vallejo and other BAAQMD monitoring stations was provided in the Draft EIR. SO_2 was chosen for the comparison because it is a pollutant that is measured at all of the monitoring stations. By adding the Valero SO_2 data that was recently received from BAAQMD to the comparison presented in the Draft EIR on p. 4.2-13, it can be seen that Valero's SO_2 concentration data are similar to values measured at other surrounding BAAQMD regional stations, with the exception of the Crockett station, where substantially higher SO_2 values were observed. That table in the Draft EIR is revised here as shown below.

Local Sulfur Dioxide Concentrations (parts per billion)

	Vallejo	**Valero[3]**	**Pittsburg**	**Martinez**	**Concord**	**Crockett**
1997	5	2	7	7	7	NA
1998	6	2	14	7	9	NA
1999	7	9	9	8	12	34
2000	5	6	7	5	4	24
2001	4	7	11	5	4	16

In particular, it can be seen that SO_2 concentrations at both the Vallejo and Martinez stations reasonably match conditions observed at Valero. Since the movement of SO_2 in the atmosphere is very similar in behavior to other criteria pollutants, it can be further concluded from these SO_2 data, that similar patterns for other pollutants not measured at Valero and Martinez could reasonably be expected to occur and that the concentrations at Valero and Martinez would be similar to those observed at the Vallejo BAAQMD station.

These SO_2 data also suggest that while regionally there is variation in the overall ambient air quality, this variation is not substantial and there is a relative uniformity in air quality over most of the region. This thesis can be tested by comparing data for all criteria pollutants as monitored at the Vallejo station to similar air quality data from surrounding BAAQMD monitoring stations. The locations of these BAAQMD monitoring stations are shown on Figure 4.2-3, along with the locations of the Valero monitoring stations. Table 4.2-6, reproduced here from the Draft EIR, shows the monitoring data for the Vallejo station. Tables 4.2-6D to 6H present the summaries of data collected over the most recent five-year period available for all of the other BAAQMD stations near Benicia. As may be seen on Tables 4.2-6A to 6H and as discussed in the Draft EIR, all stations do not monitor all pollutants.

Reviewing data from the two other complete monitoring stations (Pittsburg and Concord) as shown on Tables 4.2-6D and G, there is little significant difference between ambient air quality levels observed at these stations from those observed at Vallejo even though they are farther away from Valero than the Vallejo station and are very likely more often downwind from Valero than the Vallejo monitoring station. Use of the baseline data from any of these stations for this CEQA

[3] These data shown for Valero represent the highest 1-hour monitored SO_2 value from any of the three Valero monitoring stations.

analysis would not materially change the significance determination for any impact considered or the mitigation measure described in the Draft EIR.

TABLE 4.2-6
AIR QUALITY DATA SUMMARY (1997–2001) FOR THE PROJECT AREA

Pollutant	Standard[a]	Monitoring Data by Year				
		1997	1998	1999	2000	2001
Ozone						
Highest 1 Hour Average (ppm)[b]		0.10	0.12	0.11	0.08	0.09
Days over State Standard	0.09	1	3	4	0	0
Days over National Standard	0.12	0	0	0	0	0
Highest 8 Hour Average (ppm)[b]	0.08	0.08	0.08	0.09	0.06	0.07
Days over National Standard		0	0	1	0	0
CO						
Highest 1 Hour Average (ppm)[b]	20	NA	NA	6.6	6.5	NA
Days over State Standard		0	0	0	0	0
Highest 8 Hour Average (ppm)[b]	9.0	4.9	5.3	5.5	5.1	4.1
Days over State Standard		0	0	0	0	0
Sulfur Dioxide						
Highest 24 Hour Average (ppb)[b]		5	6	7	5	4
Days over State Standard	40	0	0	0	0	0
Days over National Standard	140	0	0	0	0	0
Annual Average (ppb)	30	NA	NA	1.4	1.5	1.0
Particulate Matter (PM-10):						
Highest 24 Hour Average ($\mu g/m^3$) [b]	50	**85.0**	**71.3**	**83.7**	**53.0**	**86.1**
Days over State Standard		3	1	3	1	2
Number of samples[c]		60	61	57	61	24
Annual Average ($\mu g/m^3$)[b]	30	15.5	14.9	15.2	17.0	16.3

[a] Generally, state standards are not to be exceeded and national standards are not to be exceeded more than once per year.

[b] ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter.

[c] PM-10 is not measured every day of the year. "Number of samples" refers to the number of days in a given year during which PM-10 was measured at the Tuolumne Street station in Vallejo.

NOTE: Values in **bold** are in excess of applicable standard. NA = Not Available.

SOURCE: California Air Resources Board, *Summaries of Air Quality Data*, 1997, 1998, 1999, 2000, 2001; http://www.arb.ca.gov/adam.

TABLE 4.2-6D
AIR QUALITY DATA SUMMARY (1997–2001) FOR CONCORD

Pollutant	Standard	Monitoring Data by Year				
		1997	1998	1999	2000	2001
Ozone						
Highest 1 Hour Average (ppm)		0.1	0.15	0.16	0.14	0.13
Days over State Standard	0.09	2	13	8	2	6
Days over National Standard	0.12	0	2	2	1	1
Highest 8 Hour Average (ppm)	0.08	NA	NA	0.12	0.09	0.09
Days over National Standard		NA	NA	6	1	1
CO						
Highest 1 Hour Average (ppm)	20	NA	NA	4.9	4.5	4.4
Days over State Standard		NA	NA	0	0	0
Highest 8 Hour Average (ppm)	9.0	3.0	3.8	3.1	2.7	2.7
Days over State Standard		0	0	0	0	0
Nitrogen Dioxide						
Highest 1 Hour Average (ppm)	0.25	0.08	0.07	0.08	0.07	0.07
Days over State Standard		0	0	0	0	0
Sulfur Dioxide						
Highest 24 Hour Average (ppb)		7	9	12	4	4
Days over State Standard	40	0	0	0	0	0
Days over National Standard	140	0	0	0	0	0
Annual Average (ppb)	30	NA	NA	1.7	1.6	1.1
Particulate Matter (PM-10)						
Highest 24 Hour Average ($\mu g/m^3$)	50	**76**	**66**	**64**	**54**	**106**
Days over State Standard		8	6	18	16	12
Annual Average ($\mu g/m^3$)	30	17.5	16.6	20.8	17.8	20.3

[a] Generally, state standards are not to be exceeded and national standards are not to be exceeded more than once per year.

[b] ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter.

NOTE: Values in **bold** are in excess of applicable standard. NA = Not Available.

SOURCE: BAAQMD, *Annual Bay Area Air Pollution Summaries*, 1997, 1998, 1999, 2000, 2001; http://www.baaqmd.gov/pie/apsums.htm

TABLE 4.2-6E
AIR QUALITY DATA SUMMARY (1997–2001) FOR CROCKETT

Pollutant	Standard	Monitoring Data by Year				
		1997	1998	1999	2000	2001
Ozone				Not Measured		
CO				Not Measured		
Nitrogen Dioxide				Not Measured		
Sulfur Dioxide				Not Measured		
Highest 24 Hour Average (ppb)		NA	NA	34	24	16
Days over State Standard	40	NA	NA	0	0	0
Days over National Standard	140	NA	NA	0	0	0
Annual Average (ppb)	30	NA	NA	3.0	2.5	1.7
Particulate Matter (PM-10)				Not Measured		

TABLE 4.2-6F
AIR QUALITY DATA SUMMARY (1997–2001) FOR MARTINEZ

Pollutant	Standard	Monitoring Data by Year				
		1997	1998	1999	2000	2001
Ozone				Not Measured		
CO				Not Measured		
Nitrogen Dioxide				Not Measured		
Sulfur Dioxide						
Highest 24 Hour Average (ppb)		7	7	8	5	5
Days over State Standard	40	0	0	0	0	0
Days over National Standard	140	0	0	0	0	0
Annual Average (ppb)	30	NA	NA	1.7	1.1	1.3
Particulate Matter (PM-10)				Not Measured		

[a] Generally, state standards are not to be exceeded and national standards are not to be exceeded more than once per year.

[b] ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter.

NOTE: Values in **bold** are in excess of applicable standard. NA = Not Available.

SOURCE: BAAQMD, *Annual Bay Area Air Pollution Summaries*, 1997, 1998, 1999, 2000, 2001; http://www.baaqmd.gov/pie/apsums.htm

TABLE 4.2-6G
AIR QUALITY DATA SUMMARY (1997–2001) FOR PITTSBURG

Pollutant	Standard	Monitoring Data by Year				
		1997	1998	1999	2000	2001
Ozone						
Highest 1 Hour Average (ppm)		0.80	0.10	0.10	0.11	0.12
Days over State Standard	0.09	0	4	2	1	2
Days over National Standard	0.12	0	0	0	0	0
Highest 8 Hour Average (ppm)	0.08	NA	NA	0.09	0.08	0.09
Days over National Standard		NA	NA	1	0	1
CO						
Highest 1 Hour Average (ppm)	20	NA	NA	7.8	4.9	5.2
Days over State Standard		NA	NA	0	0	0
Highest 8 Hour Average (ppm)	9.0	3.2	2.7	3.3	2.7	2.4
Days over State Standard		0	0	0	0	0
Nitrogen Dioxide						
Highest 1 Hour Average (ppm)	0.25	0.07	0.06	0.09	0.05	0.06
Days over State Standard		0	0	0	0	0
Sulfur Dioxide						
Highest 24 Hour Average (ppb)		7	14	9	7	11
Days over State Standard	40	0	0	0	0	0
Days over National Standard	140	0	0	0	0	0
Annual Average (ppb)	30	0	0	1.8	1.7	2.7
Particulate Matter (PM-10)						
Highest 24 Hour Average ($\mu g/m^3$)	50	NA	NA	**72**	**56**	**98**
Days over State Standard		NA	NA	12	2	NA
Annual Average ($\mu g/m^3$)	30	NA	NA	20.9	16.3	20.7

[a] Generally, state standards are not to be exceeded and national standards are not to be exceeded more than once per year.

[b] ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter.

NOTE: Values in **bold** are in excess of applicable standard. NA = Not Available.

SOURCE: BAAQMD, *Annual Bay Area Air Pollution Summaries*, 1997, 1998, 1999, 2000, 2001; http://www.baaqmd.gov/pie/apsums.htm

TABLE 4.2-6H
AIR QUALITY DATA SUMMARY (1997–2001) FOR FAIRFIELD

Pollutant	Standard	Monitoring Data by Year				
		1997	1998	1999	2000	2001
Ozone						
Highest 1 Hour Average (ppm)		0.09	0.12	0.13	0.10	0.10
Days over State Standard	0.09	0	9	9	1	3
Days over National Standard	0.12	0	0	1	0	0
Highest 8 Hour Average (ppm)	0.08	0.07	0.10	0.10	0.08	0.08
Days over National Standard		0	3	4	0	0
CO				Not Measured		
Nitrogen Dioxide				Not Measured		
Sulfur Dioxide				Not Measured		
Particulate Matter (PM-10)				Not Measured		

[a] Generally, state standards are not to be exceeded and national standards are not to be exceeded more than once per year.

[b] ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter.

SOURCE: BAAQMD, *Annual Bay Area Air Pollution Summaries*, 1997, 1998, 1999, 2000, 2001; http://www.baaqmd.gov/pie/apsums.htm

In summary, based on the comparison of SO_2 data shown above, we see the relative uniformity in existing annual air quality in the region and at the Valero monitoring stations. Furthermore, the same relative uniformity is seen for other pollutants, including TACs, at the surrounding BAAQMD stations. Therefore, it can be concluded that the data from the Vallejo station adequately represents conditions that occur in Benicia and near the refinery.

A desire for additional monitoring stations in Benicia to monitor Valero compliance with air quality emissions.

A number of commentors have expressed the desire to see additional air quality monitoring, specifically within the City of Benicia, essentially as a mitigation measure for air quality impacts or, if not a mitigation measure, as a means to better inform the public of potential air quality impacts. Essentially, commentors advocate placing additional air quality monitoring stations off the refinery site, either to alert the public of potentially unhealthful or dangerous conditions[4] or to perform long-term monitoring to determine compliance by Valero with air quality standards over a wider range of pollutants than is currently monitored by Valero at the present (SO_2 and H_2S).

[4] An emergency alert system, operated by the City, is already in place to warn the public of potentially unhealthful or dangerous conditions, See also the Response to Comment I1.

However, given the available air quality monitoring information available for the vicinity, it is not clear that more monitoring stations are needed for the purpose of monitoring Valero's compliance with its BAAQMD permit. Ambient air monitoring is used by agencies like the BAAQMD to determine regional air quality levels. As seen in the regional monitoring data discussed above, while there is some variation in the data, generally ambient air quality levels are similar throughout the local region. Even with the concentration of refineries within the region, the existing monitoring stations provide good coverage over that region. Based on the regional data, additional monitors located in Benicia, for example, would very likely show similar results as other regional monitoring stations.

The BAAQMD uses its permitting process to regulate emissions from Valero and similar types of facilities to set limits on what can be emitted to the atmosphere. These emission limits are set based on studies (usually using mathematical modeling) of the permitted sources submitted to the BAAQMD. These studies evaluate the offsite effects of these sources both from the standpoint of protecting the public health and welfare, both next door to the source and in the wider region, as well as considering the overall effect of the permitted sources on attaining clean air standards. To insure that these emission limits are complied with, the BAAQMD requires all permitted sources in the refinery to monitor their emissions to the atmosphere, to report these data to the BAAQMD and submit these data to be audited and reviewed by the BAAQMD against permits and standards. This compliance method directly measures refinery sources, is directly reportable and unambiguous. In addition, since sulfur is the primary contaminant in the refining process, the Valero SO_2 monitoring stations also serve as indicators of leaks or other problem emissions.

ODORS

There are several comments on the odor analysis of the VIP included in the DEIR. These comments have been jointly responded to under this master response. Most of the comments express concern about the BAAQMD's methodology for evaluation of odor impacts. The BAAQMD CEQA Guidelines provide guidance for evaluating odor impacts when locating sources of odorous emissions near existing sensitive receptors or when locating receptors near existing odor sources (BAAQMD, 1999). However, since the refinery is already in existence and since the VIP would not introduce any new odor sources at the refinery, but would merely affect the magnitude of odor emanating from existing sources at the refinery, the DEIR uses the specific quantitative thresholds of the BAAQMD regulations for hydrogen sulfide and methyl mercaptan, the two primary reduced sulfur compounds emitted from refinery operations with a potential for odor. In addition, since the project would be subject to the BAAQMD's Rules and Regulations, an exceedance of the standards in BAAQMD *Regulation 7* was being considered to constitute a significant impact. Analysis of odor impacts from hydrogen sulfide and methyl mercaptan emissions can be considered a worst case analysis as they have the lowest odor thresholds with the potential for impacts at very low concentrations. They are also the primary cause of odor from refinery operations. The other potential for odor exists from SO2 emissions from the main stack. But with the installation of the scrubber, SO2 emissions would be reduced significantly, consequently reducing the associated odor impacts. In the event that Valero chooses to not install the scrubber, BAAQMD's permit conditions would limit Main Stack emissions to historically

demonstrated levels. Therefore, the odor levels associated with SO_2 would not change from existing conditions.

The BAAQMD has an established procedure for receiving and investigating odor complaints. The details for reporting odor complaints to the District are available on the District's web site at http://www.baaqmd.gov/enf/inspect/complain.htm. Complaints can be phoned in to the Air District at 1-800-334-ODOR (6367). Complaints should be made as soon as possible after detecting an odor. During regular business hours, to the extent possible, complaints are dispatched to an inspector as soon as received and in no case later than 30 minutes after receipt. This insures a prompt, timely investigation while the event is in progress.

Valero has also established a procedure for investigating complaints. For this, Valero maintains a 24-hour community relations phone number that is staffed with a live person round the clock. Odor complaints to the refinery can be phoned in at this number: 1-707-745-7434. During business hours, to the extent possible, complaints are dispatched to the environmental department as soon as received and in no case, later than 30 minutes after receipt. After hours the calls go to the Shift Superintendent. When complaints are dispatched, Valero inspectors proceed directly to the area of concern to determine the cause of the complaint. Should the source of an odor be identified as coming from Valero, operations personnel can generally modify processes to eliminate the source.

EPA NEW SOURCE REVIEW

Several commentors noted recent changes to the New Source Review (NSR) rules under the Clean Air Act. The BAAQMD believes that the recent changes to the New Source Review rules would not alter the requirements of the BAAQMD for air pollution controls or affect emissions for the VIP. A copy of an EPA publication regarding the changes in the NSR rules included as an Appendix of this EIR.

E. UTILITIES / WATER

Many comments received on the Draft EIR stated citizens' concerns and requested more information about the water supply issues presented in the Draft EIR. These requests included:

- Additional information regarding the current and potential future water sources available to the City, including:
  - The likelihood and environmental effects of an additional allocation from the Sacramento River
  - The timing of the City Wastewater Reuse Project and the likelihood that it will come to fruition
  - The relationship of the Cadiz Corporation's proposed Mojave Water Project to the City's water supply
  - The relationship of Colorado River water to the City's water supply

- More information about the Water Study performed as a part of the preparation of the Draft EIR, the related requirements of SB 610, and the adequacy of the City's water planning documents that are the basis of the Water Study.
- Further evaluation of the VIP water supply impacts and adequacy of the proposed mitigations.

This master response is intended to address these concerns and provide additional explanation of these issues. Additional data is presented to augment the discussions in Section 4.14 of the Draft EIR.

WATER SOURCES

ADDITIONAL WATER DELIVERED VIA THE NORTH BAY AQUEDUCT

The analysis of the VIP in the Draft EIR is based on the increased use of City raw water from the City's current allocation. As stated in the Draft EIR, however, the City has continued to seek additional water rights or to finalize agreements with the State for supplemental water, and on February 11, 2003, the cities of Benicia, Fairfield and Vacaville issued a press release announcing that they have reached a settlement to obtain more Sacramento River water. The settlement takes effect upon approval by each of the three City Councils and the Solano County Water Agency and signature by the Department of Water Resources. Final approval is expected by the end of April 2003. Benicia would obtain 10,500 acre-feet of additional water per year.

The various impacts of obtaining the additional water were evaluated in the EIR prepared for the water rights application (CH2M Hill, March 2002) so the environmental review, including analysis of cumulative impacts, has been completed. All that remains are the final approvals. If this additional water supply is confirmed, there would be no significant adverse water supply impacts of the VIP that would require mitigation.

RECLAIMED WASTEWATER

The City is committed to pursuing reclaimed wastewater use as described in Program 2.36.A of the City General Plan. The City's wastewater reuse project is separate from the VIP and would be developed and permitted independently by the City of Benicia (EIR Section 3.6.2.3). The City has a preliminary municipal wastewater reuse action plan that outlines the City's planned steps and current timetable to study and implement wastewater reuse (EIR Section 3.6.2.3). The EIR discusses the constraints and opportunities for use of reclaimed wastewater, and documents that it is not possible at this time to establish whether the construction of the project would coincide with the construction of the VIP (Section 3.6.2.3). It presents current information regarding the City reuse program. (Eisenberg, Olivieri, & Associates, City of Benicia Effluent Reuse Project Action Plan, Draft, July 11, 2002) Until the engineering, economic, and environmental studies for the wastewater reuse project are complete, this source of supply could not be considered to be available. Revisions to the Regional Water Quality Control Board NPDES permits for either or both the City and Valero would also be necessary depending on final design of a City reclamation

project. Given the time needed for planning, design and permitting, as well as project construction, recycled wastewater could not become available in the near term.

The EIR fully discloses Valero's intent, as stated in the VIP permit application, to use reclaimed wastewater as the source of incoming water for refinery cooling towers, if and when such water becomes available. The City and Valero both acknowledge that reclaimed water would provide a reliable water supply in all water years and Valero has provided the City with a written commitment to continuing participation in the planning and funding of the project, including a commitment to using the recycled wastewater. The refinery is further motivated to pursue wastewater reuse because it either must implement reclamation and reuse or implement offsetting water conservation measures to comply with the conditions and requirements of the California Energy Commission for the Valero Cogeneration Project.

MOJAVE WATER – CADIZ PROJECT

Cadiz Corporation's Mojave Water Project was never a planned source of water to the City of Benicia. The National Parks Conservation Association article, "Water Project Plans at Mojave Evaporate", provided by a commentor, discusses the rejection of a groundwater-banking project that was proposed by the Cadiz Corporation to obtain Colorado River water from the Metropolitan Water District of Southern California and to store it in the aquifer under the company's lands, northeast of Palm Springs, in the Mojave Desert. The Cadiz project is separate and unrelated to any City of Benicia water supplies and has no relationship to the water bank operated by the Mojave Water Agency (MWA).

The Mojave Water Agency banking program stores State Water Project (SWP) water in the groundwater basin within the jurisdictional area of the Mojave Water Agency. The program allows the Mojave Water Agency to put State Water Project water that is "banked" by the City of Benicia and others, into storage in the groundwater basin in wet years. In dry years, the Mojave Water Agency can take water out of the groundwater basin in lieu of taking State Water Project deliveries. The water not taken by the Mojave Water Agency is then available to be delivered to the Solano County Water Agency via the North Bay Aqueduct (which is a part of the SWP), and then to the City of Benicia. The agreement with the Mojave Water Agency provides a safe and reliable dry year supply for the City of Benicia.

COLORADO RIVER AND STATE AND FEDERAL WATER PLANNING

The City of Benicia does not obtain water from the Colorado River and has no plans to seek or exchange any water from the Colorado River. Thus the recent Federal cutoff of "surplus" Colorado River water that has been provided to California on an interim basis in the past, is not expected to affect Benicia. As described in the Draft EIR, the City's primary source is the State Water Project and sources north of the Sacramento San Joaquin Delta. There are major water planning efforts for the Sacramento/San Joaquin Delta (CALFED) and the Colorado River which are ongoing, and the state of California continues to update the California Water Plan to address

these macro level policy issues. These efforts are acknowledged but further analysis is beyond the scope of this EIR.

WATER STUDY

As a part of the preparation of the Draft EIR, the City of Benicia prepared a Water Study (ESA, 2002) to provide the basic information and analysis that would be required if the VIP were to be considered a project under SB 610. The Water Study is available via the internet on the City's web page, or can be reviewed at the Benicia Public Library and the Community Development Department during normal business hours. The document evaluated the proposed water usage of the VIP in the context of the City's present (prior to the February 2003 settlement) and future water supplies and projected use. The Water Study concluded that the demands of the VIP would exacerbate future dry-year water shortages that are projected in the City's Urban Water Management Plan but, if the City's efforts to obtain additional water were successful, the water supply would be sufficient to meet future demands including the VIP.

The City's water planning is current and meets all of the requirements of the Water Code, as well as being adequate to support the requirements placed on it by SB 610. The 2001 Urban Water Management Plan (Buck and Assoc., 2001) is current and served to update the 1996 Urban Water Management Plan (MW, 1996).

WATER SUPPLY IMPACTS AND MITIGATIONS

Consistent with the findings of the Water Study, the Draft EIR identified a potentially significant impact to water supplies in the future during dry years from the water demand of the VIP. This impact would occur only if the water supply projects currently being pursued by the City, including the additional Sacramento River supply and/or the reclaimed wastewater supply, are not completed. The mitigation provided in the Draft EIR specified that the City and Valero should continue to pursue those new water supplies and that the supplies were considered likely to be obtained. A number of commentors expressed concern that the proposed mitigation is inadequate because it is not completely certain that the new supplies will be obtained, and because additional water use by Valero could, in effect, force residents and other water users to conserve more than might otherwise be required in times of water shortage.

Where a significant impact is identified, in this case for the water supply, CEQA requires that the EIR must discuss feasible mitigation measures that reduce or eliminate the impact, or which avoid, minimize, rectify, or compensate for the impact (Guidelines 15126.4(a) and 15370). To fulfill this obligation, and to respond to public comment and changing circumstances, the City has identified the following mitigations objectives:

1) To provide an interim protection in the event the water rights settlement is not ratified, since development of the wastewater reuse project, or procuring additional water from alternative sources will take time;

2) To increase the reliability and certainty from available supplies to both the City and Valero in dry years; and

3) To decrease the demand and respond to shortages in the dry years, while also preventing impacts to other users of the same supply[5].

In order to fulfill the objectives, an additional mitigation is proposed to supplement the measures already included in the Draft EIR.

The refinery process provides limited options to reduce water consumption without other drawbacks such as increased corrosion rates or excess air emissions and, as a result, the refinery has not been required to conserve water under the City water conservation ordinance in times of drought or reductions in water supply. Instead, the refinery has paid a proportional share of the cost of short-term water purchases by the City. (See also Response H65.) The availability of water for such short-term purchases is not completely certain, and the Water Supply Evaluation for the EIR assumed that there would be no cutback from Valero. The added mitigation measure, below, would require Valero to reduce water consumption by the amount of the VIP use if the VIP were to be implemented and if the City or Valero has not secured the water supplies that are expected to be needed in the future, to address dry year conditions. Because the amount of water involved is relatively small, the refinery would be able to offset the VIP use with various short-term conservation measures.

The added mitigation would be an interim measure until the time when additional water supplies become available. The mitigation defines water shortage conditions and includes monitoring and reporting to measure performance and confirm the effectiveness of the action in mitigating the significant water supply effect. In accordance with CEQA, the mitigation (along with all the other mitigations in the EIR) must be made legally binding conditions of approval. Once the additional Sacramento River water supply is perfected, the new mitigation measure would become inactive according to its terms.

The following additional mitigation measure will be added after Mitigation 4.14-1b, currently on page 4.14-15.

Mitigation 4.14-1c: Drought Contingency

> **If a "water shortage" (as defined below) occurs, then Valero will take the steps necessary to reduce water consumption at the refinery by an amount equal to or greater than the amount of raw water that is being consumed due to implementation of the VIP during the period of the water shortage. This reduction would be in addition to any amount**

[5] Note the criterion related to "impacting existing users" is embodied in the state law, the City General Plan, and recognized in the current EIR as a threshold of significance. EIR pg. 4.14-11, "the VIP would result in significant impacts if the total of the current refinery demand and new VIP water demand would exceed the maximum amount forecast in the UWMP or would result in shortages during critical dry years, or would reduce the water available to current and planned future uses of water that are identified in the General Plan."

of reduction required by Condition WATER RES-2, approved by the California Energy Commission on October 31, 2001, for the Valero Cogeneration Project. Upon notification that a water shortage exists for any given year, Valero will provide prompt documentation to the City of: the amount of water expected to be consumed by the VIP during the year of the shortage; a description of the steps planned to reduce consumption; the amounts to be saved by the steps; and the timing of implementation. Valero will notify the City as the steps are implemented and will provide an annual report at the end of the year, verifying the amounts of water saved by the steps taken.

For purposes of this mitigation, "water shortage" means that all of the following conditions have occurred:

a. The City is unable to secure, pursuant to Supplemental Water Rights Application 30681, rights to the amount of water projected to accommodate City demand for the year of the water shortage, as shown in Table 4.14-3 of the VIP EIR, plus the amount of water needed for the VIP;

b. The City is unable to secure other water entitlements to the amount of water projected to accommodate City demand for the year of the water shortage, as shown in Table 4.14-3 of the VIP EIR, plus the amount of water needed for the VIP;

c. Valero has not secured a separate water entitlement, valid for the year of the water shortage, adequate for the amount of water needed for the VIP;

d. The City has not implemented the wastewater reuse project; and

e. The City has announced a water alert, as defined by Benicia Municipal Code Title 13, Chapter 13.35, section 13.35.060(B), and has ordered implementation of conservation stage two pursuant to the City Code.

The City of Benicia would require the refinery to implement the steps that will fully offset the amount of water used by the VIP should the additional sources of supply not be obtained and should the City announce a water alert.

Significance after Mitigation: Less than Significant.

G. CUMULATIVE ANALYSIS

Many persons who commented on the Draft EIR raised issues and questions about how cumulative impacts were examined in the document. This master response is intended to address these concerns and further explain the approach used by the document preparers.

APPROACH TO CUMULATIVE IMPACT ANALYSIS

In general, the approach to the analysis of impacts for each topic area considers the applicable general planning documents that guide development at the project site, in the vicinity of the project and within the region; under CEQA this is considered a plan-based approach. In addition to this plan-based analysis, a number of future projects at the refinery or adjacent to the refinery were identified that would affect the same geographic area as the VIP. Note that it is expected that all of these projects could be developed in compliance with the applicable general planning documents, as well. The Draft EIR's treatment of these local projects is stated in Section 4.0 of the Draft EIR as follows:

> "Cumulative impacts were analyzed by considering the effects of the VIP combined with other concurrent refinery projects and approved or planned projects in the vicinity of the refinery. The identifiable concurrent refinery and non-refinery projects are described in Section 3.6, *Relevant Cumulative Projects*. The cumulative impact analysis considers the interaction of VIP impact and impacts from other projects of the same type, or with the same effects, to create a cumulative impact affecting the same geographic area as that of the VIP impacts. Following the CEQA Guidelines, the extent of the area considered for each cumulative effect was set to be appropriate to that environmental issue.
>
> For cumulative projects within the refinery, information was available to consider these projects at a relatively substantial level of quantitative detail, while for cumulative projects outside the refinery, less project-specific information was available. Thus, the cumulative analysis for those non-refinery projects could not be quantitative. In addition to effects of the identifiable cumulative projects, the cumulative impact analysis also adds outside cumulative effects, such as cumulative traffic growth, to develop the full cumulative analysis."

The intention of the cumulative analysis was to fully disclose cumulative impacts of the project. Commentors cite other projects that were not specifically listed in the Draft EIR and imply that the cumulative analysis should have included those projects. However, in addition to the specific projects listed in the Draft EIR, where appropriate, the approach used in the Draft EIR implicitly includes development contemplated by local and regional plans and evaluated in the environmental reviews that were conducted for those plans.

GENERAL AND REGIONAL PLANS CONSIDERED IN THE CUMULATIVE ANALYSIS

To incorporate into the cumulative analysis the effects of projects that were outside of the Benicia geographic area, or projects that may not be well defined or are unforeseen, the CEQA analysis used various planning documents, including but not limited to the following:

- City of Benicia General Plan
- Solano County General Plan
- Solano Transportation Authority's Congestion Management Plan
- BCDC Plans
- Regional Planning Documents from ABAG / MTC / RWQCB / BAAQMD

These local and regional plans are prepared by all cities, counties and regional agencies in California to meet requirements of state laws. These plans are comprehensive, long-term plans that consider the physical development for the City or region, and any land outside its boundaries, which bears relation to its planning. For example, the *City of Benicia General Plan*, adopted in 1999, includes specific policies to preserve and enhance existing development and to provide for orderly and appropriate new development of the City of Benicia until approximately the year 2020. Actions and approvals of the City of Benicia must be consistent with the General Plan.

An example at the County level is the Solano Transportation Authority (STA), which operates as the Congestion Management Agency (CMA) for Solano Country. This agency develops the countywide Congestion Management Program (CMP) and updates it every 2 years. The CMP identifies a system of state highways and regionally significant principal arterials (known as the CMP system) and specifies level of service standards for those roadways. This system is monitored regularly by the local jurisdictions where the facilities are located, and results are included in the biennial report produced by STA. One of the CMA's responsibilities is to analyze the impacts of local land use decisions on the regional transportation system. The Solano County CMA has the purview to comment on any environmental impact report prepared for proposed land use development projects, and to require that analysis of CMP system facilities be performed with the STA travel demand model. If a proposed project is projected to cause a segment of the CMP system to deteriorate below the adopted Level of Service (LOS) standard, a deficiency plan must be prepared to provide mitigation for that impact. Thus, use of the latest CMA traffic model is expected to be the best available way to represent future traffic conditions resulting from projects all over the County and the region, including effects at Benicia that would result from the Carquinez Bridge span and other projects within and outside Solano County. The Draft EIR considered data from the CMA model in the traffic analysis.

Examples of regional planning are the plans prepared by the BAAQMD. The federal Clean Air Act and the California Clean Air Act require such plans to be developed for areas designated as nonattainment (with the exception of areas designated as nonattainment for the state PM-10 standard). Plans are also required under federal law for areas designated as "maintenance" for national standards. Such plans are to include strategies for attaining the standards. Currently, there are three plans for the Bay Area:

- Ozone Attainment Plan for the 1-Hour National Ozone Standard (Association of Bay Area Governments (ABAG) 2001) developed to meet federal ozone air quality planning requirements and achieve attainment of national ozone standards by 2006;
- Bay Area 2000 Clean Air Plan (BAAQMD 2000a), the most recent triennial update of the 1991 Clean Air Plan developed to meet planning requirements related to the state ozone standard; and

- Carbon Monoxide Maintenance Plan (ABAG 1994) developed to ensure continued attainment of the national CO standard.

The specific aspects of these plans (e.g., area designations, population growth, planning goals, future development, projected increases in emissions, etc.) that would interact with potential VIP impacts having the same effects within the same geographic area were considered in the cumulative analysis. This approach is consistent with CEQA Section 15130 for cumulative impact analysis.

SPECIFIC PROJECTS CONSIDERED IN THE CUMULATIVE ANALYSIS

To supplement the plan-based cumulative analysis, a list of known planned projects for both the Valero refinery and the local Benicia area were also considered. As discussed in the Draft EIR, the specific projects considered in the cumulative analysis consisted of the following Valero refinery independent projects:

- Alkylation Unit Modifications
- Selective Hydrogenation Facilities
- Light Ends Rail Rack Arm Drains
- BAAQMD Regulation 9 Rule 10 NO_x Alternative Compliance Plan
- Treatment of wastewater from the Huntway Asphalt Refinery

Also considered in the Draft EIR were known or planned projects within the local Benicia area. These consisted of the following:

- Construction of the second Benicia Bridge
- The Seeno Benicia Business Park
- The City of Benicia's Wastewater Reuse Project
- The Southampton Tourtelot Development

APPROACH AND METHODOLOGY OF THE ANALYSIS

To illustrate the approach and methodology used in the Draft EIR for cumulative analysis, the following table shows for each environmental category the plan basis as well as the list of projects considered to assess cumulative impacts of the VIP.

Development Plans and Projects Considered in the Analysis of VIP Cumulative Impacts

Category	Primary Geographic Area Considered	Cumulative Development Considered in Analysis	Known Projects also Considered in Analysis
Visual Impacts	City Viewsheds	Future Benicia development according to Benicia General Plan	Independent Refinery and Local Benicia Projects
	County Viewsheds	Future Solano County development according to County General Plan	
Agriculture Resources	No VIP impacts - no cumulative impact		
Air Quality	Local	Future Benicia development according to Benicia General Plan	Independent Refinery and Local Benicia Projects
	Regional	Regional development per the BAAQMD Clean Air Plan	Projects considered in CAP
Biological Resources	Local	Future Benicia development according to Benicia General Plan, BCDC and Suisun Marsh Protection Plan	Not supplemented by lists
	Regional	Regional growth in accordance with RWQCB, BCDC, CALFED planning	Not supplemented by lists
Energy	Local	Future Benicia development according to Benicia General	Independent Refinery and Local Benicia Projects
	Northern California Grid	California Energy Commission	Not supplemented by lists
Geology, Soils and Seismicity	Local Site - no cumulative effects		
Public Health	Local	Future Benicia development according to Benicia General Plan and BAAQMD CAP	Not supplemented by lists
	Regional	Development in accordance with the BAAQMD CAP	Projects considered in CAP
Public Safety	Local - limited to local affected area	Future Benicia development according to Benicia General Plan	Not supplemented by lists
	Regional - none		
Hydrology and Water Quality	Local	Future growth in accordance with Benicia General Plan and Suisun Marsh Protection Plan	Independent Refinery and Local Benicia Projects
	Regional	Regional development in accordance with San Francisco Bay Basin Plan, Regional WQCB, BCDC, CALFED planning	Not supplemented by lists
Mineral Resources	No VIP impacts - no cumulative impact		
Land Use	Local Site - no	Future Benicia development	

	cumulative effects	according to Benicia General Plan	
Noise	Local - limited to local affected area	Future Benicia development according to Benicia General Plan	Independent Refinery and Local Benicia Projects that could affect local noise sensitive receptors
	Regional - none		
Population and Housing	No VIP impacts - no cumulative impact		
Public Services	Local	Future Benicia development according to Benicia General Plan	Independent Refinery and Local Benicia Projects
	Regional - none		
Recreation	No VIP impacts - no cumulative impact		
Traffic and Transportation	Local	Future Benicia development according to Benicia General Plan	Independent Refinery and Local Benicia Projects
	Regional	Traffic conditions under Solano Transportation Agency CMP	
Utilities and Services Systems	Local	Future Benicia development according to Benicia General Plan, Water System Master Plan, UWMP	Not supplemented by lists
	Regional	Development according to Benicia and Solano County General Plans	Not supplemented by lists
	State	Northern California development	Not supplemented by lists

The conclusions of this analysis are presented under the discussion of impacts for each environmental category in Sections 4.1 through 4.14 and are summarized in Section 5.2 of the Draft EIR.

Other Cumulative Projects Not Specifically Considered

Commentors stated that other specific projects more remote from the Benicia area should be considered in the cumulative analysis for the VIP as well. These are:

- The proposed Bechtel / Shell LNG[6] plant and associated power plant in Vallejo
- The third span of the Carquinez Bridge construction
- Chevron Refinery LPG spheres project in Richmond
- All regional industrial potential expansion plans, including Shell, Tesoro, Rhone Poulenc, Crockett C&H, Tosco Refinery (now ConocoPhillips), General Chemical, ARCO, Wickland Oil, California Oils Corp, MSC Prefinish Metals, Dupont, and Dow Chemical
- Diesel and car emissions, in general

The aspects of these projects suggested by the commentors that could contribute to VIP cumulative impacts include: air emissions, wastewater discharge and runoff, traffic and

6 Note in late January 2003, this project was canceled.

transportation, regional growth, energy use and water use. These aspects are accounted for by regional planning as follows:

- BAAQMD – air emissions
- RWQCB - wastewater discharge and runoff
- MTC and STA – traffic and transportation
- ABAG, Solano County and Benicia General Plans - regional growth
- Energy generation is planned at the state level
- Water use and management is planned at the state, regional and local levels, as described in the Draft EIR

For all of the environmental categories stated above, the cumulative effects are either: a) already implicit through projected growth, planned development, incorporation of specific projects or planning goals within the regional plans of the planning / permitting agencies above or, b) the cumulative environmental effects would be controlled by the permitting / approval processes of those regional agencies empowered to regulate emissions or other environmental effects in the region. Therefore, the cumulative effects of the VIP and these projects have been considered and/or their cumulative effects controlled, since these regional plans were used as the bases for the cumulative impact analyses presented in the respective sections of the Draft EIR.

CHAPTER IV

RESPONSES TO WRITTEN COMMENTS ON THE DRAFT EIR

A. INTRODUCTION

This chapter includes copies of the comment letters received during the public review period on the Draft EIR and responses to those comments. Each comment is labeled with a number in the margin and the response to each comment is presented immediately after the comment letter.

Where responses have resulted in changes to the text of the Draft EIR, these changes are shown within quoted portions of the Draft EIR text using the following conventions:

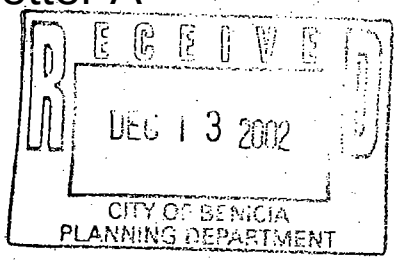
1) Text added to the wording in the Draft EIR is shown in underline,
2) Text deleted from the wording in the Draft EIR is shown in ~~strikeout~~, and
3) Text changes are shown in indented paragraphs.

These text changes also appear in Chapter VI of this Response to Comments.

B. AGENCIES COMMENTING ON THE DRAFT EIR

Bay Area Air Quality Management District	December 11, 2002
California Regional Water Quality Control Board, San Francisco Bay Region	December 11, 2002
California Department of Transportation	December 16, 2002
City of Benicia	November 01, 2002
State of California Governor's Office of Planning and Research State Clearinghouse	December 17, 2002

Letter A



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

December 11, 2002

Lamont Thompson, Associate Planner
City of Benicia Community Development Department
City Hall, 250 East L Street
Benicia, CA 94510

Dear Mr. Thompson:

We appreciate the opportunity to review the Draft EIR for the proposed Valero Improvement Project. Our comments focus on air quality and public health and are presented below.

Chapter 1, Introduction:

On Page 1-1, the components of the project include a "Flue Gas Scrubber to reduce emissions from the main stack." The phrase should clearly state that the scrubber would reduce sulfur dioxide, and some NOx, air emissions from the main stack. A1

Based on the comments made at the December 5, 2002 public hearing, the flue gas scrubber may not be installed. If this is true, then the Draft EIR should say this in the project overview and in Chapter 3's project description to more clearly present the project. The environmental impact of a project without the scrubber should be assessed - at least as an alternative, and as the project itself if it is the most likely scenario. The current wording describing the project in the Draft EIR makes it appear that installation of the scrubber for this project is certain. A2

On Page 1-4, the names of the air quality permits required from the Bay Area Air Quality Management District ("BAAQMD") for the project should be changed to: Authority to Construct and Permit to Operate. The Authority to Construct is issued by the BAAQMD after our engineers review the equipment design for a proposed project and determine if it is capable of complying with air quality laws and a Permit to Operate is issued by the BAAQMD after the project is built and compliance is demonstrated. A3

Chapter 2, Summary of Environmental Impacts:

FILE COPY

On Page 2-8, the text of Mitigation Measures 4.2-1a and 4.2-1b should be re-written to clearly and concisely summarize the controls required by each. A4

Chapter 3, Project Description:

On Page 3-3, referenced footnote 1 is missing. A5

On Page 3-5, the components of the project include a "Flue Gas Scrubber to reduce emissions from the main stack." The phrase should clearly state that the scrubber would reduce sulfur dioxide, and some NOx, air emissions from the main stack. A6

Chapter 4.1, Aesthetics, Visual Quality, Light and Glare:

On Page 4.1-5, Valero Refinery's flare event and complaint data is relied upon in the Draft EIR's analysis. The BAAQMD compiles such flare data. Please provide us with the Valero data, so that we can compare it to our flare data. After our review, we will contact you with any additional comments we have on this issue. A7

Chapter 4.2, Air Quality:

On Page 4.2-1, the paragraph under the heading titled "Setting" in Section 4.2.2 should include that hydrogen sulfide and other sulfur-bearing compounds are also a local level concern because of their potential for odors. The paragraph should also state that toxic air contaminants are regulated by the BAAQMD. A8

On Page 4.2-11, in footnote 2, the Draft EIR states "Data from the Benicia stations was not available for publication of this document but are on request with the BAAQMD". Please include this requested data in the Final EIR. A9

On Page 4.2-11, the Draft EIR lists seven monitoring stations near Benicia. On Page 4.2-13, Vallejo is chosen due to its proximity to Benicia and its full range of monitored pollutants. According to the information on Page 4.2-11, the Concord and Pittsburg stations monitor the full range of pollutants, however, they were not chosen because they "appear to be influenced by other conditions and are not as representative of Benicia as the Vallejo station." Please include the specific conditions that make the Concord and Pittsburg stations not as representative as the Vallejo station. A10

On Page 4.2-19, the Draft EIR mentions an odor analysis conducted by URS Corporation for Valero, which has been peer reviewed by ESA. Please provide a copy of the full report to the District for review and comment. After our review of that report, we will contact you with any additional comments we have on its conclusions. A11

On Page 4.2-21, the Draft EIR proposes Mitigation Measure 4.2-1b for the construction contractors to comply with a requirement that "Any stationary motor sources (such as generators and compressors) located within 100 feet of any residence shall be equipped with a supplementary exhaust pollution control system as required by the BAAQMD and CARB". Please explain the rationale for this mitigation measure and what it intends to achieve. A12a

If the intent of Mitigation Measure 4.2-1b is to protect the nearby residents from diesel emissions, then a condition similar to the following mitigation measure from Valero Cogeneration Project's Condition of Certification AQ-55 would better serve this purpose. Condition of Certification AQ-55 states "The Project Owner shall require construction contractors to mitigate diesel emissions by measures such as the use of catalyzed diesel particulate filters, use of ultra-low sulfur diesel fuel, and/or use of EPA and CARB 1996 certified diesel engines." The District normally would not require an add-on control device on an engine, unless our permit application review requires it. A12b

If the intent of this mitigation measure is for the BAAQMD engineering staff to assist with the selection of an appropriate add-on control device, we would be glad to do this. The mitigation measure should clearly state what it intends to achieve. A12c

Starting on Page 4.2-21, the Draft EIR presents the proposed emission increases from the project. Prior to our approval of an Authority to Construct for the project, the District engineering staff will estimate all emission increases expected from the project. Any differences between the District's emission estimates and those presented in the Draft EIR should be presented and explained in the Final EIR. A13

Chapter 4.7, Public Health

On Page 4.7-4, the Regulatory Setting should include a thorough description of the BAAQMD's risk screening procedure and risk management procedure for permit applications involving emissions of potentially toxic compounds. The current paragraph on the top of Page 4.7-5 does not adequately describe the District's toxics permit review process. A14

The Draft EIR presents the proposed toxic air contaminant (TAC) emission increases from the project. Prior to our approval of an Authority to Construct for the project, the District engineering staff will estimate all TAC emission increases expected from the project. Any differences between the District's TAC emission estimates and those presented in the Draft EIR should be presented and explained in the Final EIR. A15

If you have any questions on this matter, please contact me at (415) 749-4721 or at byoung@baaqmd.gov.

Sincerely yours,

Barry G. Young
Principal Air Quality Engineer

H:/pub_data/bgy/ceqa/vip/drafteircomments.doc

LETTER A – BAY AREA AIR QUALITY MANAGEMENT DISTRICT

A1 In response, the texts of the 5th bullet item on page 1-1 and the 5th bullet item on page 3-5 are revised as follows:

> Flue Gas Scrubber to reduce SO_2 and some NOx emissions from the main stack.

A2 In response, text is added to Section 1.2 *Project Overview*, at the beginning of the last paragraph of section 1.2, pg.1-2, as follows:

> Valero may not construct some of the VIP units, including the Flue Gas Scrubber or any other unit, if conditions are not favorable. Valero would implement the project, in a series of steps, starting...

Text is added to Section 3.4.1, at line 12 of the first paragraph, pg.3-20, as follows:

> … Valero may alter the schedules and Valero may not construct some units, including the Flue Gas Scrubber, if conditions are not favorable. However, for the purposes …

The no scrubber case was identified in Section 3.4.3.5 and considered in the analysis presented in Chapter 4. Specific attention to the Air Quality impacts of this case is addressed in Section 4.2.3.4 of the Draft EIR.

A3 The name is changed accordingly, at line 3 of first paragraph, pg.1-4, as follows:

> Construct and ~~Authority~~ Permit to Operate...

A4 In response, Mitigation Measure 4.2-1b, pg. 4.2-20 and pg. 2-8, is revised as follows.

> **Mitigation Measure 4.2-1b: To mitigate ~~the~~ impact of construction equipment exhaust emissions, the project sponsor should require its construction contractors to comply with the following requirements:**
>
> - Construction equipment shall be properly tuned and maintained in accordance with manufacturers' specifications.
> - Best management construction practices shall be used to avoid unnecessary emissions (e.g., trucks and vehicles in loading and unloading queues would turn their engines off when not in use).
> - Any stationary motor sources (such as generators and compressors) located within 100 feet of any residence shall be equipped with a supplementary exhaust pollution control system as required by the BAAQMD and CARB. In such cases, the project sponsor shall require construction contractors to mitigate diesel emission by measures such as the use of catalyzed diesel particulate filters, use of ultra-low sulfur diesel fuel, and/or use of EPA and CARB 1996 certified diesel engines.

A5 The following footnote has been added at the bottom of Page 3-3.

> [1] As used in this document, the term "raw materials" is defined as crude oil and gas oil feedstocks.

A6 The 5th bullet item, pg.3-5 is revised. See response A1.

A7 Per the BAAQMD's request, the requested data on flare events has been provided to the commentor. The BAAQMD compiles data on flare emissions and is currently involved in rule development for regulation 12 Rule 11. The BAAQMD has developed a draft working document summarizing local refinery flare data. Flaring frequency data presented in the BAAQMD's draft working document is already accounted for in data presented in the Draft EIR.

A8. The following text is inserted at the end of Draft EIR Section 4.2.2, pg.4.2-1:

> Hydrogen sulfide and other sulfur-bearing compounds are also a concern at the local level due to their potential to cause odors. The BAAQMD also regulates concentrations of toxic air contaminants in the ambient air.

A9. The requested data is included in the Master Response "Air Quality."

A10. Please see the discussion of this issue in the Master Response "Air Quality."

A11. As requested, a copy of the odor analysis conducted by URS Corporation for the project has been provided to BAAQMD.

A12a The specific clause of the mitigation measure questioned by the commentor was intended to reduce local impacts from stationary motor sources utilized during construction of the VIP. By application of a supplemental control system on emissions from these sources, impacts to nearby residences (within 100 feet of the source) would be reduced. Note that at present there are no residences within 100 feet of potential sources, however, this mitigation measure insures that residences would be protected during the life of the project.

A12b As discussed in response to comment A12a, the intent of mitigation measure 4.2-1b was to protect nearby residents from stationary source emissions. Although it is not completely certain that any or all of these potential motor emission sources would be fueled by diesel fuel, it is highly likely. Therefore as suggested by the commentor, mitigation measure 4.2-1b is changed as shown in response to comment A4.

A12c As a responsible agency under CEQA, it is entirely appropriate for the District to propose appropriate mitigation measures. The intent in the Draft EIR is as stated in response to A12b.

A13 Note that numbers in BAAQMD's draft engineering evaluation of the VIP air permit do not match the CEQA analysis numbers in the Draft EIR due to the following reasons:

- Emissions from combustion sources not discharging through the main stack have not been included in the draft engineering evaluation while they have been included in the CEQA analysis because Valero is not ready to apply for air permits for these combustion sources at this time[1]. In other words, this CEQA analysis takes into account a broader range of project-related emissions than the draft engineering evaluation for Valero's ATC.

- The CEQA analysis includes emissions from the increase in processing rate while the draft engineering evaluation does not as the increase is within currently permitted levels.

- The 3-year baseline numbers in the Draft EIR were based on emissions for the calendar years 1999 through 2001 whereas the 3-year baseline used in the draft engineering evaluation is based on emissions from July 1999 to June 2002.

See also the Master Response "Project Description, Draft BAAQMD Conditions."

A14 Text is added to the second paragraph, pg.4.7-5 of the Draft EIR as follows:

> BAAQMD is responsible for administering Federal and State regulations related to TACs. Under Federal law, BAAQMD adopts regulations to satisfy National Emission Standards for Hazardous Air Pollutants (NESHAPs) and Maximum Achievable Control Technology (MACT) for affected sources. BAAQMD also administers the state regulations AB1807 and AB 2588 which were discussed above. In addition, the Agency requires that new or modified facilities, which emit TACs, have to perform air toxics screening analyses as part of the permit application. <u>The air toxics screening involves comparing the toxic emission rates with guideline emission levels presented in BAAQMD's Toxics Risk Screening Policy. If the toxic emissions equal or exceed guideline levels, the entire permit application file along with a completed engineering evaluation and "Risk Screening analysis: Request for Information" form are submitted to the Toxics Section of the Permit Services Division for a risk screen.</u>

A15 Based on review of the most recent version (March 2003) of the draft engineering evaluation for the VIP, there appear to be no significant differences in TAC emissions or corresponding predicted project risk estimates between the Draft EIR and the draft engineering evaluation.

[1] Permit approval from the BAAQMD lasts for a fixed duration of time, generally this is a three year approval. Given the timing of VIP projects over a seven year period, it does not make sense for Valero to apply for an air quality permit for project components which would be constructed during the later portion of the VIP timeframe. As is discussed briefly in Section 3.7 – Project Description, Valero has already submitted its initial permit in July of 2002 and may make separate permit applications as the timing of other VIP components require it. The BAAQMD's draft engineering evaluation only considers those VIP components in this initial permit.

Letter B

California Regional Water Quality Control Board

San Francisco Bay Region

Winston H. Hickox
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov/rwqcb2
1515 Clay Street, Suite 1400, Oakland, California 94612
Phone (510) 622-2300 • FAX (510) 622-2460

Gray Davis
Governor

Date: DEC 1 1 2002
File No. 2129.2004 (RS)

Mr. Lamont Thompson, Associate Planner
Community Development Department
250 East L Street
Benicia, CA 94510

Subject: Comments on Draft Environmental Impact Report for Valero Refining Company's Land Use Application for the Valero Improvement Project, SCH# 2002042122

Dear Mr. Thompson:

We reviewed *Draft Environmental Impact Report for Valero Refining Company's Land Use Application for the Valero Improvement Project* (hereafter Report), dated October 2002, and prepared by Environmental Science Associates for the City of Benicia. This letter clarifies (1) factual errors in the Report, (2) the effect of Valero's proposed expansion on aquatic life and human health, and (3) flood control requirements of Valero's NPDES Permit. We also wish to state our support for the wastewater reclamation option to minimize water supply issues.

Factual Errors

On Page 4.9-5, the Report indicates that after oily wastewater streams are treated with corrugated plate separators, Valero adds an organic polymer (ferric chloride) to co-precipitate selenite and enhance flocculation of wastewater before it enters induced static flotation units. While Valero does add ferric chloride to co-precipitate selenite, this does not occur until after wastewater has received biological treatment. B1

On Page 4.9-9, the Report indicates that Order No. 2002-0112 establishes a five-year compliance schedule for copper, selenium, lead, mercury, and nickel. This is not correct. For copper and selenium, final water quality based effluent limitations are based on the California Toxics Rule, and therefore, the permit indicates that interim limits shall remain effective for five years (until January 1, 2008). However, for lead, mercury, and nickel final water quality based effluent limitations are based on the Basin Plan, and therefore, the permit allows interim limits to remain effective until March 31, 2010. B2

On Page 4.9-9, the Report states that effluent limits contained in the NPDES Order No. 2002-0112 are derived from marine criteria. This is not correct. The salinity characteristics of the receiving water are estuarine because they do not fall within the narrower definitions for marine or fresh water. Therefore, the final effluent limitations contained in Order No. 2002-0112 are based on whichever criteria (marine or fresh water) would result in the most stringent limit. B3

On Page 4.9-9 and 10, the Report indicates that toxicity tests on undiluted treatment plant effluent require a survival rate of not less than 50 percent. This is not correct. If only one sample of the previous eleven had a survival rate of less than 70 percent, this would not be a violation. Specifically, Order No. 2002-0112 states that the survival of bioassay test organisms in 96-hour bioassays of undiluted effluent shall be an eleven sample (1) median value of not less than 90 percent survival, and (2) 90th percentile value of not less than 70 percent survival. B4

FILE COPY

On Pages 4.3-14 and 15, the Report explains that Suisun Bay has elevated levels of pollutants that could be increased by the proposed project. Since the Bay no longer has assimilative capacity for these pollutants, the Report indicates that any increases would significantly affect sensitive species. To ensure that the discharge does not cause deleterious effects on aquatic life, the Report explains that the NPDES Permit requires bioassay monitoring using sticklebacks and fathead minnows. In our view, bioassay monitoring will not provide enough information to determine the impact of the discharge on the receiving water's assimilative capacity. As discussed below, Valero must address this impact by submitting an Antidegradation Report. Additionally, please be aware that Order No. 2002-0112 requires Valero to conduct bioassay monitoring on rainbow trout and fathead minnows. B5

Protection of Aquatic Life and Human Health

On Page 4.3-15, the Report indicates that if effluent does not cause the death of test organisms above a specified level, the effluent is unlikely to significantly impact representative organisms in the aquatic environment. While we agree that bioassay monitoring is one of the more important tools for showing that effluent is not toxic to a wide range of aquatic life, it does not necessarily mean that aquatic life will remain unaffected. To ensure that the discharge protects aquatic life, Valero must also meet concentration limits for pollutants that could pose toxicity to aquatic life. As such, the Report should indicate that the proposed increase in crude throughput should not cause the concentration of pollutants to increase. B6

The main concern with the increase in crude throughput and the associated increase in wastewater flows, relates to an increase in the mass of pollutants discharged, which is more of a concern for pollutants that pose a risk to human health through food chain bioaccumulation. Provision D.2 of Order No. 2002-0112, requires Valero to submit an Antidegradation Report that evaluates if the increase in flow and/or pollutant loads is consistent with Resolution No. 68-16 *Statement of Policy with Respect to Maintaining High Quality of Waters in California*. Specifically, the Antidegradation Report must show the measures Valero will implement to minimize the mass of pollutants discharged and evaluate the capacity of each treatment unit. We recommend that this section of the Report include this requirement. B7

Flood Control

The Report should require that Valero ensure that facilities used for transport, treatment, or disposal of wastes are adequately protected against overflow or washout from a 100-year frequency flood, as required by Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits (Standard Provisions) General Provisions A.7. The Report acknowledges this requirement on page 4.9-20, when it mentions modifications to the crude tank farm area. But on page 4.9-24, the Report indicates that if additions to wastewater treatment plant facilities are necessary, Valero will need to follow flood hazard mitigation measures as determined by the City of Benicia. We request that the Report also mention the necessity of complying with Standard Provisions A.7. B8

Water Supply/Water Reuse

On Page 4.14-5, the Report indicates that Valero has proposed to use treated wastewater from the City of Benicia's wastewater treatment plant as cooling water. We support this effort and want to emphasize that Order No. 2002-0112 allows Valero to receive intake credits for certain pollutants in treated wastewater if it can demonstrate that increases in concentration will not cause acute toxicity to aquatic life. B9

We appreciate the opportunity to comment on the Report. If you have any questions concerning the above, please contact Robert Schlipf at (510) 622-2478.

Sincerely,

Loretta K. Barsamian
Executive Officer

Shin-Roei Lee
NPDES Division Chief

LETTER B – CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, SAN FRANCISCO BAY REGION

B1 An organic polymer (ferric chloride) is added to the wastewater treatment stream after the corrugated plate separators, this comment clarifies the polymer is added after the wastewater treatment has received biological treatment. In response to this comment, text is added to Page 4.9-5, the last paragraph, second line, as follows:

> Oily wastewater streams are first treated in corrugated plate separators~~, which provide separation of the oil and suspended solids from the wastewater. An organic polymer (ferric chloride) is added, which co-precipitates selenite and enhances flocculation, to the wastewater before it enters the induced static flotation units.~~ and induced static flotation units to remove oils and solids. Most of the non-oily waste stream from the sour water stripper (stripped sour-water) is initially aerobically treated in two prebiox activated sludge units. A smaller portion of the stripped sour water is then combined with the oily wastewater streams and the prebiox effluents and is treated in three parallel, activated sludge biological treatment units to which powder activated carbon is added. Treatment continues with three clarifiers in parallel. Effluent from the clarifiers is discharged to an induced air flotation (IAF) unit, which provides additional solids removal. From the IAF unit, wastewater flows to a reactor clarifier where ferric chloride is added to co-precipitate selenite. Polymer is also added to enhance flocculation. Caustic is then added for pH control and wastewater flows to a sump. From the sump, effluent is pumped to Outfall 001 (RWQCB, 2002). The coagulated solids that float to the surface of the ISF units are skimmed before returning to the treatment cycle. The skimming of these solids results in the production of waste sludge that is disposed of at the Kettleman Hills Class I landfill in Kettleman City, California. Kettleman Hills Landfill is a Class I facility that accepts most types of hazardous waste for treatment, storage, and/or disposal and provides stabilization, solidification, macro and micro encapsulation and landfill of hazardous sludge. Currently, the refinery ships waste sludge from its wastewater treatment area to Kettleman Hills Landfill roughly once every three days.

Text also replaces paragraphs 3, 4, 5, and 6 on Page 3-17 as follows and Figure 3-5 on page 3-19 is replaced with the new Figure 3-5:

> Oily wastewater streams are first treated in corrugated plate separators, and induced static flotation units to remove oils and solids. Most of the non-oily waste stream from the sour water stripper (stripped sour-water) is initially aerobically treated in two prebiox activated sludge units. A smaller portion of the stripped sour water is then combined with the oily wastewater streams and the prebiox effluents and is treated in three parallel activated sludge biological treatment units to which powder activated carbon is added. Treatment continues

> with three clarifiers in parallel. Effluent from the clarifiers is discharged to an induced air flotation (IAF) unit, which provides additional solids removal. From the IAF unit, wastewater flows to a reactor clarifier where ferric chloride is added to co-precipitate selenite. Polymer is also added to enhance flocculation. Caustic is then added for pH control and wastewater flows to a sump. From the sump, effluent is pumped to Outfall 001 (RWQCB, 2002).

These text changes add information about the Valero wastewater treatment processes and do not affect the analysis or alter the conclusions of the Draft EIR.

B2 In response to this comment, text is changed on Page 4.9-9 of the Draft EIR, third full paragraph, as follows:

> The discharge limitations for Outfall 001 are summarized for effluent mass loading, which is the total effluent discharge of each pollutant included in Section 303(d) of the federal Clean Water Act (see Section 4.9.2.3), and for concentration limits in the RWQCB NPDES Order (RWQCB 2002a). Interim effluent limitations were derived for those constituents that the refinery has demonstrated ~~that~~ for which compliance is infeasible. For copper and selenium, final water quality based effluent limitations are based on the California Toxics Rule, and therefore, the permit indicates that interim limits shall remain effective for five years (until January 1, 2008). However, for lead, mercury, and nickel, final water quality based effluent limitations are based on the San Francisco Basin Plan, and therefore, the permit allows interim limits to remain effective until March 31, 2010. ~~Specifically, the RWQCB NPDES Order has established a five-year compliance schedule for copper, selenium, lead, mercury, and nickel.~~ A ten-year compliance schedule has been established for dioxin toxic equivalency (dioxin TEQ). In addition, a data collection period has been set (present – May 18, 2003) to gain a sufficient amount of data for cyanide; whereas, the RWQCB intends to include, in a subsequent permit revision, a final limit on the study results (RWQCB 2002a).

This additional detail does not alter the analysis or conclusions of the Draft EIR.

B3 In response to this comment, text is changed on Page 4.9-9 of the Draft EIR, second full paragraph, as follows:

> Final ~~E~~effluent limitations contained in Order No. 2002-0112 are based on whichever criteria (marine or fresh water) would result in the most stringent limit. ~~are derived from marine criteria and have been included in the RWQCB NPDES Order for the refinery.~~ The State Board's Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy, or SIP) allows background ambient monitoring data to be determined on a discharge-by-discharge or water body-by-water body basis. The RWQCB has chosen to use a water body-by-water body

> basis because of the uncertainties inherent in accurately characterizing ambient background in the complex San Francisco Bay estuarine system. The Yerba Buena Island and Richardson Bay Stations fit the guidance for ambient background in the SIP compared to other stations in the Regional Monitoring Program. The RWQCB believes that data from these stations are representative of water that will mix with the discharge from Outfall 001 (RWQCB 2002a).

This additional detail does not alter the analysis or conclusions of the Draft EIR.

B4 In response to this comment, text is changed on Page 4.9-9 of the Draft EIR, fourth full paragraph, as follows:

> Toxicity bioassays are required for Outfall 001 discharges. These bioassays consist of placing ~~three-spine stickleback~~ rainbow trout and Fathead minnow ~~(or rainbow trout)~~ in undiluted treatment plant effluent and evaluating their survival over a 96-hour period. The permit limitation on the toxicity tests requires an eleven sample median value of not less than 90 percent survival and 90th percentile value of not less than 70 percent survival. ~~a survival rate of not less than 50 percent~~. Discharge from Outfall 001 is also subject to the following receiving water limitations: ...

B5 As stated in the Draft EIR, the current NPDES permit includes limitations on effluent constituents to avoid deleterious effects, essentially a functional standard as opposed to a unit concentration threshold. By its comment, the RWQCB establishes that, in effect, current concentrations are at that level now, and therefore the RWQCB requires an Anti-Degradation Report. This Report will establish that increased crude throughput will not result in increase pollutant concentrations as per Order No.2002-0112. With this response, the Report and standards set by the Order are considered project requirements.

Water quality and quantity impacts and the requirements for Valero to complete an Anti-Degradation Report are discussed in the Draft EIR in Impacts 4.9-1 and 4.9-2 on pages 4.9-19 through 22.

B6 The text of the first paragraph on page 4.3-15 is revised to add this statement:

> If these conditions continue to be met, the levels of contaminants resulting from the project should not have a significant effect on the more susceptible special status fishes as noted above. To ensure that the discharge protects aquatic life, for its NPDES permit, Valero must also meet concentration limits for pollutants that could pose toxicity to aquatic life. The proposed increase in crude throughput should not cause the concentration of pollutants to increase.

B7 The commentor recommends that the Anti-Degradation Report be included in the biology section of the report due to the potential increase of pollutants in wastewater discharge having a potential impact to human health through food chain bioaccumulation. The

Anti-Degradation report will show measures Valero must undertake to minimize mass of pollutants discharged. The Draft EIR text is revised to add this clarification by adding the following text to page 4.3-15, immediately after the inserted text described in response to comment B6, above.

> Further, to strictly limit the mass of pollutants discharged, and therefore the mass of any pollutants that could pose a risk to human health through food chain bioaccumulation, Valero must also meet discharge flow and/or pollutant load limits for pollutants consistent with Resolution No.68-16 Statement of Policy with Respect to Maintaining High Quality of Waters in California. Specifically, as required by the RWQCB, the Anti-Degradation Report must show those measures Valero will implement to minimize the mass of pollutants discharged and must evaluate the capacity of each treatment unit. (See Section 4.9 for a more detailed discussion of these RWQCB requirements.

B8 The Draft EIR has addressed additions that may be made to the wastewater treatment facilities in the Impact 4.9-2 analysis. As stated, Valero is required to comply with the limitations of the NPDES Permit Order if there are any additions to the wastewater treatment facilities. The explanatory paragraph following Impact 4.9-6, page 4.9-24 of the Draft EIR is revised as follows:

> The refinery's wastewater treatment plant is located within a 100-year flood zone. Components of the project include support facilities that may be needed. These facilities are dependent on the water reuse design and NPDES permitting requirements and may include any of the facilities that are described in Section 3.4.3.13, *Wastewater Treatment*. If additions to the facilities at the Wastewater Treatment Plant are determined to be necessary, flood hazard mitigation measures in ~~accordance~~ compliance with the City of Benicia Floodplain Management Policy and the Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits (Standard Provisions) General Provisions A.7 are required to be included in the design criteria. This will comply with construction standards established by the California Building Code.

B9 The Regional Water Quality Control Board's support for use of reclaimed water is acknowledged.

DEPARTMENT OF TRANSPORTATION
111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5505
FAX (510) 286-5513
TTY (800) 735-2929

Letter C

Flex your power!
Be energy efficient!

Clear 12.16.02 e

December 16, 2002

SOL-780-2.02
SOL780027
SCH# 2002042155

Mr. Lamont Thompson
City of Benicia
Community Development Department
250 East L Street
Benicia, CA 94510

Dear Mr. Thompson:

VALERO IMPROVEMENT PROJECT – DRAFT ENVIRONMENTAL IMPACT REPORT

Thank you for including the California Department of Transportation (Department) in the environmental review process for the above-referenced project. We have reviewed the Draft Environmental Impact Report, and have the following comments.

1. Impact 4.13.1 states that the construction phase of the VIP would result in a potentially significant impact to the A.M. peak hour operations of Interstate 680 northbound off-ramp/Bayshore Road and that Mitigation Measure 4.13.1 is recommended. However, this mitigation measure as described on Page 4.13.1 and Page 4.13.18 offer differing peak periods of implementation. Please clarify if this mitigation measure, including traffic control personnel, will be implemented for only the A.M. peak hour or both the A.M. and P.M. peak periods. C1

2. Mitigation during construction should also include the monitoring of other studied intersections, including the used of manual traffic control if necessary, particularly if construction related traffic causes any queuing that extends into freeway lanes. C2

3. Please be advised that work or traffic control measures that encroach onto the State right-of-way (ROW) will require an encroachment permit that is issued by the Department. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans, clearly indicating State ROW, need to be submitted to the following address: C3

Sean Nozzari, District Office Chief
Office of Permits
California DOT, District 4
P.O. Box 23660
Oakland, CA 94623-0660

Please call Rick Kuo of my staff at (510) 286-5988 if you have questions regarding this letter.

Sincerely,

Timothy C Sable

TIMOTHY C. SABLE
District Branch Chief
IGR/CEQA

c: Katie Shulte Joung (State Clearinghouse)

Subject: Re: Valero EIR - comments
From: "Colette Meunier" <Colette.Meunier@ci.benicia.ca.us>
Date: Fri, 01 Nov 2002 11:15:59 -0800
To: "Lamont Thompson" <Lamont.Thompson@ci.benicia.ca.us>, <khammer@northvalley.com>

Kitty and Lamont, please note. Colette

5

>>> Dan Schiada 11/01/02 10:48AM >>>
I reviewed the draft EIR for the Valero VIP project and have the following comments relating to Public Works (with the exception of the City utility and water supply issues) These issues will need to be reviewed by Chris Tomasik:

- Page 2-17, there should be mitigation measures listed for Impact No. 4.9-7. The impacts from construction needs to include measures such as a Storm Water Pollution Prevention Plan (SWPPP), compliance with the City's Grading/Erosion Control Ordinance, and Best Management Practices (BMP's) in accordance with the requirements of the State Regional Water Quality Control Board (RWQCB). These requirements and regulatory mandates are described on pages 4.9-7 through 4.9-27, so why are they not listed as mitigation measures? D1

Page 4.9-1 - The summary does list the need for storm water discharges to meet the requirements of the RWQCB, but this should be listed as a mitigation measure. D2

Page 4.9-25 - This section needs to list as a mitigation, storm water pollution prevention measures that will need to be implemented during construction. This will need to include a SWPPP, compliance with the City's Grading/Erosion Control Ordinance, and BMP's in compliance with the RWQCB's requirements. D3

LETTER D – CITY OF BENICIA

D1 The Draft EIR recognizes the terms and conditions of the NPDES Permit No. CA0005550 – RWQCB Order No. 2002-0112, discussed on pg.4.9-14 of Section 4.9.2.3, and compliance requirements of the City of Benicia's Grading/Erosion Control Ordinance, discussed on pg.4.9-16 and 17 in Section 4.9.2.3, as a project requirement required by law and is not a mitigation measure. The RWQCB NPDES Order contains monitoring and storm water management requirements and, as stated in Impact 4.9-2 on pg. 4.9-22, Valero is required to comply with a storm water pollution prevention plan. In addition, on pg.4.9-16 in Section 4.9.2.3, Valero must follow waste discharge requirements contained in the RWQCB NPDES Order, which include site-specific Best Management Practices. Actions that are required by law need not be included as project mitigation measures.

D2 Please see the response to Comment D1 for the discussion of project requirements and mitigation measures.

D3 Please see the response to Comment D1 for the discussion of project requirements and mitigation measures.

Letter E

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse

Gray Davis
Governor

Tal Finney
Interim Director

December 17, 2002

Lamont Thompson
City of Benicia
250 East L Street
Benicia, CA 94510

Subject: Valero Improvement Project
SCH#: 2002042155

Dear Lamont Thompson:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on December 16, 2002, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

E1

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
(916)445-0613 FAX(916)323-3018 www.opr.ca.gov

LETTER C – CALIFORNIA DEPARTMENT OF TRANSPORTATION

C1 The intent of Mitigation Measure 4.13.1 is to mitigate the forecast significant traffic impacts (i.e., high volume of inbound construction workers) at the I-680 northbound off-ramp/Bayshore Boulevard intersection in the a.m. peak hour only. The traffic analysis forecasts no significant impacts at this intersection in the p.m. peak hour. Note that as discussed in Section 3.5.4 – Project Description, Valero proposes to manage construction traffic in consultation with the City of Benicia. The text of Mitigation Measure 4.13.1, page 4.13-18, is revised as follows:

> **Mitigation Measure 4.13-1: Since this significant impact would be temporary and only occur for a period of approximately 45 days, there are several measures that can be applied to improve intersection levels of service <u>at the I-680 northbound off-ramp / Bayshore Boulevard intersection</u> without the installation or construction of additional transportation facilities (e.g., lane widening, traffic signal installation, etc.). Implementation of these measures would effectively reduce the a.m. ~~and p.m.~~ peak hour construction traffic volumes at the project site.**

C2 The traffic analysis forecasts that significant project impacts would not occur at other project study area intersections other than at I-680 northbound off-ramp / Bayshore Boulevard. Therefore, no other project mitigation measures were prescribed.

C3 The requirement for an encroachment permit is noted in the bulleted text on page 4.13-18. The comment supplies the correct address and submittal requirements necessary to obtain the permit.

Letter E

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse

Gray Davis
Governor

Tal Finney
Interim Director

December 17, 2002

Lamont Thompson
City of Benicia
250 East L Street
Benicia, CA 94510

Subject: Valero Improvement Project
SCH#: 2002042155

Dear Lamont Thompson:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on December 16, 2002, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

E1

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
(916)445-0613 FAX(916)323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2002042155
Project Title Valero Improvement Project
Lead Agency Benicia, City of

Type EIR Draft EIR

Description The Valero refinery proposes to install new equipment and modify existing equipment to enable the refinery to process lower grades of raw materials and substitute raw materials, and to increase production by about 10%. Project components would be installed between 2003 and 2009.

Lead Agency Contact

Name Lamont Thompson
Agency City of Benicia
Phone 707/746-4280 **Fax**
email
Address 250 East L Street
City Benicia **State** CA **Zip** 94510

Project Location

County Solano
City Benicia
Region
Cross Streets East Second Street, Park Road
Parcel No. 80-110-04, 12, 48 and 80-120-01
Township **Range** **Section** **Base**

Proximity to:

Highways I-680/I-780
Airports
Railways Union Pacific
Waterways Carquinez Strait
Schools
Land Use IG, General Industry, existing refinery.

Project Issues Air Quality; Aesthetic/Visual; Archaeologic-Historic; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Noise; Public Services; Sewer Capacity; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Wetland/Riparian; Wildlife; Growth Inducing; Landuse; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 2; Department of Parks and Recreation; San Francisco Bay Conservation and Development Commission; California Highway Patrol; Caltrans, District 4; Air Resources Board, Major Industrial Projects; State Water Resources Control Board, Division of Water Rights; Regional Water Quality Control Bd., Region 5 (Sacramento); California Energy Commission; Native American Heritage Commission; Public Utilities Commission; State Lands Commission; Other Agency(ies)

Date Received 10/31/2002 **Start of Review** 10/31/2002 **End of Review** 12/16/2002

Note: Blanks in data fields result from insufficient information provided by lead agency.

LETTER E – STATE OF CALIFORNIA OFFICE OF PLANNING AND RESEARCH

E1 This letter acknowledges state agency review of the Draft EIR and transmits comments from all Agencies that elected to comment.

C. ORGANIZATIONS COMMENTING ON THE DRAFT EIR

Bay Planning Coalition	December 02, 2002
Benicia Chamber of Commerce	December 02, 2002
Good Neighbor Steering Committee	
Dana Dean	December 16, 2002
Marilyn Bardet / Elizabeth Patterson	December 16, 2002
Marilyn Bardet	December 16, 2002
Sue Kibbe	Undated
Bradford MacLane	December 16, 2002
Mary Shaw	Undated
Edward Swenson	December 11, 2002
Susan Wickham	December 13, 2002
Marilyn Bardet / Elizabeth Patterson	December 17, 2002
Sierra Club (Jerri Curry)	December 05, 2002

Letter F

BAY PLANNING COALITION
10 Lombard Street, Suite 408
San Francisco, CA 94111-6205
☎ 415/397.2293 fax: 415/986.0694
staff@bayplanningcoalition.org
www.bayplanningcoalition.org

December 2, 2002

Ms. Bonnie Silveria, Chairwoman
Benicia Planning Commission
City of Benicia
250 East L Street
Benicia, 94510

Dear Chairwoman Silveria and Commissioners,

The Bay Planning Coalition is a membership-based, nonprofit organization representing a broad spectrum of the Bay area's marine industry, shoreline business, local government and recreational users. We monitor and advise the state and federal agencies on the implementation of the regulations and policies that govern the environmental permit process. We support a permit and planning process for bay projects and activities that provide for balanced regulation of Bay-Delta environmental and economic resources.

It is with these objectives in mind that we are pleased to provide comments and endorse the Valero Improvement Project (VIP).

We take positions of endorsement for projects that achieve multiple public benefits on behalf of the environment and the economy. We also support projects that achieve a broad vision, and that seize opportunities for environmental performance and public-private partnerships. The VIP, which will reuse a large quantity of the City's wastewater and result in a 55% reduction in air emissions, is such an innovative project. F1

We urge the Benicia Planning Commission to thoroughly review and expeditiously advance this permit application through the environmental review process, as timing is critical. F2

Sincerely yours,

Ellen Joslin Johnck
Executive Director
cc: Otto Giuliani, City Manager
Michael Throne, Senior Civil Engineer

LETTER F – BAY PLANNING COALITION

F1 This comment supporting project approval is acknowledged.

F2 This comment supporting project approval is acknowledged.

Letter G

BENICIA
Chamber of Commerce
and Visitors Center

601 First Street, Suite 100
Benicia, California 94510

Telephone (707) 745-2120
Fax (707) 745-2275

December 2, 2002

Ms. Bonnie Silveria
Chair, Benicia Planning Commission
City of Benicia, City Hall
250 East L Street
Benicia, CA 94510

Dear Chair Silveria and Commissioners,

I am writing on behalf of the 600-member Benicia Chamber of Commerce specific to the proposed Valero Improvement Project (VIP). Subsequent to a review, the Chamber Board of Directors has concluded that the draft Environmental Impact Report (DEIR) adequately addresses the project scope and mitigates significant adverse environmental impacts to an acceptable level.

We support the type of Environmental Impact Report chosen by the City of Benicia and note that, in our opinion, it comports with both the spirit and letter of California law. The City constructively proposed the hiring of an independent firm to analyze and conduct the DEIR, which further added to the document's validity and accuracy. G1

We applaud the efforts of both the City and Valero to communicate with the community about VIP. In that regard, we note that in the proceeding 12 months Valero has hosted two public Community Advisory Panel meetings, two open forums on air and water emissions, 24 VIP tours of the refinery for interested community organizations and members, has provided information through their community newsletter, secured the endorsement of key community organizations and business groups and commented no less than 40 times in the local news media regarding the proposed project. G2

The City, to its credit, has hosted two public workshops on VIP, a CEQA informational session, a VIP open house at City Hall, added a link to the City's web page on VIP, provided numerous copies of the DEIR at the Library and has more than adequately publicized VIP hearings in the local media.

In all, there is no doubt that the City and Valero have engaged in an extraordinary effort to communicate about VIP, has conducted significant analysis of the project and has complied with the requirements under the California Environmental Quality Act (CEQA).

Thank you for the opportunity to submit comments on the DEIR and please continue to inform the Chamber of future environmental notices and subsequent documents issued for this project proposal.

Sincerely,

Scott Goldie sc

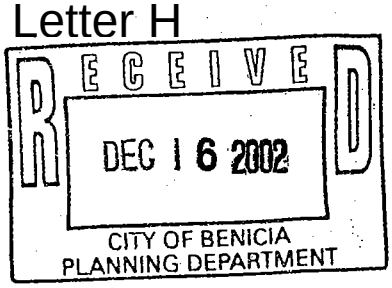
Scott Goldie
Chairman of the Board

LETTER G - BENICIA CHAMBER OF COMMERCE

G1 This comment supporting the City's conduct of the EIR process is acknowledged.

G2 This comment supporting public communication efforts made by the City and Valero is acknowledged.

Letter H



Good Neighbor Steering Committee
PO Box 1515
Benicia, California 94510

December 16, 2002

Community Development Department
250 East L Street
Benicia, California 94510
Attn: Lamont Thompson

Subject: Comments on Draft Environmental Impact Report for the Valero Improvement Project (SCH#2002042122)

Dear Mr. Thompson:

The public comment period for the Draft EIR closes today, December 16, 2002. The next phase of the process requires those who prepared the EIR to prepare responses to the public comments. Given the magnitude of the new information that will be incorporated into the revised EIR, we believe compliance with CEQA will require re-circulation of the revised draft EIR. Recirculation is required "when significant new information is added to an environmental impact report" after completion of the public review and comments on the initial version of the Draft EIR. (Pub. Res. Code Sec. 21092.1) H1

The recirculation is necessary for the public to have an opportunity for any kind of meaningful review of the new information and the related analysis and consideration in the EIR. The public must be given the opportunity "to test, assess, and evaluate the data and make an informed judgment as to the conclusions to be drawn therefrom." (*Save Our Peninsula Committee v. Monterey Co. Board of Supervisors*

FILE COPY

(2001) 87 Cal.App.4th 99, citing *Sutter Sensible Planning, Inc. v. Bd. of Supervisors* (1981) 122 Cal.App.3d 813, 822.) H1 cont.

Perhaps equally important to this issue is that the City of Benicia in its role as Lead Agency cannot release a Draft EIR "that hedges on important environmental issues while deferring a more detailed analyses to the final (EIR) that is insulated from public view." *(Mountain Lion Coalition v. Fish and Game Com.* (1989) 214 Cal.App.3d 1043) H2

The process of curing the deficiencies in the Draft EIR that was initially submitted for public review and comment requires the addition of significant new information to the Draft EIR relating to very important, but previously unanalyzed, aspects of the VIP. We believe that in order to meet the spirit and legal requirements of CEQA, recirculation of the revised Draft EIR for public review and comment is required. H3

I.
INTRODUCTION

The Good Neighbor Steering Committee (GNSC) largely consists of concerned residents of Benicia who have long expressed concerns about the potential impacts of the Valero Refinery on our community. We have worked to secure increased protections for the health and safety of all Benicians as well as increased availability of information for the community about what those impacts really are. Additionally, we have worked over the past year to try to understand the proposed refinery expansion project. We have steadfastly expressed environmental and public health concerns regarding the proposed expansion of the Valero refinery. H4

While we understand that Valero has a need to adjust its operations to meet changing competitive market conditions and to adapt to changes in the type of crude that will be available for future refining at their Benicia facility, we remain *deeply concerned* about the potential impacts of this project. Therefore, we believe the CEQA process should be *scrupulously observed* in order to afford Benicians proper opportunity to fully evaluate this project. H5

Members of the GNSC have actively participating in the Community Advisory Panel (CAP) established by the Council to help express these and other community concerns to Valero management as well as help the community understand the workings of the refinery, generally and this proposed modification, specifically. In addition to working on the CAP, members have attended City of Benicia sponsored workshops and Planning Commission and City Council meetings that were initially held to introduce the VIP to the community and used to help draft the initial scope of the proposed DEIR. H6

Like others in the community, we have spent many, many hours studying this Draft EIR. We recognize that the firm that contracted with the City to prepared the EIR was charged with a very difficult task given the "flexibility" demanded in the project description by Valero. However, after all those hours of workshops, meetings, and document review, we have concluded that the Draft EIR is "so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded." (*Mountain Lion Coalition v. Fish and Game Com.* (1989) 214 Cal.App.3d 1043.) H7

II.
THE DRAFT EIR IS INADEQUATE.

The Draft EIR is inadequate because it fails to describe the impacts of the project such that members of the public can make a meaningful decision about the project's impact. Simply put, we have spent many hours studying this draft document and still cannot determine what impacts the project will actually have on the community. H8

What we do know is that there is enough missing information and analysis in the Draft EIR that the repeated findings echoed in the summary and other sections of the draft document that that there will be no significant impact to the many elements covered results in a document *that lacks credibility.* What we also know is that the inadequacies are so significant that simply patching responses to comments to the end of the draft document and then re-titling the draft document as a final EIR will not meet the requirements of CEQA. H9

The Draft EIR is inadequate, needs to be corrected, and then re-circulated in part for the reasons that are described below:

1. The project description is misleading and inadequate. For example, the community was told by Valero throughout nearly all of the community outreach program, and in the draft EIR, that it is committed to improving the environment by installing pollution scrubbers on the main stacks and by reusing reclaimed water from the waste water treatment plant in order to significantly reduce its overall demand on the limited water resources available to the City of Benicia. The draft EIR makes constant reference to installing both those components of VIP as important to the goals and objective of VIP. H10

The average citizen now believes that these two elements of VIP will be incorporated as part of the project. Valero is now emphasizing the importance of flexibility and the increased probability that it will not install the scrubbers and will not legally bind itself to reclaimed water reuse. The project description needs to begin with the "Kernel VIP" that includes only the three or four elements of the larger VIP that Valero is intent on completing. What is increasingly clear is this will not include the scrubber or the use of reclaimed water. The EIR alternatives should then reflect the addition of these other optional elements in the larger VIP vision. H10 cont.

2. As currently presented in the draft EIR, the average citizen cannot gauge the impact of just the "Kernel VIP" on the environment and its consistency with the General Plan, much less the larger refinery expansion envisioned in the original VIP. As an example, it appears to be the case that what we describe as the "Kernel VIP" will require construction of additional crude oil storage tanks and that Valero has concluded that their construction in the *existing buffer zone* is the preferred environmental alternative. There has been no public discussion of this alternative for oil storage tank construction in the buffer zone in part because of the manner in which the project was described in the Draft EIR. H11

3. The Summary of Environmental Impacts, which many Benicians have used as their primary source for a basic understanding of the project, is misleading. This is because it has incorporated *possible mitigations* in the portion of the document that is supposed to describe the project components standing on their own. The impacts of the naked project components should have been listed out, and *then*, the possible mitigations considered. The result of this critical error is that members of the public have been left with the false H12

impression that the project components standing on their own will have little or no impact. H12 cont.

4. The reliance in the document on the requirements of other agencies, *especially those that are as yet undefined*, and that are labeled in the Draft EIR with indicators labeled "No impact" or "Less than significant impact" does not satisfy the requirement to describe the impacts project fully. H13

5. Certain necessary documents, those relied upon to make assumptions adopted in the EIR, have not been made available in the draft EIR itself. Examples include the content of existing water agreements between Valero and the City of Benicia. H14

6. Important data relating to existing base levels of pollution were not investigated and analyzed. One example is the data from the monitoring stations located on the perimeter of the refinery. The existence of the data was noted but that no effort was made to obtain and analyze the data. H15

7. The draft documents fails to adequately address the issue of "sustainability" as required by the City of Benicia General Plan. H16

8. Based upon information provided by staff during the final Planning Commission hearing, the water demand generated by VIP now requires that VIP meet the requirements of a "project" under the requirements of SB 610 and related state laws. The City's existing water management plans *are out of date* and do not reflect many changes in environmental, legal, and contractual availability of water to the City of Benicia. The Draft EIR relied upon this H17

outdated water plans and upon future water sources that are speculative and inconsistent with the requirements of SB 610. The final EIR cannot be certified without this up to date and accurate water plan – a plan that does not rely upon speculative future water sources.

H17 cont.

9. Finally, there is the very confusing issue of how to address the cumulative impacts of the various possible components of the "Larger VIP", for lack of a better word the "Kernel VIP", and other development activities (projects) currently in progress or proposed for the Valero Refinery. The Draft EIR is inconsistent in the treatment of cumulative benefits and potentially harmful impacts to such an extent that the entire document runs the risk of being labeled misleading.

H18

III.
THE DRAFT EIR SHOULD BE RE-CIRCULATED BECAUSE NEW INFORMATION SURFACED DURING THE COMMENT PERIOD.

The Draft EIR should be re-circulated in light of new information that a water source relied on in the analysis presented in the Draft EIR may now be unavailable. One of the elements in the Draft EIR that received much public comment is the water resource section of the document. Again, there were many inadequacies noted by commenters that will require new analysis and comments by the preparers of the EIR. However, new information has been brought to the attention of the GNSC. One of the future sources of water described in the draft document is the Mojave Water project. According to the draft EIR, the City of Benicia would he able to draw 5,000 acre feet of water during "dry" years. We have now learned that the Mojave

H19

Water Project has ceased to exist.[1] The Planning Staff, or firm preparing the draft EIR, during the final public hearing, did not share that information with the community.

There are many problems with this section of the report, but the impact of changes in the availability of water in dry years is of paramount importance to many citizens of Benicia. The Valero refinery is responsible for close to half of the overall water demand in the City. Because the community was not informed of this change during the final Planning Commission hearing, residents have been deprived of information necessary to evaluate the impact of the proposed VIP and reach accurate, meaningful, conclusions. H19a

IV.
CONCLUSION

Attached you will find comments from various members of GNSC as well as other concerned Benicians from whom we requested comments. We also note that we have received and reviewed many other submissions from other Benicians who have invested considerable time and effort in an attempt to understand and review this document. To the extent that those outside comments reflect the concerns outlined above (i.e. misleading comments, missing references, etc.) we incorporate them by reference herein. H19b

We want to emphasis that in submitting these comments on the draft EIR we express no opinion on the merits of the project itself. In other words, we are not *per se* opposed to it. However, it is critical to this multiple year project that the residents

[1] See National Parks Conservation Association Magazine: December News, 2002 ("The board of the Metropolitan Water District (MWD) of Southern California voted in October to scrap the $150 million project proposed by Cadiz Inc...."The Cadiz project at this point does not represent reliability" said MWD board member Timothy Brick. " (Full text attached.)

be provided with a readable, understandable and accurate document upon which they can rely upon to gauge the impact of the proposed refinery expansion on the health of their families and the entire community.

Because the health and safety of Benicians should be the paramount concern of all involved, we must insist that the project be properly and more thoroughly evaluated. To that end, we look forward to working with the City Council, and staff, to obtain a final EIR that is meaningful and accurately communicates the nature and impact of the proposed Valero refinery expansion. We are also committed to continuing to work with Valero in order to promote their corporate mission to provide refined crude oil products to residents of the State of California, as long as to do so does not disproportionately affect the health and safety of Benicians. H19b cont.

We appreciate the pressure on the City to move forward quickly on this very complex project. However, given the inadequacies of the Draft EIR, and the paramount importance of this process, we are firm in our belief that proper respect for the community's right to a document that meets both the spirit and legal requirements of CEQA requires that the City re-circulate the rewritten Draft EIR.

Thank you for your time and consideration on this most important matter.

Sincerely,

Dana Dean
Spokesperson
Good Neighbor Steering Committee
P.O. Box 1515
Benicia, Ca 94510

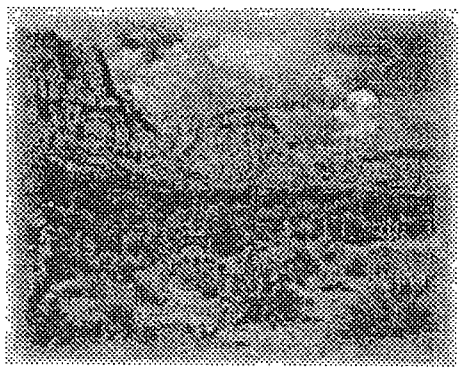
NATIONAL PARKS CONSERVATION ASSOCIATION

TAKE ACTION ◆ EXPLORE THE PARKS ◆ CULTURAL DIVERSITY ◆ WILD ALASKA ◆ ACROSS THE NATION ◆ WILDLIFE PROTECTION ◆ MARINE & COASTAL

MAGAZINE

Water Project Plans at Mojave Evaporate

Critics feared the project would threaten desert wildlife.

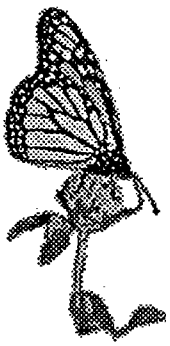


MOJAVE N.PRES., CALIF.—Plans for a massive water project that many feared would threaten the fragile ecosystem of the Mojave Desert have dried up.

The board of the Metropolitan Water District (MWD) of Southern California voted in October to scrap the $150 million project proposed by Cadiz Inc. The project would have mined groundwater from the aquifer beneath Cadiz's land in the Mojave Desert to sell at a profit to southern Californians.

Courtney Cuff, NPCA's Pacific regional director, said the board's decision would protect California's deserts from a "potential disaster."

> "We couldn't hope for a better outcome to this environmentally flawed and economically unsound proposal," said Cuff. "[MWD] had the courage to stand up to gluttonous corporate interests and prevent damage to national treasures."



Dec. 2002 — Additional Comment; Federal EPA has ruled that California cannot take any more "surplus water" from the Colorado River — so that any plan such as CADIZ PROJECT proposed, to re-inject aquifers with Colorado water is now impossible.

H20

Cadiz stood to earn as much as $1 billion over 50 years from the project, which included plans to store up to 1.5-million-acre-feet of surplus Colorado River water in the aquifer. Cadiz hoped to sell the water to MWD, which sells water wholesale to local agencies. Critics said the project would have seriously lowered the area's water table, causing shortages and dust storms that would be harmful to wildlife such as the desert bighorn sheep and desert tortoise.

"The project threatened the environment, made no economic sense, and would likely have advanced private interests at the expense of the public trust," said Cuff. "By mining groundwater, Cadiz would have, in effect, taken water out faster than natural cycles can replace it."

The aquifer supports four wilderness areas and Mojave National Preserve. The threat posed by the project compelled NPCA to include Mojave National Preserve on its "Ten Most Endangered

FILE COPY

National Parks" list earlier this year.

Opponents of the project did not believe that Cadiz would have spotted potential problems—such as groundwater overdraft—in time to prevent dust clouds. They also did not approve of construction of intrusive facilities, such as a large pipeline and five-story power lines and towers, across the desert.

The Department of Interior green-lighted the project in September, heightening concerns. But, in a surprising twist, MWD decided to vote on the plan in October, much sooner than expected.

"The Cadiz project at this point does not represent reliability," said MWD board member Timothy Brick. "It represents just the opposite—risk."

Sen. Dianne Feinstein (D-Calif.) had publicly urged MWD to reject the proposal as both unnecessary and harmful to the Mojave Desert.

"To allow it to move ahead would be a terrible mistake," she said. "It does not make sense to siphon off water from this critical area of the California desert to send the MWD when the aquifer is vital to the health of the desert and its animal and plant life."

NPCA praised Feinstein for repeatedly expressing serious reservations about the environmental impacts of the project, and for relaying citizen concerns.

Opponents of the project also believed that Cadiz grossly overestimated the amount of groundwater it could have extracted from the Mojave aquifer, which would have rendered the cost of the project so high that consumers would have felt the pinch.

A recent *Los Angeles Times* editorial on the Cadiz project said that California voters would witness "another boondoggle," which would contribute to rising water prices if Cadiz's plan materialized. Other critics noted that private control of water in other states has sometimes resulted in higher prices and reduced water quality.

NPCA was a leading voice of opposition to the project for several years. In August, NPCA presented more than 3,000 letters from Californians opposing the Cadiz project to MWD, asking the board to nix it.

"We're thrilled to know that our concerns, and the concerns of thousands of Californians who opposed this senseless plan, were heard," said Cuff. "Our national parks, our wilderness areas, the more than 500,000 annual visitors to Mojave National Preserve, and all of California's residents are better off for this decision."

LETTER H – GOOD NEIGHBOR STEERING COMMITTEE: DANA DEAN

H1 See the discussion of recirculation in Master Response "CEQA", in Chapter III of this Response to Comments. The preparation of the response to comments is an integral part of the normal preparation of the Final EIR, and does not trigger the requirement for recirculation of the Draft EIR. The recirculation to which the commentor refers would indeed be necessary if "significant new information" were to be uncovered, but is not required just to clarify and further explain issues already presented and discussed in the Draft EIR.

H2 The writer does not identify the issues, so no response can be made here. Specific concerns identified in other portions of the comment letter are addressed below. See also Master Response "CEQA."

H3 See responses to Comments H1 and H2.

H4 The writer describes the Good Neighbor Steering Committee (GNSC) and its activities with respect to the VIP. This comment is acknowledged.

H5 The concern of the Good Neighbor Steering Committee (GNSC) with respect to the VIP is acknowledged.

H6 The comment with respect to GNSC activities is acknowledged.

H7 See Master Response "CEQA" and Master Response "Project Description."

H8 The impacts of the project are presented in considerable detail in Section 4 of the Draft EIR. More specific concerns identified in the comment letter are addressed below.

H9 See responses to comments H1 and H2 and Master Response "CEQA."

H10 The commentor asserts that the Project Description is misleading and inadequate, presumably because Valero's stated requirement for flexibility means that the main stack scrubber, or any other component of the VIP may not be built. The need for flexibility, an objective of the project, is stated in the Draft EIR (see section 3.4.1, p. 3-20, section 3.4.3, pp. 3-25 to 3-39, and section 3.5.1, pp. 3-52 to 3-54).

Valero has committed to use reclaimed water that the City would provide. Valero also committed to fund the development of a City wastewater reclamation facility to supply reclaimed water to the refinery.

As noted in the project description of the EIR (Section 3.4.3.12), additional raw water from the City's existing allocations would be used if there were to be no other suitable source of supply. The project description clearly states that the analysis of the VIP is based on the increased use of City raw water from existing allocations. The EIR seeks to

fully disclose the intent to use reclaimed wastewater when available and explains that no timetable has been set for construction of the City's wastewater reuse project. The EIR documents that it is not possible at this time to establish whether the construction of the City wastewater reuse project would coincide with the construction of the VIP (Section 3.6.2.3) and presents current information regarding the City reuse program. (Eisenberg, Olivieri, & Associates, City of Benicia Effluent Reuse Project Action Plan, Draft, July 11, 2002). See Master Response "Water."

The commentor's concept of the "Kernel VIP" is similar to the Draft EIR's concept of the "Main Stack Components", the five components that are essential to implementing the full VIP. The Main Stack Components include the Expanded Pipestill Crude Oil Processing Capacity (Draft EIR Section 3.4.3.1), FCCU Feed Flexibility (Section 3.4.3.2), Coker Expansion (Section 3.4.3.3), Increased Sulfur Removal and Recovery (Section 3.4.3.4) and New Main Stack Flue Gas Scrubber (Section 3.4.3.5). See, for example, Table 3-1, VIP Components, p. 3-26, and Section 3.5.1. These main stack components form the kernel of the VIP.

The approach in the EIR considered the full range of refinery facility and operational changes that could result from constructing and operating combinations of the various VIP components. After considering which combinations of project components actually could be developed, it became clear that the two combinations of project components that would result in the largest operating and environmental changes were the full VIP and the VIP without the Flue Gas Scrubber. The major distinctions for these two were that the full VIP results in air quality improvements at the expense of raw water use, while the VIP without the Flue Gas Scrubber avoids most raw water use at the expense of improvements in air quality. In this way, this approach yields a worst-case analysis of the impacts of the project and the project without the scrubber. Although it might be possible to postulate a combination of the VIP components that could result in significantly higher emissions or water use, or could result in some other important environmental impact, such a combination would prove infeasible because it would not meet project objectives, or could not meet BAAQMD permit requirements. The effects of both of the project and the project without the scrubber scenarios were traced for each of the impact categories in Sections 4.1 through 4.14 of the Draft EIR and were reported in those sections of the Draft EIR.

H11 The impacts of the VIP, including a discussion of its consistency with the General Plan, are presented and discussed in detail in Chapter 4 of the Draft EIR.

Valero's use permit application requests approval to construct its new crude tanks within the existing tank farm. The City identified construction of the tanks in the buffer zone as a possible alternative that could avoid the potentially significant impacts of construction in the existing tank farm. The potential environmental impacts of constructing the new tanks in the buffer zone are compared to the impacts of the VIP and discussed in Section 6.2.3, pp. 6-10 to 6-13.

The Draft EIR presents this information in the Alternatives chapter of the Draft EIR because the new tank location alternative was developed to respond to potential biology impacts of locating the new tanks on sites that now hold water some of the year and represent sensitive habitat. The Alternatives analysis recognizes that, while placing the tanks in the buffer zone would eliminate these specific biological impacts, it could cause other types of impacts.

CEQA mandates that alternatives to a proposed project be developed, analyzed and discussed in the Draft EIR. These alternatives are not proposed by Valero as a part of the proposed project.

H12 The Summary in the Draft EIR is made up of two parts. The first presents short texts to generally describe the overall findings of the Draft EIR, while the second part, Table 2-1, presents in detail both the impacts and the mitigations relevant to the VIP.

The Summary has been revised and updated in response to comments received on the Draft EIR and to the resulting changes in the Draft EIR that are described in Chapter VI, *Text Changes to the Draft EIR*. The revised summary Table 2-1 is presented in Chapter II of this Response to Comments.

H13 A realistic evaluation of the effects of constructing and operating any facility must consider the mitigating effects of the laws and regulations under which that construction and operation will take place.

For example, the assessment of the wastewater discharges related to the VIP is based on the fact that wastewater treatment facilities are required by law (the NPDES requirements) to be in place to process and remove pollutants from those discharges. It is not reasonable to assume that pollutants released to the receiving waters would be the uncontrolled levels in untreated waste. Instead, the best estimates of the actual pollutant discharges, the controlled levels, are used to assess the impact of the VIP.

H14 In accordance with the requirements of CEQA, the source documents cited in the Draft EIR were gathered together and made available for public review at the City of Benicia Community Development Department offices during normal business hours. The availability of these documents was cited in the Notice of Availability and on the City website. Other related public documents not cited as references in the Draft EIR also are available from the City upon request and were available throughout the comment period. The water agreements also are available for review.

H15 For information about the data from the refinery monitoring stations, please see the Master Response "Air Quality." Also note that existing levels of pollution were investigated in the Draft EIR and that efforts were made to obtain local monitoring data. However, this data was not available in time to be presented in the Draft EIR.

H16 The project has been carefully examined with respect to conformance with the General Plan. For a detailed discussion of sustainability, see also the Master Response "Sustainability."

H17 The City's water planning is current and meets all of the requirements of the Water Code, as well as being adequate to support the requirements placed on it by SB 610.

As a part of the preparation of the Draft EIR, the City of Benicia prepared a Water Study (ESA, 2002) to provide the basic information and analysis that would be required if the VIP were to be considered a project under SB 610. The Water Study evaluated the proposed water usage of the VIP in the context of the City's present and future water supplies and projected use. The 2001 Urban Water Management Plan (Buck and Assoc., 2001) is current and served to update the 1996 Water System Master Plan (MW, 1996). The City is in the process of developing additional water supply sources and these are fully discussed and disclosed to the degree that they are known in the EIR.

Note that at the December 5th public hearing, project consultant Kitty Hammer incorrectly stated the amount of project water demand. The correct amount (242 acre-feet per year) does not meet the definition of a project under SB 610.

As described in the footnote on page 4.14-8 of the EIR, a "Project" is subject to the requirements of SB 610 if it would demand an amount of water equal to, or greater than, the water required by a 500 dwelling unit project which is considered to be 250 acre-feet per year. The proposed Valero Improvement Project would use 242 acre-feet of freshwater per year for the following refinery facilities; scrubber (172,800 gallons per day); coker modifications (7,200 gallons per day); sulfur recovery cooling water (14,400 gallons per day); hydrogen production (21,600 gallons per day). The VIP would use less than the 250 acre-feet per year threshold that would trigger a Water Supply Assessment (WSA) pursuant to the new state law.

See also Master Response "Water."

H18 The project components are listed in Section 3.2 and described in detail in Section 3.4, pp. 3-20 through 3-52. Cumulative projects are described in section 3.6, pp. 3-57 through 3-70. The analysis of the effects of the entire VIP is discussed in detail in Chapter 4. Within each section of Chapter 4 are topic-by-topic discussions of cumulative effects. Cumulative impacts are further discussed in section 5.2, pp. 5-1 to 5-12. See also the detailed discussion in Master Response "Cumulative Analysis."

H19 The Cadiz Corporation project is separate and distinct from the Mojave Water Agency. See Master Response "Water."

H19a The Cadiz Corporation's Mojave Water Project is not a source of water to the City of Benicia. The water sources discussed in the Draft EIR remain unaffected by the

abandonment of the Cadiz Corporation project by the Metropolitan Water District. For more information, see the discussion under Master Response "Water."

H19b The writer attaches other comment letters to the GNSC letter and states the GNSC position on the process to review the VIP. The comment is acknowledged. The comment letters attached to the GNSC letter contain comments H21 through H128, as shown together with responses.

H20 The City of Benicia does not obtain, nor does it plan to obtain, water from the Colorado River, which does go to southern California. As described in the Draft EIR, the City's primary source is the State Water Project. See also the response to comment H19b.

Marilyn Bardet
333 East K Street, Benicia, CA 94510
745-9094\
with
Elizabeth Patterson
1215 West Second St, Benicia CA 94510
746-5668

December 16, 2002

Mr. Lamont Thompson
Benicia Planning and Development Department
250 East L Street, Benicia, CA 94510

SUBJECT: the Draft Environmental Impact Report for Valero Improvement Project
SCH#2002042122 — October 2002, Prepared for City of Benicia by ESA, Environmental Science Assoc.
Comments Submitted December 16th (with additional comments forthcoming, to be added to these initial comments by GNSC members, Marilyn Bardet and Elizabeth Patterson

Dear Mr. Thompson,

As members of the Good Neighbor Steering Committee, we are submitting these comments jointly, as part of the formal letter with comments submitted to you by GNSC spokesperson, DanaDean . Elizabeth Patterson and I worked together, and in discussion with others, including Ron Glas (not a member) and Brad MacLane (GNSC member) to formulate our ideas and comments about the Draft EIR. We have found the job of understanding the document to be highly challenging, in that so much information is missing from the Draft EIR and too much is left to vague assertions on most crucial to be fully support the GNSC critique of the Draft EIR for the Valero Improvement Project.

The VIP expansion project is so full of implications for our community's welfare, we fully agree as GNSC members that the Draft EIR needs to be completely revised and re-circulated for public comment again. H21

It took many hours to read the document cover to cover. I personally attended nearly every public workshop and each hearing in an effort to learn as much as I could about VIP from Valero's point of view, before approaching a thorough reading of the Draft EIR when it was finally released. I have made notes in the margin on nearly every page. Because the task of reviewing such a "Flexible Project" in a programmatic EIR is so difficult, we have not found that 45 days is an adequate enough amount of time, especially in the Thanksgiving to Christmas holiday time period, to not only read and make notes on the Draft EIR but to assemble and write full comments on so many areas of serious concern. H22

Thus, we are submitting a partial number of general comments today, and will submit more in the next two days, focussing on the most egregious omission of the Draft EIR. Our initial comments here focus on the Draft EIR's crucial avoidance of any discussion of the central overarching goal of the General Plan for sustainabilty. H23

FILE COPY

Understanding the Proposed Project in a programmatic EIR describing an "improvement project" comprising a flexible and variable number of component parts is nearly impossible, *especially given the Draft EIR's myriad problems, inconsistencies, omissions and unsubstantiated claims*—like juggling too many balls, with some thrown at you—to assemble any easy rendering of what VIP actually comprises nor form any coherent, definitive conclusion as to its local and cumulative adverse impacts. H24

The Draft EIR misses crucial discussion and detailed account and factual basis for making many of its supporting claims central to any notion of "improvement" as is called for when adverse impacts are predicted and mitigations are necessary and called for. H25

We concur that the Draft EIR is a "fatally flawed" document and does not fulfill the mandate of CEQA to inform the public and fully disclose the nature of a project and its adverse impacts. The fact that the Draft EIR is so deficient—its project descriptions and discussions of impacts masked by the general condition it supports for "flexibility"—that it made the task of reviewing the document even harder: We not only had to try to figure out what the several VIP scenrio/project(s) would comprise or not comprise, but deal as well with vaguely suggested partial scenarios in the "alternatives to the project" section and throughout the document. This much "flexibility" would seem to allow Valero to pick and choose ANY scenario,(with or without scrubber, with or without Water Reuse Project, with or without Light Ends Rail Rack Arms Drain, with or without alternative location for tank farm in buffer zone, such that there is no specific "Proposed Project" for which there can be a definite set of Alternative Projects. Key worrisome words in assertions about the several "environmentally beneficial" components' implementation are "delayed" and or "foregone". Bye, bye scrubber; Bye, bye water reclamation project! H26

<u>The single most egregious omission as related to the lack of discussion of the policy driving the Draft EIR is reference and discussion of the Benicia General Plan's over-arching goal for sustainability—thus for sustainable growth and development</u>.

Benicia General Plan:

"Community development and sustainability are at the heart of the goals developed in this General Plan...."Sustainability" in this General Plasn conveys long-term interdependent economic and environmental goals that promote efficient land use. It is a way of thinking and acting responsibly with respect to environmental, social, and economic issues at ever-widening levels of awareness or "integration". That is, what is done at the project or local level can affect all levels of the environment, including the local community, neighboring regions, the country and the world." H27

Thus, for many reasons we will outline below, the VIP refinery expansion project is not consistent with the Benicia General Plan and its many policies that uphold the community expressed value of sustainability. (See comments below and to be further submitted, by 12/18.)

There is *no overriding policy that sets the framework for the Draft EIR* which is what a programmatic EIR is supposed to offer as an organizing principle, when there are so many sequenced project components and so many variables in the proposed sequencing, all of which planning is dependent on economic matters not even discussed H28

in the Draft EIR, i.e., "market conditions". Thus, "market conditions" affecting Valero's purchase of different sour crudes from various sources could be greatly impacted by the federal Administration, depending on current events in the Middle East, availability to drill in Anhwar, and national security interests—conditions that will be felt as adverse impacts to our local community, depending on which part of VIP is implemented and what state or federal regulations at the time are being promulgated and enforced. H28 cont.

In fact, the Draft EIR seems to be organized around achieving the goals of the refinery for increased profit, with maximum "flexibility" to achieve that aim through an "improvements" i.e. expansion and increasing density of the refinery's main block and tank farm—hence, a "refinery improvement project" is an expansion program. The agenda to guarantee maximum "flexibility" seems the most important condition of the VIP as described in the Draft EIR, that will enable Valero Refining Company to fulfill its objectives of increasing potential for running higher sulfur content "sour crudes" through the refinery, at increased throughputs for at least 10% increased gasoline production. H29

Increased profitability of Valero Refining Co cannot be our community's concern, nor the first priority of our City Council. The economic "flexibility" Valero is looking to create is not discussed in terms of sustainability. Such consequences of "flexibility" will have adverse impacts on our community, especially if throughput is increased even incrementally up to 150,000 MBD with minimal modifications to the refinery. What is the overall impact of running more corrosive feedstocks throughout the entire system, while maintaining a "normal" maintenance schedule for turn-arounds, as the Draft EIR suggests? The discussion of how the refinery itself might become more "run down" operating to produce even 4% more throughput is not discussed . H30

Reliance on BAAQMD for providing mitigating limits of 150,000 MBD gives the community no assurance that the refinery will not be run indefinitely, with higher percentage of sour crudes being blended into the feedstocks and without a "Main Stack Flue Gas Scrubber" and without a plan for serious water reclamation, either from within the refinery block of from a separate project sponsored by the City to create tertiary treatment for grey water to mitigate increased refinery demand for raw water. H31

We cannot rely on BAAQMD to enforce Valero's own proposed discretionary limitation to not exceed historical emission levels for SOx or Nox or VOC's or Hydrogen Sulfide—all regulated Toxic Air Contaminants that impact our local community but which are not monitored in local neighborhoods, The Draft EIR has no basis for claiming there would be no significant impacts from TAC emissions, without any historical data from monitors that don't exist *as yet* to measure ambient air quality within neighborhoods. H32

Comments to be submitted within two days to follow:

Respectfully submitted and signed by Marilyn Bardet, with Elzabeth Patterson's approval (Elizabeth is in Sacramento at work.)

Marilyn Bardet

Marilyn Bardet Dec 16 2002

LETTER H – GOOD NEIGHBOR STEERING COMMITTEE: MARILYN BARDET / ELIZABETH PATTERSON

H21 Recirculation would be necessary if "significant new information" was to be uncovered, but recirculation is not required to clarify and explain issues presented in the Draft EIR. See the further discussion in Master Response "CEQA."

H22 The commentor's concern is acknowledged. The 45 day review period was adopted by the City, in accordance with CEQA Guidelines.

H23 The Draft EIR evaluated the VIP for conformity with the Benicia General Plan. For more information, please see the Master Response "Sustainability."

H24 The comment is acknowledged. Specific concerns identified in the letter are responded to below.

H25 The name "Valero Improvement Project" or "VIP" is the name given by the project applicant, Valero Refining Company. Specific concerns identified in the letter are responded to below.

H26 The Draft EIR describes the full range of environmental impacts that could result with the implementation and operation of the VIP. These detailed discussions are presented in Chapter 4 of the Draft EIR. Wherever material differences in impacts would result from changes in the project, they are discussed under the appropriate topic sections of Draft EIR Chapter 4.

The commentors are correct that the flexibility would allow Valero to select from the project components, but there are substantive refinery operating and external, regulatory constraints that limit the scenarios, or combinations of project components, that could be chosen. Most important, the scrubber would be required for Valero to successfully increase the crude oil rate to meet its full VIP objective.

Several examples of text from the Draft EIR illustrate the limits on flexibility:

> "Also, for the Pipestill to process crude rates greater than approximately 150,000 barrels per day, the furnace reconfigurations and addition of a new furnace, as described under Section 3.4.3.5, New Main Stack Flue Gas Scrubber, would be required." (p. 3-27).
>
> "The new sulfur removal equipment (see Section 3.4.3.4) appears to be needed before the highest sulfur crudes can be processed at the Valero Benicia Refinery." (p. 3-39).

H27 The Draft EIR evaluated the VIP with respect to the Benicia General Plan, as described in Section 4.10. For more discussion of sustainability, see the Master Response "Land Use / Sustainability."

H28 The Draft EIR is a Project EIR, not a Programmatic EIR. The individual elements of the project are described in Chapter 3.

CEQA Guidelines, Section 15131, Economic and Social Effects, limits the valuation of economic and social issues in an EIR:

> "Economic or social effects of a project shall not be treated as significant effects on the environment. …intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes." (Guidelines Sec. 15131(a))
>
> "Economic or social effects of a project may be used to determine the significance of the physical changes caused by the project..." (Guidelines Sec. 15131(b))

Although prohibiting the treatment of economic or social effects as significant, CEQA allows their consideration to help determine the significance of the project's physical changes. This guidance suggests the type of analysis that the EIR should develop and present. This is the approach used in the Draft EIR.

H29 The goals of the "Valero Improvement Project" or "VIP" are those stated by the project applicant, the Valero Refining Company. The four project objectives are presented on page 3-3 of the Draft EIR.

For a response on project flexibility, see also response to comment H10 and Master Response "Project Description."

H30 The refinery is an on-going business in the City of Benicia. As such, Valero is proposing a series of modifications that are intended to keep the refinery operating. The refinery requires a substantial amount of maintenance to continue its operations. This maintenance includes extensive maintenance conducted during minor or major turnarounds, as described in Draft EIR section 3.6.1.1, as well as on-going maintenance during day-to-day operation of the refinery.

A number of the project components described in section 3.4 directly address the operation of the facility with higher sulfur crudes. Because the design of the equipment and the accompanying maintenance schedules must account for the physical and chemical characteristics of the crude feed stocks, Valero has performed a technical study to assess the adverse effects of sour crude on refinery equipment. The maintenance schedules would be established to deal with the materials that are processed and the resulting wear or degradation of the various pieces of equipment.

H31 With respect to air emissions, the Draft EIR notes that:

> "Also, for the Pipestill to process crude rates greater than approximately 150,000 barrels per day, the furnace reconfigurations and addition of a new furnace, as described under Section 3.4.3.5, New Main Stack Flue Gas Scrubber, would be required." (p 3-27)

This operating limitation recognizes that the air emissions from the Main Stack cannot exceed the previously permitted amounts without the refinery violating the terms of its BAAQMD permit. See also Master Response "Air Quality"

With respect to water use, as noted in EIR Section 3.4.3.12, additional raw water from the City's existing allocations would be used if there were no other suitable source of supply. The project description states that the analysis of the VIP is based on the increased use of City raw water from existing allocations. The EIR also discloses Valero's intent to use reclaimed wastewater when it becomes available and states that no timetable has been set for construction of the wastewater reuse project. For more information, see Master Response "Water."

H32 Control of air emissions is under the jurisdiction of the BAAQMD. The District system of permit conditions and monitoring provides the most reliable method for monitoring existing air quality, the pollutants that are released into the air and the resulting concentrations of pollutants and TACs. For a discussion of the BAAQMD process, the existing Valero monitoring stations, other BAAQMD monitoring stations and ambient air quality in Benicia, please see Master Response "Air Quality."

Master Response "Project Description" contains a brief summary of the draft BAAQMD permit conditions for the VIP and compares these conditions with the project as described and analyzed in the Draft EIR.

TAC emissions from equipment that is yet to be constructed must rely on calculations that forecast the emissions and the resulting changes that would occur. These calculations are based on emission performance data from comparable components. For TACs, the standard used by the BAAQMD is always based on the incremental change, not the existing TAC concentrations or the existing health risk.

Marilyn Bardet,
Member of **Good Neighbor Steering Committee**
333 East K Street, Benicia CA 94510
745-9094

December 16, 2002

Mr. Lamont Thompson
City of Benicia
City Hall, 250 East L Street
Benicia, CA 94510

RE: Draft Environmental Impact Report for the Valero Improvement Project
(SCH#2002042122)
Environmental Science Associates
October 2002

Dear Mr. Thompson and The City of Benicia,

In conversation with others of The Good Neighbor Steering Committee (GNSC) I have reviewed the Draft EIR for the "Valero Improvement Project" and upon careful reading, have found it both confusing and misleading. Many of its sections have been inadequately analyzed, some of its most important conclusions have not been substantiated, and the document has missed or ignored substantial amounts of crucial new information on issues that most concern us. These issues include the local impacts of toxic air emissions, inadequate water supply during future dry years , public safety, water quality, bio-habitat, and sustainable development. H33

For these basic reasons which are articulated further in written comments on the Draft EIR provided by GNSC members and also those submitted independently by other community members of Benicia—comments submitted on the Draft EIR which the GNSC reviewed and therefore incorporated by reference (see attachments)—I consider the Draft EIR to be fatally flawed.

I therefore ask, as a founding member of the GNSC, as well as for all concerned Benicia families and Benicia's concerned regional neighbors, that prior to finalizing the document, your Council honor both the letter and the spirit of CEQA by requiring that your staff and the authors of the Draft EIR revise and rewrite the document to incorporate and reflect all of the comments submitted, either orally or in writing, by the Planning Commission, members of the GNSC, and any and all concerned citizens and re-circulate the document for another 45 day comment period. H34A

I am confident that, when you yourselves read the Draft EIR, you found the project description as imprecise as we did, basically a moving target, and the discussion of impacts and mitigation measures muddled and incomplete. GNSC members and concerned community members who've also reviewed the Draft EIR, are equally sure that you realize that the ramifications of your approval of this EIR will be enormous and permanent, and that all of our families, yours as well as our own, will have to live with whatever adverse consequences may follow throughout the foreseeable future. I therefore request that you, as elected H34B

FILE COPY

representatives for our entire community, honor your (admittedly daunting) responsibility to ensure that this Draft EIR, and the entire EIR process, truly serves the public interest.

What can your Council do to remedy the failures of the Draft EIR and fulfill the mandate of CEQA to ensure that the public is able to fully understand, and therefore comment meaningfully on, the draft document? H34B cont.

I am respectfully requesting that your Council require that the Draft EIR be completely revised by addressing all comments thus far submitted, by the Planning Commission, the GNSC, and the public. As noted above, a second comprehensive draft should be prepared and circulated for public review. This second draft should ensure that all new pertinent information, research and/or changes of policy or regulations that have actually come to light during the drafting of the EIR and/or during the current 45 day review period be included as part of the discussion of the proposed VIP, especially with regard to VIP's increased demand on City raw water supplies. H35

Further, I request that you put aside your staff's guidance to the Planning Commission, and also as stated in the Draft EIR, that the CEQA Guideline mandate only that an EIR address issues and include data that existed as of the issue date of a Notice of Preparation. This interpretation of the CEQA Guidelines is not only a technicality often used to avoid complete disclosure to the public, but at the present time, it is diametrically inconsistent with current case law, in that this guidance was based on the provisions of a previous CEQA Guideline [Sect. 15130(b)(1)(B)(2)], which has recently been declared invalid by the California Appellate Court *(Communities for a Better Environment v. California Resources Agency, 10/28/02).* H36

In its current form, the Draft EIR provides an excessively incomplete and misleading discussion of how the proposed expansion project would impact the health, safety and quality of life of the community within the context of the relevant goals and policies of the Benicia General Plan. Further, the Draft EIR says nothing about the principal, overarching goal of the General Plan; i.e., sustainable development. H37

Moreover, it says almost nothing about the consequences that may ripple out from the refinery expansion, not only locally, but on a regional, state-wide, and yes, even a global basis. Just consider: is air quality simply a local issue? is energy supply merely a local issue? is water supply merely a local issue? We think not, and we are confident you will agree. So as far as environmental impacts are concerned, we hope you will agree that the potential impacts of this project should be evaluated, not only from a local perspective but, at least to some extent, from a regional, and yes, even a statewide and/or global perspective. H38

I would like to illustrate our position with a few specific examples. First, it must be clear to anyone reading the Draft EIR's analysis of water supply issues that the analysis has gone far beyond disciplined factual analysis into the realm of "wishful thinking". While the analysis does manage to point out that there will be water deficiencies during future dry years, it glosses over the lack of meaningful mitigation for this POTENTIALLY SIGNIFICANT impact , relying instead on vague language about a wastewater reuse system project which may or may not ever be implemented, and which in any case, even though it may perhaps be partially or completely financed by Valero, would not be a Valero-sponsored project, and would therefore be beyond Valero's control or ability to implement. While we could comprehend implementation of the Water Reuse Project as a required mitigation measure, or as a discretionary permitting H39

condition, it is beyond our comprehension how the EIR can treat it as an integral component of the VIP?

Furthermore, recently published reports on the predicted impacts of global warming on three western water sources, recent information on the new federal rule that California can't take any more surplus water from the Colorado River, and recent information regarding the fact that the Mojave Water Agency Project is now "dead", should all be incorporated into the analysis, given a refinery that already, without the expansion project, requires more than half of our city's raw water supply. H39 cont.

As another example, the authors of the EIR state that there will be no significant impacts, not even an important aesthetic impact, resulting from a new tank farm in either the western or southern "buffer zones" near the Upper Southampton, Highlands, or the future Tourtelot residential neighborhoods. Any Benicia resident would recognize this as a callous disregard for community concerns, another example of the inherent conflicts and flawed analyses presented throughout discussions in the Draft EIR. H40

The heart of an EIR is in its project description; without a clear, concise, and cogent project description, an EIR becomes just another example of "*garbage in garbage out*". In this case, the project consists of a collection of project components, rather than a well defined "complete" project. The project proponents propose to implement only those components, or combinations of components, that meet "their needs and objectives," at such future time as economic and other unspecified conditions are "favorable", and in a sequence again "to be determined". H41

With respect to the scrubber, can you tell from the Draft EIR whether the proposed project will or will not include a "Main Stack Flue Gas Scrubber", providing the promised "environmental benefit" of reduced SOx emissions touted by Valero throughout the previous year. If not, can you tell from the Draft EIR that a smaller project would be constructed, a "kernel" of the VIP, without the scrubber, but still retaining the "flexibility" desired by Valero to process more sour crude and increase "throughput", thereby potentially giving rise to still more emissions, more noxious "releases", and more demand on the City's raw water supplies? H42

The project description in the Draft EIR, rather than answering questions, only leaves the reader with additional questions and uncertainties. The project description does nothing to make sense of the series of component projects or to clearly explain the reasons for their sequencing. We simply can't tell what the project actually is, or what is isn't. The true nature of the VIP appears hidden behind the word "flexibility". How can we fairly judge Valero's operations and intentions based on this Draft EIR? H43

How would changing national security priorities impact implementation of VIP? While we are assured by the project proponents that changing federal policies relaxing emissions standards for older powerplants as they upgrade will not be adopted by the San Francisco Regional Air Quality Control Board and used to allow Valero to increase its allowable emissions, what assurances to we really have? And where is this extremely significant issue even alluded to in the Draft EIR, much less analyzed comprehensively. H44

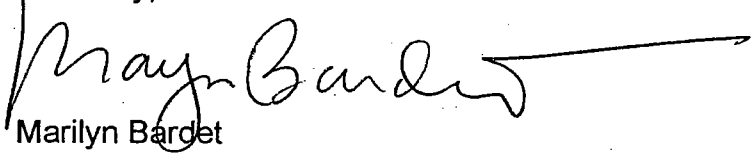
In conclusion, increased production capacity and options for increased use of cheaper "dirtier crude" with higher sulfur content would, at a minimum, impact local air quality, perhaps not "significantly" under CEQA's technical definition, but impact it nonetheless, to a degree that cannot be known at this time. And it would place a significant, and very likely unmitigable, H45

increased demand on our City's raw water supply, despite what the Draft EIR says. And processing greater amounts of corrosive sour crudes would impact the condition of the entire aging refinery itself, presumably requiring stepped up safety and maintenance programs, a fact completely missed in the Draft EIR. H46

I implore your Council, for the sake of the people of Benicia, and especially for the children, to uphold the intent of CEQA and to do everything in your power to provide the public with a document that is clear, concise, comprehensive, and understandable by the average citizen, and to allow sufficient public review time (during this holiday season) for the public to understand the full nature and scope of the project's merits and its impacts, so that the community can intelligently evaluate the VIP prior to any decisions being made.

Thank you for your consideration.

Sincerely,



Marilyn Bardet

cc GNSC members:

Dana Dean , Brad MacLane, Elizabeth Patterson, Mary Francis Kelly Poh, Mary Werhle

LETTER H – GOOD NEIGHBOR STEERING COMMITTEE: MARILYN BARDET

H33 These environmental issues were discussed in detail in the respective topic sections of the Draft EIR. The issue of sustainability is discussed in the Master Response "Sustainability" and water issues are discussed in detail in Master Response "Water." More discussion about toxic air emissions is also presented in Master Response "Air Quality."

H34A The CEQA Guidelines prescribe the process for the preparation of an EIR. The prescribed process includes the preparation of a Draft EIR that goes out for public review for 45 days. After that review, the Lead Agency (City of Benicia) prepares responses to the comments that have been received on the Draft EIR. The Response to Comment document is then available for public review for at least 10 days before the City of Benicia holds a public hearing to consider the adequacy of the document. This process provides the public and the decision-makers with the information necessary to properly consider the project. Please also see Responses H1 and H21.

H34B The commentor's general concern and request are acknowledged. Specific concerns area addressed in response to comments where they are articulated.

H35 See Responses H1 and H34. Also see Master Response "CEQA."

H36 The baseline date for the existing conditions is set by the date of the Notice of Preparation. However, the staff's point to the Commission was that, although the baseline for existing conditions is fixed, there is no limit for considering data or new information that becomes available while the EIR is being prepared.

The comment also refers to a CEQA Guidelines section that deals with the cumulative impact analysis. For more information, see also Master Response "Cumulative Analysis."

H37 The first statement is broad and makes no specific request, so does not require a response. With respect to sustainable development, see the Master Response "Sustainability."

H38 The impacts of the project are discussed in detail in Chapter 4 of the Draft EIR. For a discussion on the geographic scope of the analysis for each of the environmental resources and for more on cumulative effects and the VIP, see the Master Response "Cumulative Analysis."

H39 See Master Response "Water" and also see Response H31.

H40 Valero's use permit application requests approval to construct its new crude tanks within the existing tank farm. The City identified construction of the tanks in the buffer zone as a possible alternative that could avoid the potentially significant impacts of construction in the existing tank farm. See also Response H11.

The Draft EIR (p. 4.1-13) describes the change associated with the construction of two additional tanks at the project's proposed and alternate locations in the existing crude tank farm. As shown in Figures 4.1-3 through 4.1-5, due to distance, topography, vegetation, and intervening development, the crude tank farm is currently only partially visible from viewing locations in the Hillcrest and Southampton neighborhoods. Therefore, viewpoint 1 along I-680 was included in the Draft EIR to represent changes in views from the existing tank farm to those of the proposed project, because the I-680 view corridor provides the most direct visual exposure to the tank farm.

The Draft EIR (p. 4.1-16) concludes that construction of crude storage tanks at either of the alternate locations proposed by Valero within the existing crude tank farm generally would not constitute an adverse change in the visual environment, based on the fact that these tanks would be of similar construction, size, materials and color as the existing tanks; they would be functionally grouped in an area containing like structures; and, the construction would not require substantial grading.

From a land use perspective, p. 4.10-8 of the Draft EIR states that the development on the project site would be contained within the footprint of the existing refinery and tank farm, and would not develop portions of the existing open space buffer.

The EIR's Alternative of placing the new tanks in a new crude tank farm was identified as one possible way to mitigate the significant biological impacts and is considered in Draft EIR Chapter 6, Section 6.2.3, beginning on p. 6-10. The text acknowledges that a new tank farm in the buffer area would be visible from many locations.

H41 For a discussion of the issue of project complexity and flexibility, see Master Response "Project Description."

H42 This comment adds to the previous comment. See Master Response "Project Description."

H43 The project components are discussed in detail in Section 3.4 of the Draft EIR. The discussion about the sequence and approximate time frames for the construction of the various components of the VIP is presented in Section 3.5.1, Schedule. This provides a sufficient basis to enable the Draft EIR to analyze the environmental impacts of the full VIP as proposed and of the VIP scenario in which the Flue Gas Scrubber would not be constructed. These environmental impacts are described in Chapter 4. For more information, see also Master Response "Project Description."

H44 The commentor raises several issues. The first is the possible effect that national security priorities might have on the VIP. The second refers to a recent announcement by the US EPA on November 22, 2002 of a proposed rulemaking on New Source Review.

In response to the first issue, it is unknown whether or not national security priorities would or would not affect the proposed project. Furthermore, the potential impact and

duration of such an effect is speculative. Given this, it is beyond the scope of the EIR analysis to consider such an occurrence.

In response to the second issue, the announcement of the proposed federal rulemaking was released following the October 31, 2002 publication of the Draft EIR. Information was provided to the public about this proposed rulemaking on the EPA website. http://www.epa.gov/nsr/. This information is contained in the Appendix to this Final EIR. These final rules address the same issues as those originally proposed in 1996.

The BAAQMD's proposed permit conditions are based on current regulations. BAAQMD does not anticipate that the USEPA rule change would affect the VIP permits or actual emissions. Should the air emissions from the VIP be increased in some way by the unforeseen application of the new EPA rules, further environmental review would be required. See also Master Response "Air Quality" for more information.

H45 Although there will be an increase in emissions due to the implementation of the VIP, the increase would not be considered significant, based on the BAAQMD's CEQA Guidelines. The BAAQMD has jurisdiction over air pollution issues in the Bay Area and is responsible for implementing control strategies to limit the concentrations of pollutants in the air. Mindful of its responsibility to protect air quality, the BAAQMD has established significance thresholds as part of its CEQA Guidelines to help assess the air quality impacts of proposed projects. These thresholds have been used in the evaluation of the air quality impacts of the VIP.

H46 The water supply issues are discussed in Section 4.14 of the Draft EIR. See also Master Response "Water." Maintenance is discussed in the Project Description, Chapter 3. See also Responses H30 and H54.

Sue Kubbe comments

"Valero Improvement Project"

Questions and Comments:

Water supply:
Currently Valero uses c. 5 million gallons a day, or 1,825,000,000 gallons a year. The additional amount of water that the VIP will require varies from one section of the EIR to the next. On page 4.9-12, it states that an additional 432,000 gallons per day or 484 acre-feet per year will be required. However, on page 4.14-12, the net increase is cut in half, to 242 acre-feet per year. But on page 4.14-7 the two tables forecast an increase of 4,167 acre-feet by the year 2020. This is an increase of over a billion gallons of water! (1,357,821,117 gallons). H47

So the first question is: How much water will really be needed?

An acre-foot, in layman's terms, is 325,851gallons of water, so we are talking about 157,711,884 gallons of water = 484 acre-feet. Or 78,855,942 gallons = 242 acre-feet.

On page 4.14-12, the Water Study concludes: "the current supplies would not be sufficient to meet existing and planned future city demand, with or without the VIP, during dry years."

On page 4.14-14, a 20-year study of supply and demand shows that without the Supplemental Water Rights – which would take an additional 10,500 acre-feet or 3,421,435,500 gallons from the Sacramento River – there would be insufficient water in dry years for this project and the city of Benicia by the year 2005. And this projected Supplemental Water is in addition to the State Water Project which already will take 16,075 acre-feet of water from the Sacramento River in a normal year. So you are expecting to take a total of 27,700 acre feet from the river (over 90 billion gallons a year). At the same time, Fairfield and Vacaville want to take an additional 21,120 acre-feet under the Supplemental Water Rights. H48

I submit that it is folly to approve this project on the assumption that sufficient water would available from the Sacramento River. We are talking about a potential increase – based on the tables page 4.14-7– of 4,167 acre-feet by the year 2020, which is over a billion gallons of water! (1,357,821,117 gallons).

Hydroclimate and Impacts Research at Berkeley Laboratories predicts that over the next 20 – 50 years, increased CO2 levels and global warming will result in 1.) decrease in snow pack in the mountains, 2.) rain instead of snow in the mountains, 3.) increased flooding in Spring and 4.) lower reservoir, stream and river levels during the rest of the year.

These predictions and the inevitability of dry years will preclude further withdrawal from the Sacramento River, especially in the quantities required for this project to be feasible.

Water Reclamation Project, page 4.14-15

Water reclamation and reuse, the construction of tertiary treatment facilities are given insufficient attention and review. Hazardous chemicals, brine which must be disposed of at some "off-site location", surface water discharges, odors and noise are not disclosed. Water recycling will be integral to the VIP, yet it is presented as though it were a side issue. H49

A separate EIR is required and should be completed before the VIP is approved.

Hazardous Waste Disposal:

Reference page 4.14-18: Kettleman Hills can accept Class I hazardous waste until 2009. In fact, this may be when Valero installs the Scrubber and generates an increase of hazardous waste. Where is the waste going after 2009 ? H50

Air Quality:

Everyone who lives in Benicia knows the prevailing winds in this city are from the west. It is, therefore, extremely convenient and misleading that the air pollutants from Valero are measured at the Tuolumne Street monitoring station in Vallejo, which is 6 miles northwest of the refinery. I submit that your measurements of air pollutants are in the main inaccurate and lower than actuality. H51

A significant increase in VOC (volatile organic compounds) is predicted, but no mitigation is required. Why not? Why do they increase more with the scrubber (pg. 4.2-26)? H52

Increased Use of Sour Crude:

Page 4.2-27 VIP without Scrubber:
A 36- month "interim operation" without the scrubber is projected, with increased use of sour crude. How much increased water is required? How much more sour crude will be processed for 3 years before the scrubber is installed? H53

How many accidental leaks have been caused by the increased use of highly corrosive sour crude at the present time? Weekly? How much more sour crude are you processing now than in the past? Impact on air quality? H54

Isn' t it true that the scrubber cannot realistically be installed until 2009 ?

LETTER H – GOOD NEIGHBOR STEERING COMMITTEE: SUE KIBBE

H47 The text on page 4.9-12 is incorrect. The text on the first two lines of the first paragraph of p.4.9-12 is revised as follows:

> per day. The VIP will require an additional ~~432,000~~ 216,000 gallons per day or ~~0.432~~ 0.216 million gallons per day (or ~~484~~ 242 acre feet per year).

H48 The number of gallons of water used by the City or the refinery in a year is substantial. However, the City and refinery water use is small compared to the quantities involved in the State Water Project. The future availability and reliability of water supplies from the State Water Project is discussed in Master Response "Water" and more detailed information is presented in the Water Study and in the Water Rights EIR, which are available for review at City Offices during normal business hours.

The effects of global warming on regional water supplies in California are being considered by the California Water Plan Advisory Committee, a public advisory committee for the California Department of Water Resources. Selected quotes and paraphrases from the DWR website[2] indicate the status of DWR water planning with respect to global warming:

- Jonas Minton, Deputy Director of the Department, called the consideration of major climate change unprecedented. The agency has traditionally relied upon historic hydrologic information as a basis for predicting the future.

- The California Water Plan Advisory Committee recently heard presentations of the latest research into climate change and its potential effects on California's future water supplies for the year 2050 and beyond. Some of the potential long-term issues raised included possible rises in temperatures of 2-3 degrees centigrade, increased levels of carbon dioxide and methane in the atmosphere, reduced days of frost, diminished snow pack, movement of storm tracks to the north, shorter rainy seasons, flash flooding, rises in sea level, salinity in coastal and delta water supplies, and changes in crops.

- While conferees agreed that there are many uncertainties about specific impacts, Minton stated that it was "prudent" and "reasonable" to make "no regret" decisions for the future. "There can be no quick answers, but we must begin the process of thinking about how climate change might effect California's water future."

- The California Water Plan Advisory Committee is in the process of gathering and reviewing information in its effort to assist the Department of Water Resources in updating the state's Water Plan by 2003.

[2] DWR Statewide Planning Branch web page at: http://www.waterplan.water.ca.gov/b160/indexb160.html.

Given the state of knowledge about the issue, further specific analysis of impacts associated with this project on global warming, or the effects of global warming on water supplies for the project, would be speculative.

H49 A separate environmental review for a reclaimed water project would be necessary prior to approval or construction of facilities since that project is a discretionary action subject to CEQA review. Disposal of the byproducts of additional treatment would be covered in the environmental review for a reclaimed water project. As the City's reclaimed water project is a project that is separate and independent of the VIP, there is no need to complete the environmental review of the reclaimed water project before the VIP is considered for approval.

H50 Kettleman Hills Landfill currently operates under a permit to accept Class I hazardous waste until the year 2009. Kettleman is considering plans to expand its current facility to increase the overall life of the facility by 11-12 years beyond the current permitted operating date of 2009. However these plans have not yet been approved (personal communication, Terri Yarborough, Kettleman Hills Landfill, October 2002). After 2009, hazardous wastes from the Valero Benicia Refinery could continue to be sent to either the Kettleman facility, another Class I landfill (such as the Laidlaw Landfill, in Buttonwillow, California) or to an out-of-state facility. These other hazardous waste facilities have sufficient capacity to receive such wastes from Valero.

H51 The purpose of presenting air quality data in the setting section of the air quality analysis section (4.2) is to establish typical ambient air quality levels in the vicinity of the project location. The Draft EIR section explains this on page 4.2-13.

> "The Tuolumne Street station in Vallejo was chosen as a representative monitoring station for the Benicia area due to its proximity to Benicia and its full range of monitored pollutants."

During preparation of the EIR other monitoring station's data were considered but not found to be significantly different or leading to any different conclusions regarding potential project impacts. Data gathered at surrounding BAAQMD air quality monitoring stations and data from local SO_2 and H_2S monitoring stations operated by Valero are presented and compared in Master Response "Air Quality." That master response further explains why the Tuolumne Street station is suitable to represent air quality in Benicia.

H52 As shown in Table 4.2-12, the significant increase in VOC emissions (of greater than 15 tons per year) would be mitigated to a less than significant level with the implementation of Mitigation Measure 4.2-2: "As a condition of approval of the use permit for the VIP, Valero must implement the Light Ends Rail Rack Arm Drains project described in Section 3.6.1.3 of this document." Installation of the scrubber by itself would not affect VOC emissions. The scrubber primarily would reduce SO_2 and some NO_x emissions. VOC emissions would increase due to the use of a higher percentage of sour crudes than currently being used and this could not occur without the Flue Gas Scrubber.

H53 During refinery operation without the scrubber, the water use would be much less than if the full VIP were in operation. As stated on Draft EIR page 4.14-13, water user for the scrubber would be 172,800 gallons per day, 81.5% of the total water use of the full VIP, which is 216, 000 gallons per day.

With added crude oil feed, the maximum throughput for the pipestill would be 150,000 barrels per day, compared to the present limit of 135,000 barrels per day. Thus, up to 15,000 additional barrels per day of crude could be processed without using the additional water and thereby not using 172,800 gallons per day or more of water. This trade-off could occur for each day for the duration of the refinery operation without the scrubber. Note that is a rough estimate only, since the full additional water use by the coker, sulfur plant cooling and hydrogen production also might not occur under such a circumstance.

Without the scrubber in operation, any increase in the feed rate of crude oil at the refinery would be expected to be a sweet crude oil, rather than a sour crude oil, since the refinery currently has a limited capacity to control air emissions and remove additional sulfur from the additional crude oil that would be processed. This would restrict the use of sour crude, since the air emissions from the refinery are limited by the conditions of the current and draft future BAAQMD permits.

H54 The refinery currently processes a small percentage of sour crude. One of the objectives of the proposed VIP would be to allow the flexibility for Valero to process a greater percentage of sour crudes. There have been no accidental leaks specifically attributed to the use of sour crudes. All pipes carrying crude oil corrode. The ones carrying sour crude corrode at a faster rate and are monitored regularly by Valero to prevent any accidental releases.

With respect to the timing for the installation of the scrubber, the Draft EIR, p.3-38, and Section 3.5.2, present and discuss the expected equipment installation schedules. Both state that the scrubber might not be operational until 2009.

Bradford MacLane
436 York Drive
Benicia, California 94510

December 16, 2002

City of Benicia
Benicia, California

Subject; Comments on Draft EIR

1. Section 4.14.2 The setting section of this report should set out in summary fashion the issues with respect to the additional demand for water that will be created by the refinery expansion (VIP) and as well as the information on the supply side of the equation. H55
2. Page 4.14.2 The DEIR is relying upon water management documents not incorporated into the DEIR and that were already out of date. H56
3. Page 4.14.3 In the first paragraph of this page there is a reference to Valero's commitment to the use of reclaimed waster water. Please indicate if this is a legally binding commitment or more of a nice philosophical statement that plays well in the media. H57
4. Page 4.14.3 Please provide a more detailed description of the agreement to provide water between the City of Benicia and Valero. It is impossible to gauge, from the information presented in the DEIR, the current commitment to provide water during dry years and future expansions. H58
5. Page 4.14.4 It has been announced that the Mojave Water Agency Agreement is now defunct or is the subject of major litigation that could significantly impact the City's ability to draw water from that source during dry years. Please clarify this new information and provide a new analysis of the long term supply and demand characteristics that will be faced by the City and its residents if the VIP is approved. H59
6. Page 4.14.5 The section of the report titled "Wastewater Reclamation and Reuse" should be eliminated from the EIR. The wastewater reuse is not being considered as a mitigation for the VIP and therefore is very speculative as a legally binding benefit to H60

the community. The inclusion of this section and other references to water reuse is misleading and has left the community with the belief that Valero will definitely provide this improvement as part of its Good Neighbor policy. H60 cont.

7. Page 4.14-6 The DEIR needs to include a more detailed description of the Untreated Raw Water Delivery Agreement before residents can assess the impact of VIP on the community. H61

8. Page 4.14-6 Describe in greater detail the Good Neighbor agreement and in much greater detail the agreement to provide Valero with as much as 6,720 acre feet of water. This agreement would provide much more water than currently used by Valero and could have a significant impact on water availability to the users of treated water in the community. Again, there is not enough information provided in the DEIR to ascertain the relevance of the information provided. H62

9. Page 14.4.-7 Both of the tables are out of date and do not reflect the impact of the proposed VIP and the other projects that are underway or proposed for the Valero refinery such as the co-generation plant which also now draws water from the City. H63

10. Page 14.4-8 The discussion of Senate Bill 610 and related State Laws requires additional analysis and comments. The City representative Kitty Hammer noted at the last hearing that the VIP will require 282 acre feet per year in addition to the co-generation plant which has recently increased demand on the water supply by an additional 314 acre feet. The VIP now appears to exceed the SB610 250 acre feet threshold for description as a "Project". The document needs to provide the estimates and analysis of water demand. This is an important discussion because it would them require the City to have an up to date master water plan that takes into account changes in the legal and contractual supplies of water. This analysis is also necessary so that members of the community can independently assess which future water sources are stable and which supply sources cited may be speculative and not available when needed during future dry years. H64

11. Page 14.4-8 Please more fully describe Valero's responsibility under the City of Benicia Emergency Water Conservation Ordinance. For example, could Valero legally draw all 6,720 acre feet promised to it in the Good Neighbor agreement (part of the acquisition environment when purchased from Exxon) during a H65

"dry" year when say the entire water supply available to all water users in Benicia had dropped to say less than 10,000 acre feet. H65 cont.

12. Related to item #11 above, describe the impact of these situation on issues of public health and safety. This issue was not addressed in the DEIR. H66

13. The DEIR Summary section and other sections of this report including page 14.4.-11 begin to describe potentially significant impacts of the VIP. The summary section of the report and this section should in fact conclude to there being significant impacts. Mitigation measures that address those significant impacts them must be addressed separately. The DEIR currently relies upon speculative water sources to mitigate the significant impact conclusion to a less than significant level. This approach to describing the City's water supply and demand future is misleading. H67

14. The tables on 4.14.-14 needs to be up to date and reflect the loss of the Mojave Water District as a source of water. If it is still a viable source of water a full description of the plan is needed along with a full disclosure of any pending lawsuits or settlements that may affect the future ability of that source to provide water to the City of Benicia. H68

15. Information regarding the cost of acquiring water from the City of Vallejo was not included in the DEIR. The DEIR lacks a discussion of the allocation of these future costs between untreated and treated water users. This is an important omission from the DEIR H69

16. Recent litigation with regard to dates connected to the Notice of Preparation may require inclusion of other refinery improvements in the DEIR and related analysis and comment. H70

Thank you,

Bradford MacLane

LETTER H – GOOD NEIGHBOR STEERING COMMITTEE: BRADFORD MACLANE

H55 Section 4.14.2.1 of the Draft EIR presents and summarizes the City's current and forecast future demands, the range of current and future supply options, and the information contained in the other water supply plans for the City. The water demand for the VIP is discussed under Impact 4.14-1.

The commentor is also referred to the Water Study (ESA 2002) prepared for the project. The Water Study is available for review at the Benicia Public Library and the Benicia Community Development Department during normal business hours and is also available on-line at the City web site.

H56 The City's water planning is current and meets all of the requirements of the Water Code, as well as being adequate to support the requirements placed on it by SB 610. This is discussed in Section 4.14. The cited documents are available for review at the City Offices during normal business hours.

For more information, see also response to comment H17 and Master Response "Water."

H57 Valero has made a written commitment, dated October 11, 2002 and signed by the refinery's Vice President and General Manager, to show their intent to support wastewater reuse as a part of the VIP. The commitment states that Valero will pay for construction and operating costs to the extent that they are not paid for by State funds, and that Valero anticipates entering into a long-term contract with the City for use of the water. The commitment further states that, "Valero's commitment of support will continue as long as the reuse project continues to be economically, regulatorily, and technically feasible." See also Responses H31 and Master Response "Water."

H58 See Responses H61 and H62.

H59 The water sources discussed in the Draft EIR remain unchanged. See Master Response "Water." See also Responses H19 and H20 related to the Cadiz project.

H60 As a part of the project, Valero has proposed to use reclaimed wastewater if available. This must be considered in the Draft EIR's analysis of the environmental impact of the project.

H61 The 1967 Untreated Water Delivery Agreement is and has been available for review at the City offices during business hours. A summary of the Agreement is provided in the Draft EIR pg. 4.14-6.

H62 The Good Neighbor Agreement is and has been available for review at the City offices during business hours and a summary of its provisions regarding refinery water supply is

provided on page 4.14-6 of the Draft EIR. The Good Neighbor Agreement is a legal document by which Valero, as purchaser of the refinery, provided assurance to the City regarding a number of areas of concern. The entire section of the Good Neighbor Agreement dealing with water supply is quoted below for convenience:

> "K. RAW WATER CONTRACT: Valero acknowledges that the existing Untreated Water Delivery Agreement and amendments thereto between the City and ExxonMobil requires revision in several significant areas including, but not limited to demand quantity, water shortages, sources and source water quality, wastewater reclamation and reuse, capital improvements and notification requirements.
>
> Valero will commence negotiations with the City to effect these revisions and assignments of the agreement within one hundred and twenty (120) days after the acquisition of the ExxonMobil refinery as approved by the Federal Trade Commission and the State of California. Such negotiations shall be completed by December 31, 2000.
>
> Specifically, these negotiations will establish a calendar year 2001 and thereafter Demand Quantity, as defined in the existing agreement, at 2,190 million gallons per year. Increases above this amount will require negotiation of specific pricing associated with the additional supply volumes. Also, notification of such increases will require a 12 month lead time for short term needs and a 24 month lead time for an ongoing increase in requirements. Because the City can make no guarantee to supply full entitlement during externally imposed restrictions caused by drought or environmental constraints, the resolve of such conditions must be included in the negotiations and will address the requirements for Valero to participate in any increase in costs and facility requirements for supply acquisitions during such externally imposed restrictions or associated with a demand increase. It is further agreed to include in the negotiations consideration of a study to investigate enhancing the quality of water from Lake Herman for delivery to the refinery."
>
> The refinery's current raw water consumption is approximately 1,825 million gallons per day, while the maximum water use under the 1967 Untreated Water Agreement is 4,015 million gallons per day. Therefore, the effect of the above provisions is to place new restrictions on Valero's ability to increase its existing water use under the 1967 agreement. See also Response H65.

H63 Table 4.14-1 is correct and includes historic use through the year 2000. The planning projections in Table 4.14-2 do not include the water use projections for the VIP or for the Valero Cogeneration Project, which is now on-line. The CEC required Valero to implement waste water reuse or otherwise reduce water demand to offset the needs of the Cogeneration project.

H64 Both the reference at the hearing and the text on page 4.9-12 are incorrect. The text is changed to reflect the project water demand of 242 acre feet per year.

The Cogeneration Project, approved by the California Energy Commission in 2001, is not a part of the VIP. Rather, it is a cumulative project, as described in Draft EIR Section 3.6.

H65 Valero is not exempt from the provisions of the water conservation ordinance but, because the refinery has limited ability to conserve, it has instead paid a proportional share of the costs to purchase short-term water supplies for the City. The analysis in the Draft EIR is based on the assumption that Valero would use the normal amounts of raw water, even under drought conditions, so it represents the worst-case impacts of the VIP. See also Master Response "Water".

To clarify the statements in the EIR in regard to this matter, the last sentence of the fourth paragraph on page 4.14-8 is amended as shown:

> Valero ~~is not subject to the requirements in the ordinance, although~~ has limited ability to conserve water in accord with provisions of the ordinance. Therefore, during past water shortages, the refinery has instead reduced water use and funded temporary water purchases.

H66 No major public health and safety consequences related to reductions in water demand under current or future conditions are identified as compared to the baseline or existing conditions. The addition of Mitigation Measure 4.14-1c will further limit the potential effects of the VIP during drought by preventing the project from taking any added water during periods of drought. Mitigation Measure 4.14-1c is presented and discussed in Master Response "Water."

H67 The water sources are described in Section 4.14. See also Master Response "Water."

H68 The Mojave Water Project is not a source of water to the City of Benicia. The water sources discussed in the Draft EIR remain unchanged. See response to comments H19, and H20, or Master Response "Water" related to the Cadiz project.

H69 The comment is related to project cost and/or socioeconomic effects associated with acquiring additional water. Cost is not considered in an EIR unless there is a nexus between the socioeconomic effects and the physical environment.

H70 The date of the Notice of Preparation sets the date for the existing conditions for the project analysis. However, there is no such limit for new information, since all such information that applies to the project analysis must be considered. Information about the cumulative projects and the methodology of the cumulative analysis is presented in Master Response "Cumulative Analysis."

Public Comment
Mary Shaw
My comments are in Times New Roman Font

FILE COPY

VIP DEIR

In Re Biological Resources:

The Draft EIR for the Valero Improvement Project states that the project would cause no potentially significant, unmitigatable biological impacts.

Valero has done an insufficient amount of biological research to support that claim.
I would like to address each of the following points.

4.3.1 Introduction H71

The analytical steps described below:

- The habitats on site and adjacent to the area were visited and described; "special status" plants and animals associated with these habitats were researched and described; all records of these organisms were identified in an area bounded by the Strait, the uplands north of highway 680, and on the coast between Southampton Bay and Goodyear Slough.

This DEIR statement is misleading and suggests that there is a habitat on site and it was surveyed and researched. "Visited" does not mean surveyed. Utilization of old species data is not research.

- Any modification of the Tank Farm ponds constitute a potentially significant impact; but these may be mitigated by actions such as draining and/or removing vegetation before the start of nesting season (March 15) during the year of construction. H72

A new biological survey should be taken to determine accurate species counts prior to any modifications. These surveys should be taken during nesting season and during the summer. There is no way to determine appropriate mitigation without an accurate species count.

4.3.2.2
Special Status Species

In addition, Section 15380(b) of the California Environmental Quality Act (CEQA) Guidelines provides a definition of rare, endangered, or threatened species that are not included in any listing. Species recognized under these terms are collectively referred to as "special status species."

H73

Special Status Terrestrial Species in the Project Vicinity

- ESA compiled a list of special status plant and animal species potentially occurring in the general project vicinity based on information from the USFWS, CDFG's California Natural Diversity Database (CNDDB2001), and the California Native Plant Society's (CNPS 2001) Electronic Inverntory of Rare and Endangered Vascular Plants, and the Audubon Society's watchlist (Muehter 1998). Evaluations of habitat suitability for special status species were based on field observations and previous environmental documents (Woodward-Clyde, 1993). Previous surveys conducted for the refinery in 1988 and 1991 (Woodward-Clyde 1993) did not identify threatened or endangered species or habitats. Since that time, the status of several species has changed, most notably the California red-legged frog (listed as federally threatened in 1996 [61 FR 25813]).

This statement indicates incomplete research and documentation on the biological resources at the Tank Farm retention ponds and the surrounding area for the DEIR. Previous surveys conducted at the refinery in 1988 and 1991 (Woodward-Clyde, 1993) are insufficient for an accurate analysis of the potential endangered species that may exist at the site now, particularly since regulatory status changes have occurred for some protected species, which may exist on site. Surveys that were completed 9years ago and 14 years ago can't be considered to be anything other than obsolete. New surveys need to be taken in order to have accurate data, which can then be

used in an analysis of any potential biological impacts. At the very least, the survey information used for this DEIR (surveys conducted for the [then Exxon] refinery in 1988 and 1991) need to be included and/or made available for public review, if this is the information the Valero project is relying on for its DEIR. H73 cont.

4.3.2.3 Regulatory Setting

CESA

- Construction and operation of the project does not fall under the jurisdiction of the CESA, as no "take" for state listed plant and animal species is expected to occur.

H74

The retention ponds have been in existence for over twenty years. This is enough time for species to become established. If a synthetic "habitat" or wetland is created and supports the plant life that will then in turn support a State listed species, subsequent removal of that "habitat" or wetland can result in the "incidental take" of the species. A biological survey needs to be completed before the conclusion can be reached that no potential impact will actually occur.

4.3.4.2

Project Impacts

Mitigation Measure 4.3.1: Notification and utilization of a City-designated biologist for Protocol Surveys, Pre-construction Surveys, Site Monitoring and potential species relocation for mitigation purposes.

H75

An easy way for the City to appear to be doing less than is necessary to be compliant, is to pick a biologist who is employed by the developing agency or a partner thereof. In other words, the biologist chosen for this should be completely free of conflict, or the appearance thereof.

Impact 4.3-2:

Potential disturbance of special status and protected native birds (e.g., tricolored blackbird and Suisun song sparrow) during the breeding season could occur at the Tank Farm retention ponds. This impact would be made less than significant by mitigation measure 4.3-2.

H76

Any mitigation measures should be applied not only to any habitat on the Tank Farm retention pond site but also to any habitat adjacent to the area.

Mitigation Measure 4.3-2: Construction at the Tank Farm would be limited to the non-breeding season for most birds, i.e., all work would occur September through February.

H77

Breeding season for the Suisun song sparrow is earlier than for most birds. This species can be breeding in February. What will be the impact to this special status species if they do indeed exist at and around the site and are breeding during the time of construction? The impact is difficult to predict, since all species count information in the DEIR was taken from 9 and 14 year old surveys that are not immediately available for public review.

***

Additional Comments:

I was disappointed with the maps and aerial photos in the VIP Draft EIR. It is difficult to find the proximity of the planned construction to Sulfur Springs Creek at/near the refinery. Only the outflow from the refinery to the marsh was visible. Only a general description was provided. The possibility exists that the retention ponds provide habitat, although such a habitat would be highly fragmented from the surrounding area, the possibiltiy exists that it still provides habitat for breeding, nesting, and foraging. Nonetheless, definitive aerial and ground photos combined with detailed maps, are necessary to show the physical relationship and distances between the retention ponds, the creek and the marsh.

H78

LETTER H – GOOD NEIGHBOR STEERING COMMITTEE: MARY SHAW

H71 The sites were not systematically surveyed for all plant and animal species. The research referred to in the Draft EIR involves using current and historical site records and natural history information to predict likelihood of occurrence. CEQA documents generally follow this practice because a habitat-based prediction is often more accurate than an actual survey, since habitats may not support a particular species during any given year in which the surveys take place.

H72 In practice, species counts do not determine mitigation, since impacts on species without "special-status" classification would not be considered significant and mitigation would not normally be proposed. Surveys for special status species are prescribed in mitigation measure 4.3-1.

H73 The incorporation of biological information gathered over past decades is not used to indicate or prove absence of any special-status species. Its primary value is to evaluate current potential based on past presence; i.e., if a species had been noted at any point in the past, the likelihood of its occurrence in the present must be considered enhanced. Where there are such uncertainties, surveys are prescribed. For example, mitigation measure 4.3-1 prescribes protocol surveys for red-legged frogs and pond turtles unless ponds are allowed to dry naturally.

H74 The statement that the project is not under CESA jurisdiction was not an attempt to exempt the site from the law, only to say that the Draft EIR concluded that no state-listed species are expected to *occur*. There is a possibility that red-legged frogs, a federally listed species, could be present, and the Draft EIR requires that surveys for this species be carried out unless the ponds are allowed to dry naturally.

H75 The City is the lead agency for the project and under CEQA is responsible for the quality and accuracy of reports and the adequacy of implementing mitigation measures. This is why the City, as opposed to the refinery, will choose who will do the biological work.

H76 The ponds themselves are largely surrounded by developed facilities. In any event, the mitigation is intended to apply to the area in which the impact could occur.

H77 Mitigation Measure 4.3-2 states that construction at the Tank Farm would be limited to the non-breeding season for most birds, i.e., all work would occur September through February. Although some individuals may breed in February in intact habitat, construction action would have removed suitable nesting substrate by this time, if construction begins in November. The commentor asks what the impact would be if the birds were breeding in the area while construction takes place. The Draft EIR assumes that this would be a significant impact, and the mitigation measure is designed to avoid this by removing all breeding habitats.

H78 The location of Sulphur Springs Creek has been added to revise Figure 4.9-1. See Chapter VI, *Text Changes to the Draft EIR*.

Valero Improvement Program

Comments by Edward W. Swenson, M.D.,
Member, Healthy Benicia, as well as the erstwhile General Plan Oversight Committee

December 11, 2002

The development of co-generation, if the emissions are properly scrubbed (see below) Is to be commended. H80

Use of re-cycled water from on-site, as well as "gray water" from the city's water treatment sources is similarly praise-worthy. Water effluent, including groundwater sampling sites, must be monitored for pathogens and chemicals so that such undesirables as toxic Escherichia coli as well as methyl-tert-butyl ether and other VOC's (volatile organic chemicals) are effectively reduced to city drinking water standards. H81

Atmospheric emissions need to be monitored downwind from the plant as well as around the city. Support of community efforts to discern and remove NO_x, SO_x, O_3, and particulates is strongly recommended. To reiterate, Valero sources as well as any others which are sensed, must be remedied promptly. Reference is made to the column on Asthma and Air Pollution which appeared in the Benicia Herald, August 7, 2002, and a copy of which is enclosed. H82

Letter H Attachment 2

Gardening and Health

By Dr. Ed Swenson

Asthma and air pollution

Asthma is on the increase even though the air is getting cleaner. The causes of chronic airways disease are many, ranging from active and passive cigarette smoking, still the most important, to "rare birds" like aspirin and food additives for some people.

Heredity plays a role in all allergies. Stress, weather change, sedentary life-style (with accompanying obesity), even exercise itself in people with "twitchy tubes". Seasonal attacks from pollens are well-known, while indoor culprits are many, ranging from house dust to certain work-place inhalants ("Monday morning asthma"). Some people wheeze because they have heart trouble, while others unknowingly regurgitate stomach contents and aspirate them.

As if all that weren't enough, our air is polluted with chemicals and particulates in the home and outdoors, irritating our airways. Cars and other transportation account for half, while the rest is from industry including factories, power plants, refineries, gas stations, even dry cleaners. We mustn't forget aerosol cans, wood fire places, and gas lawn mowers.

The great number of causes of wheeze and cough is matched by the variety of substances out there in the air we breathe. Here are some of the worst offenders:

*Carbon monoxide is a silent killer from incomplete combustion of poorly tuned auto engines and faulty stoves.

*Ozone destroys lung tissue, ties up our hemoglobin, and has to do with hardening of our arteries. It is present in smog, resulting from interaction of hydrocarbons and oxides of nitrogen.

*Sulfur compounds, especially SO2, another smog ingredient, come from sulfur-containing fuels, expecially certain sources of crude oil. Power plants and diesel engines can thus bring it to us. It hydrates in moist air to form acid rain.

*Particulate matter, fm cigarette smoke and fuels can penetrate into the lungs if the particles are of low diameter. Our own defending cells, macrophages, try to ingest them and dissolve them with enzymes. The latter, unfortunately, can digest lung substance, too!

*Lead fumes, as well as that ingested, poison blood, brain, kidney, and gut, in a particularly slow and surreptitious way, so it may go long undetected.

*A host of other chemicals are present in variable amounts downwind/water from industrial and other sources. One group, volatile organic compounds, including benzene and MTBE (a fuel additive) cause cancers and birth defects.

The treatment of asthma has evolved with the prompt use of inhaled steroids (like prednisone but free of the systemic effects) coupled with long-acting adrenalin-like aerosols which make life (and breathing) easier. Regular exercise (especially swimming) can make a big difference but prevention remains the key. Elimination of chemicals, particulates (including smoke and dust), as well as infections can work wonders. Trees and other greenery help clear the air, so get out in the garden every day.

Community action, including legislation, needs to be based on knowledge of how much of which pollutants we have to deal with. To this end, monitoring stations are called for; this technology has been steadily improving, and its cost coming down.

If you'd like more information, you might start with "Facts about Air Pollution and Your Health" available from the American Lung Association, telephone 1-800-LUNG-USA. Congressman George Miller, 7th District (Contra Costa and Solano Counties) has an environmental update in his mailing of June 2002, telephone 707-645-1888.

LETTER H – GOOD NEIGHBOR STEERING COMMITTEE: EDWARD SWENSON

H80 The writer's comment is noted.

H81 The city does not currently rely on groundwater as a source of water supply. Valero's use of reclaimed wastewater would not be for human consumption.

Monitoring of wastewater streams is required by the RWQCB as part of the refineries NPDES permit. Standard regulatory requirements for surface water quality and groundwater quality have been established to meet city drinking water standards. In Section 4.9.2.3 of the Draft EIR these standard requirements and the federal, local, and state agencies responsible for these requirements, establishing more stringent requirements, and oversight programs are discussed.

H82 Federal and state standards for the concentrations of these Criteria Pollutants have been established for NO_x, SO_x, O_3, and particulate emissions to meet specific public health and welfare criteria. They are discussed in Draft EIR Section 4.2, Air Quality. Also, see Master Response "Air Quality."

The commentor is correct that atmospheric emissions need to be monitored downwind from the plant. In fact they are monitored both at the point of release as well as downwind in many directions at a number of local monitoring stations as presented in Master Response "Air Quality." This type of monitoring data is used by the BAAQMD to insure compliance with air quality permit conditions by Valero and in the future by the VIP. Such effects on human health such as asthma, as suggested by the commentor, are precisely the reason compliance by such industrial sources as the Valero refinery with air quality permits is necessary.

December 13, 2002

City of Benicia
Planning Department
250 East L Street
Benicia, CA 94510

Subject: Comments on Valero Improvement Project (VIP) Draft Environmental Impact Report (EIR)

Dear Planning Department,

The following are comments and concerns about the subject EIR.

1. There is much discussion in the text and in the attached report about Water Supplies. It is quite clear that without additional supplies to the city, there is not enough water for the project. Additional supplies are vague, at best. Even if the recent ruling states that Benicia is entitled to more water, there is no guarantee that water is available. With climate change, drought cycles, rapid growth and increased water use all over the state, water supplies are in question. The only recourse is water reuse. Water reuse is the right task for the ecosystem. H83

2. There is no discussion of the economic impact of tertiary treatment of the City's wastewater in order for water reuse to occur. I believe that this is something to consider. If tertiary treatment costs the City more, the costs must be passed to the user, Valero, and not to the citizens of Benicia. Vague reference was made to a document (p11) prepared by the City (EOE,2002) but this document was not in the reference section of the report nor mentioned in the EIR. H84

3. There is no discussion of water conservation measures to be taken on the part of Valero. The EIR discusses only water use. One alternative mitigation measure should be that Valero look over all their processes to determine where water can be saved. H85

4. The wastewater discharge to Suisun Marsh is under a NPDES permit. As stated in the EIR (page 4.3-2) additional communication to the city is necessary to ensure that discharges meet these requirements. H86

5. The Tank farms ponds will be removed or altered. Wastewater and storm water presently held in these ponds do not seem to have an alternate place to go. The EIR did not mention (or was very unclear about) what would happen to these waters upon removal or alteration of the ponds. Are the new tanks in that area replacing the ponds? H87

6. I am concerned that no actual biological survey has been accomplished at the site since 1991 or before. If species are found, mitigation should include replacement habitat, not just alteration of construction schedules for nesting seasons. Replacement habitat should include native plant species as stated in Benicia's General Plan. H88

7. I would like to see the EIR tie the biological resources to air and water quality. The report is fragmented in this manner. Section 4.9 on Hydrology and Water Quality does not address H89

water quality changes as a result of the change in the process to sour crude. Non-point source waters from outfalls that are not collected for treatment are of issue. Refining of sour crude will change air emissions and ultimately these emission will impact water quality as particles fall and wind and rain cause air contact with plants, structures, and water. There is no analysis in the EIR concerning the water quality of these non-regulated outfalls; how they will be monitored and whether that monitoring will include constituents of concern from sour crude, particularly metals and sulfur compounds. An analysis is also lacking of how these constituents, even if below NPDES levels, will impact biological resources where accumulation of these constituents may take place.

H89 cont.

8. The EIR tends to look at storm water and water quality issues from the point of view of the construction only, not the ongoing operation of the new systems. The EIR states, in section 4.9-12 that Valero will construct additional treatment units, if needed. They are relying on the RWQCB to tell them if they are needed for operation of the new systems. I find this unacceptable. The VIP should take care of all anticipated discharge prior to approval of the EIR.

H90

I hope that these comments can improve the project and help make this an environmentally responsible one for all citizens and the ecosystem.

Respectfully submitted,

Susan Wickham
411 Duvall Court
Benicia, CA 94510

LETTER H – GOOD NEIGHBOR STEERING COMMITTEE: SUSAN WICKHAM

H83 The commentor's statement on wastewater reuse is acknowledged. See Master Response "Water" for more information about water supply for the VIP.

H84 At the point where the City would be evaluating the feasibility and environmental impact of the wastewater reuse project, detailed analyses will be prepared to examine the project costs.

H85 See Master Response "Water" and Response H65.

H86 Comment noted.

H87 A tank or tanks would be located on land now occupied by storage ponds. The storage capacity in the crude oil storage tank area is now used for diverted effluent bypass, if needed. The capacity to store wastewater is discussed in Section 4.9.2.2 on p.4.9-5. Impact 4.9-1 discusses the reduction of wastewater storage capacity.

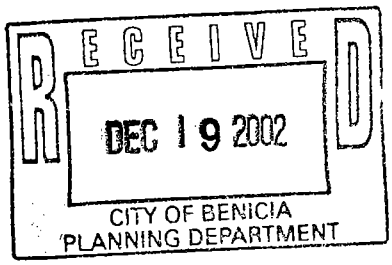
H88 See Responses H71 through H74. Also see comments B3 through B7 from the Regional Water Quality Control Board. As described in the Draft EIR, p.4.3-2, the vegetated areas in the tank farm are patches of limited extent and habitat value.

H89 The proposed additions of the VIP are within a controlled runoff area that conveys stormwater to the wastewater treatment plant. As discussed in Impact 4.9-1 (p.4.9-20) and Impact 4.9-8 (p.4.9-26), point and non-point source stormwater is not expected to increase substantially due to the proposed improvements located in developed areas that currently generated storm water runoff. Impervious surface areas and changes in surface water flow patterns are not expected to change or increase. The non-point source stormwater runoff discussion in Impact 4.9-1 (p.4.9-20) includes the air emissions analysis in Impact 4.2-2 (p.4.2-21 through 30).

The analysis that begins on page 4.3-14 cross-references the water quality section and presents a synthesized analysis. However, the commentor appears to be asking about both air and water quality impacts on biology from discharges other than the main wastewater discharge discussed as Impact 4.3-3, i.e. the induced changes in water quality as a resulted of airborne particulates precipitating from rainfall. While not denying that such impacts occur, there is insufficient scientific information to make a prediction on effects, and an assessment would be speculation, a practice discouraged by CEQA Guidelines (15145).

Also, please see comments B3 through B7, from the Regional Water Quality Control Board, and the text changes in Chapter VI, *Text Changes to the Draft EIR*.

H90 The RWQCB is the agency that is responsible for water quality in the Bay and also is responsible for controlling the discharges of wastewater to the Bay. The RWQCB limits the type and amount of pollutants that Valero can discharge through a regulatory process, the NPDES permit that has the force of law. This process results in the design and implementation of treatment facilities that will be capable of treating and controlling the pollutants that will be present in the wastewater. See Draft EIR Section 4.9 for a detailed discussion and also see Responses B1 through B9 for further information related to wastewater treatment and discharge.



Marilyn Bardet
333 East K Street, Benicia, CA 94510
745-9094

with
Elizabeth Patterson
1215 West Second St, Benicia CA 94510
746-5668

December 17, 2002

Mr. Lamont Thompson
Benicia Planning and Development Department
250 East L Street, Benicia, CA 94510

SUBJECT:
Corrections of errors on first submission and Further Comments on the Draft EIR for Valero Improvement Project SCH#2002042122 — October 2002, for City of Benicia by ESA, Environmental Science Assoc.
Contents:

1) **ERRATA page and copy of our initial comments;**
2) **FURTHUR COMMENTS added to complete our initital letter/comments. [These further comments we promised to submit by Dec. 18th, within two days of the end of the review period. When we turned the initial comments in, Terry in the Planning Office advised that this would most likely be "okay." Yesterday, the 17th, permission was given for an extra day, until Thursday 5 p.m., to submit these further comments.]**

Dear Mr. Thompson,

Thank you for permission which you granted today, when I phoned, to turn in additional comments by tomorrow at 5 p.m. December 19 including corrections to a few errors in first submission. (see "ERRATA" below) Thank you also for giving the "heads up" to ESA that they should expect additional comments. As I said, I tried my best to meet the deadline, with many other obligations at this time of year, and in addition a power outage on Saturday, when I couldn't use my computer and worked by hand by candlelight! Elizabeth and I are grateful for this opportunity to add further comments pertinent to our discussion of the DEIR as outlined in our original submission.

Several factual errors and one glaring editing error were made in our initial submission dated Dec 16, which are here corrected in a brief "ERRATA" section. For your convenience, a copy of our initial comments, dated Dec. 16th, follows the corrections, which is then followed by "Additional Comments".

ERRATA /CORRECTIONS — on comments submitted December 16th, which are copied below.

3) **Page 1 of letter/comments dated 12/16, last sentence in first paragraph, editorial error:**
I wrote "....too much is left to vague assertions on most crucial to be fully...."
The correction should read:
"We have found the job of understanding the document to be highly challenging, in that so much information is missing from the Draft EIR and too much is left to vague assertions on most crucial topics pertinent to evaluating VIP. We fully support the GNSC critique of the Draft EIR." H91

4) **Page 3 of letter**
I typed "Anhwar" (phonetic!) when I meant the acronym ANWR (Arctic National Wildlife Refuge) H92

3) **Page 3 of letter, second and third paragraphs**
I wrote 150,000 MBD in several sentences but meant 150,000 barrels per day H93

4) **Page 3 of letter, second paragraph, last sentence**
I wrote "....operating to produce even 4% more throughput is not discussed"
This needs to read:
"....operating to produce even 12% (half of potential) increase in throughput for VIP is not discussed.
(I was thinking about increase in demand for raw water, which is 4%, while total projected increase in throughput for full VIP is a 25% increase,. Thus, if only Main Stack components are implemented, VIP throughput capacity might be halved, although this projection is not made in the DEIR). H94

CONTINUE

INITIAL COMMENTS
SUBMITTED TO THE PLANNING & DEVELOPMENT DEPARTMENT
DEC 16, 2002

Secondary authors resent this letter with revisions to their comments. The original letter's comments are Nos. G21 - G32.

Marilyn Bardet
333 East K Street, Benicia, CA 94510
745-9094

with
Elizabeth Patterson
1215 West Second St, Benicia CA 94510
746-5668

December 16, 2002

Mr. Lamont Thompson
Benicia Planning and Development Department
250 East L Street, Benicia, CA 94510

SUBJECT: the Draft Environmental Impact Report for Valero Improvement Project
SCH#2002042122 — October 2002, Prepared for City of Benicia by ESA, Environmental Science Assoc.
Comments Submitted December 16th (with additional comments forthcoming, to be added to these initial comments by GNSC members, Marilyn Bardet and Elizabeth Patterson

Dear Mr. Thompson,

As members of the Good Neighbor Steering Committee, we are submitting these comments jointly, as part of the formal letter with comments submitted to you by GNSC spokesperson, Dana Dean . Elizabeth Patterson and I worked together, and in discussion with others, including Ron Glas (not a member) and Brad MacLane (GNSC member) to formulate our ideas and comments about the Draft EIR. We have found the job of understanding the document to be highly challenging, in that so much information is missing from the Draft EIR and too much is left to vague assertions on most crucial to be fully support the GNSC critique of the Draft EIR for the Valero Improvement Project.

The VIP expansion project is so full of implications for our community's welfare, we fully agree as GNSC members that the Draft EIR needs to be completely revised and re-circulated for public comment again.

It took many hours to read the document cover to cover. I personally attended nearly every public workshop and each hearing in an effort to learn as much as I could about VIP from Valero's point of view, before approaching a thorough reading of the Draft EIR when it was finally released. I have made notes in the margin on nearly every page. Because the task of reviewing such a "Flexible Project" in a programmatic EIR is so difficult, we have not found that 45 days is an adequate enough amount of time, especially in the Thanksgiving to Christmas holiday time period, to not only read and make notes on the Draft EIR but to assemble and write full comments on so many areas of serious concern.

Thus, we are submitting a partial number of general comments today, and will submit more in the next two days, focussing on the most egregious omission of the Draft EIR. Our initial

comments here focus on the Draft EIR's crucial avoidance of any discussion of the central overarching goal of the General Plan for sustainabilty.

Understanding the Proposed Project in a programmatic EIR describing an "improvement project" comprising a flexible and variable number of component parts is nearly impossible, *especially given the Draft EIR's myriad problems, inconsistencies, omissions and unsubstantiated claims*—like juggling too many balls, with some thrown at you—to assemble any easy rendering of what VIP actually comprises nor form any coherent, definitive conclusion as to its local and cumulative adverse impacts.

The Draft EIR misses crucial discussion and detailed account and factual basis for making many of its supporting claims central to any notion of "improvement" as is called for when adverse impacts are predicted and mitigations are necessary and called for.

We concur that the Draft EIR is a "fatally flawed" document and does not fulfill the mandate of CEQA to inform the public and fully disclose the nature of a project and its adverse impacts. The fact that the Draft EIR is so deficient—its project descriptions and discussions of impacts masked by the general condition it supports for "flexibility"—that it made the task of reviewing the document even harder: We not only had to try to figure out what the several VIP scenrio/project(s) would comprise or not comprise, but deal as well with vaguely suggested partial scenarios in the "alternatives to the project" section and throughout the document. This much "flexibility" would seem to allow Valero to pick and choose ANY scenario,(with or without scrubber, with or without Water Reuse Project, with or without Light Ends Rail Rack Arms Drain, with or without alternative location for tank farm in buffer zone, such that there is no specific "Proposed Project" for which there can be a definite set of Alternative Projects. Key worrisome words in assertions about the several "environmentally beneficial" components' implementation are "delayed" and or "foregone". Bye, bye scrubber; Bye, bye water reclamation project!

The single most egregious omission as related to the lack of discussion of the policy driving the Draft EIR is reference and discussion of the Benicia General Plan's over-arching goal for sustainability—thus for sustainable growth and development.

Benicia General Plan:

"Community development and sustainability are at the heart of the goals developed in this General Plan...."Sustainability" in this General Plasn conveys long-term interdependent economic and environmental goals that promote efficient land use. It is a way of thinking and acting responsibly with respect to environmental, social, and economic issues at ever-widening levels of awareness or "integration". That is, what is done at the project or local level can affect all levels of the environment, including the local community, neighboring regions, the country and the world."

Thus, for many reasons we will outline below, the VIP refinery expansion project is not consistent with the Benicia General Plan and its many policies that uphold the community expressed value of sustainability. (See comments below and to be further submitted, by 12/18.)

There is *no overriding policy that sets the framework for the Draft EIR* which is what a

programmatic EIR is supposed to offer as an organizing principle, when there are so many sequenced project components and so many variables in the proposed sequencing, all of which planning is dependent on economic matters not even discussed in the Draft EIR, i.e., "market conditions". Thus, "market conditions" affecting Valero's purchase of different sour crudes from various sources could be greatly impacted by the federal Administration, depending on current events in the Middle East, availability to drill in Anhwar, and national security interests—conditions that will be felt as adverse impacts to our local community, depending on which part of VIP is implemented and what state or federal regulations at the time are being promulgated and enforced.

In fact, the Draft EIR seems to be organized around achieving the goals of the refinery for increased profit, with maximum "flexibility" to achieve that aim through an "improvements" i.e. expansion and increasing density of the refinery's main block and tank farm—hence, a "refinery improvement project" is an expansion program. The agenda to guarantee maximum "flexibility" seems the most important condition of the VIP as described in the Draft EIR, that will enable Valero Refining Company to fulfill its objectives of increasing potential for running higher sulfur content "sour crudes" through the refinery, at increased throughputs for at least 10% increased gasoline production.

Increased profitability of Valero Refining Co cannot be our community's concern, nor the first priority of our City Council. The economic "flexibility" Valero is looking to create is not discussed in terms of sustainability. Such consequences of "flexibility" will have adverse impacts on our community, especially if throughput is increased even incrementally up to 150,000 MBD with minimal modifications to the refinery. What is the overall impact of running more corrosive feedstocks throughout the entire system, while maintaining a "normal" maintenance schedule for turn-arounds, as the Draft EIR suggests? The discussion of how the refinery itself might become more "run down" operating to produce even 4% more throughput is not discussed .

Reliance on BAAQMD for providing mitigating limits of 150,000 MBD gives the community no assurance that the refinery will not be run indefinitely, with higher percentage of sour crudes being blended into the feedstocks and without a "Main Stack Flue Gas Scrubber" and without a plan for serious water reclamation, either from within the refinery block of from a separate project sponsored by the City to create tertiary treatment for grey water to mitigate increased refinery demand for raw water.

We cannot rely on BAAQMD to enforce Valero's own proposed discretionary limitation to not exceed historical emission levels for SOx or Nox or VOC's or Hydrogen Sulfide—all regulated Toxic Air Contaminants that impact our local community but which are not monitored in local neighborhoods, The Draft EIR has no basis for claiming there would be no significant impacts from TAC emissions, without any historical data from monitors that don't exist *as yet* to measure ambient air quality within neighborhoods.

Comments to be submitted within two days to follow:

Respectfully submitted and signed by Marilyn Bardet, with Elzabeth Patterson's approval (Elizabeth is in Sacramento at work.)

Marilyn Bardet

CONTINUE

FURTHER COMMENTS on the DRAFT EIR
for the VALERO IMPROVEMENT PROJECT

Marilyn Bardet
333 East K St,, Benicia, CA 94510
745-9094

with
Elizabeth Patterson
1215 West Second St., Benicia CA 94510
745-5668

December 18, 2002

Mr. Lamont Thompson
Planning and Development Department
City Hall, 250 East L St.
Benicia, CA 94510

SUBJECT: Additional, continuing comments on the DRAFT EIR (DEIR) that follow up on comments submitted on DEC. 16th . Included are copies of referenced material.

Dear Mr. Lamont,

We are submitting further comments on what we believe is the DEIR's most glaring policy omission in reference to the Benicia General Plan. We believe that our concerns about the various subjects addressed by the DEIR (for instance, Aesthetics, Air Quality, Public Health, Biological Resources, Utilities and Service Systems, etc.) can and should be considered under the conceptual rubric of "sustainability", which is *the* appropriate qualifying condition for future land use and development in Benicia.

Comments below will amplify these general statements and attempt to describe the problems of the DEIR with regard to consideration for sustainability. H95

For convenience of reference, I would like to re-state the that we quoted in our first submission **City of Benicia General Plan on *SUSTAINABILITY* (page 22)**

.... *"Community development and sustainability are at the heart of the goals developed in this General Plan...."Sustainability" in this General Plan conveys long-term interdependent economic and environmental goals that promote efficient land use. It is a way of thinking and*

acting responsibly with respect to environmental, social, and economic issues at ever-widening levels of awareness or "integration". That is, what is done at the project or local level can affect all levels of the environment, including the local community, neighboring regions, the country and the world."

FAILURE IN ANALYSIS OF THE DEIR AS RELATED TO THE BENICIA GENERAL PLAN GOAL FOR SUSTAINABLE DEVELOPMENT:

To reprise our initial comments, The DEIR is woefully inadequate since it does not address the General Plan's fundamental over-arching goal of *sustainability* (page 21, 22 of the GP), which is integral to all other General Plan goals, policies and programs, some of which are referenced in the DEIR in various sections. As we initially stated, we believe the DEIR is *fundamentally flawed* since it fails to reference and address the fundamental principle of *sustainability, the guiding goal,* from which all other goals and policies of the General Plan arise, *for judging all future proposed development projects in Benicia,*.

Sustainability is the organizing principle of the entire Benicia General Plan. Sustainability is not a perspective or condition pertinent to development only particular to the Benicia General Plan. Obviously, it is a widely discussed concept, pertinent to state and federal level policy-making on such topics affecting our common future as California residents as population growth, water resources (water supply), housing and transportation. H95 cont.

The DEIR fails to provide discussion, guidance or standards of review to demonstrate how Benicia's citizens can begin to make decisions on land use, including the Valero Improvement Project, that begin to implement "sustainable development".

The test of sustainability is to secure plans for economic development that promote stability, and are protective of the environment , biological resources, human health and the well-being of a community, and by extension, to a geographic region. By implication, the test of sustainability even on a local level takes in the wider context of world conditions. It is not hard to see, for instance, in reviewing the DEIR, that underlying "market forces" (the price of crude oils, sources of oil, availability of reserves, political conditions) impact planning for the refinery's future, and these plans impact the local community. (see below).

Although applying the concept of sustainability as a test of a development application demands a stretch of the imagination, the concept is central to thinking, for instance, about how to meet the challenges of climate change and water supply depletion in the western U.S. Such accounting has ramifications for development plans in California, which can have ripple effects: California has the 6th largest economy in the world and a fast-growing population already larger than Canada's that is slated to nearly double by 2025. *Depletion of precious water resources in the future will greatly impact agricultural, commercial, industrial and residential development to an even greater extent than we currently experience or understand.* Water will no doubt become even more expensive and contracts more difficult to negotiate for long-term planning. The City of Benicia especially will not be exempt from experiencing the impacts from these pressures, "for the life of the community". By corollary argument, the Valero refinery cannot ignore these foreseeable conditions "for the life of the refinery". This consideration alone demonstrates that there can be no easy assumptions, as are made in the DEIR about future potential water contracts, as to how the refinery in the future will be required to operate, in order to guarantee a balance

with water requirements for the community. (see below)

The DEIR does not set the context in which Valero is applying for expansion permits: As stated in the DEIR, the Valero refinery at Benicia supplies 25% of the gasoline needed by the San Francisco Bay Area residents and 10% of the gasoline consumed state-wide, (**Project Description, 3-1**); yet the Project Description does not contextualize the expansion or give the macro reasons for it. For instance, local conservation measures are suggested that would partially mitigate the refinery's impact on Benicia water supplies. But NO mention is made on the future necessary mitigation to reduce present rates of gasoline consumption. (see below) which cannot be implemented without regional efforts to increase public transit and also national auto industry effort to produce better gas mileage and/or alternative fuels, (such as battery-driven electric cars, hydrogen fuel cells, etc.). "VIP" simply addresses the current demand for gasoline in California and future needs for gasoline, given current and predictable population growth, *if nothing else changes for the "life of the refinery"*. The DEIR states the life of the refinery to be "thirty years", although this figure is without any explanation in the entire document. We cannot know, therefore, the meaning of a "refinery's life"—not even regarding maintenance—without any context for evaluating all the conditions that promote or degrade the refinery's ability to operate safely and with regard to all such above mentioned "market forces". Indeed, there's a sense of a hidden "Flexible Hand of Fate" behind the DEIR that goes unmentioned, without any rational discussion of the compelling forces that direct it. H96

The DEIR avoids any discussion of the impact of macro socio-economic factors on, for instance, future production goals for "the life of the refinery". Since VIP will make permanent changes to the refinery process block, it seems a significant omission. "Market conditions" are alluded to in the Project Description, in so far as "flexibility" is stated to be desired, in order to process cheaper raw materials. The processing of higher sulfur content crudes, if VIP is implemented fully or in part, we have to assume will impact the refinery operation now and into the future, although this remains undiscussed in the DEIR. Future development/expansion plans, such as are only mentioned as "other future refinery projects" that are not part of VIP but might be currently foreseen, will also have bearing on the "life of the refinery", yet they are not described or discussed as a potential contributor to predictable cumulative impacts. H97

In **DEIR Chapter 3, Project Description 3.1 and 3.2** there is no discussion of the document's "guiding assumptions" or its own "guiding principle", nor acknowledge Benicia's community goal for sustainable development, except to mention (3.2.1) that VIP would allow "the refinery...to continue to efficiently produce clean burning fuels in the California market and would [allow the refinery to] remain economically competitive into the future". According to the DEIR, VIP would allow "the refinery to process a higher percentage of lower grades of crude oil than it presently can process" and allows for "enhanced flexibilty" to substitute between crude and gas oil, the two refinery feedstocks." H98

The DEIR moves quickly into a discussion of **Project Components (3.2.2)** in which the DEIR authors state what appears to come closest to being the overriding principle of the DEIR, (as we pointed out in our initial letter/comments dated Dec. 16th):

> "Valero has applied for permit approval of a project comprised of a number of components whose implementation would provide greater flexibility in refinery operations." H99

Given the lack of adequate discussion of the context in which VIP is meant to "provide greater flexibility", it is nearly impossible to evaluate what the total number of real variables might be that could account for, and be predictive of, a true picture of all *cumulative adverse impacts* (to be discussed below) arising from full implementation of VIP or any part of VIP—impacts that would affect not only our local Benicia neighborhoods but also residents and the environment of the Carquinez region and those communities and environments "downwind" of the Valero refinery. H99 cont.

AESTHETICS Section 4.1

The Draft EIR does not discuss Benicia as being part of a larger Carquinez region, an area recognized as having national and international significance. As to the latter distinction, there are only three river systems in the world where two rivers meet as they flow to the sea: in California, India and Iraq .(John McPhee, *Assembling California*)] National significance owes to its balance of scenic beauty, commercial and industrial activity and recreation. It is a region in which people live and work. The Carquinez Strait is the "Yosemite" of an estuary connecting a bay and the delta where two rivers become one and flow toward the sea. (Andrew Neal Cohen, *Gateway to the Inland Coast: The Story of the Carquinez Strait*, published by The Carquinez Strait Preservation Trust and the Carquinez Strait MOU Coordinating Council, a project funded by Pacific Crockett Energy, Inc.) H100

How does a full build out of VIP expansion and "other refinery projects in the future(alluded to but not disussed in the DEIR) impact this distinguished fragile balance?

In the DEIR, only a few qualitative assertions are made to support the conclusion that "no significant impacts" will occur to the aesthetic appearance to the "refinery process block" as a facility located in the northeastern part of the industrial park, bordering neighborhoods—with several buffer zones. In the DEIR, the various components of the refinery expansion are described individually, and each component is "placed" within the existing refinery block, to compare sizes, girths and heights of individual VIP units to be added with those now existing. The problem with this analysis is that a resident viewing the refinery from a distance of a hill in his neighborhood does not usually look to see individual components, but sees or scans the *mass of the refinery as a whole, not any single part.* Therefore, the increased density of the refinery block would represent a significant impact to the refinery's visual character. Adding two more tanks contributes to the general size of the refinery. Of course, if those two tanks are constructed in either of the refinery's buffer zones as suggested they might be in **Section 6.2.3 Place New Tanks in a New Crude Oil Tank Farm,** neighbors especially in Southampton or the Highlands would certainly notice the "expansion" and resent the intrusion of a "new tank farm" if one were built in either the East Second St.or Highlands buffer zone. Both neighborhoods, including the future Tourtelot residential development slated to be built above Channel Road, would notice the overall *increased density of the refinery block and tank farm, especially if the two extra tanks are put in either buffer zone.* H101

Residents of Benicia frequently compare the Benicia refinery to those refineries they see regularly across the Strait, either at a distance or when driving on the Benicia-Martinez Bridge, H102

and as they pass by the Shell and Avon refineries along I-680 corridor. Everyone notes the difference in scale of the refineries and whenever flaring or occasional dramatic fires have occurred at Shell, people witnessing such events rue the day that the "Benicia refinery becomes like Shell". The Exxon refinery was historically "newer" than Shell, and thus, the Benicia refinery is still referred to as being "newer" and "smaller". Nobody wants the deterioration of our local refinery to occur. Expansion, as has noticeably occurred at Shell in the last ten years, is associated to excessive flaring seen often at night, occasional remarkable fires, and constant odors smelled along the freeway. The Shell refinery is often referred to as looking like an entire city at night, albeit a stinking ghastly one. Shell has earned names and moniker-like sentences that get affixed to any thought of refinery expansions: for example "Shell is Tinkerbell's Hell". By contrast, Benicians have been more acomodating of their local refinery. However, this may not hold up, if VIP expansion projects are fully implemented. H102 cont.

Aesthetics is a matter of familiar judgment, comparing one thing to another, sometimes routinely, sometimes with great scrutiny. Any changes that occur are highly noticeable to someone familiar to the "scene" as it undergoes changes. Changes that are deemed permanent may be quite disturbing, affecting how an individual sees "his or her world". In the case of the refinery's proposed expansion, the local world is the town, its neighborhoods, its views. But thoughts that surround the refinery, *as it is seen*, extend beyond the local community *to what an individual experiences elsewhere and what he or she reads in the newspapers that might explain the "changes" in the refinery process block representing an "expansion" more than "improvement" to the refinery and to his orher world.* H103A

Contrary to the DEIR, and excepting that the DEIR does consider locating the additional two storage tanks outside the current tank farm because construction of additional tanks there would present biologically "significant impacts" that thus require mitigation, *we doubt that anyone would not notice the aesthetic changes at the Benicia refinery if VIP is fully implemented.* H103B

Trade-offs are inherently part of what VIP portends for the Benicia community: between aesthetics and biological impacts, between a scrubber's benefits, and excessive water requirements for addtion of the scrubber. The DEIR gives little respect for the "trade off" signified in proposing to build a tank farm in a buffer zone near existing and future neighborhoods. H103C

Scenic quality contributes to liveability—our quality of life, and hence, the value of our properties, which for most people represents life savings for their families. The Carquinez region is considered a "Gateway" to the Delta recreation area as well as to San Pablo Bay and ultimately San Francisco Bay. It is well known that our property values are impacted by having an refinery in town. It is all the more important to protect scenic vistas as part of our quality of life. This is a goal of the General Plan. The General Plan does not include all significant views, however. Dramatic views of the Strait looking toward Suisun Bay and the mothball fleet are what make various neighborhoods in Southampton desirable. The refinery is part of those views for many residents. An expanded refinery, one with a denser "look", will impact those views. To what extent is a matter of individual judgment, but it cannot be assumed, as the DEIR does, that the impact will not be significant in the thirty year "life of the refinery". H103D

AIR QUALITY Section 4.2 and CUMULATIVE IMPACTS Section 5.2

The DEIR inadequately discusses the fact that the Air Basin has decreasing capacity to bear the toxic load that contributes to smog and other health impacts throughout the region. Increasing standards protective of public health are needed, yet there are no baseline statistics available for monitoring air quality within Benicia neighborhoods, as related to the alarming public health issue of increased incidence of respiratory diseases such as asthma in Solano County. The DEIR cannot address any statistics pertinent to localized impacts from air-born toxics from the Benicia refinery, or other industrial sources or freeways, because no air monitors have ever been installed in Benicia's neighborhoods. There simply is no data record relevant to making health studies of Benicia residents and the cumulative toxic load our community is exposed to on a daily and annual basis.

A quote taken from comments of a Vallejo resident, Gayle Watkin, submitted to City of Vallejo regarding the proposed Bechtel/Shell LNG terminal and power plant for the southern tip of Mare Island [3 miles from downtown Benicia] points up the fact that residents throughout the region are having to evaluate cumulative adverse impacts associated to project applications for their own cities which may impact residents in other neighboring or "downwind" communities. The DEIR didn't even mention the BechtelShell proposal:

H104

> "According to the U.S. EPA "Scorecard" for Solano County, developed from the extensive Air Toxics Hot Spots Program and the Toxics Release Inventory, our air at this time is already very dangerous to community health. According to the study, at least 390,352 people in Solano County already face a cancer risk more than 100 times the goals set by the federal Clean Air Act, (CAA) and 11,198 people in Solano County face a cancer risk more than 1000 times the goals set by the CAA.. The CAA was established to protect the public from health impacts to excessive exposure to chemicals. Exposures above recommended CAA levels are considered to cause human health impacts.... The no. 1 air pollutant contributing to excessive cancer risk in Solano County is diesel emissions from trucks and cars on the freeway. Diesel emissions have been listed as a cancer-causing agent by the California EPA and the U.S. EPA. As the Solano County population has rapidly expanded in recent years, freeway traffic has increased significantly, further exacerbating the air quality issues and concomitant health impncts in our communities. As a result of the high level of cancer-causing and toxic chemicals in our air, Solano County currently has an extrardinarily high respiratory illness rate. This is not an unseen or perceived [imagined] risk, rather, we see the adverse health effects exhibited, especially in residents of Vallejo and Dixon. Current asthma rates for Vallejo, for example, are 16% in children and 14 % in adults, while the state average is 8.8%. These startling rates of respiratory illness have prompted the American Lung Association to conduct a study on the citizens of Vallejo and Dison, and air quality issues related to these illnesses.... Consideration of Solano county and Vallejo's current air quality is key for the decision-making about the health and safety risk associated with the proposed LNG facility."
> [Gayle Watkin, An Open Letter to Vallejo Residents and Residents of Surrounding Downwind Communities, dated November 16, 2002. The letter was published in the Times Herald sometime in late November (date

?) The letter contains other valuable information about the predicted levels of toxic contaminants that would be produced by the proposed LNG Project.] see enclosure.

Increasing development contributes to deterioration of air quality, not only from the point of view of smog production, but from the point of view of public health.. **There is no discussion in the DEIR of adverse cumulative impacts associated to development/expansion plans at any other Bay Area refineries and industrial plants.**

The DEIR is not well organized in its presentation of cumulative impacts, considering the degree of variability ("flexibility") built into VIP which the DEIR attempts to account for in the Project Description.

Cumulative Impact Analysis 4.1-3 "*Cumulative impacts were analyzed by considering the effects of the VIP combined with other concurrent refinery projects and approved or planned projects in the vicinity of the refinery. The identifiable concurrent refinery and non-refinery projects are described in Seciton 3.6, "relevant Cumulative Projects". The cumulative impact analysis considers the interaction of VIP impact and impacts from other projects of the same type, or with the same effects, to create a cumulative impact affecting the same geographic areas as that of the VIPimpacts. Following the CEQA Guidelines, the extent of the area considered for each cumulative effect was set to be appropriate to that environmental issue.* [Here, important to our comments, this section goes on to say] *For cumulative projects within the refinery, information was available to consider these projects at a relatively substantial level of quantitative detail, while for cumulative projects outside the refinery, less project-specific information was available. Thus, the cumulative analysis for those non-refinery projects could not be quantitative. In addition to effects of the identifiable cumulative projects, the cumulative impact analysis also adds outside cumulative effects, such as cumulative traffic growth, to develop the full cumulative analysis. The results of the cumulative impact analysis are presented at the end of each respective section in this chapter and all cumulative impacts are presented together and considered as a whole in Seciton 5.2 Cumulative Impacts.*

H105

Despite the DEIR's claims for thoroughness of presentation of cumulative impacts, the document fails to mention key potential sources of impacts in the region that would be contributive to adverse impacts on health and safety of Benicia residents and neighboring communities, depending on wind dispersion of toxic pollutants.

The only cumulative impacts discussed are associated to local projects; discussion of these is limited to impacts during the main construction period for VIP, that is, between 2004 - 2009. Other projects that should be included are the Carquinez Bridge, the proposed Bechtel/Shell LNG port terminal, regasification unit and 900MW gas-fired electric power station —which is now in an application "study phase" being evaluated by the City of Vallejo. (see below). Further, Chevron Refinery is currently planning for "expansion". (see below).

The DEIR cannot make claims for "insignificant cumulative impacts" if the total number of projects factored into the assumptions are not correct.

Even the local projects—the SEENO office park development, the Tourtelot residential development, and the new Benicia-Martinez Bridge—are not evaluated for their contribution to

future foreseeable increased emissions in our region. H105 cont.

Reliance on current BAAQMD standards for air basin "attainment" (for "criteria emissions") is not adequate to address future conditions that can be reasonably foreseen. There is no discussion of the California Air Board's projections for growth, or the plans to address population and transportation pressures on the air basin and how industry standards will have to accommodate such changing conditions in order to protect public health. There is no analysis or projection in the DEIR about how BAAQMD can meet the Air Board's projected growth in air pollution, given these foreseeable conditions. For example, we don't know from the DEIR how BAAQMD will be able to insist on "historical limits" at the Valero refinery for SOx emissions in the face of potentially changed national security priorities set by the federal administration and by federal EPA, as have recently been announced, i.e., the "relaxing" of federal standards set by the Clean Air Act of 1990. H106

Further, "historical limits" on SOx emissions were not sufficient in the first place to be protective of air quality. Exxon's records on emissions were not exemplary, and further, the refinery was not then operating at full permitted production capacity prior to 2000, when Valero purchased the refinery. The DEIR shows that 3-year Baseline data for "criteria" emissions includes data for years between 1999 and 2001 **(Section 3.3.2.2);** thus this data reflects refinery operations, for at least 1 to 1-1/2 years, when throughput under EXXON management was roughly 128- 130,000 barrels per day, thus less than Valero-driven throughput levels which began to increase in 2000. H107

The DEIR states that Valero has already voluntarily requested of BAAQMD to set permitting conditions with "historical limits" set that are not to be exceeded in the future (for how long?—for an interim period of 3 years, before Flue Gas Scrubber is implemented, or indefinitely. No matter what VIP scenario is flexibly chosen of all the possible combinations of components, especially if the components implemented are ONLY those limited to components associated to the Main Stack—what the GNSC is referring to as the "Kernel VIP"— Valero desires that the permitting condition becomes a mitigation for predicted increases in SOx emissions. Whether the condition would be required if the "Main Stack Flue Gas Scrubber" is implemented or not, is not made clear in the DEIR. This type of "self-regulating" agency on the part of Valero to advance the permitting of the VIP program is strongly suggestive of the federal EPA's new directive to industry. But even if this level of "cooperation" between the refinery and the BAAQMD is evidenced as a permitting condition, the DEIR does not discuss how the BAAQMD can enforce the limitations, if the air basin "containment for criteria contaminants" is not achievable in the future under all such conditions as are cited above and which may reasonably be considered to entail future potential adverse cumulative impacts to the Benicia community as well as to the region. H108

"TACS" or Toxic Air Contaments are one way to identify pollutants but no citation or literature about non-regulated chemicals is given, such as dioxin. As one of the most dangerous chemicals to human health potentially produced in combustion processes (whether fireplaces or industrial sources), dioxin is not even mentioned in the DEIR. We are routinely and informally advised that dioxin is not an air emission produced at Valero. CEQA requires full disclosure of all potential physical impacts pertinent to protecting public health and safety. It's well known that current standards are driven not by public health but are negotiated standards and regulations pertinent to traffic impacts on "Bay Area Containment". Massachusetts is the only state with standards set specifically to regulate and monitor for chemicals that threaten public health. At the very least, H109

the parameters and/or limitations for discussion of future foreseeable air quality and cumulative emissions impacts of VIP on public health should be clearly stated in the DEIR. H109 cont.

With regard to local and regional potential adverse health impacts from exposure to toxic contaminants, there is no wind rosette and no climate studies included in the DEIR to substantiate claims about meteorological effects on dispersion of air-born toxic contaminants, including regulated and non-regulated toxic pollutants. In sections on emission impacts, general assertions are made about conditions in "summer, fall" and "winter months", but no adequate data or meteorological studies are presented for review in the body of the document or in the appendices that would adequately describe the conditions most residents are highly familiar with, regardless of whether BAAQMD has received phoned in "foul odors" reports. Further, highly variable and highly localized wind conditions and directions from September through February are barely mentioned. The dangers to public health posed by winter's "London fog" syndrome here in Benicia, wherein the fog stays very low for days on end when there is also no wind, is not discussed as part of discussion of cumulative impacts, where other refineries in the region might be contributing to the pall that predictably hangs over our community on many winter days and nights, especially between December and the end of January. H110

The discussion of "flaring", and what constitutes a significant "event" is highly questionable. This topic is of great importance to the community. **(Section 4.1.2.2)** Flaring events are summarized for years that include Exxon's management. Various community members comment regularly about the increases in flaring that they have witnessed since Valero took over the refinery. What size flare is considered dangerous or potentially threatening to public health and is therefore considered a "reportable incident"? The DEIR does not fully explain. What is flaring "intensity"? Apparently, according to the DEIR, "Valero has recorded flare complaints for the year 200 - 2002 [that] indicate the time of the flaring occurerence; however, these complaints do not provide information about flare intensity. Over the last two years, about half the reported flare events occurred during evening hours and the other half occurred during the morning hours." What relevancy does the nature of the complaint or how it is reported have to the reduction of "flaring events" at the refinery? Will increased production involving more sour crudes with highly corrosive properties, and increased intensity of heat in furnaces, etc., impact the frequency of flaring of any size or intensity? And, what are the emissions associated to flaring? How are flaring emissions accounted for in total Main Stack "average" daily emissions? H110a

BAAQMD measurements for judging significance of "odor" impacts are spurious: significance is judged by the number of phoned in reports that are received within a limited time frame. Since many residents have become inured to the frequency of "bad odors" in winter months (change of wind or no wind condition), residents do not necessarily call BAAQMD. Further, BAAQMD does not promote and advertize its program for reporting such that the average working family understands that their complaints can be phoned in to the Air District. Some residents may hesitate to call the refinery, despite Valero's invitation to call, with response offered on a "24-hour basis". The BAAQMD is well-known for sending its emissaries to investigate complaints 24 hours after a phone call report is called in. The public has grown highly skeptical of the will and/or ability of BAAQMD to fulfill its mandate to the public in the Carquinez region. The chances of accurately reporting an "odor incident" under such lax monitoring efforts by BAAQMD is considered by the public to be next to nil. H111

The BAAQMD is generally spoken of as being less than trustworthy to ensure the community's

protection. The Air District's protocols for evaluating public complaints seem arbitrary (based on number of calls received in a given limited period of time) and favor industry—i.e. doing nothing, or little to address a potentially systemic problem in operations or maintenance. Future "relaxing" of federal air standards may further calcify BAAQMD, despite California's more restrictive standards. Fines for "accidental releases" and excessive flaring have hardly been steep enough to deter industry from excesses. Contra Costa County has struggled to impose mandatory independent maintenance and safety audits to help enforce standards of compliance to protect its residents. Right now, the City of Benicia relies on the BAAQMD to enforce complicance at the Valero refinery. Further, Solano County has no ordinance such as Contra Costa County, to ensure protection for Benicia residents and communities "downwind". H112

Our community is also further concerned about cumulative adverse impacts from long-term exposure to an array of regulated and non-regulated toxic pollutants that may have synergistic effects on health in "sensitive receptors"—children and the elderly or immune deficient. These kinds of synergistic effects are little studied. Cancer is not the only potential resulting life-threatening illness that may be caused by exposure over the "lifetime of a person" breathing air that is impacted variously in a day, or week or year, over the "lifetime of the refinery" when conditions of that refinery (management, maintenance) may have changed (deteriorated). Non-cancer producing impacts to health can be to the respiratory, neurological and endocrine systems. The added load of industrial/refinery emissions, contributing to public health impacts is said to be 1.3 % of total risk associated to emissions from all other sources., including car exhaust, dry cleaners, burning of diesel fuel, etc. But these risks are only calculated as associated to cancer. (see further comments below) H113

The DEIR states that it will discuss "impacts from other projects of the same type" but makes no mention of expansion plans of other Bay Area refineries, etc. (see below, regarding Chevron). For example: the Bechtel/Shell proposal for a massive LNG tanker terminal, re-gasification units and 900 MW gas-fired power plant for Mare Island proposed in 2002 and now being preliminarily reviewed through several months of "safety study" by the City of Vallejo; also, the plans for expansion of the Chevron Refinery in the City of Richmond. (see below)

Thus, the DEIR does not deal with adverse impacts that any average citizen is interested to know about: cumulative impacts from all other regional sources, including *industrial* sources, for toxic chemicals, whether regulated or unregulated. Unregulated chemicals, such as dioxin, if produced at the refinery should be listed in the DEIR. H114

A list of regional industries that should be included in the DEIR—with need to identify all or any of their potential expansion plans—would include:: Shell and Tesoro refineries; Rhone Poulenc, (Maritnez); Crockett C&H with Co-GEN, (Crockett); Tosco refinery (Rodeo); General Chemical, Chevron refinery, Arco, Wickland Oil Terminal, California Oils Corp, MSC Prefinish Metals (Richmond); Dupont, (Antioch); Dow Chemical (Pittsburg) as well as diesel and car emissions that contribute to conditions of the entire Carquinez region as they affect public health and safety.

For example,. Chevron, in the City of Richmond, is currently not only implementing a MBTE Phase-out similar to Valero Benicia, but is also applying for permits for various components that are similar to those of VIP that would allow Chevron to process more varieties of sour crudes. Although there is currently no "programmatic EIR" for Chevron's expansion program, it's clear that some of the components listed as part of their plans are similar to ones proposed as part of

VIP. (See Communities for a Better Environment, Julia May letter, dated May 29, 2002, to City of Richmond regarding "Negative Declaration" for project application to construct two LPG spheres.) Both Chevron and Valero are applying for modifications to Alkylation units that produce lighter fuels. Those fuels, according to the CBE letter referenced above, require LPG spheres for storage, such as Chevron is applying to construct. LPG spheres contain "highly explosive gases" (CBE letter). Considering that Chevron appears to have similar expansion goals for processing more sour crudes and is applying for a "greatly expanded Alkylation Unit" (CBE letter), is it not possible to assume that Valero may one day decide to apply for several more LPG spheres to accommodate increased production of lighter fuels? VIP doesn't include discussion of any possible requirement for future storage needs for either LPG or any other raw material, fuel or product. Why is there no discussion about storage of highly explosive lighter fuels such as pentane, butane, propane if their production will increase if any part of VIP is implemented, and assuming their production increases might be predictable for the future? H114 cont.

In section **3.3.2.1 General Refinery Processes**, the DEIR states "Since different crudes have different characteristics, the refinery equipment must have enough operating flexibility to produce the full range of refinery products from these varying crude oil feedstocks. In addition to trying to make as much high-value product as possible from each crude oil mixture, the refinery has to treat the impurities that are also in each crude oil, both to meet stringent petroleum porduct specifications and to comply with environmental regulations." The DEIR goes on to describe how only 20% of the hydrocarbons in crude feedstocks produce gasoline, and the rest of the raw material must be processed, filtered, etc. to produce end products. Thus, increasing amounts of production will increase the amounts of "end products" of both high end and low end products (Propane to "coke".) It is predicted that sulfur production will increase, contributing to more truck trips, which are accounted for in the DEIR as both a potentially significant safety impact, as well as a reason for increase in trucks/ diesel emissions. There are other questions: Is excess sulfur stored? If so, how much is stored at the refinery in any given day or week? Is sulfuric acid used in any part of the production process? If so, could problems arise that are related to its use? What happened to the SRU unit at the Valero refinery in Corpus Christi from 1994 - 1998? What are the "catalysts" used in the proposed to be modified "Alkylation Unit"? H115

Thus, to summarize: we cannot know or predict from the DEIR what the *full adverse cumulative impacts of VIP on our local community or region might be for the thirty year "life of the refinery"*. Nor can we estimate the impacts to the refinery itself, with regard to safety and maintenance as related to the continuing conditions of increased production. Therefore, we cannot understand all the factores relevant to evaluation of the Project as it is described and analyzed in the DEIR.

WATER SUPPLIES:

Everything is interconnected: this is the central conceptual premise for planning for sustainable development. Water availability is a great example. The challenge? The popularity of (gas guzzling) SUVs is in conflict with citizens' quality of life goals because SUVs take gas which must be refined, and the demand keeps growing. This growth direction is not sustainable through "the life of the refinery" or "the life of our community" into the next 30 years. These factors must be considered in the DEIR in order to be in compliance with the Benicia General Plan, with regard to refinery expansion allowing for increased production of gasoline for the "home" market: H116

- world oil reserves have peaked in terms of extraction in Alaska and the North Sea, and are said to be reaching peak production capacity in the Middle East within the next several decades;
- state-wide municipalities' requirements for precious water must account for foreseeable dwindling sources, (see enclosed *Associated Press* article by Andrew Bridges, "Study Predicts Global Warming's Devastating Effect on Water in the West")
- to meet or sustain current water requirements for communities, agriculture, commercial development *and* increased refining capacity in California, increasingly variable and expensive solutions will be negotiated in addition to conservation measures mandated in years of drought;
- population growth projections will have to be factored into regulations governing "attainment" for criteria pollutants in the greater Bay Area for the future "life of the refinery" and "life of the community", thus reasonably calling for new permitting requirements for industrial expansion;
- "balancing" competing industry, agriculture and municipal uses is already political, while future sustainability will be dependent on far-reaching planning;
- individual municipalities must decide how to balance local needs and presumably will have to create legislation that would guarantee first priority to its citizens in cases of seasons or years of extreme drought.

H116 cont.

The DEIR is wrong and misleading in labeling water issues as "Hydrology and Water Quality". The main issue is Water *Supply*, not availability or quality.

Increasing demand for gasoline requires increasing refining capacity or throughput, which particular to VIP, requires increase in use of water.

Willing sellers have not been demonstrated in the DEIR to be sustainable. (see copy of "Water Project Plans at Mojave Evaporate, National Parks conservation Assoc. Magazine, November, December online magainzine.) The private Cadiz Project involving water-banking scheme in which water from a Mojave aquifer would have been sold as surplus water to Southern California's Municipal Water District to supply 1.6 million households has been rejected, October 24, 2002. Aquiver re-charge was to have been part of the Cadiz Project. However, surplus water from the Colorado, which the project counted on for recharge, has since been declared illegal by federal government's interior department. (See Contra Costa Times article, Dece 17, 2002 "Norton signs law; state's water cut"). The Colorado River will no longer be available to California for "surplus" needs over and beyond existing contracts.

H117

Supply of water and continuing competition, with high demand for water and limited supply, make prospects for sustained supply of water expensive and complicated and possibly infeasible. There is no citation of the Warren Alquist Energy Conservation and Development Act of 1974, requiring 10% conservation requirements, have since 1996 been changed to favor industry.

Water Conservation Bulletin 160 (Energy conservation)

Page 4.14-8 Under current regulation and state law, the refinery expansion project VIP doesn't have to evaluate water supply. But in spite of that, there was an evaluation by the City of Benicia, of water supply that isn't fully discussed in the DEIR. The DEIR falis to discuss water supply in

terms of sustainability. Such a discussion would be more inclusive and not only cite regulations such as the "Endangered Species Act", but also ecological values dependent on sustainable water supply. H118

The DEIR should be prepared in terms of sustainable ecological needs and principles that derive from them.

Page 4.14-18 ***It is immaterial whether Valero is subject to law or ordinances, but on its contribution to or impact on sustainability.***

The DEIR should analyze measures the City of Benicia could consider *in the event of severe state-wide, regional or locally restricted water supply, for prolonged periods.* The DEIR should identify the role that Valero would have in its operations under such conditions or events. H119

The DEIR should discuss the threshold that would require Valero to curtail or stop operations that would further diminish water available for the community in the event of extreme water shortages.

Furthermore, the DEIR should identify the necessary policies for the City to adopt that would maintain water for residential needs to balance with business uses, putting residents of Benicia first, in worst case water supply scenarios. Those scenarios must be described. Requirements in the permitting phase, including City programs such as proposed in the DEIR as the "Water Reuse Project", need to be described in relation to relevant General Plan policies. In all cases, those policies would not create environmental harm. H120

The DEIR should identify adopted programs for the "Water Reuse Project". The Reuse Project should be underway and permitted prior to authorization of any component of VIP.

Changing conditions in water supply—a finite resource in a growing state with multiple demands from urban, residential, agribusiness and industry—require that we have concrete programs such as the Water Reuse Project in place, to ensure water availability to industry that will not affect community water supply in times of greatest restriction. H121

The DEIR should consider methodology for such an assessment if it were provided by executive order.

"Life-cycle costing", a methodology that projects over a 100 year time period, evaluates true costs of projects in their use of materials, resources, operations and maintenance. Life-cycle costing principles could be used by the DEIR to meet the requirements of the General Plan for sustainability. (Other sources for approaches to analysis: President's Council on Sustainable Development, and California legislation AB857; and the Kugel legislation.) H121a

In conclusion, there are many more examples that could be given of deficiencies in the DEIR. Numerous examples could be given of factual inaccuracies, contradictions, and confusing or obscuring analysis, especially in the section on emissions. Public safety into the future in relation to maintenance of an aging refinery running at increased capacity with higher sulfur content crude feedstocks "for the life of the refinery" is of enormous concern. Finally, there is no discussion of an "Alternative to the Project" that would embrace the principle of sustainability as

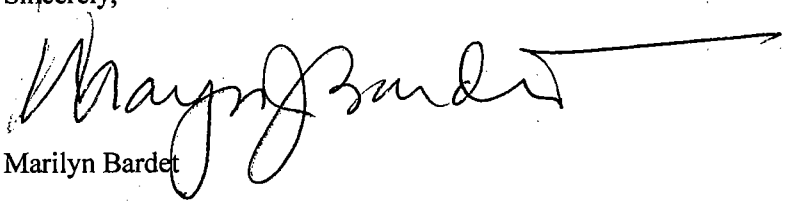
being of primary importance to the community. What is the real future of the Benicia refinery? How will it adjust to "market forces" in relation to sustainable development goals? What will guarantee the eventual clean up of the refinery should it ever be closed at the end of the "life of the refinery"?

H121a cont.

We hope that our comments will help build a new Draft EIR that will be re-circulated for further review, in order that the Final EIR for the Valero Improvement Project will represent an accurate and comprehensive account of the expansion project and its cumulative adverse impacts, to serve as a "stand alone" tool to enable the public to fairly judge VIP for the Benicia community and region.

Thank you very much for this opportunity to comment so extensively.

Sincerely,



Marilyn Bardet

(Elizabeth Patterson was unavailable for signing at time of submission. On Dec 19th).

Letter H Attachment 3

May 29, 2002

Letter to City of Richmond from Julia May – Communities for a Better Environment

Dear Mayor Anderson and City Council Members,

Communities for a Better Environment (CBE) urges the Richmond City Council to set aside its certification of the Negative Declaration and affirm CBE's appeal of the Planning Commission's decision to issue a conditional use permit for Chevron's project number CU 01-30. We incorporate by reference all materials submitted to the City and all materials offered by the City concerning this matter.

Last year, Chevron Refining Company submitted an application to construct two liquid petroleum gas (LPG) spheres at its refinery in Richmond. The California Environmental Quality Act (CEQA) requires permitting agencies, in this case the City of Richmond, to evaluate any proposed project that could result in a significant environmental impact. Chevron's project, as written, was subject to CEQA because, among other things, LPG spheres contain highly explosive gases. Despite community concern and demand for an Environmental Impact Report (EIR) studying the full project, the City issued a Negative Declaration declaring that: (1) there was no substantial evidence that the spheres possibly could have adverse environmental impacts, and (2) the spheres constituted an independent project and were not "piecemealed" from a larger project.

H122

According to CEQA law, if new information is brought to light, the City is required to consider that information in deciding whether to approve a project, even if the City has previously issued a CEQA determination.

The information presented below brings to light new information, and demonstrates that Chevron is piecemealing its Reformulated Fuels III/MTBE Phaseout (RFG3) project into smaller pieces, as if each formed an independent project, in violation of CEQA. Among the aspects of the project Chevron is piecemealing is the construction of two 30,000 barrel capacity LPG spheres, in addition to major construction on many other refinery units including a new Butamer Plant, a greatly expanded Alkylation Unit, a complex modification of multiple units that allow the use of cheap, dirty, high sulfur crude, and many others. Piecemealing violates CEQA which requires the City to study the entire project and all reasonably foreseeable projects. Piecemealing the RFG3 project violates CEQA and deprives the community and the City of the opportunity to study the true and full adverse environmental and health impacts that could result from this comprehensive refinery project.

California state law requires every refinery in the state to comply with increasingly strict reformulated gas requirements including the phaseout of MTBE. Currently, refineries throughout the state are completing phase three of the reformulated fuels process which includes equipment modification and construction. Nearly every refinery in the state, including Chevron's El Segundo refinery, is completing a legally required EIR in conjunction with this RFG3 project. An RFG3 project typically involves modification of various units at the refinery associated with vapor pressure, sulfur compound limits, oxygenate requirements, and additional limits related to toxic pollution, and the construction of other units, such as ethanol tanks and LPG spheres.

Chevron Richmond currently has well over a dozen applications with the Bay Area Air Quality Management District (BAAQMD) consistent with this project including modifications to equipment

associated with the various limits listed above and applications to construct other units such as ethanol tanks and LPG spheres.

The main purpose of the proposed LPG spheres is to comply with RFG3 requirements. Chevron stated at the April 4th, 2002 Planning Commission meeting on this matter that all Chevron locations, including Richmond, plan to construct ethanol tanks. *See* KCRT Video Planning Commission Meeting, April 4, 2002, 2:51-2:58. Chevron further acknowledged that blending ethanol into gasoline will require Chevron to take pentanes out of its gasoline product. *See Id.* Chevron will use the new LPG spheres to store those pentanes. *See Id.* If one considers the huge volume of gasoline that Chevron manufactures, and the sheer size of the two spheres it proposes to construct – the two spheres increase the sphere farm by 42% - one begins to get a sense of what the LPG spheres application is really about. Chevron will need to construct additional spheres or make other major modifications to its LPG storage in order to comply with the new gasoline requirements. The so-called LPG spheres project is part of its RFG3 project.

Instead of submitting to the CEQA process, however, Chevron Richmond has artificially split off the LPG spheres proposal such that this large refinery-wide project appears instead to be a much smaller relatively benign project to store LPG from railway cars. The fact that Chevron might also use these two 30,000 barrel spheres to hold LPG sitting in railway cars does not excuse it from its purpose which is to serve as part of the ethanol conversion process and comply with California law.

An EIR for the RFG3 project is critical because a project of this magnitude could result in substantial adverse environmental impact. Furthermore, an EIR allows the City and community members to participate in the permitting process by providing input and ensuring that safety measures are implemented if the project is to proceed. Presently, the City has not even seen the project in its entirety. However, even if the City were not required to consider the information for CEQA purposes, it would need to do so for land use purposes because land use considerations require that the City assess projects in their entirety. H122 cont.

CEQA

CEQA requires that the City complete an EIR for any project that gives rise to a fair argument that significant environmental impacts may result, regardless of whether the City has previously issued a Negative Declaration. Section 21177 of CEQA states that objections must be raised "during the public comment period ... or prior to the close of the public hearing on the project before the issuance of the notice of determination." Cal. Pub. Res. Code § 21177(a)(b). The California Appellate court has interpreted this provision to mean that "any alleged grounds for noncompliance with CEQA provisions may be raised by any person prior to the close of the public hearing on the project before the issuance of the notice of determination." *See Galante Vineyards v. Monterey Peninsula Water Management District*, (1997) 60 Cal. App. 4th 1109, 1121. Furthermore, "any challenge to this interpretation should be addressed to the Legislature." *Id.* The City of Richmond has not yet issued a notice of determination for this project. Thus, the City is legally required to consider any new information concerning the CEQA phase of this project that could result in significant adverse environmental impact.

CEQA requires that an EIR be prepared whenever substantial evidence in the record supports a "fair argument that significant impacts may occur." Public Res. Code § 21080; *Laurel Heights Improvement Assoc. v. Regents of the Univ. of Calif.*, 6 Cal.4th 1112m 1123 (1993). This "fair argument" standard creates a low threshold for requiring preparation of an EIR. *Citizens Action to Serve All Students v. Thornley*, 222 Cal. App.3d 748 (1990). CEQA further requires that the lead agency assess the environmental impacts of all reasonably foreseeable

phases of the project before undertaking that proposed project. *Laurel Heights Improvement Assoc. v. Regents of the Univ. of Calif.*, 47 Cal.3d 376, 396-97. A public agency may not segment a large project into two or more smaller projects in order to mask serious environmental consequences. *Id.* An agency's decision not to require an EIR can be upheld only when there is *no* credible evidence to the contrary. *Sierra Club v. County of Sonoma*, 6 Cal. App. 4th, 1307, 1318 (1992)(emphasis added). In light of this, the City of Richmond must consider the whole RFG3 project. Substantial evidence clearly gives rise to a fair argument that a refinery-wide RFG3 project could result in significant environmental impact.

Land Use

The Planning Commission's land use considerations and CEQA issues are inextricably tied because evaluating the environmental impacts of the entire project are critical to both determinations. The Planning Commission principally analyzes land use issues associated with a project. Considering a project as a whole is essential to making a responsible land use choice because present decisions effect the flexibility in assigning future uses for surrounding land. When looking at a refinery, in particular, air and water emissions can interfere with land beyond the boundaries of the refinery itself. By not taking the time to do a full assessment of a project and its impacts, the City abrogates its duty to control future land uses elsewhere in the City. Information regarding the full scope of Chevron's project is essential to land use issues even without regard to the CEQA process.

California Reformulated Gasoline Requirements: Phase 3

California state law requires every refinery in the state to comply with increasingly strict reformulated gas requirements. Currently, the refineries are completing phase three of the reformulated fuels process. Oil and Gas News (on the Week Ending: November 17, 2000) explained California's newest reformulated gasoline phase as follows:

> On August 3, the **California Air Resources Board adopted Phase 3 of its Reformulated Gasoline regulations (RFG3)**. The new regulations will go into effect on December 31, 2002. The main changes between RFG2 and RFG3 is the mandatory elimination of MTBE and a lowering of the amount of sulfur allowed in California gasoline. In March 1999, Governor Gray Davis issued an executive order in which he found that, on balance, there is significant risk to the environment from using MTBE in gasoline in California. Gov. Davis ordered the California Energy Commission to determine the earliest possible date MTBE which could be removed from gasoline. In addition to prohibiting MTBE, the new regulations: cut the flat limits of sulfur from 40 parts per million by weight to 20 ppm; lower the amount of benzene; and makes modifications to other standards related to the elimination of MTBE. *See Oil and Gas News*, Nov. 17, 2000 (http://www.westgov.org/wieb/news/oilgas00.htm, See attached)

H122 cont.

Nearly all of the other refiners in the state are doing EIRs in preparation for these plant modifications, including Chevron El Segundo (in the South Coast Air Basin). The South Coast Air Quality Management District (SCAQMD) requires EIRs for these RFG3 projects consistent with CEQA. These projects represent major new plants and expansions and involve very significant environmental impacts.

Although some of the specific modifications vary from refinery to refinery, the projects contain the same kinds of changes. California's latest Reformulated Gasoline requirements (RFG3) include the following:

- An Oxygenate adding an oxygen molecule to CO (toxic carbon monoxide) to produce CO2 (non-toxic carbon dioxide). (This requirement is currently met by MTBE or

TAME (Tertiary Amyl Methyl Ether – an oxygenate similar to MTBE), but is being phase out in RFG3 and replaced with ethanol);

- A Vapor Pressure Limit (Reid Vapor Pressure, or RVP) to reduce the amount of gasoline evaporation;
- A Sulfur Compound Limit (which is further reduced at RFG3) to reduce the levels of harmful sulfur emissions;
- Additional Limits for example to reduce toxic air pollution and emissions of compounds that react to cause smog formation (limits on benzene, other aromatics, olefins, and distillate temperature)

To meet these requirements, California refiners need to modify many of their refinery units. Several EIRs from refiners in the state describe this process, *including Chevron for its Southern California refinery*:

> The primary objective of the proposed project is to provide the means for manufacturing gasoline that complies with the MTBE phase-out mandate and the CARB Phase 3 specifications. The proposed project consists of four components: elimination of ether blending, gasoline vapor pressure reduction, gasoline sulfur reduction, and gasoline volume. The objectives of each proposed project component are summarized below:
>
> - Elimination of Ether Blending – The objective of this component is related to the phase-out of MTBE and TAME. With this phase-out, the Refinery will no longer produce or blend ethers.
> - Gasoline Vapor Pressure Reduction – Due to the substitution of ethanol for MTBE and ethanol's effect on the gasoline RVP, the objective of this component is to remove pentanes from the gasoline. Removal of pentanes from the gasoline would enable Chevron to meet the RVP specifications.
> - Gasoline Sulfur Reduction – The objective of this project component is to meet the lower sulfur specifications for gasoline as required by the CARB Phase 3 specifications.
> - Maintain Gasoline Volume – The objective of this project component is to maintain gasoline production levels consistent with historical gasoline production levels to partially offset the loss of gasoline volume from the MTBE phase-out and vapor pressure reduction.

H122 cont.

Project Description, page 2-1, Chevron – El Segundo Refinery CARB Phase 3 Clean Fuels Project, November 2001, attached.

The California Air Resources Board (CARB) refers to the integrated nature of the RFG3 requirements, as they related to many different refinery processes and different RFG3 requirements:

> It is not possible to precisely isolate the costs associated with the proposed lowering of the sulfur limits. This is because refiners are designing capital and operational improvements to comply with both the MTBE phase-out and the proposed sulfur reductions.

California Environmental Protection Agency, Air Resources Board, Proposed California Phase 3 Reformulated Gasoline Regulations, Staff Report: Initial Statement of Executive Summary, page xviii.

The MTBE phaseout is part of the whole RFG3 requirement. CARB also related other units (such as the Alkylation unit, which Chevron Richmond is greatly expanding) to RFG3, to the use of oxygenates, and to the issue of volume loss in reformulated fuels (which is caused by the RFG limit on benzene and other aromatics, and by the phaseout of MTBE). This again illustrates the integrated nature of these projects. For example, CARB illustrates how increased use of the Alkylation Unit, which produces "alkylate" is important in making a product that meets the requirements of RFG3 while replacing lost volume, maintaining octane, and replacing toxic "aromatic" compounds limited by RFG3, etc.

> Alkylates are a type of blend stock normally used in gasoline. Alkylates have been typically used at about 15 percent by volume in finished gasoline. Alkylates have been used increasingly in gasoline to replace volume and octane lost by removing aromatics. Alkylates are not water soluble and are biodegradable. Increased volumes of alkylates can be used to dilute the less favorable properties of gasoline much like oxygenates are used.

CARB Initial Statement of Reasons, Executive Summary, page xviii.

Chevron submitted an application to the BAAQMD for a major expansion of the Alkylation Unit. This unit uses sulfuric acid as a catalyst, which is cleaned or recycled at the General Chemical Plant next door. This plant has a history of severe accidents, including one of the worst in Bay Area history, where a 15-mile plume of sulfuric acid and related compounds were exploded into the community at ground level, causing 20,000 to seek medical care at local hospitals. Expanded alkylation at the Chevron refinery and its associated expanded sulfuric acid use is definitely a significant impact of this project, requiring an EIR to analyze the extent and identify mitigations.

Chevron Richmond Reformulated Gas Project

H122 cont.

Despite the California's RFG3 requirements, representatives of the Chevron plant in Richmond, California have represented erroneously that Chevron is building small, environmentally inconsequential, unrelated projects at its Richmond plant. Chevron has maintained that its modifications and applications to construct do not require any EIR beyond Chevron's EIR performed nine years ago for the RFG2 process. While Chevron initially explicitly linked the construction of two LPG spheres to the reformulated fuels requirements, it later contradicted itself and asserted that the spheres represented a small project, with negligible environmental impacts, unrelated to Chevron's twenty or so permit applications in process at BAAQMD over the last two years.

On the contrary, the LPG spheres are inherently related to the new RFG3 regulations and represent a piece of a much larger project with potentially great impacts on the City of Richmond. Even in the Initial Study for Chevron LPG Spheres project, Chevron stated:

> In order to comply with new California gasoline regulations and with the federal gasoline oxygenate requirement, the project applicant expects that ethanol will soon be blended into gasoline at the refinery. In order to compensate for ethanol's high vapor pressure when blending it into gasoline, in the future the refinery would blend fewer pentanes (also with relatively high vapor pressure) into gasoline than is currently the case. Since pentanes are stored like LPG, the anticipated reduction in the blending of pentanes into gasoline will increase the refinery's need for LPG storage, and will further exacerbate the refinery's LPG existing handling inefficiencies.

Chevron LPG Spheres Project Richmond, CA, Initial Study EID 01-06, August 2001, page 9. Thus, Chevron has previously offered the logical, common sense explanation for significantly expanding the capacity of its LPG sphere farm, which is to comply with RFG3 regulations.

The California Air Resources Board (CARB) made a very similar statement, further confirming Chevron's initial logic that ethanol conversion will require refineries to reduce the vapor pressure of their base gasoline:

> Ethanol also has a blending RVP [Reid Vapor Pressure] of 18 which is significantly higher than MTBE, making ethanol more difficult to use in meeting RVP limits in the summer months. The most undesirable blending property of ethanol is that it increases the RVP of the gasoline blend by about 1 psi, thus requiring refiners to reduce the RVP of the base gasoline by about 1 psi to account for the RVP increase when ethanol is added.

Proposed California Phase 3 Reformulated Gasoline Regulations, Staff Report: Initial Statement of Reasons, Release Date: October 22, 1999. CARB's statement supports the fact that refineries will have to find a way to reduce the RVP in gasoline, namely, they will have to remove high vapor pressure hydrocarbons and store them.

Despite the inherent logic of the Chevron's Initial Study and CARB's analysis, Chevron later made a patently unbelievable claim during public hearings on the spheres that the need for the LPG spheres expansion was unrelated to the MTBE phaseout, but was, rather, for the purpose of improving safety by reducing storage of LPG in railcars.

Chevron *again* reversed position when Chevron's representative admitted at a Planning Commission meeting on April 4, 2002 that the project actually *was* related to the introduction of ethanol. *See* Video, Planning Commission April 4, 2002, 2:51-2:58. Given Chevron's original claim that the spheres were part of the larger RFG3 project, the lack of logic in their claim that the project is not part of a larger project, and CARB's report that supports the first view, we know that Chevron's LPG Spheres project, *is* part of MTBE phaseout, and of the broader RFG3 project. H122 cont.

To explore in detail the modifications at Chevron's Richmond plant, CBE did a Public Records Act request through BAAQMD for any permit applications submitted with the past two years. CEQA provides that the public should not be required to ferret out these kinds of details. Nevertheless, through dozens of hours CBE spent obtaining and reviewing files we identified the following applications and massive refinery modifications (See attached).

1. New Butamer Plant, Appl. #2719:
2. Alkylation Unit Expansion, Appl. # 1680:
3. FCC Unit Modifications, Appl. #1911:
4. LPG Spheres
5. New External Floating Roof Tank, Appl. #3380:
6. Crude Flexibility and Reliability Project, Appl #3802
7. Sulfur Recovery Unit (SRU) Appl #1427
8. Hydrogen Plant Furnace, Appl #3246
9. Hydrogen B Train Furnace,
    - SCR for Low-NOX Burners, Appl #2019
    - Experimental Low-NOX Burners, Appl #2559
10. Ultra-Low NOX Burners, JHT (Jet Hydrotreater), Appl #2189

11. Ultra-Low NOX Burners, NHT Furnace, (Naphtha Hydrotreater), Appl #2192
12. Ultra-Low NOX Burners, DHT (Diesel Hydrotreater), Appl #2191
13. Ethanol Blending Project
14. Rheniformer Modification
15. Several others (also attached)

H122
cont.

These Chevron Richmond projects represent similar modifications and activities to those being performed at Chevron El Segundo and the other refineries throughout the state, for which EIRs are being performed. The table below, including some of the above-numbered projects at Chevron Richmond, illustrates the relationship between Chevron Richmond and the RFG3 process. Modifications on a sampling of those plans include the Alkylation, Butamer, FCC, Sulfur Processing Units, LPG spheres, and ethanol blending project.

RFG3 Requirements	**Resultant CHEVRON RICHMOND Projects & Potential Impacts** (which must be included in an EIR evaluating the entire RFG3 project)
OXYGENATE REQUIREMENT MTBE & TAME (both are Ethers) provided Oxygen in past, but now: • MTBE & TAME are being phased out • Ethanol is replacing MTBE & TAME	**ETHANOL BLENDING PROJECT** ⊗**Impact:** Ethanol spills cause other hazardous hydrocarbons present in groundwater to travel further **MUCH LARGER ALKYLATION PLANT** ⊗ **Impact:** Increased sulfuric acid at Chevron and increased activity at General Chemical Plant • MTBE phaseout will cause greatly increased capacity (approximately 26,500 bpd or less, up to 36,000 bpd) at the Alkylation unit, since it will take the inputs which would have gone to the MTBE plant. The plant turns these inputs into valuable, high octane, lower vapor pressure product. • Alkylation plant also provides lower RVP product by turning butanes into alkylate **NEW BUTAMER PLANT** ⊗ **Impact:** Completely new plant & associated pollutants • Turns butane to isobutane for input to Alkylation unit
REID VAPOR PRESSURE (RVP) LIMIT Reformulated gasoline has a vapor pressure limit, in order to limit the evaporation of gasoline into the air.	**2 NEW LPG SPHERES** ⊗ **Impact:** Explosion hazard • Ethanol has higher RVP than MTBE, so gasoline with ethanol would have trouble meeting the vapor pressure limits. Refineries will thus remove other high vapor pressure products (pentanes) that were blended into gasoline, to reduce the vapor pressure of the gasoline mixture. • The spheres will be built to store the pentanes which must now be removed. Spheres will also be used to store LPG (Liquefied Petroleum Gas such as butane, isobutane, propane, etc.) **EXPANDED FCC UNIT** ⊗ **Impact:** Increased pollutants from this facility • FCC unit makes gasoline (including pentanes). The make up of hydrocarbon output can be varied according to catalyst • FCC unit can also make up extra volume lost from MTBE

H122 cont.

REDUCED **SULFUR LIMIT** The allowed sulfur compound level in gasoline is going down at the same time that Chevron is planning to input cheaper, higher sulfur crude oil to the refinery. This will require more intensive sulfur removal.	**SULFUR PROCESSING EXPANSION ® Impact:** Increased hazardous hydrogen H2S, SOx, and other emissions, and increased odors • Higher sulfur Crude Project This project will allow Chevron to begin buying cheaper, higher-sulfur crude and still meet the low sulfur gasoline limits. • Sulfur Recovery Unit modification The SRU turns hazardous H2S sulfur gas into pure sulfur. • Modification of Hydrogen Plant, and Jet, Diesel, and Naphtha Hydrotreaters Hydrogen is generated in the Hydrogen Plant, and used in the hydrotreaters to remove sulfur contamination from the fuels. • New External Floating Roof Tank (4.5 million barrel capacity) for sour water, also for light hydrocarbons

H122 cont.

For comparison to the Chevron Richmond projects, the Chevron El Segundo EIR provides the following Table (Project Description, beginning page 2-9) listing projects that Chevron El Segundo is carrying out on the same units as in their Richmond refinery. Chevron's table shows the unit modifications' relation to the RFG3 requirements (1st column) [emphasis added]:

For CHEVRON EL SEGUNDO: Table 2.6-1

Proposed Refinery Modifications and New Equipment

Primary Driving Force	Equipment/Process	Nature of Change
Elimination of Ether Blending	TAME Plant – Reaction Section	Demolition
Gasoline Vapor Pressure Reduction	**Alkylate** Depentanizer – Distillation Column Pumps, Heat Exchangers, Air Cooler	 Modifications New Equipment
	Isomax Light Gasoline Depentanizer – Effluent Cooler/Heat Exchanger Distillation Column and Trays; Air Cooler, Heat Exchangers, Vessels, Pumps	Modifications New Equipment
	FCC Light Gasoline Depentanizer – Distillation Column Pumps, Heat Exchangers	 Modifications New Equipment
	Pentane Storage Sphere Export Railcar Load Rack Pumps, Sphere, Compressor, Loading Areas	**New Equipment** Modifications Modifications
	Cogeneration Trains A and B Pumps, Heat Exchanger, Vessel	 New Equipment
	Additional Gasoline Storage Pumps, Heat Exchanger, Tank	New Equipment New Equipment
	Alkylation Unit	
	• Refinery Deisobutanizer Reactivation – Distillation Column Cooling Tower, Pumps, Vessel, Heat Exchangers	 Modifications New Equipment
	• Alkylation Plant Modifications – Distillation Column Pumps, Contactors, Vessels	 Modifications New Equipment
Maintain Gasoline Sulfur Reduction	**FCC** Light Gasoline Splitter – Air Cooler, Pumps, Vessel, Distillation Column And Trays	 New Equipment
	Naphtha **Hydrotreater** #1 (NHT-1) – Furnace, Pumps, Tank, Air Cooler, Heat Exchanger	 New Equipment
	Naphtha **Hydrotreater** #3 (NHT-3)	Change in Service

H122 cont.

CHEVRON EL SEGUNDO (cont.):

Table 2.6-1 (Concluded)
Proposed Refinery Modifications and New Equipment

Primary Driving Force	Equipment/Process	Nature of Change
Maintain Gasoline Volume	Fluid Catalytic Cracking Expansion • **FCC** Wet Gas Compressor (WGC) Interstage System – Pumps, Vessel, Heat Exchanger	New Equipment
	• **FCC** Deethanizer – Distillation Column Pumps, Vessel, Heat Exchangers	Modifications New Equipment
	• **FCC** Debutanizer – Pumps, Vessel, Distillation Column, Heat Exchangers	New Equipment
	• **FCC** Depropanizer – Pumps, Vessel, Distillation Column, Heat Exchangers	New Equipment
	• **FCC** C3 Treating – Pumps, Vessels, Distillation Column	New Equipment
	• **FCC** Main Air Blower Rotor Upgrade – Air Blower Rotor, Turbine Rotor Upgrades	New Equipment
	• **FCC** Stack Emissions Reduction – Flue Gas Fans, Pump, Vessel, Catalyst Beds Flue Gas Stack	New Equipment Modification
	• **FCC** Relief/Vapor Recovery System – Heat Exchangers, Compressor, Pumps, Vessels	New Equipment

H122 cont.

Chevron El Segundo includes the ethanol storage projects at terminals outside the refinery in the RFG3 fuel project EIR. Chevron Richmond is doing the same ethanol project in Richmond, yet Chevron Richmond representatives have stated misleadingly at public hearings that there is no ethanol project at the refinery. Not only does the marketing facility where the ethanol tanks would be located share a boundary with the refinery, resulting in possible cumulative impacts, but the ethanol tanks are also part of the RFG3 requirements and therefore should be considered with the spheres project. The following table comes from the Chevron El Segundo EIR.

> "Table 2.6-2 presents an overview of the various modifications and additions that are required at the three distribution terminals to enable ethanol blending at the terminals and other related modifications to meet CARB Phase 3 fuel specifications." (See page 2-20)

Table 2.6-2
Proposed Terminal Changes

Terminal	Proposed Change and/or Addition
Montebello Terminal	Ethanol Storage • New 50,000-bbl storage tank. Ethanol Unloading (Truck) • Two new pumps and grounding systems and associated piping and hoses. • Two new concrete pads, each 12 feet by 70 feet, for containment and drainage. • New card reader and touchscreen at unloading area. Ethanol Unloading (Rail) • New rail spur • Two new pumps and 12 new hoses manifolded for simultaneous unloading of 12 rail cars. • New piping from the unloading pumps to the new storage tank. Ethanol Blending (On Rack) • Two new pumps and associated filters and piping. • New meters and control valves to provide ratio blending at loading rack. Ethanol Blending (Off Rack) • Two new pumps and associated filters and piping.
Van Nuys Terminal	Ethanol Storage • Convert two existing gasoline storage tanks to ethanol service. Ethanol Unloading • Two new pumps and associated piping and hoses. • New card reader and touchscreen at unloading area. Ethanol Blending (On Rack) • Two new pumps and associated filters and piping. • New controllers to provide ratio blending of gasoline at loading rack. • New turbine meters, control valves, and related equipment for ethanol blending at loading rack.

H122 cont.

Table 2.6-2 (Concluded)
Proposed Terminal Changes

Terminal	Proposed Change and/or Addition
Huntington Beach Terminal	Ethanol Storage • Convert one existing diesel fuel aboveground storage tank to ethanol service. Ethanol Unloading • Two new pumps and associated piping and hoses. • New card reader and touchscreen at unloading area. Ethanol Blending (On Rack) • Two new pumps and associated filters and piping. • New controllers to provide ratio blending of gasoline at loading rack. • New turbine meters, control valves, and related equipment for ethanol blending at loading rack. Ethanol Blending (Off Rack) • Two new pumps and associated filters and piping.

H122 cont.

It is known that the use of ethanol can cause significant environmental impacts. Dr. Phyllis Fox, an expert on environmental impacts of refineries, submitted evidence into the record for the recent EIR of the Ultramar (now Tesoro) refinery in Avon, California. She provided the expert information for the following document, which states:

> As the Second Phase Project ushers in the extensive use of ethanol, the refinery faces the new risk of ethanol spills and leaks. Although ethanol itself is relatively benign, if it spills or leaks in an area with existing hydrocarbon contamination, the ethanol can increase the concentration of toxic compounds such as benzene, increase the distance they would travel, and increase the size of the plume, thus substantially increasing the difficulty of soil and groundwater cleanup and the magnitude of water quality impacts. (*See* Fox Report, at pp. 6-12.) Accidental release of ethanol from tanks, pipelines, valves, flanges, pumps, unloading racks, and blending facilities would substantially increase the area of existing hydrocarbon plumes and increase the concentrations of benzene and other compounds in local surface and ground waters.
>
> *Comments of Contra Costa County Building and Construction Trades Council and Boilermakers Local 549 on Addendum Second Phase of the Ultramar Clean Fuels Project, February 12, 2002, Prepared by Van Bourg, Weinberg, Roger & Rosenfeld, Consultant: J. Phyllis Fox, Ph.D., P.E. QEP, REAII*

There is no doubt that Chevron in Richmond, and the other refiners in the state, are performing these multiple permit applications for extensive refinery modification and expansion in order to meet the RFG3 requirements while also meeting the refinery's business goals.

High Sulfur Crude Expansion

Chevron's high sulfur crude expansion and concomitant need for a more intensive sulfur processing at the refinery make an EIR necessary. While making modifications to meet

the RFG3 requirements, Chevron is also clearly intending to modify the refinery to allow the use of high-sulfur crude oil. This is happening at the same time that the state's sulfur limit in fuel will be going down, requiring that much more intensive sulfur processing will be needed in Richmond. This will result in the presence of much higher levels of dangerous and odorous sulfur compounds (such as hydrogen sulfide or H2S) in and around the refinery. The City must properly consider these modifications as part of the RFG3 project before issuing a use permit.

The quotations from Hydrocarbon Processing below illustrate the modifications all refineries are considering in order to meet the mandated sulfur compounds limits. The article below identifies the FCC (Fluid Catalytic Cracker) Unit Naphtha stream as a major source of higher-sulfur hydrocarbon, which must be treated. The article outlines the process for increased hydrotreating performed for removing sulfur contamination from hydrocarbons which would otherwise end up in fuels. Hydrotreating is used to accomplish this, requiring additional hydrogen. The article also discusses the greater economic opportunities refiners can achieve by using higher-sulfur crude (which is cheaper than low sulfur crude).

H122 cont.

> For gasoline-blending purposes, the highest sulfur-contributing stream is FCC naphtha, which comprises 30% to 40% of the gasoline pool (Table 2). Consequently, many sulfur-reduction efforts are focused on this processing unit's feed and product streams. . . "Naturally, the crude slate that is processed definitely impacts what provisions will be necessary to produce 'cleaner' fuels. *Yet, refiners are finding greater economic opportunities by upgrading facilities to manage high-metals, high-sulfur crudes.* [emphasis added] . . . So, how will refiners reconfigure for the future? Refiners will not only look at the short-term fuels specifications, but they will consider the long-term prospect of manufacturing sulfur-free fuels (< 10 ppm). To get to <10ppm sulfur cost-effectively will require planning. . . .
>
> Pretreating the FCC feed offers several processing benefits. Hydrotreating the FCC feed removes sulfur and nitrogen compounds and saturates some aromatics. It can increase LPG and gasoline production, while reducing regenerator-SO_x emissions, light-cycle oil (LCO) and clarified-slurry oil (CSO) yields and minimizes coke formation.[2,5] More important, it is reported that hydrotreating has minimal impact on naphtha octane values.[5] However, hydrogen consumption becomes a limiting issue. The available hydrogen balance will affect how much hydrotreating can be done economically.
>
> The average refinery generates hydrogen from catalytic reforming to: 1) desulfurize the naphtha before reforming, 2) desulfurize kerosine (and maybe diesel) and 3) saturate some olefinics in naphtha.[6] For example, Fig 1 shows an integrated 100,000-bpd refinery with several major hydrogen-consuming units – resid hydroprocessing unit, gas-oil hydrotreater, cycle-oil hydrocracker and several other hydrotreaters.[6] Significantly, this refiner is already pretreating the FCC feed. Total H_2 demand is 92 MMscfd; unfortunately, the naphtha reformer produces only 22 MMscfd. This refiner can either purchase the deficit or consider building / operating an H_2 plant. Hydrogen deficits are processing restraints and will impact future hydrotreating capabilities and decisions.

See "'Cleaner' fuels – it's just not that simple," September 2000 Vol. 79 No. 9, Hydrocarbon Processing.

The article excerpts above illustrate the fact that introducing higher-sulfur crude to a refinery will change the output of refinery units (for example, the FCC unit), require increased hydrotreating to remove sulfur compounds (which in turn will mean larger inventories of acutely hazardous sulfur compounds in the refinery, including acutely hazardous H2S and sulfur oxides), and require increased hydrogen availability. (Hydrogen is highly explosive.) The article also identifies higher sulfur crudes as potentially also associated with higher metal content. (These metals are toxic to humans and wildlife.) Higher sulfur crude generally means higher levels of many different contaminants present in the refinery and discharged to the environment. The article also makes clear the inter-related nature of the different refinery units. It also identifies increased LPG output as one consequence of using higher-sulfur crude. Thus the switch to higher sulfur crude represents very significant environmental impacts, for which an EIR is required. Chevron has proposed a project which will allow such a switch (the Crude Flexibility Project).

CEQA requires the City to consider the impacts of the Chevron's modifications to compensate for its loss in gasoline volume because of the potential for these modifications to result in significant environmental impact. The U.S. Dept. of Energy has discussed the issue of the impact on the combination of the replacement of ethanol for MTBE and the new sulfur standards on gasoline availability and volume. This publication clearly identifies gasoline volume loss as related to the use of ethanol as a replacement for MTBE, and also identifies the inter-related impact of RFG3 sulfur controls on volume loss and octane.

H122 cont.

> Replacing MTBE on a gallon-for-gallon basis would result in ethanol demand four times current levels. Obviously, the specific nature of the restrictions on MTBE use, the possible elimination or modification of the oxygenate requirement for RFG, and the size and nature of the renewable requirement will be key determinants of ethanol use. Other factors that may affect ethanol use are ethanol prices (including the current excise tax exemption and tax credit), the total demand for gasoline, the impact of sulfur controls on gasoline octane and volume, and gasoline prices. Any estimates of future ethanol demand will have to be viewed in the context of what assumptions are made about these factors.

(Statement of Dr. Mark J. Mazur, Director Office of Policy U.S. Department of Energy Before Committee on Agriculture, Nutrition and Forestry United States Senate April 11, 2000; http://www.senate.gov/~agriculture/Hearings/Hearings_2000/April_11__2000/00411maz.htm)

As a result of the MTBE phaseout and sulfur controls, Chevron Richmond will need to make modifications to compensate for this loss in gasoline volume, for maintaining octane, and for meeting all the RFG3 requirements at the same time, which are inseparable. The impacts of these modifications must be considered before the City issues a permit because of its potential for significant environmental impact.

Chevron itself stated that Alkylation is an inherent part of reformulated fuels projects, in Chevron's 1993 EIR on RFG2.[1] Consequently, the City must consider the impacts of these modifications that are part of the RFG3 project.

Alkylation (Alky) Plant Modernization

The Alkylation Plant Modernization would enable the Refinery to increase its production of alkylate. As described earlier, alkylate will be the key component needed to meet the specific requirements of the new reformulated gasoline. Alkylate has a high octane, relatively low vapor pressure, and low aromatic-hydrocarbon content. The Alkylation Plant also reduces the olefin content of gasoline by converting FCC Plant olefins into alkylate. Primary modifications include constructing new hydrocarbon/sulfuric acid contacting vessels, and associated equipment, to allow processing additional olefin feedstock now produced at the FCC Plant. Because of limited existing Alkylation Plant capacity, these FCC olefins are currently blended directly into gasoline.

Environmental Impact Report, Chevron Richmond refinery, Chevron Reformulated Gasoline and FCC Plant Upgrade Project, Volume 1, August 1993, p III.16.

H122 cont.

There are other examples of facilities Chevron described as related to the Alky Plant upgrade:

- DIB (deisobutanizer column) modified to separate isobutane produced at hydrocracker plants and crude unit.
- New Butamer facility to provide additional isobutane needed by Alky plant
- New C4 treating facilities to remove impurities from FCC Plant butane (C4) streams fed to the existing Alkylation and MTBE plants to improve the yield and quality of alkylate and MTBE

This process shows further how refinery processes interrelate, and cannot be considered separate projects.

The RFG3 process is a different project from RFG2, and requires its own separate EIR not provided by the 1993 Chevron EIR on RFG2

1) **RFG3 differs substantially from RFG2:** We are now in Phase 3 (RFG3) of the California Reformulated Gasoline requirements, which has significantly different standards compared to Phase 2. These changes affect many different units within the refinery, affect the overall design of the refinery, and cause significant environmental impacts which must be evaluated through a new EIR.

- **RFG2 allowed the use of MTBE, but for RFG3 ethanol will be substituted.** Ethanol's higher vapor pressure results in the need for refineries to reduce high vapor pressure pentanes in gasoline to offset the ethanol. Ethanol results in different environmental impacts from MTBE (see section below on this subject).

[1] EIR ("Chevron Richmond refinery, Chevron Reformulated Gasoline and FCC Plant Upgrade Project, Volume 1, August 1993, p III.16)

- **RFG2 allowed higher amounts of sulfur compounds in gasoline.** RFG3 requires tighter limits on sulfur compounds, resulting in more intensive processing of hydrocarbons to remove sulfur contamination.
- **RFG2 had tighter limits in Distillation Temperature.** RFG3 allowed a relaxation of these limits, in order to provide refineries with more flexibility for blending gasoline due to the introduction of ethanol.

2) The Appropriate Baseline for an EIR is the Environment as it Actually Exists at the Time of Approval:

CBE has stated that Chevron's LPG Spheres project is really part of a much larger group of refinery modifications including the Alkylation Plant capacity increase, new Butamer plant, and several other modifications. Chevron responded in public hearings before the Richmond Planning Commission that the Alkylation Plant and Butamer Plants were approved through Chevron's 1993 EIR on RFG2 (Phase 2 of the Reformulated Gasoline), and that these refinery modifications were never built, therefore, no additional EIR is required. However, conditions have altered substantially since that time and require a new EIR. An EIR must be done in consideration of the *existing* conditions, not those that existed almost ten years ago. The Alkylation expansion and Butamer plant were never built following the 1993 EIR. Now the project has changed (for example, MTBE is being phased out and ethanol introduced), and the baseline conditions at the refinery and surrounding the refinery have changed. Chevron must evaluate the new RFG3 modifications in the light of the actual conditions that currently exist. H122 cont.

CEQA requires a lead agency to assess a project's impacts on the environment. CEQA §21002.1(a), 21061. To determine whether a project will have a significant impact, the lead agency must first identify the relevant "environment," and then determine whether the project will cause a "significant effect on the environment." CEQA §21002.1, Guidelines §15063, 15064. CEQA defines these terms as follows:

> "Environment means the physical conditions which *exist* within the area which will be affected by a proposed project, including land, *air*, water, minerals, flora, fauna, noise, objects of historic or aesthetic significance." (CEQA §21060.5 (emphases added).)
>
> "Significant effect on the environment means a substantial, or potentially substantial, *adverse change* in the environment." (CEQA §21068 (emphasis added).)

The CEQA Guidelines provide additional guidance. Specifically, they state that an EIR must describe the "physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." CEQA Guidelines, §15125(a).

The amendment of the Guidelines is a codification of several court decisions which have repeatedly held that a project's impacts must be measured against the existing physical conditions in the area, not the conditions that could occur under the current legal standards. For example, in Environmental Planning and Information Council v. County of El Dorado ("EPIC") (1982) 131 Cal.App.3d 350, 352, the court invalidated an EIR that

compared the impacts of a general plan amendment (the proposed project) to the existing general plan. The amended general plan would have allowed less development than the existing general plan. The court held that the County should have considered the effects of the general plan amendment as measured against the level of development that had actually occurred (*i.e.*, the existing physical environment). (Id. at p. 354.) Failure to do so misled the public and agency decisionmakers about the project's impacts. (Id. at p. 358.) Similarly, in Bloom v. McGurk (1994) 26 Cal.App.4th 1307, 1315 n3, the court held that the "existing facility" exemption requires the proposed project's "potential impacts to be examined in light of the environment as it exists when a project is approved." Citing, City of Carmel-by-the-Sea v. Bd. of Supervisors (1986) 183 Cal.App.3d 229, 246.

The current environmental setting differs greatly from that in 1993 when the Chevron RFG2 EIR was published. H122 cont.

Chevron's Initial Study Fails to Consider The Existing Baseline Groundwater Contamination at the Refinery.

In a similar case, the Valero Benicia Refinery was required to prepare a full EIR, because the Air District's Hearing Board held, among other things, that the Air District failed to investigate and disclose baseline groundwater and soil conditions at the Benicia Refinery and failed to evaluate potential impacts to groundwater at the Benicia Refinery. (Hearing Board Order, pp. 11-13. See attached.) The Planning Commission staff failed to evaluate these very factors that were the basis for ordering Valero to conduct an EIR at the Benicia Refinery.

In fact, the Air District's comments on the Administrative Draft explicitly warn the Contra Costa County Planning Commission about this issue. In a letter from Barry Young to Telma Moreira (See attached), "Re: Administrative Draft for Ultramar Clean Fuel Project – Phase Two," dated November 6, 2001, ("Air District Comment Letter"), the Air District states "Because the project includes the storage, pumping, and piping of neat ethanol at the facility, the potential risks of a neat ethanol spill on the existing hydrocarbon plume under the facility needs to be discussed and evaluated in comparison to the existing baseline risk at the facility." The Air District Comment Letter also urges the Planning Commission to solicit comments from the State Water Resources Control Board for the Hydrology and Water Quality Impacts chapter that would include "specific comments on the potential local impacts of neat ethanol spills at the refinery and loading rack." The Air District concludes that "the numerous precautionary measures (secondary containment, liners, new piping etc.) proposed for preventing spills from the new gasoline and ethanol tanks should be clearly presented in the EIR."

The same issues exist for the Chevron Richmond refinery. Chevron's initial study fails to analyze the ethanol impacts and fails to include the analysis suggested by the Air District. Thus, the Initial Study fails to adequately describe the baseline, and the potential impacts to the groundwater. Like the Air District's Hearing Board, the City of Richmond must require an EIR that adequately discusses the baseline and the potential local impacts the Project will have on groundwater.

There are many other conditions which have changed since 1993 and which must be assessed, including the fact that many new units have been built at the Chevron Richmond refinery since 1993, with many associated impacts (increased air emissions,

water emissions, solid waste, potential for accidental release, etc.), and many permit applications for refinery modification are in process.

The environmental setting in a CEQA document must be the actual setting in the real world today, so that the public can determine the actual environmental impacts the project will cause. Chevron's reliance on the 1993 Chevron EIR fails to do this.

3) **Chevron is introducing a new project to use higher sulfur crude inputs to the refinery,** which constitutes a change from the older project, at the same time that the sulfur limits in gasoline are lowering. This further increases the intensive sulfur contamination removal.

As stated earlier, Chevron has submitted several permit applications to the BAAQMD related to processing sulfur. These include the:

- Crude Flexibility and Reliability Project, Appl #3802,
- Sulfur Recovery Unit (SRU) Appl #1427,
- Hydrogen Plant Furnace Modifications (Applications #3246, #2019, #2559,
- Ultra-Low NOX Burners for Jet Hydrotreater (Appl #2189), Naphtha Hydrotreater (#2192), and Diesel Hydrotreater (Appl #2191),
- New External Floating Roof Tank, Appl. #3380,
- Applications #1824 and #1986 to H2S plants and various sources.

H122 cont.

The application for the Crude Flexibility and Reliability Project was cancelled (temporarily) as of 3/18/01 by the BAAQMD after District engineers presented a long list of questions for Chevron to answer, because Chevron did not complete the application in the time allotted. However, Chevron officials have stated that they plan to re-submit the application in the very near future, according to BAAQMD engineer Greg Solomon, who is reviewing the permit application. (Telephone conversation between Greg Solomon, BAAQMD, and Julia May, CBE, 5/13/02. See declaration attached.) According to Mr. Solomon, the time for Chevron to complete the permit application by the District's deadline lapsed because of a long list of questions submitted to Chevron by BAAQMD engineers regarding the project, which Chevron did not have time to complete.

- Chevron's plans for substituting heavier, high sulfur crude in the refinery will result in changes to many units in the refinery. Evidence documenting this issue was submitted to the Regional Water Quality Control Board, San Francisco Bay Region by a consultant on behalf of Shell Oil discussing the modifications to refinery design caused by using heavier, higher sulfur crude (attached, with illustrations).[2] The Shell document shows that the sizing of different process units within a refinery are determined by the crude slate input to the refinery. For example, the document states:

> Refineries cannot easily adapt to other crudes because the various processing units are sized to handle the distillation yields for which the refinery was designed. The following figure illustrates the relative sizing of process units for a "medium

[2] "Submission to the Regional Water Quality Control Board, San Francisco Bay Region, Prepared on Behalf of Shell Oil Company," December 1992, John H. Vautrain, Purvin & Gertz, Inc

gravity" crude oil. The size of the processing blocks are roughly proportional to the amount of processing capacity which is required. This is the base case for illustration.

The next figure shows a refinery designed for light crude. Compared with the base case, the naphtha processing block is much larger because considerably more processing capacity is needed to accommodate the higher distillation yield of naphtha. Very little residuum conversion capacity is needed because the light crudes contain much less of this asphalt type material.

The third figure illustrates a refinery designed for heavy crude oil. Very little naphtha processing capacity is required because these crudes do not contain much naphtha. However, this refinery would have a very large residuum processing unit to accommodate the high distillation yield of residuum.

Refineries designed for one type of crude cannot effectively utilize the other types of crude in significant quantities because their processing units are the wrong size.

- Higher sulfur crude also has higher levels of other contaminants, including:
  - Higher sulfur (with H2S, SO2, carbon disulfide, lots of other sulfur emissions) (which are very hazardous gases that can cause respiratory and neurological damage to humans, including death, and which greatly increases public nuisance odors),
  - Higher selenium (which poisons birds and fish due to increased selenium in Bay discharge),
  - Higher metals (which can cause cancer, and pollutes the bay and wildlife),
  - Higher particulate emissions (which increase death rates for humans),
  - Higher NOx (which damages human respiratory health and causes smog formation),
  - Higher ammonia, (which is acutely hazardous to humans).

H122 cont.

3) Market conditions are substantially different from 1993. There have been multiple sales of Bay Area and other refineries and oil companies since 1993. Market conditions affect the business plans and refining activities of each refinery.

- **Chevron has merged with Texaco**. These merged companies own different assets, and must create new business plans for the refineries. For example, the Shell document cited above identifies a pipeline owned by Texaco in California's central valley:
  "The Texaco pipeline is the only heated pipeline capable of transporting undiluted heavy crude, and has a capacity of about 215,000 barrels per day." [3]

[3] Ibid

- **Other Bay Area refineries have been sold many times since 1993.** The fact that there have been so many changes in ownership of refineries since 1993 can profoundly effect local business climate, conditions of competition, business plans, and activities at all refineries.

  - The Rodeo refinery owned by Unocal in '93 was sold to Tosco, then to Phillips
  - For a time, Tosco owned both the Avon refinery and the Rodeo refinery, but then the Avon refinery was sold to Ultramar, then to Tesoro.
  - The Shell refinery in Martinez was sold to Equilon, but will soon become Shell again.
  - The Benicia refinery owned by Exxon was sold to Valero

  - Los Angeles refineries were also sold since 1993. Some of these refineries also had Bay Area facilities. There is substantial transport of feedstocks between refineries owned in the Bay Area and Los Angeles. For example, Chevron in El Segundo transported substantial feedstocks by ship to the Chevron Richmond refinery. Increases in production at the Chevron Richmond facility may also mean increases in transport from the El Segundo facility. This may also be complicated by market conditions in Los Angeles.

H122 cont.

  - Gasoline demand has increased substantially since 1993.
    RFG3 requires an EIR because it is a new project imposing different requirements from those imposed in phase 2. These different requirements will result in different modifications and thus different environmental impacts. Furthermore, much has changed at the Richmond refinery since the 1993 EIR including new acquisitions – Texaco – and a new business plan. Finally, CEQA requires a new EIR for each new project. This project is by definition different from that proposed in 1993.

Conclusion

Chevron Richmond is in the process of a refinery-wide RFG3 project. The modifications involve nearly every refining process in the refinery. A project of this magnitude definitely could result in significant environmental impact triggering the need for an EIR. Nearly every other refinery in the state is doing the same basic project and has completed an EIR. At this point in the permitting process, the Richmond City Council can and has a responsibility to consider the adequacy of the initial statement because the Notice of Determination has not been filed. Therefore, CBE urges you to overturn your decision to issue a Negative Declaration and vote to support this appeal. Richmond residents deserve the same knowledge and safety as other residents in California.

Sincerely Yours,

Julia May
Lead Scientist

Adrienne Bloch
Staff Attorney

November 16, 2002

An Open Letter to Vallejo Residents and Residents of Surrounding, Downwind Communities

Dear Fellow Vallejoans/Neighbors,

I am very concerned about the proposal to bring an LNG terminal (the first on the west coast), a natural gas power plant, a natural gas pipeline, and unsightly transmission lines to Vallejo. Although I have many concerns about the proposed project, I would like to focus this letter on air quality issues.

Bechtel and Shell, the proponents of the LNG project, have been recently submitting full-page ads in the Times-Herald and Vallejonews.com, and sending out glossy mailings implying that an LNG facility would actually "Clear the Air" in Vallejo. Nothing could be further from the truth. These companies are trying to pull the wool over the eyes of the citizens and leaders of Vallejo, and downwind communities. As an environmental scientist, I would like to set the record straight, and provide the truth about air quality issues, air quality "pollution offsets", and other issues.

<u>What is the Current Air Quality in Solano County and the City of Vallejo?</u>

- According to the United States Environmental Protection Agency (U.S. EPA), the *current* air quality in Solano County and the City of Vallejo is in the dirtiest/worst 10 percent of the country for carbon monoxide, PM-10 (particulate matter of size 10 microns or less), PM-2.5 (less than 2.5 microns), and volatile organic compounds (in other words, 90 percent of the country has better air quality). H123

- The air quality in Solano County and Vallejo is also in the dirtiest 20 percent of the country for Nitrogen Oxides (No_x), and Sulfur Dioxide (SO_2) emissions (i.e., 80 percent of the country has better air quality for these pollutants).

- These pollutants are the same ones that Bechtel and Shell facilities would add to Vallejo and downwind communities, should the proposed LNG facilities be built.

- According to the U.S. EPA "Scorecard" for Solano County (developed from the extensive Air Toxics Hot Spots Program and the Toxics Release Inventory), our air at this time is *already* very dangerous to community health.

- According to the study, at least 390,352 people in Solano County already face a cancer risk ***more than 100 times*** the goals set by the federal Clean Air Act (CAA), and 11,198 people in Solano County face a cancer risk ***more than 1000 times*** the goals set by the CAA. The CAA was established to protect the public from health impacts to excessive exposure to chemicals. Exposures above recommended CAA levels are considered likely to cause human health impacts.

- Approximately 93 percent of the air cancer risk in Solano County is from mobile sources (e.g., cars and trucks on Highway 80, 37, and other highways). About 6 percent of the current air cancer risk is from area sources (e.g., gas stations, dry cleaners), and 1.3 percent of the air cancer risk is from "point" sources, such as industry.

- The No. 1 air pollutant contributing to excessive cancer risk in Solano County is diesel emissions from trucks and cars on the freeway. Diesel emissions have been listed as a cancer-causing agent by the California-EPA (Cal-EPA) and the U.S. EPA.

- As the Solano County population has rapidly expanded in recent years, freeway traffic has increased significantly, further exacerbating the air quality issues and concomitant health impacts in our communities.

- As a result of the high level of cancer-causing and toxic chemicals in our air, Solano County currently has an extraordinarily high respiratory illness rate. This is not an unseen or

perceived risk, rather, we *see the adverse health effects exhibited,* especially in residents of Vallejo and Dixon. Current asthma rates for Vallejo, for example, are 16 percent in children and 14 percent in adults, while the state average is 8.8 percent. These startling rates of respiratory illness have prompted the American Lung Association to conduct a study on the citizens of Vallejo (and Dixon), and air quality issues related to these illnesses.

Consideration of Solano County and Vallejo's current air quality is key for the decision-making about the health and safety risk associated with the proposed LNG facility. This information provides insight into the "Background" level of toxins in our county, and in our communities. As our air quality worsens, we will continue to see more health problems in our county, particularly in African Americans, children, elderly, immune-deficient, and people with heart problems.

What Contaminants will be Added to our "Background" Air Quality if the LNG Facility is Built?

According to Bechtel representatives (City Council meeting, August 20, 2002), if a 900-megawatt natural gas power plant is built in Vallejo, the following air emissions of criteria pollutants should be expected **each year** for the life of the facility:

- 201.9 tons of Nitrogen Oxides (403,800 pounds)
- 876.3 tons of Carbon Monoxide (1,752,600 pounds)
- 41.7 tons of Volatile Organic Compounds such as Benzene (a known human carcinogen), Hydrocarbons (many known to cause cancer), and Reactive/Precursor Compounds (83,400 pounds)
- 129.6 tons of PM-10 (very important to health, as these particulates readily lodge in the lungs and cause toxic effects; 259,200 pounds)
- 18.3 tons of Sulfur Dioxide (a criteria pollutant that causes acid rain; 36,600 pounds).

H123 cont.

These levels of contamination consider only the proposed power plant, and do not consider the transport ships, LNG offloading, refueling activities, regasification facility, dredging, pipelines, trucking, and/or accidents at the facility.

Bechtel and Shell Say They Will use Pollution "Offsets" - Won't These Help the Air Quality in Vallejo and Solano County?

The proposed facility will *further degrade* the air quality in Vallejo, Solano County, and surrounding, downwind communities. The assertion that pollution "offsets" or "credits" will be used to "clear the air" is misleading and false. In fact, nothing could be further from the truth.

- Should the facility be built, it is correct that pollution "offsets" or "credits" would be required by the Bay Area Air Quality Management District (BAAQMD; the regulatory agency responsible for air quality permitting in the Bay Area). With pollution credits, if a company builds a facility that will *increase* air pollution, they must offset the additional air pollution in some other place within the 9 counties in the Bay Area.
- As the data discussed above indicate, only 1.3 percent of Solano County's current air quality concerns are associated with industry, and in fact, virtually all of these facilities are downwind of Vallejo. This means that it is very likely that neither Vallejo nor Solano County will be the recipient of the "cleaner air" in any pollution offset swap. In other words, perhaps San Jose or Burlingame will gain cleaner air, while Vallejo and downwind communities will bear the brunt of the additional air pollution, on top of our already excessive and unhealthy air pollution.

What is the Bottom Line?

- Should the proposed LNG facility be built, Vallejo and downwind Solano County communities *will experience a worsening of air quality and smog.*

- Should the proposed facilities be built, there will be very different air quality issues for Vallejo than for downwind communities.

- In addition to the power plant, air quality issues in Vallejo will increase significantly from the LNG offloading, refueling, and docking activities, the increased diesel truck traffic to and from the facility (10+ percent increase in truck traffic), proposed pipeline/turnaround dredging activities (diesel engines), LNG tankers/carriers (three times per week, 14-20 hours offloading, likely diesel engines), and power plant emissions. In fact, in the LNG Health and Safety Subcommittee meeting on November 13, 2002, Mr. David Stein, URS, "air quality expert", specifically indicated that air quality modeling of the proposed emissions indicated that air quality impacts from the dock activities were much worse than those of the power plant. As indicated previously, diesel emissions from these activities are listed as a cancer-causing agent by the U.S. EPA and the Cal-EPA.

- Because the pollutants from the proposed power plant will be released approximately 145 feet above ground surface, "exposure concentrations" of pollutants at various locations in Vallejo and Solano County will differ, depending on weather patterns and climatic conditions. On low wind days, particulates emitted from the facility (i.e., PM-10, PM 2.5, diesel emissions, smog-producing chemicals) will settle closer to the power plant/LNG facilities (e,g, immediately downwind in Vallejo). In our more commonly windy weather, pollution will be carried further downwind. According to Mr. Jim Leahy, Bechtel Corporation, the most significant air pollution impacts will be approximately 30 miles downwind of the proposed facility (Vallejo City Council Meeting of August 20, 2002), likely as a result of the significant smog that will occur downwind as a result of the proposed facility.

H123 cont.

- Chemical exposures will also depend on the season. For example, the predominant wind direction for most of the year is from the southwest to the northeast, meaning that Vacaville and Dixon would receive the most smog from the proposed facility. In the winter, however, the predominant wind direction is from the southeast to the northwest, likely targeting Napa and Sonoma Valleys.

- The proposed facilities will emit toxins that will affect Vallejo and all downwind communities with respirable particulates (PM-10), smog, respiratory irritants, chemicals that cause acid rain and global warming, and cancer-causing chemicals.

- As the air quality worsens, Vallejo, Solano County, and other downwind community members *will experience increased respiratory illness and other ailments associated with the air pollution* (U.S. EPA, BAAQMD, Cal-EPA, Centers for Disease Control and Prevention, American Medical Association, American Lung Association).

- Solano County currently has several major freeways (e.g., Hwy 80, 780, 680, 37, 29), all of which contribute significantly to our air pollution. It is predicted that Solano County will be the fastest growing county in California in the next 25 years. It is highly unlikely that traffic on any of these freeways will be reduced in the future, and in fact, according to the Solano Transportation Improvement Authority, it is highly likely that Solano County freeways will be expanded and traffic will increase, contributing even more "Background" toxic pollution to Vallejo and downwind Solano County citizens. Already, an expansion of Highway 37 is underway.

- "Background" levels of air pollutants in Solano County/Vallejo *already exceed* levels considered "safe" by the U.S. EPA, the California EPA, the BAAQMD, and other health experts *by up to 1000 times*. In other words, Vallejo and Solano County are *already in a non-attainment zone* for air quality.

- Adding additional source(s) of air pollutants will further increase Solano County's/Vallejo's exceedences of levels considered "safe" by health experts, and will further increase exceedences of air quality regulations.

- Air pollution "offsets" will not help Solano County, the city of Vallejo, and/or other downwind communities, since industrial pollution is "traded" with other industrial pollution (not freeways, for example).

- Allowing the proposed LNG/natural gas facilities in the city of Vallejo would not be healthy for the citizens of Vallejo and the downwind citizens of Solano, Napa, and Sonoma Counties, and will very likely significantly increase respiratory illness, other illnesses such as cancer, and healthcare costs in these communities, especially for children and the elderly.

In light of all of the available information, why would our city leaders choose to consider bringing another toxic source into Vallejo that would further exacerbate our already challenging air quality and community health issues (i.e., the LNG facility)?

I know that as a community member, you are very interested in reducing our current air quality exceedences, and protecting Vallejo and downwind community members from further insult in the future.

H123 cont.

Please contact the Mayor of Vallejo (707-648-4377: fax 707-649-3479), Vallejo City Council members (707-648-4575), the Vallejo Fire Chief, and members of the Vallejo LNG Health and Safety Subcommittee (707-651-7186; fax 707-645-5289) to let your concerns be known. Tell them in no uncertain terms that we do not want the proposed LNG facilities in our community, and that we have significant concerns about our neighbors downwind.

Air pollution doesn't stop at the city boundaries. Please let us consider ALL of the potential impacts from the proposed LNG facilities.

Thank you for caring about y/our community, and all the communities downwind of the proposed project.

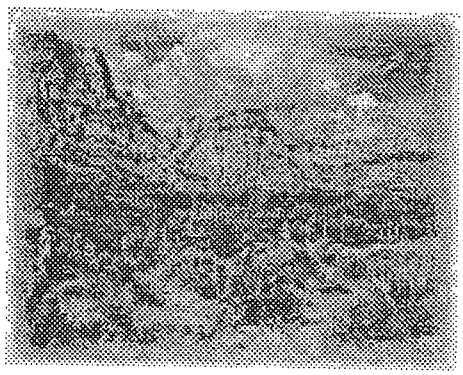
Sincerely,

Gayle Edmisten Watkin
Vallejo

MOJAVE: CADIZ WATER PROJECT defeated Oct 24 2002

Water Project Plans at Mojave Evaporate

Critics feared the project would threaten desert wildlife.



MOJAVE N.PRES., CALIF.— Plans for a massive water project that many feared would threaten the fragile ecosystem of the Mojave Desert have dried up.

The board of the Metropolitan Water District (MWD) of Southern California voted in October to scrap the $150 million project proposed by Cadiz Inc. The project would have mined groundwater from the aquifer beneath Cadiz's land in the Mojave Desert to sell at a profit to southern Californians.

H124

Courtney Cuff, NPCA's Pacific regional director, said the board's decision would protect California's deserts from a "potential disaster."

> "We couldn't hope for a better outcome to this environmentally flawed and economically unsound proposal," said Cuff. "[MWD] had the courage to stand up to gluttonous corporate interests and prevent damage to national treasures."

Dec 16 2002 Add from Cuff Federal EPA has ruled that California cannot take any more "surplus" water from Colorado River — so Any plan such as Cadiz Project proposed to ranchers with Colorado water is impossible.

Cadiz stood to earn as much as $1 billion over 50 years from the project, which included plans to store up to 1.5-million-acre-feet of surplus Colorado River water in the aquifer. Cadiz hoped to sell the water to MWD, which sells water wholesale to local agencies. Critics said the project would have seriously lowered the area's water table, causing shortages and dust storms that would be harmful to wildlife such as the desert bighorn sheep and desert tortoise.

"The project threatened the environment, made no economic sense, and would likely have advanced private interests at the expense of the public trust," said Cuff. "By mining groundwater, Cadiz would have, in effect, taken water out faster than natural cycles can replace it."

The aquifer supports four wilderness areas and Mojave National Preserve. The threat posed by the project compelled NPCA to include Mojave National Preserve on its "Ten Most Endangered

National Parks" list earlier this year.

Opponents of the project did not believe that Cadiz would have spotted potential problems—such as groundwater overdraft—in time to prevent dust clouds. They also did not approve of construction of intrusive facilities, such as a large pipeline and five-story power lines and towers, across the desert.

The Department of Interior green-lighted the project in September, heightening concerns. But, in a surprising twist, MWD decided to vote on the plan in October, much sooner than expected.

"The Cadiz project at this point does not represent reliability," said MWD board member Timothy Brick. "It represents just the opposite—risk."

Sen. Dianne Feinstein (D-Calif.) had publicly urged MWD to reject the proposal as both unnecessary and harmful to the Mojave Desert.

"To allow it to move ahead would be a terrible mistake," she said. "It does not make sense to siphon off water from this critical area of the California desert to send the MWD when the aquifer is vital to the health of the desert and its animal and plant life." H124 cont.

NPCA praised Feinstein for repeatedly expressing serious reservations about the environmental impacts of the project, and for relaying citizen concerns.

Opponents of the project also believed that Cadiz grossly overestimated the amount of groundwater it could have extracted from the Mojave aquifer, which would have rendered the cost of the project so high that consumers would have felt the pinch.

A recent *Los Angeles Times* editorial on the Cadiz project said that California voters would witness "another boondoggle," which would contribute to rising water prices if Cadiz's plan materialized. Other critics noted that private control of water in other states has sometimes resulted in higher prices and reduced water quality.

NPCA was a leading voice of opposition to the project for several years. In August, NPCA presented more than 3,000 letters from Californians opposing the Cadiz project to MWD, asking the board to nix it.

"We're thrilled to know that our concerns, and the concerns of thousands of Californians who opposed this senseless plan, were heard," said Cuff. "Our national parks, our wilderness areas, the more than 500,000 annual visitors to Mojave National Preserve, and all of California's residents are better off for this decision."

Norton signs law; state's water cut

■ Colorado River talks' end leaves the Interior Department little room on enforcement of 1929 pact

By Seth Hettena
ASSOCIATED PRESS

LAS VEGAS — Interior Secretary Gale Norton signed an order Monday cutting back the amount of water California draws from the Colorado River, marking the first time the federal government has used its authority to ensure that seven Western states get their entitlements.

"We are at a turning point in the history of the Colorado River," she said.

As of Jan. 1, the Interior Department will begin withholding river water from California, Norton said, although it is not clear exactly how much the state will lose. The action, however, left some time for an alternative deal to be worked out.

Southern California water agencies have said they have enough reserves to last two years.

For years, California has used enough excess water from the Colorado River to supply 1.6 million households because other states did not use the full shares they were entitled to under a 1929 accord.

Besides California, the other states that draw on the river are Wyoming, Colorado, Utah, New Mexico, Arizona and Nevada. Rapid growth in the West, combined with the worst drought in the river's recorded history, forced the Interior Department to crack down.

"As secretary and river master, I must enforce the law of the river," Norton said at the Colorado River Water Users Association convention in Las Vegas. "This means I will hold California to the express covenant it made in 1929 to limit its use of the Colorado River."

Norton's move, which was widely anticipated, followed the collapse of a potentially historic water-sharing pact aimed at reducing California's longstanding overuse of the river that serves of millions of people from Denver to San Diego.

Those negotiations were an effort to beat a Dec. 31 deadline for California to adopt a plan to curb its overuse or face immediate cutbacks.

Imperial Valley, home to California's poorest residents and by far the state's biggest user of Colorado River water, threw a wrench in the deal last week when local water officials narrowly rejected a 75-year deal to transfer water from desert farms to San Diego and other cities.

Water officials from San Diego and Imperial Valley were holding talks in Las Vegas to try and resurrect the deal, but both sides seemed far apart Monday. A major sticking point was the Salton Sea, the vast inland lake fed by farm runoff laden with salt.

"The people of the valley officially found themselves between the devil and the Salton Sea," the Imperial Irrigation District said in a written statement.

The sea is home to endangered species such as the brown pelican, but may soon be too salty to support them. Imperial officials fear they will get stuck with the cost of fixing the sea's problems.

Norton said the issue of the Salton Sea was so large that its solution could only come from Congress and she could offer no further inducements.

"I don't see anybody stepping forward to sweeten the pot," she said.

The seven states that share the Colorado River have fought over it for decades and carefully scrutinized each other's moves in what has become a high-stakes game of poker played for water.

The interior secretary promised in her speech at the Caesars Palace casino that she would "lay her cards on the table." But Imperial Valley water officials felt as if they had a better hand to play.

"My deck has five aces," said Stella Mendoza, president of the irrigation district's board and a staunch opponent of the water transfer.

The valley is the nation's largest irrigation project, controlling about a trillion gallons of water a year, roughly 70 percent of all the Colorado River water that passes through California.

"The reality is the Imperial Irrigation District is a major player," said Ronald Gastelum president and chief executive of the Metropolitan Water District of Southern California, which serves 17 million customers in Los Angeles and San Diego. "You can't go forward with that big of a player and say we're going to ignore them and not deal with you."

This copy taken from Internet Source: http://www.commondreams.org/headlines, Article also published in S.F. Chronicle, Nov 22, 2002

Published on Friday, November 22, 2002 by the Associated Press

Report cited below is to appear in future issue of publication called "climate change"

Study Predicts Global Warming's Devastating Effect on Water in West

by Andrew Bridges

This article was read into the record at Planning Commission hearing for Public Comments on Draft EIR by Marilyn Barder

LOS ANGELES — Global warming will have a devastating effect on water availability in the western United States, a new climate forecast predicts.

H126

The report, released Thursday, involved more than two dozen scientists and engineers from around the country who undertook the study as a test of a national climate forecasting effort.

A boat passes through the Sacramento-San Joaquin River Delta near Isleton, Calif., Feb. 25, 2001. Global warming will dramatically limit the availability of water in the West, including areas like the Sacramento-San Joaquin River Delta, according to a new study that Scripps Institute scientists bill as the rosiest of a series of recent climate forecasts for the already parched region. (AP Photo/Rich Pedroncelli, File)

What they found doesn't bode well for the West. Even the report's best-case scenario predicted water supplies would fall far short of future demands by cities, farms, and wildlife, generating critical water-rights' issues that have already surfaced during the West's current drought.

"You'd like there to be some good news in there somewhere, but unfortunately there is not," said Scripps Institution of Oceanography research marine physicist Tim Barnett.

The study predicts overall precipitation levels are likely to remain constant, but warmer temperatures mean what would have fallen as snow will instead come down as rain. Currently, the snowpack acts a natural reservoir, storing water through the winter so it will melt and be released during the spring and summer when demand spikes. If that precipitation falls as winter rain, however, it will fill rivers and streams at a time of year when demand is low.

To create the forecasts, scientists began two years ago with current observations of the state of the world's oceans — those vast reservoirs of heat that drive climate — and worked to translate that into real effects on precipitation and temperature on the West's three most important river systems: the Columbia, Sacramento, and Colorado river basins.

According to research, global warming is due to an increase in atmospheric greenhouse gases, principally carbon dioxide from the burning of oil, gas, and coal. Global temperatures are thought to have risen by about 1.1 degrees Fahrenheit over the last century, with the top few thousand feet of ocean waters increasing by about one-tenth of a Fahrenheit degree.

Among the new study's forecasts for the next 25 to 50 years:

· Reservoir levels along the Colorado River will drop by more than one-third and releases by 17 percent. The lower levels and flows will cut hydropower generation by as much as 40 percent.

· The Sacramento River will see reduced reliability in the volumes of water available for irrigation, cities, and hydropower. With less fresh water, the Sacramento Delta will increase in salinity, disrupting the ecosystem.

H126 cont.

· Along the Columbia River system, there will be either water in the summer and fall to generate electricity or in the spring and summer for salmon runs — but not both.

"The problem is you basically can't resolve that trade-off," said Dennis Lettenmaier, a professor of civil and environmental engineering at the University of Washington.

The continued growth in the population of the West will exacerbate the problem. Indeed, that alone makes for a crisis, said Bill Patzert, a National Aeronautics and Space Administration research oceanographer who was not connected with the new research. "The problem in the West is not climate change, it's too many ... people using too much water," Patzert said. "If nothing happens, we're in trouble. If something happens, it's worse."

The study included researchers from institutions including Scripps, the University of Washington, the Energy Department, and the U.S. Geological Survey. The results are expected to appear in a future issue of the journal *Climatic Change.*

###

MEMORANDUM

TO: Pete Rabbo
FROM: Elizabeth Patterson
DATE: October 16, 2001

RE: Governmental Financing Principles for Infrastructure Financing and EO 12893

In general the Governmental Accounting Standards Board's principles cover the need for criteria to evaluate data, disclose statements from special districts and other governments on their overall state of financial health in addition to individual funds; complete, accurate and defensible information about the cost of delivering services to citizens; inventory of and life cycle statements on public infrastructure assets, such as bridges, roads, storm drains, flood control, waste water treatment facilities and so forth; a narrative section by the government of its financial performance presented in standard form and transparent for verification; the above would be subject to sanctions for compliance.

Principles of GASB:

- Government-wide financial reporting: provide a clear picture of the government as a single, unified entity complementing traditional fund-based financial statements.

- Additional long-term focus for governmental activities: retain tax-supported activities on near-term inflows, outflows, and balances of spendable financial resources **and** provide long-term perspective on these same activities in the government-wide financial statements.

- Narrative overview and analysis: provides financial report users with a simple narrative introduction, overview, and analysis of the basic financial statements in the form of management's discussion and analysis.

- Information on major funds: fund information is most useful when presented for individual funds rather than for aggregations of funds (e.g., all special revenue funds).

- Expanded budgetary reporting. Information on original budget should be used in addition to the final amended budget to provide comparisons for the general fund and each individual major special revenue fund.

Life Cycle Costing Principles:

- flexibility in approach may be necessary to account for unique project characteristics;

- life cycle costs should be consistent with the established fundamental principles of good/best practice: to, wit, LCC should have sufficiently long analysis periods to reflect long term cost

H127

differences associated with reasonable investment alternatives, employ accepted discount rates, and address the inherent variability in input parameters.

- life-cycle costs should be factored with equal footing with budgetary, environmental, safety, and other factors in infrastructure investment decisions.

- Investment alternatives having the least net cost (or the greatest net benefit) should include considering streams of discounted benefits and costs over the entire life of the investment;

- Use life cycle costs analysis, to maximize the return from investments of scarce infrastructure resources.;

- Life cycle costs should be considered in all phases of construction, maintenance ,and operation. A project's design will affect its initial construction cost as well as future maintenance and rehabilitation costs.

- Analysis periods used in LCC should be long enough to capture long term differences in discounted life-cycle costs among competing alternatives and rehabilitation strategies: should cover several maintenance and rehabilitation cycles and, may cover reconstruction of the facility as well.

H127 cont.

- Funding agency should include operating costs borne by all organizations responsible for operation the facilities, such as accident costs, delay-related costs incurred throughout the analysis period, increased costs due to deterioration of infrastructure, necessary by-pass arrangements, and future work zones for maintenance, repair or replacement. These assessment should be based on quantitative values, but may include sensitivity analysis, probabilistic or risk analysis techniques, expert panels, or other methods for estimating the degree of uncertainty underlying key LCC factors and the influence of that uncertainty on the choice of investment alternative.

SOURCES:

Life Cycle Cost Analysis; final Policy Statement; Final Policy Statement, FHWA Docket No. 94-15 Federal Register/Vol.61, No. 182 Wed, September 18 (1996)

GASB Releases new Standard that Will significantly change Financial Reporting by State and local Governments", Government Accounting Standards Board, 1999.

Executive order 12893, "Principles for Federal Infrastructure Investment: (January 26, 1994)

Intermodal surface Transportation Efficiency Act of 1991 (Pub. Law 102-240, 105 Stat. 1958, 1964) 23 U.S.C. Section 134(f)(12) and 135 (c)(20).

Getting There, Stephen B. Goddard, 1994 (ISBN 0-226-30043-9

EXECUTIVE ORDER 12893 EO

Effective Date January 26, 1994

Responsible Office: A

Subject: PRINCIPLES FOR FEDERAL INFRASTRUCTURE INVESTMENTS

TEXT

A well-functioning infrastructure is vital to sustained economic growth, to the quality of life in our communities, and to the protection of our environment and natural resources. To develop and maintain its infrastructure facilities, our Nation relies heavily on investments by the Federal Government.

H128 cont.

Our Nation will achieve the greatest benefits from its infrastructure facilities if it invests wisely and continually improves the quality and performance of its infrastructure programs. Therefore, by the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1. Scope. The principles and plans referred to in this order shall apply to Federal spending for infrastructure programs. For the purposes of this order, Federal spending for infrastructure programs shall include direct spending and grants

for transportation, water resources, energy, and environmental protection.

Sec. 2. Principles of Federal Infrastructure Investment.

Each executive department and agency with infrastructure responsibilities (hereinafter referred to collectively as "agencies") shall develop and implement plans for infrastructure investment and management consistent with the following principles:

(a) Systematic Analysis of Expected Benefits and Costs. Infrastructure investments shall be based on systematic analysis of expected benefits and costs, including both quantitative and qualitative measures, in accordance with the following: H128 cont.

(1) Benefits and cost should be quantified and monetized to the maximum extent practicable. All types of benefits and costs, both market and other nonmarket benefits and costs can be quantified, they shall be given the same weight as quantifiable market benefits and costs.

(2) Benefits and costs should be measured and appropriately discounted over the full life cycle of each project. Such analysis will enable informed tradeoffs among capital outlays, operating and maintenance costs, and nonmonetary costs borne by the public.

(3) When the amount and timing of important benefits and costs are uncertain, analyses shall recognize the uncertainty and address it through appropriate quantitative and qualitative assessments.

(4) Analyses shall compare a comprehensive set of options that include, among other things, managing demand, repairing facilities, and expanding facilities.

(5) Analyses should consider not only quantifiable measures of benefits and costs, bit also qualitative measures reflecting values that are not readily quantified.

(b) Efficient Management. Infrastructure shall be managed efficiently in accordance with the following:

(1) The efficient use of infrastructure depends not only on physical design feature, but also on operational practices. To improve these practices, agencies should conduct periodic reviews of the operation and maintenance of existing facilities.

H128 cont.

(2) Agencies should use these reviews to consider a variety of management practices that can improve the return from infrastructure investments. Examples include contracting practices that reward quality and innovation, and design standards that incorporate new technologies and construction techniques.

(3) Agencies also should use these reviews to identify the demand for different levels of infrastructure services. Since efficient levels of service can often best be achieved

by properly pricing infrastructure, the Federal Government--

through its direct investments, grants, and regulations --

should promote consideration of market-based mechanisms for

managing infrastructure.

(c) Private Sector Participation. Agencies shall seek private seek private sector participation in infrastructure investment and management. Innovative public-private initiatives
can bring about greater private sector participation in the ownership, financing, construction, and operation of the infrastructure programs referred to in section 1 of this order. H128 cont.
Consistent with the public interest, agencies should work with
State and local entities to minimize legal and regulatory barriers to private sector participation in the provision of
infrastructure facilities and services.

(d) Encouragement of More Effective State and Local Programs. To promote the efficient use of Federal infrastructure
funds, agencies should encourage the State and local recipients
of Federal grants to implement planning and information management systems that support the principles set forth in section 2(a) through (c) of this order. In turn, the Federal
Government should use the information from the State and local
recipient's management systems to conduct the system-level reviews of the Federal Government's infrastructure programs that
are required by this order.

Sec. 3. Submission of Plans. Agencies shall submit initial plans
to implement these principles to the Director of the Office of

Management and Budget ("OMB") by March 15, 1994. Agency plans shall list the actions that will be taken to provide the data and analysis necessary for supporting infrastructure-related proposals in future budget submissions. Agency implementation plans should be consistent with OMB Circular A-94 that outlines the analytical methods required under the principles set forth in section 2 of this order.

Sec. 4. Application to Budget Submissions. Beginning with the fiscal year 1996 budget submission to OMB, each agency should use these principles to justify major infrastructure investment and grant programs. Major programs are defined as those programs with annual budgetary resources in excess of $50 million.

H128 cont.

Sec. 5. Application to Legislative Proposals. Beginning March 15, 1994, agencies shall employ the principles set forth in section 2 of this order and, at the request of OMB, shall provide supporting analyses when requesting OMB clearance for legislative proposals that would authorize or reauthorize infrastructure programs.

Sec. 6. Guidance. The Office of Management and Budget shall provide guidance to the agencies on the implementation of this order.

Sec. 7. Judicial Review. This order is intended only to improve the internal management of the executive branch and does not

create any right or benefit, substantive or procedural, enforceable by a party against the United States, it agencies or
instrumentalities, its officers or employees, or any other person.

H128 cont.

/s/William J. Clinton

THE WHITE HOUSE,
January 26, 1994.

LETTER H – GOOD NEIGHBOR STEERING COMMITTEE: MARILYN BARDET / ELIZABETH PATTERSON

H91 See response to comment H21.

H92 See response to comment H28.

H93 See response to comments H30 and H31.

H94 See response to comment H30.

H95 The compliance of the VIP with the Benicia General Plan is presented in Section 4.10 of the Draft EIR. The issue of sustainability is discussed in the Master Response "Sustainability."

H96 The objectives of the project are stated in the Draft EIR, p. 3-4. Factors related to gasoline consumption in the region, state or nation are beyond the control of the City of Benicia.

H97 In accordance with the CEQA Guidelines, the Draft EIR does not consider economic factors. Chapter 4 of the Draft EIR does discuss the environmental impacts of the project in detail. Also, the cumulative analysis does consider the effects of the known future refinery projects. Undoubtedly, there will be other projects that will be planned by the refinery in the future, but these were not known when the Draft EIR was prepared and cannot be know at this time.

H98 The Draft EIR is intended to provide sufficient information about the environmental implications of the VIP to assist City decision-makers in their review and consideration of the VIP.

H99 The goals for the VIP are presented and discussed further in section 3.2.1. The feed stock discussion in section 3.4.2 provides important background information with respect to "flexibility." The EIR analysis takes into account the fact that not all project components may be built and analyzes worst-case scenarios.

H100 The writer's comments are noted. The Draft EIR provides a description of the visual setting of the refinery site (see p. 4.1-5), as well as a description of the visual setting adjacent to the Valero Refinery in the discussion of public view corridors on pp. 4.1-6 and 4.1-7. Cumulative projects at the refinery and at other nearby locations are discussed on pp. 3-58 through 3-70 of the Draft EIR. A discussion of the potential visual and aesthetic effects related to these reasonably foreseeable projects is provided in Impact 4.1-5.

H101 The Draft EIR provides a characterization of the existing visual environment, in this case a refinery, and then describes the change in the visual environment of the refinery

attributable to implementation of the project. This change is characterized by the addition of project elements of similar size, shape, color and function to those already on the site.

The fact that the change would be noticed does not mean that the impact would be considered to be significant.

See also response to comment H40 for information regarding potential visual effects related to the construction of new tanks in the crude tank farm.

H102 The likelihood of the project to cause flaring is based on a comparison of the existing number of flare events on the project site now compared to the potential number of flare events at the site operating under project conditions. For a discussion of project-related flaring, please refer to the discussion of Impact 4.1-2 on page 4.1-23 of the Draft EIR. See also response to comment H110a.

H103A Please refer to response to comment H101 for more information.

H103B Comment noted.

H103C Please refer to response to comment H40 for more information.

H103D Pages 4.1-6 and 4.1-7 discuss public view corridors from which the project site— the refinery's process block and crude tank farm— are visible. Additionally, the Draft EIR provides a description of views from other public view corridors that are not designated within the General Plan.

H104 The Draft EIR presents a discussion of the state of the air basin and presents monitoring data from a local representative monitoring station in Section 4.2.2.3 through 4.2.2.6. The commentor asserts that no air monitors have ever been installed in Benicia's neighborhoods. This is incorrect as Valero operates three air monitoring stations outside the refinery boundaries within the City of Benicia as was discussed in the Draft EIR. One of these monitors is located within the community near East 2nd Street and I-780 while the other two are located east of the refinery in an industrial zone. The Master Response "Air Quality" provides further discussion of these data as well as additional air quality monitoring data in the local area and regionally. The commentor cites information on the Bechtel / Shell LNG proposed project and states correctly that this project was not mentioned in the Draft EIR. However, this LNG project and others mentioned by other commentor were considered in the cumulative analysis as is discussed in the Master Response "Cumulative Analysis." Note too, that in late January 2003 the proposed Bechtel / Shell LNG project was abandoned.

H105 Please see the Master Response "Cumulative Analysis."

H106 Future air quality conditions in Solano County and the Bay Area have been discussed under the "existing Air Quality" section on pages 4.2-13 through 4.2-15 based on CARB

inventory data. The regulatory setting description focuses on the BAAQMD requirements for stationary sources, which are more applicable to the project. The commentor asserts that Draft EIR should provide analysis about how the BAAQMD can meet CARB's projected growth in air pollution. The Draft EIR relies on the BAAQMD current Clean Air Plan and other planning document to consider such effects. This reliance follows BAAQMD's CEQA guidelines. Furthermore, it is beyond the scope of this EIR to consider such broad issues as how the BAAQMD can meet CARB's projected growth in air pollution. With respect to potentially changing national priorities please see response to comment H44.

H107 In addition to the 3-year baseline data referred to by the commentor, Section 4.2-4 also provides a one-year baseline based on emissions data from May 1, 2001 – April 30, 2002 after Valero's purchase of the refinery. As explained under "Baseline" on page 4.2-18, the one-year baseline is used for the CEQA-required comparison and a determination of significance of impacts has been made in the Draft EIR based on the 1-year baseline. The 3-year baseline is used by the BAAQMD for permitting purposes and is provided in the Draft EIR for additional information although for the purposes of this CEQA document project-related significant impacts are considered against both baselines.

H108 The specific condition that would initiate the 36 month period where Valero would be required to maintain "historical limits" on air emission would be the initiation by Valero of the interim operation period which would allow Valero to process additional crude above its current level (pre-VIP). Valero has made a commitment to the City that once the interim operation period is initiated, they would install the Main Stack Scrubber. Whether or not the scrubber is installed, Valero has to maintain historical emission levels per the BAAQMD permit.

Generally speaking, the BAAQMD enforces permit conditions through periodic on-site inspection of refinery and its records as well as submission of periodic reports from Valero. As all permitted emissions sources are monitored, violations of permit conditions can be detected and actions taken to penalize Valero in such an event.

H109 Both Sections 4.8 - Public Health and 4.2 - Air Quality discuss air pollutants and their potential health effects. Criteria air pollutants have specific standards associated with them, and these limits are based on protecting public health. Toxic air contaminants are not regulated by a specific air quality standard but by limiting the risks, both the cancer risk and the acute and chronic non-cancer health risks to certain allowed levels. The Draft EIR provides the health assessment for both Toxic Air Contaminants and Criteria Air pollutants.

Although dioxin has not been monitored in the ambient air in the past, the Public Health section (page 4.7-4) of the draft EIR states that air monitoring of dioxins has recently begun at BAAQMD stations in Crockett, Livermore, Oakland, Richmond, San Jose, and San Francisco. The goal is to inform the public on dioxin exposure levels in the region. However, data are not yet available to the public.

Dioxins are a group of toxic organic chemicals containing chlorine. These compounds are formed mainly from catalytic reaction of carbon with oxygen and chlorine under moderately high temperatures. Little is known, however, as to the amount or type of dioxin emitted from oil refineries. According to EPA reports, dioxins are emitted from catalyst regeneration operations at refineries, but the significance is not known, since there is considerable uncertainty on the mechanism and amount of dioxin generated in refineries, in general. As a result, EPA requires refineries to test for dioxin discharges, and to report it as part of the Toxics Release Inventory (TRI). Valero tests have shown levels below the TRI reporting threshold. Valero is required to continue to test for dioxin and to report levels that exceed the reporting threshold.

H110 See the Master Response "Air Quality." A "wind rose" is presented in the Master Response as well as other monitoring data not presented in the Draft EIR.

H110a Section 4.1.2.2 present a discussion of historical flaring at the Valero refinery and Impact 4.1-2 considers potential VIP impacts to flaring. As presented in the Draft EIR, a criterion of 10 million standard cubic feet per day with duration of two or more hours was used to classify flaring events as "reportable". This specific criterion for reportable flare events dates back to Valero's (then Exxon) 1994 Clean Fuels Project EIR, with the express purpose being to identify a level of flaring that would clearly represent a noticeable event from the standpoint of impacts to community noise and thus becomes an event that should be reported to the City. This criterion also helped to set a level below which a flaring event could be considered minor. In this respect a reportable flaring event for City purposes is related more to community noise impacts than to public health concerns. The primary purpose of a flare is to provide a means to safely destroy gases that would otherwise be released to the atmosphere by the refinery in upset operating conditions. In this respect, emergency flares are public safety devices.

The commentor asks what "flaring intensity" means. As used in Section 4.1.2.2 of the Draft EIR, it refers to the rate at which gases were flared and / or duration of the flaring.

With respect to the same comment about flare-related complaints, these data are useful to the City in assessing the historical operating behavior of Valero. A significant change in the frequency of complaints of flaring events could indicate that Valero may have to take some corrective action, or conversely that measures taken by Valero are effective.

The commentor was also concerned about pollutant emissions from flares. Simply put, air emissions from flares are difficult to characterize for a number of reasons. These include:

1. Flares are for emergency use and the characteristics of the gas going to the flare to be destroyed can vary greatly from time-to-time, but it can be expected that the gas is predominantly hydrocarbon compounds. Generally, any unburned compounds released to the atmosphere from a flare would be unburned volatile organic compounds (VOC).

2. The destruction efficiency of the flare can vary, but when operating under its normal design mode, hydrocarbon destruction efficiencies of 98% or more are considered normal.

The BAAQMD is currently in the process of considering new rules for flares. In the development of these rules the BAAQMD has estimated typical emissions from refineries in the Bay Area in a preliminary draft report. While data in this report is preliminary and subject to change, Valero's flare-related VOC emissions were estimated to be 2 tons per day on the average[3]. BAAQMD-reported flare emission data from their preliminary draft report is currently in dispute between the refineries and the BAAQMD and as yet no final report has been released.

As is discussed in the Draft EIR, the increased processing of sour crude under the VIP is not expected to result in an increase in the annual number of flaring events each year and also would not result in an increase in the magnitude of the flare events. The only time that project-related flaring would occur would be during turnarounds when the VIP equipment is vented to the flare to empty it for maintenance purposes. Those emissions are estimated by Valero to be on the order of 30 pounds of VOCs per year. Thus, the VIP contribution to the total flaring emissions would be very small.

Finally, the commentor asks how flaring emissions are accounted for in the "Main Stack" emissions. Valero has two tall main flares, north and the south, and two smaller flares, a butane flare and an acid gas flare. Flaring emissions exit the respective flare stack and are not part of the main stack emissions described in the Draft EIR.

H111 The commentor expresses concern about the effectiveness of the BAAQMD's regulation of odor. However, as discussed in the Master Response "Odors", the significance evaluation of odor impacts was based on quantitative thresholds specified by applicable BAAQMD Rules and Regulations and not on the number of complaints received within a limited time frame. The Master Response also provides details of the BAAQMD and Valero odor complaint procedures.

H112 As discussed in the Master Response "Odors", the significance evaluation of the VIP's odor impacts was based on quantitative thresholds specified by applicable BAAQMD Rules and Regulations and not on the number of complaints received within a limited time frame. The quantitative analysis addresses any potential odor issues arising from systemic problems in operations and maintenance. In addition Valero monitors hydrogen sulfide concentrations at the refinery. Based on hourly H_2S data monitored at the refinery over the past five years, there were no violations of the BAAQMD Regulation 9, Rule 2's 42 mg/m3 standard. The refinery, like all other refineries is also required to implement a Leak Detection and Repair program to mitigate fugitive emissions, one of the sources of odor.

[3] http://www.baaqmd.gov/enf/refineryfsm/REFINERY_WEBSITE.htm

H113 Section 4.7, *Public Health*, assesses both cancer and non-cancer health risks associated with the project.

Current research does show that children are uniquely susceptible to environmental pollutants because of their stage of physiological development, their higher inhalation rate to body weight ratio, and behavioral factors.

The current standards do, however, incorporate several safety factors that minimize risk to the entire public.

H114 The commentor asserts that a larger list of cumulative projects should be considered. Please see the Master Response "Cumulative Analysis" for a discussion of what was considered in the Draft EIR impact cumulative analysis. Note that no such LPG spheres, as mentioned by the commentor in regards to the Chevron Refinery, are proposed for the VIP. Please also see response to comment H109.

H115 Sulfur recovered in the processing of crude oil is stored in the form of molten sulfur in a dedicated storage tank in the refinery. The sulfur is dispensed into trucks for delivery to a chemical processing plant. The capacity of the sulfur storage tank is 3,000 barrels (126,000 gallons). The tank is usually kept near half full. The VIP would require no additional sulfur storage capacity. The increased production rate of sulfur will result in more truck shipments, as stated in the Draft EIR.

At Valero, sulfuric acid is used as the catalyst in the Alkylation process at the refinery. Valero purchases the sulfuric acid that it uses in the Alkylation process. This process is explained in Section 8.1 of the Draft EIR both with respect to the Alkylation process and catalysts in general. Sulfuric acid is classified as a corrosive chemical. Therefore, the sulfuric acid is handled with care, recognizing its corrosive nature. Valero stated that no accidents have occurred in the transport and use of sulfuric acid at the Valero refinery.

According to Mr. Sam Hammonds of Valero Refinery, the Corpus Christi Valero refinery voluntarily entered into a joint study on the SRU. Also, voluntarily, the Corpus Christi Valero refinery elected to install a third SRU although adding this extra processing capacity was not a conclusion of the study. Mr. Hammonds reported that the local chapter of the Sierra club had registered a concern with the project (see also comment letter "I"). However after discussing the basis of the project with Valero staff, they withdrew their comments.

H116 These comments are noted about the larger issues of water use, the demand for gasoline and other global issues.

The water supply issues are dealt with under Utilities, Section 4-14, of the Draft EIR and not in the Hydrology and Water Quality section of the Draft EIR.

H117 See response to comment G19, related to the Cadiz project. Comments regarding increased competition for available water supply and the potential for environmental impacts are noted. There are major water planning efforts for the Sacramento/San Joaquin Delta (CALFED) and the Colorado River, which are ongoing, and the State of California continues to update the California Water Plan to address these macro level policy issues. These efforts are acknowledged but further analysis is beyond the scope of this project EIR.

H118 The EIR was prepared under the land use authorities of the City of Benicia and in accordance with the goals, policies, and objectives in the City General Plan. All projects must be consistent with local, state, and federal regulations, including the State and Federal Endangered Species Act. Sustainability is an overarching concept of the City's General Plan. Please see Master Response "Sustainability."

H119 The City has detailed plans for water supply through the year 2020. The 2001 Urban Water Management Plan (Buck and Assoc., 2001) is current and served to update the 1996 Water System Master Plan (MW, 1996). As does the City water planning, the Draft EIR considers the effects of severe drought on City water supply. See Section 4.14. See also Master Response "Water."

H120 See Master Response "Water."

H121 See Master Response "Water."

H121a The commentor suggests that life cycle costing principles be used by the EIR to meet the requirements of the General Plan for sustainability. Conformance with the General Plan was discussed in Section 4.10 of the Draft EIR. A further analysis of VIP compatibility with the General Plan and sustainability is presented in Master Response "Sustainability."

H122 This letter was submitted to the City of Richmond regarding a project at the Chevron Richmond Refinery. The letter does not address any comments or questions related to the VIP. However, several portions of the letter were marked, as if to indicate points previously raised by the commentor. Among these points are: 1) the expanded use of sulfuric acid as a catalyst in the alkylation process; 2) the requirement to handle larger quantities of H_2S and sulfur; 3) use of ethanol in the blending of fuels that do not use MTBE; and 4) the more contaminants and metals in lower grade crudes.

1) As noted in Response H115, sulfuric acid is used as the catalyst in the alkylation process. See Response H115.

2) The requirements to handle larger quantities of sulfur and H_2S are discussed at length in Section 3.4, the VIP Project Description of the Draft EIR. The major implications of this increased use are discussed in the air quality, public health and public safety sections of the Draft EIR.

3) The use of ethanol is related to the replacement of MTBE as the oxygenate in gasoline. The environmental impacts of that change in oxygenate were examined in the environmental review for that project.

4) The issues related to increased contaminants and metals in lower grade crudes is discussed in Section 3.4 of the Draft EIR and the implications of these increases are discussed in the air quality, water quality, public health and public safety sections of the Draft EIR.

H123 The information contained in the November 16, 2002 letter to Vallejo describes a proposed LNG facility in Vallejo and does not address any specific issue related to the VIP Draft EIR. As of the end of January 2003, the proposed LNG project has been canceled and, therefore it should not be considered as reasonably foreseeable or considered in any cumulative analysis.

H124 This attachment describes the Cadiz Corporation project. This is the same as the attachment for comment H20. See Responses H19 and H20.

H125 Comment Noted. The comment is an article from the Contra Costa Times, December 17, 2002. The article describes the EPA cut to the amount of water allotted to California from the Colorado River. This article does not pose any direct questions or comments on the Draft EIR, so no CEQA response can be made. See also Response H20.

H126 Comment Noted. The comment is an Associated Press article, dated November 22, 2002. The article is entitled "Study Predicts Global Warming's Devastating Effect on Water in West." This article does not pose any direct questions or comments on the Draft EIR, so no CEQA response can be made.

H127 Please see response to comment H121a.

H128 Comment H127 is EO 12893, January 26, 1994. This Memorandum does not pose any direct questions or comments on the Draft EIR, so no CEQA response can be made.

Rainbow Real Estate-Mediation Services
Creating Connections for You.

Jerri Curry, Ph.D.
Real Estate Agent

December 5, 2002

The Honorable Steve Messina, Mayor of Benicia
250 East L Street
Benicia, California 94510

Re: Valero Expansion plans and Public Safety

Dear Mayor Messina:

It is our understanding a Benicia Planning Commission meeting will be held on Thursday, December 5, 2002 regarding the Valero Refinery expansion plans and the EIR that was recently released.

May this letter serve as notice that the Sierra Club – Solano group is opposed to the expansion plans of the Valero Refinery. Sirens and violations are consistently occurring and our main question is how can the Valero Refinery hope to insure the safety of Benicia and its residents especially if it is allowed to expand? Valero's expansion in the production of additional crude oils, lack of scrubbers ("optional" which indicates bad faith on the refinery's part), and ongoing violations that have occurred as recently as yesterday with the siren alert, and the day before when the siren was not sounded. On Tuesday, a violation in the release of toxic emissions was done in the twilight hours prior to people "noticing" the problem generated by the refinery. This is a safety and welfare issue for Benicia that will continue to grow. I1

This letter is being written to both the members of the Benicia City Council and the Benicia Planning Commission. You have an opportunity to make the "right" decision for the welfare and safety of Benicia and its' citizens. Hopefully, there is no one currently serving the City of Benicia that has a conflict of interest, i.e., accepting a position with Valero while receiving a salary from the taxpayers of Benicia, which up until recently was the case. "Clean hands" should be a priority for those public servants who have influence on the welfare and safety of the residents of Benicia. Although tax revenues are critical in the betterment of Benicia, hopefully that will not be at the expense of the children, disabled, elderly and families of Benicia. I2

To that end, it is our suggestion a moratorium be placed on the Valero's refinery expansion plans. If Valero can exist without violations (siren or no siren alerts) of toxic emissions for the next two years, then the Planning Commission and the City Council would then entertain Valero's expansion proposal. Words are cheap while a pattern of good neighbor conduct by the Valero Refinery is the critical component in the decision now before the Benicia Planning Commission and ultimately, the Benicia City Council. I3

Sincerely yours,

Jerri Curry, Ph.D., Sierra Club

P.O. Box 1304
Benicia, California 94510
707-331-9455 cell
707-751-0314 office/fax
winpubs@msn.com:
Http://www.ADR-MEDIATORS.com

EDF News/ Texas Refineries Are Worst Polluters in U.S.

From rjensen@tamu.edu Day Oct 00:00:00 1999
Posted on Oct 5, 1999

September 30, 1999

Texas Ranks Worst In Nation For Toxic Refinery Pollution--New Jersey Refineries Perform Best Overall In Environmental Defense Fund Analysis

Texas' 23 refineries emit the greatest quantities of toxic pollution per barrel of crude oil processed, according to a state-by-state ranking by the Environmental Defense Fund (EDF) comparing states with four or more refineries. Refineries in New Jersey, which has unusually explicit toxic chemical reporting requirements, performed best overall, while refineries in Texas, Oklahoma, Montana, and Wyoming performed worst overall. The state-by-state and facility-by-facility rankings are available on the new EDF Community Guide website (http://www.edf.org/communityguides).

The seven Texas refineries in the bottom 20% overall of the 144 rankable refineries in the U.S. were Shell Odessa Refining Company (formerly known as Shell Oil Products Company) in Odessa, Lyondell Citgo Refining Company in Houston, Phillips 66 Company in Borger, Specified Fuels & Chemicals LLC (formerly known as Howell HC & Chemicals Incorporated) in Channelview, Coastal Refining & Marketing Incorporated in Corpus Christi, Mobil Oil Corporation in Beaumont, and Shell Deer Park Refining Company (formerly known as Shell Oil Products Company) in Deer Park. Those in the best 15% overall were Chevron U.S.A. Incorporated in El Paso and Valero Energy Corporation (formerly known as Valero Refining Company) in Corpus Christi.

Oil refineries use and release toxic chemicals, sulfur compounds that create odors and cause acid rain, and volatile organic chemicals, which contribute to smog formation. To create the rankings, EDF used publicly-reported data for these pollutants to determine the pollution per barrel of oil refined. EDF then identified which of the country's 144 refineries with complete pollution data performed the best and worst for these multiple measures of refinery efficiency.

The EDF Community Guides website also includes information refinery neighbors can use to forge a dialogue with facility managers on strategies to prevent pollution. For example, the site contains information on how to reduce refinery vapors and spills that can contaminate groundwater.

"No state should be a pollution haven for dirty refineries. Every refinery in the nation should be working to prevent pollution and protect neighborhoods," said Lois Epstein, EDF senior engineer. "With just a few mouse-clicks on EDF's new website, the public can learn how nearby refineries rank in terms of preventing pollution. Refinery neighbors also can find out about strategies that minimize pollution, such as reduced flaring of gases, energy-saving distillation processes, and using cleaner crude oil as a raw material."

"This analysis shows that Texans suffer a disproportionate share of refinery pollution due to the sheer number and generally poor performance of refineries in the state. Cleaning up these refineries would afford significant benefits to the health of Texans," said Ramon Alvarez, EDF staff scientist in Austin.

EDF obtained toxic chemical release and transfer data from the US Environmental Protection Agency's (EPA) 1997 Toxics Release Inventory, and 1996-98 sulfur dioxide and volatile organic compound release data from EPA's "AIRS" database, obtained in July, 1999. When AIRS data were not available, EDF received the data directly from states or from the facilities themselves.

The Environmental Defense Fund, a leading national, NY-based nonprofit organization, represents 300,000 members. EDF links science, economics, and law to create innovative, equitable and economically viable solutions to today's environmental problems.

I4 cont.

EDF Membership 1-800-684-3322

Contact- EDF@edf.org

257 Park Avenue South, New York, NY 10010

--

Ric Jensen
Info. Specialist
Texas Water Resources Institute
Room 301, Scoates Hall
Texas A&M University
College Station, TX 77843-2118

Phone: 409/ 845-8571 or 845-1851
FAX: 409/ 845-8554

email: rjensen@tamu.edu
WWW URL <http://twri.tamu.edu>

Texas WaterNet | WaterTalk | Archive | Oct 1999 | Oct 5, article 4

IMPORTANT NOTE-- Since the time many of these articles were first published, area codes have changed. All area codes for people at Texas A&M University have been changed from 409 to 979. In addition, many other new area codes have been created. If you suspect that an area code listed on these web pages is no longer correct, please visit the web site of the Texas Public Utilities Commission to view the latest area code information. That web site is
http://www.puc.state.tx.us/telecomm/areacodes/index.cfm

GREENACTION

Press Coverage

San Francisco Bay Guardian

December 3rd, 2001

sfbg.com

For more information, contact:

Bradley Angel (415) 248-5010
Greenaction

Stinky Business

The Bay Area Air Quality Management District is an agency in such turmoil that it can't protect the public from the very polluters it's supposed to police.

BY A. C. Thompson

SCOTT HANSON LIVES in Martinez, in the heart of refinery country, the soiled swath of western Contra Costa County that is home to five of the Bay Area's six oil refineries. Just a few miles up the road from Hanson's house, plumes of smoke rise from the Equilon refinery, its tangled pipes and hulking cylindrical tanks fenced off behind coils of razor wire.

Unlike most of his neighbors, Hanson has scoped out the inner workings of these industrial behemoths. For 12 years he was an enviro cop, a front-line officer with the Bay Area Air Quality Management District (BAAQMD). It was Hanson's duty to inspect refineries to ensure that toxic gases weren't seeping into the atmosphere. In the course of his work he learned how tanker-loads of crude become gasoline; Hanson can diagram a refinery for you, explaining what a catalytic cracker does and how a distillation tower separates the chemical components of the oil.

And he knows what happens when things go wrong.

Like in 1999, when a corroded, leaky pipe exploded at the Tosco refinery in Rodeo, incinerating four men and wounding a fifth. Or in 1994, when the same plant, then owned by Unocal, illegally released 200 tons of a chemical called catacarb into the air, making hundreds of people sick. Or just

last month, when a pair of accidents at Equilon sent clouds of noxious black smoke wafting over Martinez, closing highway 680, shutting down schools, and sending at least two people to the hospital.

At root, the air district and its inspectors are trying to keep heinous substances from floating into the skies – and into your lungs. We're talking about metals like chromium-6, the über-carcinogen made notorious by Erin Brockovich; "volatile organic compounds" such as benzene, a leukemia-inducing gasoline component; and gases like aerosolized vinyl chloride, a by-product of plastic production that can cause birth defects and liver cancer. Equipped with handheld vapor analyzers and laptop computers, BAAQMD inspectors are our only defense against Bhopal-style industrial cataclysm or more subtle long-term poisoning. I5 cont.

You've probably never heard of the Bay Area Air Quality Management District. That's understandable. It's a small bureaucracy that almost never makes the evening news. Despite the low profile, though, the 320-person agency wields tremendous power in San Francisco and eight other Bay Area counties, with jurisdiction over all stationary sources of atmospheric pollution – in other words, any business with a smokestack. BAAQMD is essentially an environmental police force, its 52 inspectors charged with enforcing federal and state air pollution laws.

Which is why Hanson's story is worrisome.

He quit BAAQMD last year, dismayed at the state of the agency. In Hanson's view, BAAQMD has gone soft, letting corporate scofflaws off easy with puny fines – or, in some cases, no fines at all. "To me it seemed pointless to stay," Hanson told the Bay Guardian. "When I first went to the district, it was a very dynamic organization. We had a clear idea of its mission and

where it was going. Over the years it just became kind of lost, adrift. The big change that we saw was the enforcement division getting less support [from management]."

Like any cops, the inspectors are only foot soldiers. They bust lawbreakers, document the crimes, and then hand the cases over to BAAQMD's legal division for prosecution – where, according Hanson, the charges are languishing.

It would be easy to write off Hanson's slams as the grousing of a disgruntled former employee. However, in interviews several current BAAQMD workers – most of whom asked to remain anonymous – echoed his criticisms. There's also hard proof. The Bay Guardian recently obtained a 50-page internal report charting BAAQMD's enforcement record: since 1993 the agency has failed to press charges in at least 500 cases, and at this moment it's sitting on more than 1,800 unresolved cases. In 1995 the district prosecuted 2,154 violations; by 2000 that number had fallen to 1,486. I5 cont.

BAAQMD has never boasted a take-no-prisoners approach. In fact, federal auditors in 1997 chided the district for wrist-slapping violators. But insiders say the current management regime, led by executive director Ellen Garvey and chief legal counsel Robert Kwong, has taken polluter-friendliness to unprecedented extremes.

The lack of prosecutorial diligence has inspectors grumbling. Why do we bust our asses if these companies aren't even going to be punished? they complain. And across the agency there's the growing sense that top brass is running the place into the ground. Employee morale is in the toilet, unhappy workers are suing management with regularity; smart, dedicated people like Hanson are choosing to flee. Some employees are quite public about their beefs. "I love my job, but I'm constantly harassed by management," 20-year agency

veteran Thomasina Mayfield told us.

Then there are the policy fumbles. For leaders of a $35 million government agency, Kwong and Garvey have made a string of bush-league mistakes. It's so bad that in one case BAAQMD decided to ignore an opinion from the California Attorney General's Office that the agency was engaging in "illegal" and "improper" practices that amounted to a "gift" to a major corporation. Mistakes of this sort have cost taxpayers more than $700,000 in lawsuit payouts this year alone. Now the district's anemic smog-reduction plan – an earlier draft of which was labeled "inferior" by the U.S. Environmental Protection Agency – could cost the region more than a billion dollars in federal highway funds. I5 cont.

Quite clearly, this little government agency, which is overseen by a part-time board of 21 elected officials, is mired in some serious turmoil.

Dropping the charges

During the summer of 1998, Man Wah Construction, a small Castro Valley firm, was contracted to modernize Piedmont Avenue Elementary, an Oakland public school. Hired to install a new elevator, upgrade the fire alarms, and repaint the aging building, the construction company, owned by Man Wah Cheng, got itself into trouble with the law.

The school's ceilings contain asbestos, the now-banned mineral once used extensively in insulation. In the eyes of the EPA, there is no safe level of exposure to asbestos, which is responsible for lung cancer and asbestosis, a fatal respiratory disease. To handle asbestos – namely, remove it from older structures – a contractor, by law, must have a special license and follow specific safety procedures, notably requiring all workers to wear masks and respirators.

When Man Wah's asbestos subcontractor

quit the job, Cheng, who doesn't have an asbestos license, had his guys demolish the stuff – without wearing safety gear. The cost-cutting maneuver didn't work out so well. Cheng got busted by BAAQMD inspectors, and the building had to be evacuated for a week while air samples were taken and a decontamination crew was sent in. Documents provided by the state's Occupational Safety and Health Administration indicate that Man Wah employees jackhammered 500 square feet of asbestos-laden ceiling material, spreading asbestos fibers around the building.

Incensed, BAAQMD investigators built a criminal indictment against the company. But according to Hanson and two other sources familiar with the case, Kwong and the legal department failed to prosecute, instead letting the case rot.

"I was out there and saw it. I was amazed that the air district didn't take that one to trial, because if there was ever a case with clear [criminal] intent – that was it," Hanson told us. I5 cont.

Eventually, the EPA and the U.S. Department of Justice stepped in, and federal court records show Cheng pleaded guilty in January 2001 and paid a $50,000 fine. Via telephone, Cheng acknowledged that his employees had handled asbestos without safety equipment.

Seeking to verify or discredit the account given by Hanson and others, the Bay Guardian contacted the EPA and the Justice Department; both declined to comment on the case.

Our next example takes us to the tranquil campus of Stanford University. Located on school grounds, Cardinal Cogen is a General Electric-owned power plant that supplies electricity to the college and the surrounding area. For 407 days during 1998

and 1999 the plant cranked out a lot more than electricity, according to sources at the air district. In March 1999, BAAQMD inspectors charged Cardinal Cogen with illegally spitting out 4.53 tons of nitrogen oxides. The company had no comment.

Nitrogen oxides are nasty gases. Real nasty. When released into the atmosphere, nitrogen oxides form ozone, the prime ingredient in smog, which can trigger asthma attacks and lung inflammation, impair the immune system, and cause chest pain.

Cardinal Cogen apparently committed a flagrant offense: documents obtained by the Bay Guardian show the toxins were released because the plant failed to install federally mandated pollution-control equipment. BAAQMD could have collected more than $256,000 in fines for the violation. But it looks like Cardinal Cogen will get away without even a wrist slap: the statute of limitations is rapidly running out on the charges, now three years old. Staffers at the air district say the legal department has let the case slip away. I5 cont.

"There was a lot of investigation time that went into that one," one source at BAAQMD said. "Two investigators spent two months working on that case. A ton of taxpayer money went into it – and to not fine them at all is a slap in the face."

Even the agency's major victories, like the $300,000 fine it pried out of Chevron in July, look less impressive on close inspection. The fine, levied for 52 violations, amounted to only a fraction of what BAAQMD could have collected, insiders say. "It was pennies on the dollar," another source told us.

Declining to be interviewed for this story, Kwong and Garvey directed questions to Peter Hess, BAAQMD's third-in-command. In a two-hour interview, Hess denied that

recidivist polluters are getting off lightly. "The inspector says, 'OK, [this offense] is worth $400,000.' Well, maybe in that person's eye it's $400,000, but maybe the number's less, maybe it's more," Hess said. "You can't say until it's settled, until we go to court, and the case is tried, and the jury awards us. I mean the inspector doesn't know."

When pressed about the staggering backlog of cases, Hess admitted that BAAQMD's legal team hasn't been in prime fighting form: "We had a complete turnover of our legal department. We only have one attorney that was here five years ago. So they're learning their way."

Ooops! We just blew half a million bucks

When Kwong and Garvey came to power in 1996, they were embraced by BAAQMD employees who thought the two would invigorate the agency. For one thing, they weren't clueless political appointees. Both had spent their careers in the bureaucratic trenches and knew the nuts and bolts of eco-regulation. Kwong had put in time with the Los Angeles District Attorney's Office and the South Coast Air District before coming to BAAQMD. After a brief stint at the New Jersey Department of Environmental Protection, Garvey arrived at agency in 1981. To district staffers the duo appeared sharp, poised, and ready for action. I5 cont.

But enthusiasm among the rank and file had crumbled by mid 1999 as contract talks between management and the BAAQMD Employees' Association collapsed. Morale sank when Garvey bestowed a raft of perks – a 4.3 percent pay raise, a zero-contribution pension plan, a $50 monthly increase in health benefits, a $100 monthly cafeteria allowance, extended vacation time – on executives and nonunion workers.

"The Garvey-Kwong regime has crippled employee morale," union vice president

Terry Carter told us. "To be treated this way by an employer is offensive." Representing 250 employees, the union sued Garvey and BAAQMD in February 2000, alleging bad-faith bargaining; two and a half years later workers are still toiling without a contract, and the suit continues to wend its way through the courts.

On the labor issue, Hess argues that BAAQMD employees don't really have that much to gripe about. "I want to pay our employees as much as we can pay them. Right now our engineers, our inspectors are the highest-paid inspectors of all the inspectors in the state of California."

But legal troubles dog Kwong and Garvey. In addition to the union's suit, at least three employees have sued alleging workplace discrimination since 1999. One of those cases, settled last month, is needlessly costing BAAQMD nearly half a million dollars – thanks to an apparent blunder on the part of Kwong and his legal team. I5 cont.

In mid October the district handed $475,000 to an African American worker named Doug Hall and Hall's attorney, Michael Sorgen. Hall, who filed suit last year, charged BAAQMD management with discriminating and retaliating against him.

The case, according to court records, goes back to 1997, when Hall applied to become the agency's director of administrative services, essentially the chief financial officer. If he'd been selected, his annual pay would have shot from $78,000 to as much as $95,238.

But Garvey, who had the final say over hiring for the position, refused to interview Hall. One of Garvey's assistants mailed him a memo: he wouldn't be considered for the job because he lacked the requisite managerial experience. A white woman was tapped for the job.

Hall, who has worked at the district since the early 1980s and holds a master's in business administration, was floored. He was convinced that he was getting screwed because he'd repeatedly and loudly griped about what he saw as a pattern of subtle racism at BAAQMD. Even in an ethnically diverse agency – roughly 40 percent of the employees are people of color – blacks seemed to get passed over when it came time for promotions. On several occasions when Hall said he felt he was being treated unfairly, he had filed grievances with his union rep.

This time Hall sued in San Francisco Superior Court. The case went to trial in May 2001. Being denied even an interview "hurt very deeply," Hall said while on the stand. "I felt like I had failed."

The jury shot down Hall's claim of racial discrimination but found that Garvey had retaliated against him by refusing to consider his application. The jury gave Hall $300,000 for emotional distress.

I5 cont.

Represented by an outside law firm, BAAQMD appealed, and a judge trimmed the jury award. In October the two sides agreed to settle. Hall was given $75,000. Sorgen, the attorney, got $400,000. (Under the terms of the pact neither Hall nor Sorgen could comment for this story.)

Hall's litigation – and the other suits – shouldn't be seen as a sign of widespread discontent, according to Hess. "Everybody wants to have the perfect workplace, and it's something we strive for. We want all our employees to be happy and work together cooperatively."

But this tale of office acrimony doesn't end here.

Owing to bungling by Kwong – or his deputies – the settlement is costing BAAQMD much more than it should have.

Here's why: BAAQMD pays for lawsuit insurance, which should have covered at least part of the $475,000 hit, but nobody from the agency contacted the insurance company about the case until it was well under way. So the insurance company turned down BAAQMD's claim, leaving the district on the hook for nearly half a million.

At a public meeting of the BAAQMD finance committee Nov. 14, Kwong acknowledged the screwup. "So we didn't make the claim in a timely manner?" asked director Jerry Hill, a San Mateo County supervisor.

Kwong shook his head no. The lawsuit hit at a time when BAAQMD was switching insurance companies, Kwong explained, leading to confusion and "some timing issues."

Wally Tanaka, a district accountant, elaborated. The insurance carrier "could not cover us because they were not brought into the loop fast enough. They could not cover us because attorneys were not part of the settlement process."

I5 cont.

Present for the meeting, Scott Haggerty, an Alameda County supervisor and a BAAQMD director, was not amused. "Quite frankly I think someone dropped the ball," Haggerty told the Bay Guardian. "And I don't think [district] staff is giving us all the facts."

'Improper' and 'illegal'

If you think things are ugly inside BAAQMD's Ellis Street headquarters, you should see what's going on out in the real world. "The air district is the most polluter-friendly government agency I've ever seen," Bradley Angel told us. It's the kind of line you'd expect from an activist firebrand like Angel, who, as executive director of Greenaction, has been skirmishing with various regulatory bodies for years. However, it's not just hardcore enviros who are criticizing the agency. Even the state

Attorney General's Office – no bastion of wild-eyed radicalism there – has pilloried BAAQMD for giving handouts to business.

In 1999 the agency drew up an initiative called the Interchangeable Emission Reduction Credit program. IERC is a new spin on the controversial concept of pollution trading, a "market-based" take on environmental regulation that took off in the Reaganite 1980s. Here's how IERC works: companies that voluntarily reduce pollution today can gain "credits" to pollute in the future as more stringent pollution rules come online.

IERC, in contrast to other pollution-trading schemes, covers only those nasty smog-forming nitrogen oxides. So if the Corporation X factory in Oakland curbs its output of nitrogen oxides by 30 tons this week, the company will accrue credit to belch an extra 30 tons of the stuff at some date in the future. IERC credits only apply to one facility – so Corp. X can't transfer the credits to its SoCal branch.

15 cont.

The whole premise sounds simple – if counterintuitive – but things quickly got complicated when BAAQMD started doling out the credits in February 2000. The first IERC credits went to the Valero refinery in Benicia, allowing the company to release 200 excess tons of nitrogen oxides and forgo installing costly emission-control equipment.

Enviros, thinking the Bay Area really didn't need more smog, promptly took the matter to San Francisco Superior Court. For greens, who'd been working for years to rein in the refineries, the situation was appalling. BAAQMD was giving Valero credits for pollution decreases the refinery made in 1997 and 1998, well before the rules even existed – and before Valero even owned the plant. That seemed to negate the intent of the IERC program, which had been touted as a way to foster

"innovations" in pollution control.

Attorney General Bill Lockyer's office submitted a scathing legal brief saying that BAAQMD had misinterpreted its own regulations. Giving Valero credits was "an improper, illegal retroactive application of the IERC rule" that defied "reason and common sense" and simply amounted to "a windfall, or gift" to the corporation. "The resulting emission increases authorized by the district here may have a significant adverse impact on air quality," deputy attorney general Marc Melnick wrote in the brief.

Undeterred, Kwong charged ahead and took the case to trial ... and was crushed by lawyers with Communities for a Better Environment, a statewide green group. Not surprisingly, Judge David Garcia did not rule in BAAQMD's favor. Rather, Garcia barred the district from dispensing the credits and ordered BAAQMD to shell out $230,000 in attorneys' fees.

I5 cont.

"I think the district is more concerned with protecting industry than public health," said Suma Peesapati, the attorney with Communities for a Better Environment who argued the case. She's skeptical of the whole IERC program. "Aside from the legal issues, just on a broad concept level, what's the deal with this?"

Now the whole scene is repeating itself. In mid November, BAAQMD granted two Pacific Gas and Electric Co. power plants in San Francisco a whopping 1,500 tons of credits for pollution cutbacks that occurred before the IERC program had been established. And Peesapati has signaled her intent to sue. Again.

Smog unchecked

Smog sucks. Besides looking gross and messing up the respiration of humans, it plays havoc with plant life, diminishing crop yields, causing tree leaves to wither and

die, and triggering harmful algae blooms in sensitive waterways. And the Bay Area, like most of the territory between San Diego and Sacramento, has an abundance of smog and its key component, ozone.

The problem here isn't as acute as it was 30 years ago, when industrial regs were laughable and the populace cruised the highways in lead-burning cars the size of oceangoing vessels. And our air is far better than the exhaust-filled stuff people in L.A. are breathing. But it still isn't great. Between 1990 and 2000 the Bay Area exceeded federal safety standards for ozone on 44 days.

Because of the chronically dingy atmosphere, BAAQMD – working in concert with the Metropolitan Transportation Committee and the Association of Bay Area Governments – is required by federal law to formulate a detailed smog curtailment plan and submit it to the EPA for approval. I5 cont.

That task has proved daunting for the district. During the past two years the EPA has rejected two smog cleanup plans. In March 2000, the EPA nixed the first draft, saying it was ineffective. This July the feds deep-sixed version two. In a letter to state officials, Jack Broadbent, the EPA's regional air quality chief, trashed the plan, describing it as "inferior both quantitatively and qualitatively to what has been required and submitted elsewhere in the country."

Now peddling the third incarnation of the plan, BAAQMD is hoping the feds will OK it – especially since rejection by the EPA could spell the loss of $1.2 billion in federal transportation funds. One potential roadblock: the blueprint BAAQMD is now pushing is virtually identical to the one the EPA turned down this summer. The only real change is the addition of five new pollution-control studies and a vague promise to somehow decrease emissions of hazardous chemicals by 26 tons by 2006.

"It's a joke," said Richard Toshiyuki Drury, chief attorney with Communities for a Better Environment. "There is off-the-shelf technology being used in other parts of California that the district could require – but isn't – that would greatly improve air quality."

Three, according to Hess, is the district's lucky number – he's confident this version will get the green light from the EPA. "We're going as fast as we can," he said. "We've done all the easy pollution-control measures. Now we're left trying to come up with regulations that will improve air quality but are cost-effective."

And Hess contends that the IERC program is now running smoothly – and legally. "The courts say that there must be a higher level of environmental documentation with the credits, and we agree with that."

For Hess the bottom line is that BAAQMD's efforts are curbing ozone, even in the face of exponential population growth. "In 1970 we had 65 unhealthy air days. This year we had one." I5 cont.

He is right, though the picture doesn't look so rosy when you consult another key measure of air quality. During the past decade the amount of microscopic particulate matter – coarse chunks of filth less than 10 micrometers in diameter – in the atmosphere has held steady in most Bay Area counties. Microscopic particulates, according to the EPA, are responsible for 15,000 premature deaths annually.

Where does this pollution come from? Well, tailpipe spew is a key source. Nitrogen oxides from businesses regulated by BAAQMD – power plants and refineries and other industrial facilities – are another major source.

Directing in the dark

Ultimate responsibility for the agency's convulsions lies with its 21 directors, all of them ultrabusy politicians, some of whom rarely bother showing up to meetings. In San Francisco, Sups. Chris Daly, Leland Yee, and Tony Hall sit on the board.

The directors are the bosses of Garvey and Kwong. They approve the regs by which the district operates. They signed off on two bunk smog plans.

For directors part of the problem is that they get all of their info from the top execs. Rank and filers, aside from one union rep, rarely show up at board meetings, which are held during work hours, on Wednesdays at 9:30 in the morning. And what would they say, anyway? Uh, our bosses aren't telling you the whole story? That's the quick way to kill a career.

Given the debacles of the past three years, "it should be a political embarrassment" to sit on the board, Hanson reasons. But it's not. I5 cont.

BAAQMD is almost invisible. The press rarely covers it. Average people are very rarely sighted at board meetings – after all, lengthy discussions of enviro law, which marks the brain-numbing confluence of scientific jargon and legalese, isn't exactly a huge draw.

Hell, most of the region's seven million people are unaware of the district's existence.

Perhaps we should start paying just a little more attention to this little-known, very powerful government agency.

E-mail A.C. Thompson at ac_thompson@sfbg.com.

Research assistance was provided by Will Evans.

LETTER I – SIERRA CLUB: JERRI CURRY

I1 The Sierra Club - Solano group has expressed its view of the project and expresses its concerns about the project and the refinery. Regarding sirens, Valero does not currently have a siren alert system. The City of Benicia operates a siren system, which is tested once a month, usually on a Wednesday, as indicated by the commentor. Note that one of the City's sirens is located at the Valero Refinery.

I2 The City has adopted policies regarding conflict of interest for elected officials and employees. These policies require that elected officials and employees with conflicts of interest do not participate in the review and/or approval of projects in which they have a financial interest or are employed.

I3 The writer's suggestion is noted.

I4 The comment is a copy of EDF News/ Texas Refineries are Worst Polluters in U.S. The article is dated September 30, 1999. This article does not pose any direct questions or comments on the Draft EIR, so no CEQA response can be made.

I5 The comment talks about the current state of affairs at the Bay Area Air Quality Management District and does not raise any issues related to the VIP.

The comment is a copy of the San Francisco Bay Guardian article, date December 3, 2001, and titled Stinky Business. This article does not pose any direct questions or comments on the VIP Draft EIR, so no CEQA response can be made.

D. APPLICANT'S COMMENTS ON THE DRAFT EIR

Valero Refining Company – California December 11, 2002

Letter J

VALERO
REFINING COMPANY-CALIFORNIA
3400 East Second Street • Benicia, California 94510-1097 • Telephone (707) 745-7011 • Facsimile (707) 745-7514

December 11, 2002

Valero Improvement Project
Comments on Draft EIR
Valero Benicia Refinery

Ms. Kitty Hammer
City of Benicia
250 East L Street
Benicia, CA 94510

Dear Ms. Hammer:

Following are Valero's comments regarding the Valero Improvement Project Draft Environmental Impact Report published by the City of Benicia in October of this year.

1. The summary table on page 2-9 should include the alternative for Mitigation 4.3-2 as described in the subsequent section on Biological Impacts. J1
2. The summary table on page 2-14 appears to indicate that the VIP will reduce TAC's. Rather, it should be clarified that the VIP's TAC emissions are more than offset in the cumulative analysis, resulting in a net reduction. J2
3. In Table 4.8-7 on page 4.8-16 the formatting appears to have truncated the ranges in frequency. Attached is a table with the ranges included. J3
4. The cumulative noise analysis discussion on page 4.11-15 appears to predict up to 3 dBA increase in cumulative noise level. We believe this is in error. The attached memorandum from Illingworth & Rodkin, Inc addresses this issue and concludes that any cumulative increase would be imperceptible. J4
5. It is our understanding that the City of Benicia Public Works Department is very confident that the alternative sources of additional water that are described in the EIR will successfully provide adequate supplies to meet the VIP water needs without impacting the community. This should be clearly stated in Section 4.14. J5

Please contact me if you have any questions at (707) 745-7885.

Very Truly Yours

S J Hammonds

Sam J. Hammonds
Environmental Engineer

V8146.p65 NS 4/2000

FILE COPY

cc: w/ attachments:

Mr. Lamont Thompson – City of Benicia
Ms Kitty Hammer – advance copy fax 707-447-0903
Mr. Chuck Bennett – ESA Fax 415-896-0332

Attachment 1

Summary of Baseline Impact Estimates for Major Accidental Release Scenarios with VIP Impacts where Appropriate

No.	Accident Scenario	Baseline Impacts				VIP Impacts			
		Frequency Range	Frequency Qualitative Ranking	Consequence at Benicia Fenceline	Consequence Qualitative Ranking	Frequency Range	Frequency Qualitative Ranking	Consequence at Benicia Fenceline	Consequence Qualitative Ranking
1	Vapor cloud explosion resulting from ¾" release in process area	3.0×10^{-4}/yr – 1.2×10^{-6}/yr	low	0.07 psi	very low	3.0×10^{-4}/yr – 1.2×10^{-6}/yr no change	low	0.07 psi No change	very low
2	Vapor cloud explosion resulting from 2" release in process area	3.0×10^{-5}/yr – 1.0×10^{-7}/yr	low	0.23 psi	very low	3.0×10^{-5}/yr – 1.0×10^{-7}/yr no change	low	0.23 psi no change	very low
3	Vapor cloud explosion from truck release in storage-loading area	8.4×10^{-7}/yr	low	~4 psi	high	1.6×10^{-7}/yr (VIP increment) 1.0×10^{-6}/yr (total risk)	low	~4 psi	high
4	Fire from truck release in storage-loading area	7.6×10^{-8}/yr	low	<5 kW/m^2	low	1.6×10^{-6}/yr (VIP increment) 9.2×10^{-6}/yr (total risk)	low	<5 kW/m^2	low
5	Pool fire at in process area	1.0×10^{-4}/yr – 1.2×10^{-6}/yr	low	Less than 1.6 kW/m^2	very low	1.0×10^{-4}/yr – 1.2×10^{-6}/yr no change	low	Less than 1.6 kW/m^2	very low
6	Hydrogen sulfide dispersion from ¾" release in process area	3.0×10^{-4}/yr – 1.2×10^{-6}/yr	low	0.09 ppm	very low	3.0×10^{-4}/yr – 1.2×10^{-6}/yr no change	low	0.18 ppm	very low
7	Hydrogen sulfide dispersion from 2" release in process area	3.0×10^{-5}/yr – 1.2×10^{-7}/yr	low	4.0 ppm	low	3.0×10^{-5}/yr – 1.2×10^{-7}/yr no change	low	8.0 ppm	low
8	Sulfur dioxide dispersion from ¾" release in process area	3.0×10^{-4}/yr – 1.2×10^{-6}/yr	low	0.18 ppm	very low	3.0×10^{-4}/yr – 1.2×10^{-6}/yr no change	low	0.36 ppm	very low
9	Sulfur dioxide dispersion from 2" release in process area	3.0×10^{-5}/yr – 1.2×10^{-7}/yr	low	0.36 ppm	low	3.0×10^{-5}/yr – 1.2×10^{-7}/yr no change	low	0.64 ppm	low

Source: Based on previous estimates from (Exxon 1993b), (Woodward-Clyde 1993), and new analysis for Scenarios No. 3, 4, 6, 7, 8, and 9

Illingworth & Rodkin, Inc.
Acoustics • Air Quality
505 Petaluma Boulevard South, Petaluma, CA 94952

Tel: 707/766-7700 illro@illingworthrodkin.com Fax: 707/766-7790

MEMO

To: Walter A. Thistlewaite, Ph.D.
URS Corp. Oakland
500 12th St., Suite 200
Oakland, CA 94607-4014
Fax: 510-874-3268
e-mail: Walter_Thistlewaite@URSCorp.com

From: Richard B. Rodkin, P.E.

Date: November 19, 2002

Subject: **Draft VIP EIR Noise Section**

This memo responds to a question raised by Sam Hammonds regarding the cumulative noise impact discussion contained in Section 4.11.5 of the VIP Project Draft EIR. The text states the following:

> "The cumulative projects included in this analysis are:
> 1) Cogeneration Project – based on the noise analysis conducted for the cogeneration project as part of the California Energy Commission approval process the predicted steady state noise from the cogeneration facility would be 39 to 42 dBA L_{eq} at the nearest representative residential receptors. Therefore, the cogeneration plant would cause an increase of up to 1 to 3 dBA to the existing ambient L_{eq} and would cause no change to over all CNEL."

The noise analysis done for the California Energy Commission (CEC) required an assessment of potential increases in the background noise level represented by the statistical descriptor (L_{90}). The analysis concluded that the maximum possible increase in the background noise level represented by the L_{90} would be 1 to 2 dBA assuming two LM6000 gas turbine generator plants are operating. Because the hourly L_{eq} and CNEL or L_{dn} noise descriptors include noise from many sources near and far at sensitive receiver sites, and because these levels are significantly higher than the background noise level during any hour, the analysis concluded that there would be no change in a 24-hour day/night average noise level or Community Noise Equivalent Level (L_{dn} or CNEL, respectively). The hourly L_{eq} is also not expected to change. We concur with the finding that the increase in noise level would not be substantial and would constitute an imperceptible increase over existing levels, and would lead to a less-than-significant cumulative noise impact.

cc: Sam Hammonds, Valero Corporation, Samuel.Hammonds@Valero.com
(02-047)

LETTER J – VALERO REFINING COMPANY – CALIFORNIA

J1 This was an error during document preparation and a corrected Table 2-1 is presented in Chapter II of this document. However, the Draft EIR did correctly state the levels of impacts within each analysis section and the alternate text as the commentor point out. The error was in transferring this information to the summary table (2-1).

J2 The text of Impact 4.7.2 is changed to reflect the following:

> **Impact 4.7.2: The proposed project, along with other ongoing and approved projects would lead to a net reduction in emissions of TACs when compared to TAC emissions from the Refinery under existing conditions. These TACs ~~which~~ are responsible for public health impacts. The reduction in TAC emissions would constitute a net improvement in health risks over baseline conditions, and the impact would be less than significant.**

J3 Table 4.8-7 on page 4.8-16 has been corrected to reflect the full range of frequencies. Please see Chapter VI, *Text Changes to the Draft EIR*.

J4 The text on Pages 4.11-14 and 4.11-15 the Draft EIR is revised as follows:

1. **Cogeneration Project** – Based on the noise analysis conducted for the cogeneration project as part of the California Energy Commission approval process, the predicted steady state background noise (represented by the statistical descriptor L_{90}) from the cogeneration facility would be 39 to 42 dBA, L_{eq} at the nearest representative residential receptors. Therefore, the analysis concluded that the cogeneration plant would cause an increase of up to 1 to 3 dBA in the background noise level assuming two LM6000 gas turbines are operating. ~~to the existing ambient L_{eq} and would cause no change to the overall CNEL.~~ Because the hourly L_{eq} and the CNEL or DNL noise descriptors include noise from many sources near and far at sensitive receptor sites, and because these levels are significantly higher than the background noise levels during any hour, the analysis concluded that there would be no change in the CNEL or DNL. The hourly L_{eq} is also not expected to change. Therefore, the Cogeneration project will not contribute to any significant cumulative effects on noise.

   The cumulative impact of all these projects operating simultaneously at the refinery would be less than significant increase in existing noise levels at nearby sensitive receptors. ~~at most cause a 3 dBA increase in background L_{eq} at the nearest residential receptor.~~ No measurable change is predicted in the hourly L_{eq} or DNL at the residential receptors. Since the VIP would not affect ambient noise levels at these receptors, the total increase in ambient noise level due to the cumulative projects in conjunction with the noise generated by the VIP, at the nearest residential receptors would ~~be up to 3 dBA, L_{eq}. This increase would be less than significance thresholds identified for this project and would~~ constitute an imperceptible increase over existing levels. Therefore, the project, along with the other cumulative projects at the refinery would lead to a less than significant cumulative noise impact.

J5 Contracts, agreements, and water rights entitlements for procuring additional supplies are not currently in place which would ensure that water supplies are verifiable and secure. Mitigations included in the project EIR are designed to ensure future water supplies are available and that there are no impacts to current or future users as identified in the General Plan.

E. INDIVIDUALS COMMENTING ON THE DRAFT EIR

BeniciaNews.com Reader	December 04, 2002
BeniciaNews.com Reader	December 05, 2002
Tom Busfield	December 16, 2002
Robert Craft	December 16, 2002
Kevin A.Cullen	December 13, 2002
Ronald E. Glas	December 16, 2002
Will Gregory	December 04, 2002
Kitty Griffin	December 16, 2002
Linda Lewis	December 10, 2002
Catherine Machalinski	Undated
Donnell Rubay	December 06, 2002
Bev Sanders	December 16, 2002
Paul Slaight	December 16, 2002
Paul Slaight	December 19, 2002
Dan Smith	December 16, 2002
Roger Straw	December 02, 2002
Peter Weisberg	Undated
SabinaYates	December 16, 2002
Nancy Yates	December 16, 2002
Haddon Zia	December 03, 2002

Terry Baldwin - comments on VIP draft EIR

From: BeniciaNews Reader Response <noreply@benicianews.com>
To: <comdev@ci.benicia.ca.us>
Date: 12/4/02 4:28 PM
Subject: comments on VIP draft EIR

Subject: comments on VIP draft EIR <page: /articles/index.cfm>
GLNMAIL: comdev@ci.benicia.ca.us
GLNMAILSUBJECT: comments on VIP draft EIR
GLNMAILRETURN: 1
GLNSHORTFORM: 1
GLNREPLYMAIL: noreply@benicianews.com
GLNMAILREPLYDEFAULT: BeniciaNews.com reader
CONTACT_FULLNAME:
CONTACT_STREETADDRESS:
CONTACT_CITY:
CONTACT_STATE:
CONTACT_ZIPCODE:
CONTACT_HOMEPHONE:
CONTACT_EMAIL:
CONTACT_ORGANIZATION:
COMMENT: It appears that the last 6 months were not covered. In June and after there have been many incidents. This company has only been in Benicia for 2 1/2 years. They knew when they bought the company that this is a residential area and now they want to expand and increase crude oil production which is a dirtier process. I think it would be good to cover the last 6 months as we have been in the news for lighting up the sky and pollution and I would like to know the EIR assessment. K1 Also in assessing the last 6 months, there have been fires and the Benicia Fire Department has been out many times. Perhaps their public records could give us some insight as to incidents and accidents. Thank you. K2

FILE COPY

LETTER K – BENICIANEWS.COM READER

K1 The draft EIR reported accidents that have occurred at the Refinery up to the time that the draft was being prepared in mid-summer 2002. The reporting of accidents was intended to provide a description of the safety record of the refinery. The lead time between the preparation of a draft document and release to the public precluded the document from containing the most recent information on accidents. A follow-up investigation regarding accidents at the refinery in the past six months has revealed the following:

The City of Benicia Fire Department has stated that, in the past six months, the Department responded to one incident related to a system upset at the refinery. This was a fire in a piece of equipment at the coker unit. In the past six months, the Fire Department responded to several other calls, which did not pertain to refinery accidents. These included 7 calls for medical emergency and one call for a grass fire that started outside the refinery property and spread onto the property. No other accidents were reported for that time period.

Recently (end of January 2003) a crude oil tank at the refinery suffered a leak resulting in a spill of 282,000 gallons into the tank's containment area.

K2 Please see response to comment K1.

Terry Baldwin - comments on VIP draft EIR

From: BeniciaNews Reader Response <noreply@benicianews.com>
To: <comdev@ci.benicia.ca.us>
Date: 12/5/02 10:37 AM
Subject: comments on VIP draft EIR

Subject: comments on VIP draft EIR <page: /articles/index.cfm>
GLNMAIL: comdev@ci.benicia.ca.us
GLNMAILSUBJECT: comments on VIP draft EIR
GLNMAILRETURN: 1
GLNSHORTFORM: 1
GLNREPLYMAIL: noreply@benicianews.com
GLNMAILREPLYDEFAULT: BeniciaNews.com reader
CONTACT_FULLNAME:
CONTACT_STREETADDRESS:
CONTACT_CITY:
CONTACT_STATE:
CONTACT_ZIPCODE:
CONTACT_HOMEPHONE:
CONTACT_EMAIL:
CONTACT_ORGANIZATION:
COMMENT: Regarding the odor issue. Why is this taken so lightly. This is a big issue to businesses whose consumers are attracted to the Benicia because it is pretty such as the tourist trade. Also consumers who are attracted to retail businesses would not be attracted by a bad smell. Home owners and sellers would be effected by a bad smell. Should an independent advocacy board be developed to watchdog the odors. The current solution is very cumbersome with little accountability. Should the decision makers, the planners be the board of accountability. L1

FILE COPY

LETTER L – BENICIANEWS.COM READER

L1 The BAAQMD is the regional agency with regulatory control over odor incidents and responds to complaints about odors. Also see Master Response "Air Quality, Odors."

12/16/02

To: Lamont Thompson
Re: COMMENTS ON THE VALERO IMPROVEMENT PROJECT
From: Tom Busfield
300 St. Augustine Ct. Sent Via E-Mail:
lthompson@ci.benicia.ca.us
Benicia, Ca. 94510
707-746-7490 Phone/Fax

- I fully support the comments and position of the Good Neighbor Steering Committee.
- As a member of the Benicia community since 1981, I have become chemically sensitive as a result of living on top of the Braito Landfill for 9 of those years – another Benicia toxic nightmare. In the winter months, when current refinery emissions are trapped over our city by the air inversion, I must shelter in place or suffer debilitating headaches caused by breathing the polluted air. I have lived in my current location for the past 5 years and this is the first year that I have experienced this problem. I do not want ANY increase in toxic emissions. M1
- The current EIR acknowledges a one in a million chance of Benicia residents contracting cancer in a 70 year period – a 1989 refinery study acknowledged an additional 7 to 9 cancer cases in the surrounding community, under current circumstances. Why the differential? Regulatory standards consider it a problem at 10 per million! Are sensitive receptors such as the aged, babies, asthmatics, etc., being considered or just an average adult? Usually chemicals are studied individually, as to their impact on human health. What is the impact of intermingled chemicals – the more likely occurrence coming out of a refinery smokestack or waterway outlet? It is a fact that only a few chemicals out of the tens of thousands in existence are effectively studied – due to the cooperation of industry and government. How does this fact play against the chemical knowledge portrayed in the VIP? Increased VOC's are an acknowledged result of the VIP but with no offsets – how can this oversight be corrected? M2
- The VIP's primary environmental protection measure – sulfur scrubbers – were initially an integral part of the VIP. They are now optional. This is totally unacceptable! The scrubbers must be in place prior to the startup of any of the 16 projects proposed by Valero. This must be mandatory – not optional! Is there a similar scrubber for water releases? Has Valero changed the scrubber issue to optional because of the new Federal EPA regulations that allow companies to modernize and expand without using the newest available pollution control equipment? M3
- What are the average number of days in the winter when wind shifts bring Valero effluent over the city? Asked this question of the former Exxon manager who claimed not to know the answer. M4

- It appears that Valero with the VIP would use half of the city's daily available water supply. This could exceed supply in times of drought and there appears to be no answer to this problem, only a partial offset by using recycled water. This issue seems to kill either the VIP or the protective scrubbers – my vote is against the VIP. M5
- Would like to see an independently assessed fenceline air monitoring station system implemented aroundValero! M6

Thank you for the ability to comment.

Tom Busfield

LETTER M – TOM BUSFIELD

M1 The writer relates experiences as a resident.

M2 The assessment is of potential health risks uses models to estimate dispersion of emissions around the refinery. The maximum estimated risk at an estimated residential receptor is 1.02 in a million, however this is the worst-case impact at offsite residential receptors and the majority of actual residences will have a lower risk. This estimate also assumes that the receptor is exposed 24 hours a day for 70 years, which again overestimates a resident's exposure. Finally, due to the many different carcinogens in the environment, the average person has a 40% chance of contracting cancer over a lifetime[4]. The additional cancer risk of 1.02 in a million produced by the proposed project is much less than the 10 in a million CEQA threshold for a project and it translates into an additional 0.000102% chance of contracting cancer.

The 1989 study, which was carried out to satisfy the State Air Toxics "Hot Spots" Bill (AB2588), reported that the incremental cancer risk from the Refinery for the "Maximally Exposed Individual" (MEI) was estimated to be about 7 to 9 in a million. This is a probability of contracting cancer if an individual were constantly at the point of maximum concentration (MEI location) for 70 years. It does not indicate that there will be 7 to 9 additional cancer cases from the plant. This would only be true if there were one million people located at that point of maximum concentration for 70 years. The probabilities of contracting cancer at other areas surrounding the refinery are actually much lower than at the MEI location.

With regard to the maximum probability of one in a million of contracting cancer from the Project, this impact is located at the MEI location for the project sources, and is not at the same location as the MEI for the rest of the refinery. The maxima do not overlap to produce a total maximum, but the combined total would be less than that sum. Certain groups are known to be more sensitive to particular pollutants than the general population. For example, current research does show that children are uniquely susceptible to environmental pollutants because of their stage of physiological development, their higher inhalation rate to body weight ratio, and behavioral factors. The current standards do, however, incorporate several safety factors that minimize risk to the entire public including the sensitive groups.

In risk assessment for a mixture of different chemical carcinogens, the U.S. EPA has selected "dose addition" or response additivity as the primary assumption.[5,6,7] The

[4] National Cancer Institute, 2000. *Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1937-1997*, Bethesda, MD.

[5] Environmental Protection Agency (EPA), U.S. and R.A. Forum, Framework for Cumulative Risk Assessment. 2002.

[6] Environmental Protection Agency (EPA), U.S., Guidelines for the health risk assessment of chemical mixtures. 1986. p. 34014-34025.

[7] Putzrath, R.M., Reducing uncertainty of risk estimates for mixtures of chemicals within regulatory constraints. Regul Toxicol Pharmacol, 2000. 31(1): p. 44-524

standard method is to sum the upper bound risk estimates over all the individual chemicals, using data from single compound studies[8,9]. Considerable debate over the accuracy of this method continues, but it is generally considered to be very conservative[10], partly because different chemicals may affect different target organs, and the health outcomes may not be not additive. In other words, this procedure would overestimate risks.

The commentor is correct in that the VIP would result in an increase in VOC emissions, however, after mitigations are applied the project-related impact would be less than significant.

M3 The commentor objects to Valero's stated requirement for flexibility, which means that the main stack scrubber, or any other component of the VIP may not be built. The need for flexibility, an important objective of the project, is clearly stated in the Draft EIR (see section 3.4.1, p. 3-20, section 3.4.3, pp. 3-25 to 3-39, and section 3.5.1, pp 3-52 to 3-54). See also Response H10.

The project has not changed as a result of the EPA regulation change. For more information, see Response H44 and Master Response "Air Quality."

M4 Assuming that the commentor was concerned about residential areas of Benicia and assuming that these are generally located from the southwest to the northwest of the refinery the approximate percentage of time the winds blow towards these directions was 31.2 percent during winter months (January to March) from data recorded at the refinery for the years 1999 through 2001. Please also see the Master Response "Air Quality."

M5 The City water supply and water use at the refinery, with and without the VIP, are discussed at length in Draft EIR Section 4.14. In 2000, the refinery used 5,460 acre-feet of water, which was 52.3% of City water. The VIP would increase Valero water use by 242 acre-feet, or 2.55% per year, See also Master Response "Water."

M6 As discussed in Master Response "Air Quality", Valero operates three fenceline monitoring stations. Note that these data are independently reviewed by the BAAQMD.

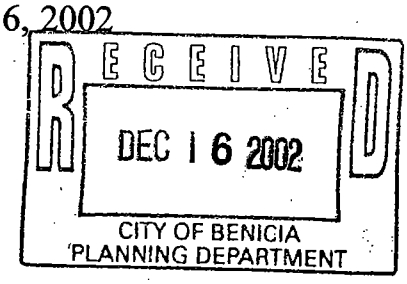
[8] Cogliano, V.J., Plausible upper bounds: are their sums plausible? Risk Anal, 1997. 17(1): p. 77-84.

[9] Putzrath, R.M. and M.E. Ginevan, Meta-analysis: methods for combining data to improve quantitative risk assessment. Regul Toxicol Pharmacol, 1991. 14(2): p. 178-88.

[10] Hwang, J.S. and J.J. Chen, An evaluation of risk estimation procedures for mixtures of carcinogens. Risk Anal, 1999. 19(6): p. 1071-6.

Letter N

323 Columbia Circle
Benicia, CA 94510
December 16, 2002



City of Benicia
Community Development Dept
250 East L Street
Benicia, CA 94510

Comments on Draft EIR (SCH # 2002042122) for Valero Improvement Project

1. The following represents my written comments on the Valero Improvement Project as set for in the Draft EIR. These comments are intended to supplement and amplify my oral comments provided at the December 5 public hearing on this subject.

2. Substantively, my comments deal with two primary areas. These are air quality and water supplies although some comments deal with other topics. All are keyed to the appropriate section in the draft EIR.

3. I do want to make a general comment about the EIR in that the flexibility accorded Valero because of all the variables in their plan as it has now emerged makes it very difficult to provide more precise comments. I heard Ms. Hammer at the public hearing essentially say that the study was simplified since the approach taken in examining the various options and their environmental significance was to use a "worst case" basis. I respectfully disagree. There are too many assumptions made and simply too many moving and interchangeable parts in this plan for some impacts to be measured in any simple and understandable way. N1

   I should also note considerable disappointment that the scrubber - such an important component of the original VIP plan - is no longer a given. The public benefit of VIP will be substantially degraded if the scrubber does not make it into the project. N2

   Additionally, I believe the manner in which the MTBE and COGEN projects have been melded into the EIR leads to confusion on the one hand and inappropriate credits to the VIP on the other. MTBE is a N3

FILE COPY

given and any emissions reductions associated with this project will occur with or without VIP; it is somewhat disingenuous to use these numbers in anyway when discussing the impact of VIP especially if used in a way to make VIP emission numbers look better. N3 cont.

4. Specific comments are as follows (they are not in order of priority but in the order presented in the draft EIR):

   a. Impact 4.1-6: (pg 4.1-25): While I generally agree that VIP will not substantially change the general appearance of the refinery itself, I cannot in any way agree with the notion that visual changes in the area caused by the Benicia Business Park (Seeno) will be "less than significant." The movement of as much as 8 million cubic yards of earth (the equivalent of approximately one-half million dump trucks) during the process of ripping and filling the terrain will inevitably have a significant effect on the general appearance of the proposed business park tract and on Benicia's back yard. While not directly related to Valero, this is important in the context of the VIP EIR because such a cavalier assessment brings into question the general credibility of the entire EIR. N4

   b. Air Quality – 4.2.2.3 (page 4.2-11): The air sampling stations listed in this section and the pollutants measured by each fail to convince one that a truly comprehensive picture exits for Benicia with respect to an air quality baseline model. To use the Vallejo site as the "representative monitoring station" does not yield the type of data that one can feel comfortable with. The EIR is completely deficient in this respect. We are expected to accept that the monitoring of only two pollutants locally (by Valero – even this data was not available to the EIR drafters//f.n. 2) and distant sampling from Vallejo, Martinez, etc. will yield an accurate picture of the Benicia environment. A comprehensive (i.e. all pollutants) local study needs to be done so our air quality and the VIP can be evaluated from a real "ground truth" basis. Until this done the baseline is based largely on assumption, scientific perhaps but assumption nonetheless. N5

As a consequence of the absence of real hard baseline data - as opposed to the projection based on assumptions –it is not at all clear what the actual impact of VIP will be on Benicia's air quality. Thus, any tests or measurements of significance of impacts appear to be questionable at best. N5 cont.

c. Mobile Sources (pg. 4.2-24): The usage of 1991 benchmark data in calculating factors for emissions from both trains and ships is very bothersome. In the case of some of the ships that I see, the increased age of the vessels suggests a real possibility of increased fugitive emissions simply due to maintenance shortfalls. If shipborne emissions are checked routinely, then more current data should be used for benchmarks. N6

d. Impact 4.2-4 (pg. 4.2-31): The absence of an actual baseline derived from hard data ***obtained in Benicia*** makes this impact statement suspect at best. Please see b. above. N7

e. Energy – 4.5.2.2; Project Setting (pg 4.5-2): The analysis based on the ***assumption*** that the second COGEN unit will be built at a future date is obviously flawed. There is no schedule for such a project. Indeed, during the run-up to the construction of the first unit it was made abundantly clear that it was not likely that the second unit would be built unless an outside source of funding could be identified from a non-Valero source. N8

f. 4.5.5; Cumulative Impacts (pg. 4.5-4): We should be able to assume that PG&E will deliver natural gas and electricity to the refinery and the rest of the City on demand. However, recent history tells us otherwise. Since the refinery would doubtless get an exemption from possible blackouts, the usage by the refinery of up to 30MW from the grid means that amount would be unavailable to other users during a blackout period. In such a case, the impact would clearly be significant. That fact should at least be recognized in the EIR. N9

g. 4.7.2.1; Existing TAC Concentrations (pg. 4.7-1): Again, as noted above in b. and d. we do not have a Benicia baseline. With these toxic contaminants, it is not safe to assume that N10

Vallejo and Concord readings would be duplicated here on a routine basis. One can project ***or hope*** that the results would be similar, but how can you be sure absent actual measurements taken over a representative period of time? N10 cont.

Some of the toxic air contaminants listed in tables 4.7-1 and 4.7-2 are known killers. Yet the EIR relies on data taken from monitoring stations as far away as San Jose and Fremont (f.n. a pages 4.7-2 and 4.7-3). Even then, the findings are based on an ***average*** of data from these five distant sites. The use of an "average" means that some of the numbers are larger than the ones provided. N11

Moreover, as noted on pg. 4.7-4, dioxin measurement data was not even available from distant points for the EIR.

This entire methodology seems unacceptable when public health issues are under consideration. The bottom line seems to be that we don't really know with certainty what the impacts in Benicia proper will be with respect to the TAC's.

h. 4.7.4.2; TAC Emissions During Operations (pg. 4.7-7): Incredibly, to me at least, data from 1990 was used in establishing the baseline for main stack emissions. Even then Hexavalent chromium, cyanide and phenol were not measured in either of the two baseline years (1990 and 2002). How then can the projections as to total VIP impact on public health be relied upon? N12

i. 4.7.5.3; Health Risks (pg. 4.7-10): This section is even less clear than some others. Was the TAC baseline data as noted in h. above input into a computer model to determine detectable amounts at ***notional*** receptors around the project boundary? N13

If this is the case, we are still looking at suspect data and the validity of the findings shown in table 4.7-9 seem to be questionable. This paragraph is written as if the receptors are real despite the fact that the word "estimate" is used to N14

derive "multi-pathway incremental health risks."

If my interpretation is correct, this methodology is based on using non-current and some non-local data; this approach seems flawed, especially since this is such a key area (i.e. involving the sensitive topic of cancer risks). N14 cont.

j. 4.11.2.1; Existing Setting/Noise (pg 4-11-5): Based on the nearly constant humming tone I hear at my residence due to refinery operations, it is difficult for me to accept the ambient noise levels provided in table 4.11-1 as being representative in the neighborhood. The EIR refers to a study done for Valero by Illingworth & Rodkin but no data is provided to indicate how detailed the noise sampling studies were. Did the study look at noise levels for 24 hour periods over a protracted period of time? If not, I question their validity despite the ESA review that found the study to be technically accurate and adequate (pg 4.11-5). N15

I note the statement in 4.11.1.2 (pg 4.11-3) that says, "Steady noise of sufficient intensity (above 35dBA) and fluctuating noise levels above 45 dBA have been shown to affect sleep. I also call attention to table 4.11-2 and specifically fn d. that says, "Each of the noise standards specified above shall be lowered by 5 dB for tonal noises (humming, ...)." N16

Although I cannot be certain, I suspect the refinery operational noise levels are often above 45 dBA in some of the residential areas at night. Moreover, the incessant humming usually present makes the noise level much more noticeable.

I don't know why the noise may be far more noticeable in some of the nearby residential areas than others, but the topography between the refinery block and the residential areas may account for some of the differences (e.g. terrain masking from hills with valleys perhaps acting as noise conduits). N17

In any event, future additional operational noise from routine operations should be considered significant and require appropriate mitigation. This determination should be based on N18

data obtained over time from a number of points around the refinery and re-validated frequently. N18 cont.

k. 4.14.2.1; Water Supply (pg 4.14-2): There are a number of concerns with respect to this section. Many of these revolve around some rather rash assumptions with respect to Benicia being able to increase its water supply. This despite the fact that in the overall scheme of things, there is no additional water available in California and every jurisdiction needs more, especially down south. Why should we assume that Benicia will hit the water lottery? N19

With respect to the current allocation, it is my belief that we never get the full amount, even now, from the state authorities. Our allotment is always cut, even in years that are not technically dry. N20

It is probably a mistake to point to the Mojave arrangement as a possible source. I believe this arrangement has never been exercised and there are areas further south that can probably demonstrate a greater need for the water during severe dry periods. N21

It should not be assumed that the Vallejo contracts can be renewed. The growth rate in that city may preclude such renewals. In the best case, the water may become prohibitively expensive. N22

Lake Herman is also problematical. It is considered an emergency supply only and with respect to potable water is usable only 15 days per year. Any usage over and above that introduces some onerous requirements. This limitation does not pertain to its usage by the refinery and the maximum possible usage by the refinery should be a requirement mitigation. N23

All of the other possible sources, save one (the wastewater reusage), can at best be considered a "gleam in the eye." Bottom line – water is too critical. We should not and must not make assumptions as to its availability.

I find it an interesting coincidence that Senate Bill 610 establishes a threshold of 250 acre feet per year for a "project" and that VIP, according to the EIR, will effect a net increase of 242 af per year. That is mighty close to being a project.

N24

The water supply issue with respect to VIP is all the more critical when one considers the companion impact of the Tourtelot development as well as that of the Benicia Business Park. Both of these will be significant water users although Tourtelot will also be just short of being classified as a project under SB610.

Please consider the above with respect to the very uncertain nature of any additional water supplies and in conjunction with the statement in the EIR (Impact 4-14-1, pg. 4.14-12) that, " **The VIP would increase demand for raw, untreated water from the City of Benicia in excess of the baseline refinery demand anticipated in the UWMP. In the future, the City's overall water demand may exceed available supplies from current sources in dry years. This impact would be significant,"** Based on these two considerations one can only conclude that it is an incredible stretch to assign a "less than significant" impact to Valero's increased usage unless significant mitigation occurs in two areas which can be controlled.

N25

These are:

(1) The establishment of a requirement that Valero use all of the Lake Herman water possible, recognizing that even this will not increase the finite supply available.
(2) The establishment of a required mitigation with respect to the refinery using all available reclaimed wastewater. For this to be meaningful, it must be done on a compressed timeline (e.g. NLT 2005). Both the city and the refinery must commit to an urgent implementation of the plan; otherwise water supply will be a critical and **significant** impact.

N26

No substantial delay in implementation of the reclaimed water usage should be permitted. This is done elsewhere, ergo there are no substantial technical risks involved and implementation – although not simple – should be fairly straightforward.

N26 cont.

5. My assumption is that in all cases where equipment is modified in anyway, BACT will be required for the modification. Please confirm this.

N27

6. I appreciate the opportunity to comment on this project which is so vitally important to Valero, the City and the public.

Respectfully submitted,

Robert Craft

LETTER N – ROBERT CRAFT

N1 The commentor objects to the Draft EIR's approach to the analysis, given Valero's stated requirement for flexibility. "Flexibility" means that the main stack scrubber or any other component of the VIP may not be built. The need for flexibility, an important objective of the project, is stated in the Draft EIR (see section 3.4.1, p. 3-20, section 3.4.3, pp. 3-25 to 3-39, and section 3.5.1, pp 3-52 to 3-54). See also the Master Response "Project Description."

N2 The writer's position is acknowledged.

N3 The VIP is the project that is examined in the EIR. The MTBE and Cogeneration projects are considered in the EIR to be cumulative projects.

Table 4.2-12 shows the change in emissions due to the implementation of the VIP, separate from the emissions changes associated with the Cogeneration Project. Emissions from the two projects have been totaled further down in the table to provide an assessment of the situation upon complete buildout of the VIP (2009). Since the Cogeneration Project may be complete by 2009, emissions changes associated with the Cogeneration Project have been included as part of the future with project scenario. It must be noted that emissions changes associated with the Cogeneration Project could not be incorporated as part of the existing baseline as those changes had physically not yet occurred as of the date of the EIR notice of preparation, March 26, 2002. According to section 15125 of the CEQA Guidelines, the baseline is defined as the physical environmental conditions in the vicinity of the project as they exist at the time the notice of preparation is published. The MTBE Phase-Out Project has been treated as a cumulative project in the Draft EIR. The emission changes associated with the MTBE project have been provided in Table 4.2-12 as additional information as they are very probable. Please note that the significance determination was found to be less than significant prior to including the emissions changes associated with the MTBE Phase-Out Project.

N4 The reference to the potential development of the Benicia Business Park / Seeno parcel was included in the cumulative discussion on p. 3-66 of the Draft EIR to inform the reader of planned or proposed uses adjacent to the project site and to also assess the project impact's potential to be emphasized by those uses.

The City of Benicia's General Plan is the master planning document that governs land uses and guides and manages growth by providing a framework of how the city ought to grow, based on community input and values. The General Plan designates the 527.5-acre Benicia Business Park / Seeno parcel as Limited Industrial, with a portion adjacent to I-680 designated General Commercial. The development of that industrial area must be expected to be industrial in character. Given the expected size of current industrial buildings and the use requirements, it must be anticipated that substantial grading would

be required to develop those lands. Thus, the appearance of the industrial site would change substantially. Such substantial visual changes are implicit in the General Plan land use designation. Any proposed development on the Business Park/Seeno site requires its own environmental review, in which the visual and aesthetic effects of the project would be analyzed and considered. Furthermore, that industrial development would be subject to the City's Industrial Design Guidelines and undergo design review, which considers the design and visual appearance concepts described in the Draft EIR, pp.4.1-9 and 4.1-10. Given that, it must be presumed that the appearance and visual character of the industrial development, as it could ultimately be approved by the City, would satisfy the visual criteria of the General Plan. Although not stated in the Draft EIR, these concepts were used to develop the context for the cumulative impact analysis in Section 4.1.5 of the Draft EIR.

In a cumulative context, the Draft EIR (pp. 4.1-25 and 4.1-26) states the change in the visual environment would "expand the overall industrial appearance of the overall complex and the southeast portion of the City, as well. The development of the other, non-refinery cumulative projects would also result in visual changes to the vicinity of the refinery."

These changes are considered to be less than significant, because these substantial changes are implicit in the General Plan's adopted vision of the future industrial development in that part of Benicia. The development that ultimately would be approved by the City must be presumed to meet the visual and other criteria of, and conform to, the General Plan and thus, should result in no significant adverse visual impacts.

To clarify the basis for the cumulative visual analysis, replace the second sentence of the second paragraph on Draft EIR p.4.1-26, with the following text:

> The City of Benicia's General Plan is the master planning document that governs land uses and guides and manages growth by providing a framework of how the city ought to grow, based on community input and values. The project that would interact the most with the VIP would be the adjacent Benicia Business Park project. The General Plan designates the 527.5-acre Benicia Business Park / Seeno parcel as Limited Industrial, with a portion adjacent to I-680 designated General Industrial. To comply with the General Plan, that development must be expected to be industrial in character. Given the expected size of current industrial buildings and the use requirements, it must be anticipated that substantial grading would be required to develop those lands. Thus, the appearance of the industrial site would change substantially. Such substantial visual changes are implicit in the City's General Plan land use designation. Any proposed development on the Business Park/Seeno site requires its own environmental review, in which the visual and aesthetic effects of the project would be analyzed and considered before the project could be approved. Furthermore, that industrial development would be subject to the City's

Industrial Design Guidelines and undergo design review, which considers the design and visual appearance concepts previously described in Section 4.1.2.4. It must be presumed that the appearance and visual character of the industrial development, as it could ultimately be approved by the City, would satisfy the visual criteria of and would conform to the General Plan and thus, should result in no significant adverse visual impacts. In a cumulative context, although the overall changes in the visual environment would affect much of the southeast portion of the City, these cumulative changes also would be considered to be less than significant, because they, too, would be the realization of the General Plan's adopted vision of the future industrial development of the lands in that part of Benicia.

N5 See the Master Response "Air Quality."

N6 The use of 1991 emission factors for trains and ships provides a conservative estimate as combustion technology has improved over the past years. These emission estimates were derived from Valero's application for an "Authority to Construct" to the BAAQMD. The BAAQMD has reviewed the estimates has found them to be adequate.

N7 The methodology of the analysis is discussed in detail in the Draft EIR Section 4.2. See also response N6 and Master Response "Cumulative Analysis."

N8 The commentor is correct in that per Section 4.5.2.2 the energy analysis assumes and clearly states that the second cogeneration unit is assumed to be built at some time in the future, but that it is uncertain as to when this would occur. In conducting the analysis presented in Section 4.5.5, note that because of this uncertainty with the timing of second cogeneration unit, only one unit was analyzed for potential cumulative impacts. This impact was found to be less than significant with respect to energy demand. This is the conservative case because when the second cogeneration unit is built all of the refinery (including the VIP) energy demands would be met. Thus the analysis presented bounds the proposed refinery configurations.

N9 The commentor has pointed out that several years ago energy supply became much less reliable for reasons that may have been real or manipulated. During this crisis where rolling blackouts were necessary critical energy customers such as hospital and refineries were given preference over local residential customers. In such instances maintaining power to refineries represents a protection of public safety as a sudden loss of power could abruptly halt the refining process and trigger extremely intense flaring. The refinery could require several weeks to resume normal operations. While a rolling blackout would represent a short-term impact to non-preferential customers, it does not represent a significant impact under CEQA as defined in Section 4.5.3 where the evaluation criteria are focused on normal operations and excessive use of energy. It should also be noted that, while the refinery is an energy user it is also a manufacturer of energy (gasoline, diesel fuel etc.)

N10 The TACs that are monitored at the stations identified in the EIR are geared to measure long-term average (chronic) exposure to TACs in the region. The data from the two stations showed similar cancer risks (170 and 175 in a million) from exposure to these TACs. These results are similar to other TAC monitors in the Bay Area, indicating that exposure to TACs is a regional problem, and that little variation occurs.

The baseline data are included in the EIR to let the reader be aware of existing cancer risks from TACs in the ambient air. This risk of about 175 in a million for existing conditions can be put in the perspective that the chance of contracting cancer (nation-wide) by all pathways is about 400,000 in a million.

The Draft EIR's standard of significance with respect to health risk is based on BAAQMD guidance and is judged by the maximum incremental risk from the project itself, regardless of baseline risk, where the significance threshold is 10 in a million. The EIR carried out this incremental analysis. In other words, while baseline risk was reported in the Draft EIR, it is not used as the basis for calculating the incremental risk that would result from the VIP.

N11 Section 4.7-2 presents the setting or the background description of the existing ambient air with respect to a number of toxic air contaminants (TACs). The setting includes measurements taken at stations near the refinery for some of the TACs, and they are intended to indicate approximate existing ambient air conditions. They are not used to determine health risks from the proposed project. Since not all of the TAC species are measured at these nearby stations, the EIR supplemented these data with measurements of other species at monitoring stations in the Bay Area. Averages of these data were presented to provide the best available estimate of existing conditions.

The measurement of dioxin in the ambient air requires specialized instrumentation and techniques that are not common to the monitoring stations identified in the EIR. Only recently (December 2001) did CARB begin a program called the California Ambient Dioxin Air Monitoring Program (CADAMP). Since early 2002, ambient air samples have been collected at nine monitoring stations throughout the State, five in the San Francisco Bay Area and four in the Los Angeles area. The closest station to Benicia is located in Crockett. The samples are then sent to laboratories for specialized analyses to determine levels of the group of chemicals called dioxins. Thus far, no results have been released to the public. See also response to comment N10.

N12 There is no method available for continuously monitoring TAC emissions reported in the table on page 4.7-7. Instead, conventional methods specified by USEPA and CARB are used to determine emissions from specific sources. To accomplish this, source tests are conducted at specific intervals, and samples are sent to a laboratory for analysis. The source tests that were conducted in 1990 and 2002 were used to determine emissions of TAC species as a function of the throughput by following CARB protocol. The results of the tests lead to "emission factors", which are emission rates of TAC species from a

source as a function of throughput. Emissions can then be determined for a given throughput.

The TAC species that are released from the VIP sources will not be different than the species in the baseline conditions. Only the amount of TAC emissions will change as a function of throughput. Consequently, TAC emissions from the VIP can be determined by applying the emission factors to the VIP throughput.

Even though hexavalent chromium, cyanide and phenol were not measured in the previous source tests at the Valero Refinery, emissions of these substances from the VIP can be determined by using emission factors reported by CARB for the same type of source. These CARB emission factors were derived from source tests that were performed on units similar to those in the VIP. This approach, which is reasonably accurate, is the standard method used by CARB to estimate TAC emissions.

N13 Calculations of health risks from emissions of toxic air contaminants follow regulatory requirements established by California Office of Environmental Health Hazard Assessment (OEHHA). The health risk considered is almost always an incremental risk, and seldom considers the baseline or background values.

Baseline levels of cancer risk from toxic air contaminants were determined from measured ambient air concentrations at BAAQMD monitoring stations and not from modeling of emissions. This method is used because the risks that are reported in the EIR (about 175 in a million) are dominated by sources (primarily automobiles and trucks) other than the existing refinery. This baseline level also must be considered in the larger context of the estimated total risk of an individual contracting cancer (local or nationwide) of roughly 400,000 in a million. The key issue that must be analyzed in the EIR to satisfy CEQA is to determine the incremental change in health risk that would result from the proposed project (i.e., the incremental risk of contracting cancer from exposure to toxic air contaminant emissions from the VIP).

N14 The methods used to determine incremental health risks from the VIP follow the methodologies recommended by the scientific community and by state regulatory agencies responsible for regulating health risks (California ARB and OEHHA). Because there are uncertainties in several of the parameters that are used to calculate health risk, the methodologies that are followed are very conservative, and the predicted risks are an upper bound. The maximum incremental health risk is determined by assuming a person is located at the highest concentration receptor 24 hours a day for 70 years while emissions of the toxic air contaminants occur. If this worst-case impact is less than significant, one can be assured that the actual incremental health risk would be less than significant. See also Master Response "Air Quality."

N15 Noise levels provided in Table 4.11-1 show actual levels monitored at representative sensitive receptor locations during the Valero Cogeneration project and Community Noise Survey, including measurements made at 388 Allen Way, near the commentor's

home. Long-term (24-hour) noise measurements were taken at the locations shown in Table 4.11-5 and data is summarized in the table. Details of the noise monitoring procedure are provided on page 4.11-5 under "Noise Sources and Ambient Noise Levels." Note that the commentor's residence is located very near the Allen Way monitoring station location mentioned in the Community Noise Survey and that the noise levels reach higher values there than at other boundary line stations.

N16 Table 4.11-1 shows that the nighttime hourly L_{eq} is above the 50 dBA exterior standard (of Table 4.11-2) at 3 of the 5 noise monitoring locations and these noise levels form part of the existing baseline. The Draft EIR however, focuses on the project's incremental impact over the existing baseline. Due to the logarithmic nature of the sound, the incremental increase in noise from the VIP equipment would not be audible over the existing baseline.

N17 There are several factors that influence attenuation of noise as it travels away from the source in all directions. These include topography between the source and the receptor, reflection/absorption by the ground, wind and temperature gradients. Generally, noise is more perceptible at receptors with an unobstructed line of sight to the source than receptors where the line of sight is blocked either by topography or by buildings or structures.

N18 CEQA requires mitigation if project impacts are found to be significant. The significance determination was based on actual data from noise monitoring conducted at sites around the refinery in conjunction with the noise levels predicted to be generated by equipment that would be installed as part of the VIP. The predictions were made based on data provided by Valero that included the types and number of noise-generating equipment that would be installed as part of the VIP as well as measured noise levels at similar equipment currently operating at the refinery. As explained in the noise section of the Draft EIR, due to the logarithmic nature of sound, if the project's contribution to noise is less than the existing noise by more than 5 dBA, the project's increment in noise would not be audible over the existing noise. Therefore, the project's impacts on existing ambient noise levels were found to be less than significant.

N19 See Master Response "Water."

N20 The water supplied by the State Water Project varies from year to year. The commentor is also referred to the Water Study (ESA 2002), prepared as a part of the EIR analysis, and which presents a summary of the current reliability of the State Water Project.

N21 The Mojave Water Agency agreement is a contractual obligation between the parties and is considered a reliable source of dry year supply.

N22 The EIR and associated water supply evaluation assumed only that the contracts are good for the duration specified in the agreements.

N23 See Master Response "Water" for an additional mitigation to be included in the Final EIR. Lake Herman was considered as part of the feasibility study of future supplies that may be used by the refinery.

N24 See Response H17. In addition, the water supply section of the EIR is based on water supply forecasts contained in current water planning documents, and the land use projections contained in the City General Plan.

N25 Additional mitigation is proposed which would further ensure that the identified impacts are reduced to a less than significant level.

N26 Comment noted.

N27 As explained on page 4.2-7 of the Draft EIR, BACT requirements apply to modified sources that require an authority to construct or a permit to operate, if increase in emissions from a modified source has the potential to emit 10 pounds or more per highest day of precursor organic compounds (POC), non-precursor organic compounds (NPOC), nitrogen oxides, SO_2, PM-10 or CO. BACT is required to be applied to any of the above pollutant emissions meeting the required criterion.

Letter O

City of Benicia
Community Development Department
Attn: Lamont Thompson
250 East L Street
Benicia, CA 94510

December 13, 2002

Subject: VIP Draft EIR

Dear Mr. Lamont Thompson

I am a proud resident of the City if Benicia trying to raise a healthy and happy family. I have reviewed the Draft EIR and have a high level of concern over the proposed expansions and discharges at the Valero refinery. I offer the following comments in regard to that document and the current CEQA process being followed by Valero.

Although this set of comments has primary focus on the CEQA process I have also included the personal experience of living in my hometown Benicia, California.

Summary of Environmental Impacts

Item 2.2.1 Aesthetics, Visual Quality, Light and Glare

All of the items under this category have been qualified as less than significant, however the addition of scrubber stacks, vapor plumes, flaring events, additional lighting and an increase in the overall industrial appearance of the facility is significant to the overall perception of the City of Benicia. In my opinion these impacts affect the way in which the City of Benicia is perceived. In turn, these impacts make the City of Benicia a less desirable place to live and establish a business. Please clearly address the baseline description of aesthetics, visual quality, light and glare and how it was established. Since the site is already an eyesore, where, when and how has the baseline and threshold of significance established? O1

Item 2.2.2 Air Quality

Under the second bullet: N2

FILE COPY

- ...operational impacts of the VIP on the regional and local air quality would be reduced to a less significant level.

This statement is very difficult to accept, as through personal experience and through previous environmental studies conducted by the EPA, the refinery has already been ranked the number two polluter in all of the Bay Area for air quality, based on the EPA's Toxic Inventory List for 2000 for Air Quality. So then how does the number two polluter to the air become less than significant? O2 cont.

Personal experience includes: black and sulpher-like solid particle fallout and strong chemical odors when the wind shifts from the plant to the city's east side.

A discussion of background and the establishment of a threshold of significance must be prepared in order to assess the proposed project's impact. Cumulative impacts are weak the range of projects is not adequate when considering all that is planned for the region. A diminimous impact is significant under state law. Any small contribution to an area that is already in a nonattainment area is significant. The courts have ruled that "the greater the existing environmental problems are, the lower the threshold should be for the projects contribution to cumulative impacts as significant. O3

Ozone and PM 10 are the nonattainment constituents for the BAAQMD. If applicant is emitting these constituents, the impact is significant. O4

Projects to be included in the future include: probable future projects, which have been announced but have not yet been applied for. Consideration of the whole Air Basin is required to be analyzed. This section is inadequate and incomplete. The threshold of significance is inadequate as well as the description of the threshold of significance. O5

Page 3- 60

Phase I of the cogeneration project exists, however because phase II has still not been constructed the Phase II cogeneration project should be considered a reasonably foreseeable project and therefore a part of the project's cumulative impact on the environment. O6

Table 3–1

Under Main Stack Components Column and Interim Operation, the cell says, "Some main stack components of the VIP may ultimately be deferred or deleted. Some Main Stack components could be partially operational before the Scrubber is in operation. Specifically, the crude rate for the refinery pipestill could be raised above the current level and/or the additional air blower could be utilized to the FCCU or Coker Unit."

This is a relatively hidden description obscured in fine print.. This is "controlled" through the permitting process at the BAAQMD. This is not a physical control measure but actually segments the project and provides inadequate protection of the environment. The applicant makes no commitment to actually installing the scrubber. No additional crude quantities should be allowed without updating the Main Stack scrubber, as this would be implementation of the project without requiring mitigation measures and a violation of CEQA. O7

Item 2.2.3 Biological

Mitigation measures that "could" be included to mitigate Biological Resources shall be included. A comparison of the proposed project's affect on wildlife activity and migration around the facility and the project's proposed increase in lighting and glare needs to be evaluated. It has been proven that wildlife and marshes need to sleep. How and where has this been evaluated? O8

Item 2.2.5 Energy

How was the consideration of new and additional consumption of Petroleum Fuels considered? The environmental analysis should include the evaluation of petrochemical fuels by automobiles as well as the increase in energy to produce the additional fuels. The applicant is proposing to process more and cheaper crude oil, resulting in more fuels for automobiles and further depleting the earth's resources, yet this is not evaluated. This also raises a question about the air and water quality sections for this EIR and whether these items should include the evaluations of all the additional fuels that are burned, ultimately, as a result of this project. More fuel means more miles on more cars. Resulting in more impacts. O9

Section 2.2.7 Public Health

Some discussion of the plant's relationship to cancer clusters and asthma in the local community on is warranted. Solano County's number one ranking in asthma cannot be brushed away as less than "typical day to day health risks."

Please add that when SO_2 mixes with moisture in the air and the lungs it forms sulfurous and sulfuric acid, which are corrosive acids. That acid formation damages the lungs and makes people much more vulnerable to respiratory illnesses and infections. Solano County is number one in the state in Asthma symptom prevalence at 15.9%according to the UCLA Center for Health Policy Research. The survey generated a call for a policy that include the reduction of exposure to environmental triggers such as these pollutants. This project does not follow those policy recommendations. Why hasn't the issue of Asthma and SO_2 been discussed under health risks? O10

Section 2.2.8 Public Safety

Increased activity, processing and volumes of fuel create a larger risk to the community. Increased risk of accidental releases and increased risk of explosion are more than plausible; they are immanent and are more likely to be significant rather than less-than-significant. Please revise. O11

Section 2.2.9 Hydrology and Water Quality

The applicant has not shown their ability to accept an increase in crude throughput and resultant waste products and volumes. Under the first bullet:

- Wastewater retention areas would be reduced due to the proposed addition of crude oil tanks. Process wastewater and storm water flows would increase. The facilities would be required to meet capacity requirements by the RWQCB. O12

This s a significant impact that is not mitigated. More fuel with more impurities means more pollution. More pollution requires additional areas for treatment of the physical, chemical and biological pollutants. This project takes away from the facility's ability to treat pollutants and yet proposes more and dirtier fuel. These ponds allow the facility to shave off peak flows from the wastewater coming through the plant and should not be reduced in size. An increase in pond storage should be required for mitigation.

Further dirtier and more fuels should not be allowed until the applicant can provide adequate treatment for the types and quantities of fuel that it currently receives.

O12 cont.

Further yet, to rely on the RWQCB for compliance with capacity requirements is contrary to a court case known as the Sundstrom decision, in which the court found pointed to evidence in the record showing that environmentally sound disposal (of sewage) might be hard to achieve, given that no suitable disposal site was known to exist. The court noted that by approving the project without data showing that a solution was possible, the county evaded its responsibility to engage in comprehensive environmental review and that the County had no right to expect the Regional Water Quality Control Board to devise a solution under such circumstances. Furthermore, the RWQCB is currently understaffed and further cutting back of staff is immanent. To simply rely on the RWQCB for compliance with capacity is not only illegal, it is unrealistic and naïve, particularly during the current State budget crisis. Specific mitigation needs to be clearly defined and not left up to the already over allocated and inundated staff at the RWQCB.

O13

Under the second bullet

- Solids and pollutants would increase in wastewater effluent discharge and storm water runoff to the Suisun Bay and Suisun Marsh due to increases in process wastewater and construction activities. Discharges would be required to meet discharge requirements established by the RWQCB.

O14

As was previously stated, RWQCB is understaffed and currently cutting back. To rely on the RWQCB for compliance with capacity is illegal, unrealistic, and naïve, particularly during the current State budget crisis. Specific mitigation needs to be clearly defined and evaluated for adequacy and not left up to the already allocated and inundated staff at the RWQCB for additional scrutiny.

Furthermore it is intuitively ridiculous to say that even though Valero is currently one of the top ranked polluters of surface water bodies in the Bay Area, the increase in pollution would be insignificant and no mitigation is required. Please revise.

O15

Under the fifth bullet:

- The cumulative effect of increased metal and chemical loading in effluent discharge to surface water bodies would not constitute a significant increase to total local and regional discharges.

Furthermore it is against normal logic to say on one hand that pollutants in the wastewater effluent would increase and then on the other hand say that this is insignificant and no mitigation is required. Please revise and use more logic. O16

A discussion of background and the establishment of a quantified threshold of significance should be prepared. The range of projects considered in the cumulative impacts analysis is not adequate when considering all projects that are planned for the region. A determination that this impact is minimal or "not considerable" defies reason and state law.

Circulation

Alternatives are weak. The alternative of routing traffic though an alternative entrance should not be considered an alternative project but should rather be recommended as a mitigation measure. O17

Section 2.2.11 Noise

As a neighbor of Valero, I would state for the record that actual current noise levels are unacceptably high at certain times, usually under certain atmospheric conditions, and during periods of lowhighway traffic, and especially at night. This noise is significant and intimidating in scale and is usually perceived as a loud flame-like roar. Baseline noise levels correlated with existing site operational activities need to be quantified and compared to potential noise levels during construction of and after completion of the VIP. O18

Energy Baseline

Neither the baseline or the thresholds of significance for energy consumption have been clearly or adequately quantified.. Further it is not clear how the Cogeneration Plant can be considered a mitigation measure. O19

Chapter 4 General

A discussion of background and the establishment of thresholds of significance must be prepared in order to assess the proposed project's impact. Cumulative O20

impacts are weak the range of projects is not adequate when considering all that is planned for the region. A small incremental increase in certain impacts must nevertheless be considered significant under state law. A small contribution to an area that is already in non-attainment is significant. The courts have ruled that "the greater the existing environmental problems are, the lower the signficance threshold for cumulative impacts should be. O20 cont.

Ozone and PM 10 are the nonattainment constituents for the BAAQMD. When applicant is emitting these constituents, the impact is significant. O21

Projects to be included in the future, probable future projects, which have been announced but have not yet been applied for. Consideration of the whole Air Basin is required to be analyzed. This section is inadequate and incomplete. The threshold of significance is inadequate as well as the description of the threshold of significance. O22

Where have the hi-tech emission stacks been utilized before to reduce the pollution as alleged by the applicant? O23

Why hasn't Valero added the new scrubber before now, if in fact, it will reduce toxic levels? Are they using the "new scrubber" as a carrot to influence the policymakers in granting Valero the right to expand processing of various crude oils and increase production levels? Why hasn't the "new scrubber" already been installed to lower current toxic levels rather than wait until after they begin their vip program? An easy solution would be to install the " new scrubber" now and wait five years to study and determine how effective the "new scrubber" is with current toxic levels rather than allow additional crude oils to be processed and production increases raised. O24

Page 4.2.19 Odors

This section does not include a description of existing odors, which emanate from the refinery. There is no discussion of whether current odor conditions are included in the baseline comparison. With lower grades of crude and additional Methyl mercaptan, residents can expect additional odor events, which are not addressed in this section. Please evaluate baseline and proposed expansion impacts on odor. O25

Odors can on a more frequent basis be detected while down wind on Highway 680. Residents can also detect the odors while the wind blows from the O26

refinery towards houses. Current odors that are commonly detected by Benicia residents are mostly characterized as a chemical odor, not as rotten egg H_2S Odor. These odors are commonly dismissed by City and Air Board personnel as resulting from decomposing organic matter; however this is not an accurate description, as the smell is a chemical odor. Can anyone tell us what it is we are breathing at that time of odor sensation? The EIR should indicate the true cause of these odors, and the potential environmental impacts attributable to them.

O26 cont.

General

How are the impacts of a proposed project assessed when the project already has unmitigated Environmental Impacts? Are the currently unmitigated environmental impacts considered background?

O27

The applicant and the city have put interested parties in a position, although legally allowed, in which we are rushed to review this DEIR. The document was released shortly before the Holiday season with all comments due during the Holiday season. A team of experts with previous site experience has prepared this document and individual citizens are being expected to review and comment intelligently within a 60-day time window while dealing with allocated holiday time. This project needs third party peer review from a professional with no direct relationship with the applicant in order to adequately interpret and analyze a document that is thoroughly complex and has a high level of environmental impact to the community. The current writer appears to be biased in his/her evaluation of the project impacts, with all environmental issue items not exceeding a threshold of significance

O28

No additional crude quantities can be allowed without updating the Main Stack scrubber, as this would be implementation of the project without requiring mitigation measures. Do we really want Benicia, California to become the "Refinery Row" of the beautiful San Francisco Bay Area?

O29

We cannot approve a project like this when we already have unresolved detrimental environmental effects.

O30

Thanks Lamont, you will be hearing more from me on this project. Please call me if you have any questions 7470553.

Sincerely,

Kevin A. Cullen
Benicia Resident

C: Mayor Steve Messina
Vice Mayor Tom Campell
Councilmember Dan Smith
Councilmember Bill Whitney
Councilmember Pierre T. Bidou

LETTER O – KEVIN CULLEN

O1 The commentor's perception of the existing visual environment in the City of Benicia has been noted. The significance criteria used in the Draft EIR to assess potential impacts on aesthetics, visual quality, light and glare are derived from the CEQA Guidelines, and are included on p. 4.1-10 of the Draft EIR.

Additionally, the Draft EIR bases the significance determination on the consideration of:

1) the extent of contrast and comparison between proposed project elements and existing surroundings
2) the degree of visual project conformance with public policies regarding visual and urban design quality
3) change related to project visibility from key public vantage points.

Because the project would be constructed entirely on refinery property, the existing refinery—including stacks, pipes, tanks and other industrial equipment— defines the visual characteristics of the project site's setting (i.e., the baseline condition). Any changes in the visual environment attributable to the proposed project are therefore measured against this baseline. See also Response H101.

O2 The commentor seems to be applying the quoted statement to the total emissions from the refinery. It must be noted that statement addresses the impacts of the VIP alone and not the entire refinery.

O3 The commentor is correct that, per an Appellate Court decision on October 28, 2002 (Citizens for a Better Environment v. California Resources Agency) use of a de minimus impacts standard to judge a project's contribution to cumulative impacts is not permissible, as is discussed in Responses P13 and P15. However, the commentor seems to imply that such a standard i.e., de minimus, was applied in the evaluation of cumulative impacts for air quality. As discussed in response to comment P15, no such standard was used in the Draft EIR's cumulative impact analysis. Rather consistency with plans (an approach upheld by the same Appellate Court decision) was used.

O4 It is correct that ozone and PM-10 are non attainment pollutants in the Bay Area. However, if these pollutants are emitted from a project in quantities less than 15 tons per year or 80 pounds per day, the increase is considered to be less than significant. Per BAAQMD methodology for evaluating air quality impacts, only projects generating greater than 15 tons per year (on an annual basis) and 80 pounds per day (on a daily basis) are considered to have a significant impact.

O5 Please see Master Response "Cumulative Analysis."

O6 Please see response to comment N8.

O7 As is presented in detail on pages 3-53 and 3-54 of the Project Description, substantial presentation of the proposed project's request for flexibility is provided. The section concludes with the following text:

> "The application states that some components of the VIP may ultimately be deferred or deleted. If situations arise that prevent the Main Stack Components from being implemented, there may still be some of the components that could be implemented. However, within the group of Main Stack Components, the Scrubber cannot be deleted if the FCCU Feed Flexibility, Coker Expansion, and/or the Expanded Crude Oil Processing Facilities are fully implemented - at least, to the extent that the third blower is utilized or to the extent that the crude rate is increased above about 150,000 barrels per day. This is the case because the Scrubber is needed to mitigate the emissions from these components."

It is clear from the text of the Draft EIR that the VIP is proposed with a specified amount of flexibility. The Draft EIR considered this flexibility and evaluated environmental impacts of this proposed project and of a variant in which the scrubber would not be built. These two scenarios represent the worst-case examples of impacts. The EIR makes no attempt to segment this project.

O8 Mitigation measures for impacts to wildlife are included in the Draft EIR in Section 4.3.4.2. Wildlife migration impacts were not identified because the project elements will be constructed in a facility, which is already a significant barrier to wildlife, and there would be no change in this condition. The project description does not indicate that there will be any increase in lighting or glare that would affect offsite receptors or wildlife.

O9 The commentor requests to know how consideration of new and additional consumption of petroleum fuels was considered in the EIR with the implication being that this consumption is related to automobiles. This issue goes well beyond the scope of this EIR and was not directly considered. This is because to explore these potential impacts goes beyond the purpose of the project and the refinery (to create a product and sell a product) and would at best be speculative in the sense not contemplated by CEQA. Furthermore, it is well beyond the City's ability to impose mitigations should any significant impact be identified. As the significance criteria for Energy provided by CEQA state, a project would have a significant impact if it:

- Encourages activities that result in the use of large amounts of fuel or energy
- Uses fuel or energy in a wasteful or inefficient manner

Based on the evaluation present in Section 4.5, the VIP itself poses no such impact nor when considered with other cumulative projects does it pose any impact.

O10 Over the past 20 years, there have been a number of health studies that show relationships between exposure to SO_2 and the formation of secondary aerosols (fine particulate matter), resulting in adverse health outcomes, including respiratory illnesses and asthma

attacks. These studies have shown that many other factors can also contribute to susceptibility to asthma. In recent years, asthma cases have increased nationwide, but, because there are many complicating factors that can influence asthma outcomes, the causes have not yet been determined.

An organization has been formed in the Bay Area called the Regional Asthma Management and Prevention Initiative (RAMP) to study respiratory illnesses in the multi-county region. The results of these studies and others in the region have shown that the area with the highest number of cases per capita have changed over the years, but the reasons for the changes are not evident.

State ambient air standards for SO_2 are more-strict than Federal standards, and they are geared to protect the public from respiratory illnesses. Maximum measured 24 hour ambient air concentrations of SO_2 in the region have been no greater than 7 parts per billion (ppb) in the past several years. This maximum level is well below the state standard of 40 ppb that is set to protect the public health. Since these levels are so low, ambient air concentrations from the VIP should not cause health effects.

O11 The EIR did consider increased activity, processing and volumes of crude handled when carrying out the Public Safety analysis. Table 4.8-7 in the Public Safety section of the EIR identified possible risks from accidents for the existing refinery. The Table also identified the changes in risks as a result of the VIP, and it considered increased activity, as well as increased processing of crude with higher sulfur content. The changes in probabilities (chances) of accidents, as well as the changes in consequence of accidents were addressed in Table 4.8-7.

O12 The availability of wastewater storage area is discussed in Section 4.9.2.2 on pg. 4.9-5 and in Impact 4.9-1 on pg. 4.9-20. The storage capacity in the crude oil storage tank area is for diverted effluent bypass, if needed. Impact 4.9-1 on pg. 4.9-20 discusses the reduction of wastewater storage. As stated on pg. 4.9-13 and 4.9-21, in California the San Francisco Bay Regional Water Quality Control Board (RWQCB) administers permits for the NPDES element of the Clean Water Act. Under Valero's RWQCB NPDES Order, an Anti-degradation Report is required to evaluate treatment capacity of the existing treatment units and propose new units as necessary to enable adequate treatment. Therefore, for the increase in crude throughput and resultant waste products and volumes to occur, as proposed in the VIP, these requirements must be adequately addressed by Valero and approved by the RWQCB. The Draft EIR recognizes the terms and conditions of the NPDES Permit No. CA0005550 - RWQCB Order No. 2002-0112 as a project requirement and not a mitigation measure.

O13 As stated on pg. 4.9-13 and 4.9-21, the RWQCB is responsible for providing the necessary permit requirements needed for the NPDES element of the Clean Water Act. As addressed in Impact 4.9-2 on pg. 4.9-22, monitoring plans required by the RWQCB are reviewed by the RWQCB staff to ensure the requirements and limitations of the

RWQCB NPDES Order are being met. This is the established mechanism created by the federal, state, and local governments for the provisions of the Clean Water Act to be followed. The idea that the RWQCB may not be able to regulate compliance under Valero's NPDES Order due to being understaffed is purely speculative. The refinery currently operates under an NPDES permit from the RWQCB; the project increment is relatively small and there is no reason to believe that the additional wastewater flows and pollutant loadings would not be adequately controlled by the refinery wastewater treatment plant. Storage of runoff and excess wastewater flows is a hydraulic capacity question that engineering design can easily solve. With respect to providing specific mitigation now, until all of the parameters of the new crudes and the processing equipment changes are known, the specific additional wastewater equipment needed, if any, cannot be determined with certainty.

O14 Please see the response to Comment O13 for regulatory reliability.

O15 An increase in wastewater discharge is discussed in Impact 4.9-2 on p. 4.9-21 and 22 and Impact 4.9-7 on p. 4.9-25. Section 4.9.2.2 on p. 4.9-9 discusses RWQCB use of ambient background data from Yerba Buena Island and Richardson Bay Stations in developing the effluent limitations. In addition, the USEPA Effluent Guidelines and Standards of Petroleum Refining Point Source are used to develop the limitations and technology requirements in Valero's RWQCB NPDES Order. As stated on p. 4.9-22, the RWQCB has adopted a revised Water Quality Control Plan for the San Francisco Bay Basin that identifies water quality objectives for Carquinez Strait and Suisun Bay. Therefore, the effluent limitations contained in Valero's RWQCB NPDES Order are based on the Water Quality Control Plan and are the most stringent regulatory mechanism to manage Valero's wastewater discharge to the receiving waters.

With respect to the increases in wastewater and pollutant discharges into the Bay, the RWQCB letter, Letter B, suggested changes to better explain the issues and the controls that the Board has put in place to limit the total amounts of pollutants that reach those receiving waters. These text changes are described in the responses to comments B1 through B7. The resulting text changes to the Draft EIR also are shown in Chapter VI, Text Changes to the Draft EIR.

O16 Please see the response to Comment O15 for potential increase of pollutants in effluent discharge. With respect to the cumulative projects and cumulative impact, see Master Response "Cumulative Analysis" for a more detailed discussion of the methods used to develop that analysis.

O17 The commentor states that the traffic alternative discussed in the Draft EIR in Section 6.2.2 should be applied as a mitigation measure to the VIP. That this could be done was recognized in the Draft EIR in Section 6.2.2, but a typographical error resulted in an incorrect reference to mitigation measure "4.13-3" instead of the intended reference to mitigation measure "4.13-1", in Section 4.13, Traffic and Transportation. This change to the text is shown in Chapter VI, Revisions to the Text of the Draft EIR.

It is clear that the Draft EIR agrees that the alternative could become a mitigation measure. However, it is also clear from Section 6.2.2 of the Draft EIR that this alternative presents a similar level of impact as the proposed project. Since Mitigation 4.13-1 by itself is expected to be sufficient to mitigate the traffic impact, this alternative has not been proposed as additional mitigation.

O18 See response to comments N15, N16, and N18.

O19 The commentor suggests that neither the baseline or significance thresholds for energy are clearly defined. Please refer to Sections 4.5.2.3 and 4.5.3 of the Draft EIR where these points are addressed. The Valero cogeneration plants are not proposed as a mitigation measure in the Draft VIP EIR.

O20 See Master Response "Cumulative Analysis."

O21 See response to O4.

O22 See Master Response "Cumulative Analysis."

O23 While scrubbers of this type have been installed at several refineries around country to remove sulfur dioxide from the main stack exhaust, their locations are not germane. What is important is that the BAAQMD considers the technology present in the main stack scrubber the best available control technology (BACT) for Valero's permit application. This means that the BAAQMD recognizes after their review of Valero's permit application that this is a proven and workable technology meeting the New Source Review requirements of the District and the Clean Air Act.

O24 The comment is asking the City to speculate about these issues. As noted previously, CEQA specifically discourages speculation in EIRs.

O25 Hourly concentration data from H_2S monitors at the refinery and the odor complaint records at the BAAQMD and Valero were used as the baseline condition. The VIP's potential for increase in odor impacts from the increase in H_2S and methyl mercaptan emissions due to the use of lower grades of crude have been evaluated quantitatively on pages 4.2-30 and 4.2-31.

O26 Sulfur compounds such as H_2S and methyl mercaptans have a rotten egg smell and rotten cabbage smell, respectively. Sulfur dioxide has a metallic taste and sharp, irritating odor and the odor threshold for SO_2 is at 2.7 ppm. SO_2 emissions are monitored both at the point of release as well as downwind in many directions at a number of local monitoring stations as presented in Master Response "Air Quality." Based on data from monitoring stations at the refinery, measured SO_2 concentrations are at least three orders of magnitude below the odor threshold for SO_2. Therefore, it is unlikely that the odor being perceived by the commentor is from SO_2. It should be noted that there are other odor sources in the vicinity of the refinery. The most reliable way to trace the source of this

odor would be for the commentor to report this to the BAAQMD and Valero. The procedure for reporting odor complaints to both the BAAQMD and Valero are presented in the Master Response "Odors."

O27 The comment appears to refer to the existing effects of the current refinery operations as "unmitigated environmental impacts." The current operations are a part of the environmental setting, the background condition against which the changes due to the project must be compared. The Draft EIR describes the analysis process at the beginning of Chapter 4.

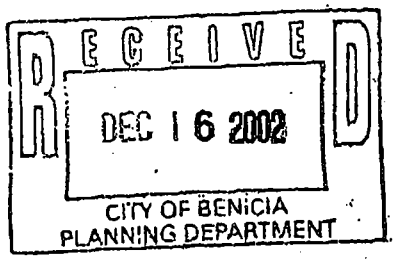
O28 The preparers of the Draft EIR are environmental consultants that are completely independent of, and are not employees of Valero or the refinery. The consultants are under contract to the City to prepare and publish the EIR. These arrangements are used to ensure that the analysis in the EIR is objective. Holding to the goal of objectivity, the preparers used common, legally defensible standards of significance for the evaluation of each impact. The changes that would occur with the implementation of the VIP were compared to these legally defensible standards of significance; if the environmental changes or impacts exceed those standards, they were judged to be significant, otherwise they were judged to be less than significant. The results of these straightforward processes are presented in the Draft EIR.

O29 The commentor is incorrect in stating that Valero cannot increase their crude oil throughput without adding the Main Stack Scrubber. As described in Sections 3.5.1, Valero has requested the flexibility to increase their crude oil throughput from 135,000 barrels per day to 150,000 without the addition of the Main Stack Scrubber. The Draft EIR considered this case. If this increase were to occur without installation of the Main Stack Scrubber, Valero must maintain air emissions below demonstrated historic levels. It is clear in the Draft EIR that should Valero operate at crude throughput levels above 150,000 barrels per day, the Main Stack Scrubber would be required.

O30 Comment noted.

Ronald E. Glas
158 Banbury Ct.
Benicia, CA 94510
December 16, 2002

City of Benicia
Community Development Department
Attn: Lamont Thompson
250 East L Street
Benicia, CA 94510



Subject: VIP Draft EIR

Thank you for permitting me to provide the following comments:

1. Goal 2.36 of the General Plan requires that the City ensure an adequate water supply for all current and future residents and businesses, and Policy 2.36.1 requires that the City approve development plans ***only when a dependable and adequate water supply to serve the development is assured.*** The EIR provides no indication that the project is consistent with this goal and policy. In fact the EIR concludes that the project will contribute to future, cumulative, dry year water shortages. P1

   For mitigation, the EIR relies on vague mitigation measures, such as the current negotiations with the State for additional water allocations; however, at this time there is no assurance that the City will be successful in these negotiations. The EIR is also relying on the vague possibility that development of a wastewater reuse system by the City to recycle wastewater for non-potable purposes, primarily to serve the VIP, will help to mitigate this impact. But, at this time there is no assurance that the City will actually complete this project. And the City until recently participated in a groundwater storage program with the Mojave Water District with rights to about 5,000 AF of stored water; however, this program has been terminated. P2

   It appears that cumulative water demand attributable to the VIP project, in conjunction with water demand by the Tourtelot and Seeno projects, and the potential increase in demand by other possible future users, coupled with the uncertainty of both existing and future water supplies, may very likely push future water demand far higher than any water supply that can ever be relied on by the City, thereby creating a potentially significant impact under CEQA. P3

2. I would further question how the authors of the EIR can possibly claim that the potential future construction of a wastewater reuse system by the City of Benicia is a component of, or "part of" their VIP project (sect. 1.2; sect. 3.4.3.12; sect. 6.1.2.2), given that: P4

a) the construction of such a wastewater reuse system by the City of Benicia is only in the earliest stages of conceptualization, with absolutely no assurance that it will ever really be built, and

b) that by their own admission, the "wastewater reuse system project" is a City project (sect. 3.6.2), and "the City's water reuse project is separate from the VIP and would be developed and permitted independently by the City of Benicia" [footnote 11 (pg. 3-47)].

P4 cont.

The authors somehow seem to believe that by simply asserting that the wastewater reuse system is a part of the VIP project, irrespective of evidence to the contrary, and irrespective of their own words to the contrary, they are somehow entitled to place this recycled wastewater into the supply side of their supply vs. demand equations.

P5

The EIR cannot have it both ways. It is plainly obvious that the wastewater reuse system project is **not** a component of the VIP, and therefore cannot and should not be used in the supply side of the demand vs. supply equation. At best, the wastewater reuse system project must be treated only as a mandatory mitigation measure with which the project might attempt to mitigate the potentially significant impacts of the huge water supply/demand imbalance that would be created once the VIP project's water demand is added to the demands of all other existing and potential water users in Benicia.

P6

I am therefore suggesting that the analysis of the City's future water budget as provided in the VIP EIR is less than clear. I am requesting that the EIR be rewritten to provide a straightforward and clear analysis of the City's future water demand vs. its future water supply, in order to clarify that the City is facing potentially grave water shortages in the near future, with or without the VIP.

P7

3. The EIR notes that the proposed project is expected to result in a net reduction in sulfur emissions due to the proposed scrubber, although there would be a net increase in emissions of other chemical constituents.

   It is known that there are no air quality monitoring stations located within the City of Benicia, or directly downwind from the City, that measure all of the potential emissions generated by a facility such as Valero. There are a couple of air quality measuring stations operated by Valero on the ground in Benicia which measure only a limited number of emissions, and the BAAQMD operates one air quality monitoring station in Benicia, which monitors only sulfur gases (SO2 and/or H2S). While other stations operated by the BAAQMD in Vallejo and Pittsburg do monitor a wider range of air pollutants, the air quality data generated at these stations is not directly comparable to what may be generated by a monitoring station located in Benicia, since the airstream sampled by these station is a different airstream than the airstream that passes through the City of Benicia.

P8

The Environmental Impact Report should therefore include a fully quantified analysis of the potential impacts of all ambient and potential project generated emissions that would actually impact residents of the surrounding neighborhoods. In order to expedite this analysis, I recommend that project mitigation include two air sampling stations, one west and upwind of, and the other east and downwind of, the project site, in order to develop comprehensive data regarding both the City's existing, ambient air quality, and air quality with the addition of emissions that may be generated by the expanded refinery. These sampling stations should evaluate not only sulfur gases, but the full range of air pollutants, including but not limited to O_3, CO, NO_2 and NO, SO_2 and H_2S, CH_4 and THC, PM_{10} and TSP. P8 cont.

For any emissions which are then found to be potentially significant, the Environmental Impact Report should develop a set of mitigation measures, accompanied by a set of quantified performance standards against which the efficacy of any required mitigation measures may subsequently be measured as part of the required Mitigation Monitoring and Reporting Plan (MMRP). P9

In addition, for a project of this magnitude, I would recommend that the EIR be expanded to include an analysis of the potential impacts of potentially hazardous emissions on all schools located within the immediate "air basin" of the VIP P10

4. The EIR does not include all subjects required by CEQA sect 15126; specifically, sect 15126 requires discussion of "Significant Irreversible Environmental Changes Which Would Be Caused By The Proposed Project Should It Be Implemented" (sect. 15126.2(c). P11

5. Chapter 2 and Table 2-1 should provide a summary of cumulative impacts. P12

6. <u>Cumulative Impacts</u>:

   a. Cumulative construction traffic impacts are identified as the only potential cumulative impacts attributable to the VIP in conjunction with the Seeno Business Park and Tourtelot completion. However, no discussion is presented regarding the potential cumulative impacts of these projects with respect to energy supply, water supply, ongoing traffic, construction related air quality, etc. It can be fairly argued that there may be cumulatively considerable impacts with respect to these projects. P13

   CEQA sect. 15064(i) requires that when a project makes a cumulatively considerable contribution to a cumulative effect, it would have a significant effect. No evidence has been presented that the incremental effects of the VIP project, in conjunction with the Seeno and Tourtelot projects, would be less than considerable.

Sect. 15064(i)(3) provides that a lead agency may determine that a project's incremental contribution to such cumulative impacts is not considerable if the project complies with a previously adopted program providing specific requirements to avoid or substantially lessen the cumulative problem. However, no such determination has been made in this EIR, and therefore the project's contribution to the region's cumulative impacts with respect to energy supply, water supply, ongoing traffic, construction related air quality, etc. must be considered cumulatively considerable and significant. P13 cont.

b. "Outside" projects included as relevant cumulative projects in the discussion of cumulative impacts include the Benicia-Martinez Bridge, Seeno Business Park, Benicia Wastewater Reuse Project, and buildout of the Tourtelot area. It is apparent that the authors of the EIR, in only analyzing the cumulative impacts of projects within the boundaries of the City of Benicia, or within close proximity to these boundaries (in the case of the Benicia Bridge), have essentially defined the City's boundaries as constituting the outer extent of the geographic area cumulatively impacted by the project.

   CEQA sect. 15130 require a reasonable explanation of the reasons for choosing a particular geographic limitation. However, no such "reasonable" explanation has been provided for the narrow geographic limitation used in this EIR. Further, sect. 15130 notes that factors to consider when determining whether to include a related project include the nature of each environmental resource being examined, the location of the project, and its type, meaning that there is a direct relationship between the type of project, the type of environmental resources affected, and the geographic extent of the impacted resource. P14

   In this case, the location of this project is important, for example, when air or water quality impacts are at issue, since the impacts of this project, when added to the impacts of other projects located anywhere within the entire air basin or entire watershed, would probably result in significant cumulative impacts affecting the entire air basin or watershed. Other projects that may be underway, planned, or otherwise reasonably foreseeable within this air basin and/or watershed include most notably, but are not limited to, the Shell/Bechtel LNG project in Vallejo and the Chevron upgrade project in Richmond. In conclusion, this analysis of cumulative impacts, by omitting any mention of all other projects underway, planned, or otherwise reasonably foreseeable within the air basin or watershed, can by no stretch of the imagination be considered a "reasonable" analysis.

c. Further, EIR sect. 4.2.4, Impact 4.2-4 states that "for any project that does not individually have significant operational air quality impacts, the determination of significant cumulative impact is based [*only*] on an evaluation of the consistency of the project with the local general plan and of the general plan with the regional air quality plan. P15

Please note that a recent Appellate Court decision (*Communities for a Better Environment v. California Resources Agency,* 10/28/02) found that all reasonably foreseeable projects should be included in a cumulative impacts analysis. That is, the projects selected for analysis shall not be limited to only one of the categories, or even to all four of the categories of projects currently listed in CEQA sect. 15130(b)(1)(B)(2), but instead should include, for example, a project that has been announced by an applicant but for which permits have not yet been applied (such as the LNG project).

Thus, choosing to analyze the cumulative impacts of the VIP project only in terms of its consistency with the local general plan and of the general plan with the regional air quality plan is illegal in light of the Appellate Court's recent determination. The conclusion to be drawn here is that all projects, within reasonable and rational geographic limits, either currently being permitted or that are known to be under consideration [and especially those for which a feasibility study is currently underway, such as the LNG project], and which would contribute to the cumulative impacts of the project, must be addressed in this analysis of cumulative impacts. P15 cont.

7. In addition to increased site lighting, additional flaring is anticipated to result from this project. Existing flares light up a substantial portion of the sky over the surrounding region, including residential neighborhoods and the Suisun Marsh, especially during overcast weather. Please include an analysis of the environmental impact of these flares on the surrounding neighborhoods and on wildlife in the Suisun Marsh during such overcast conditions. P16

In addition, please include an analysis of the cumulative impact of the flares, together with expanded site lighting, on the region's dark skies, in the context of ongoing concerns over the impacts of night light pollution on astronomy, wildlife biological cycles, and the public's enjoyment of night sky phenomena. P17

In conclusion, I would just like to note that the above comments by no means represent all of my concerns regarding this project. It is just that the 45 day review period allotted to the public to review this extremely long and complicated document has unfortunately come at a difficult time for families in Benicia; that is, this 45 day review period has overlapped both the Thanksgiving and Chanukah holidays, making it extremely difficult for individuals to give it the close scrutiny it requires. I would therefore request that an extension of the comment period be granted to allow residents additional time to ensure that all of their concerns have been addressed. P18

LETTER P – RONALD GLAS

P1 City water planning is current in accordance with the General Plan. Water planning includes efforts to increase the City water supply available through the year 2020.

General Plan Goal 2.36 and Policy 2.36.1 are among those listed and discussed in Draft EIR Section 4.14.2.1. The compliance of a proposed development with Policy 2.36.1 ultimately would depend upon the status of several current City water planning actions to secure such a water supply. These current City actions, and the resulting status of the City water supply, are described in Draft EIR pp. 4-14-2 through 4-14.8 and pp. 4-14-12 through 4-14-16. If the City is successful in obtaining approval of the water rights application, or if the City were to develop its wastewater treatment and reuse program, there would be a secure and sufficient water supply for the VIP, because the VIP could use either raw water or reclaimed wastewater in the refinery. On February 11, 2003 the City issued a press release announcing settlement of the water rights application. Under these circumstances, it cannot be said that the VIP does not conform to General Plan Goal 2.36 and Policy 2.36.1. See also Master Response "Water."

P2 For more information, see Master Response "Water." Also see response to comments H19 and H20 regarding the Cadiz Mojave Project, as contrasted with the Mojave Water Agency.

P3 The commentor is correct, <u>if</u> the water rights approval is not consummated or if the City wastewater reclamation project is not built. However, considering the fact that the City has announced that agreement on the water rights has been reached, it is unlikely that this water will not become available to the City. To deal with potential drought in the interval before the new water becomes available, an interim mitigation measure has been added. See Master Response "Water" for this new measure.

P4 The City wastewater reuse project is not a part of the VIP. The references cited only indicate that the refinery offers to be a user of reclaimed wastewater that the City's wastewater reuse project could provide. In addition to using any available reclaimed wastewater, the VIP includes possible modifications to the refinery's existing wastewater treatment plant. These two project components are described in Sections 3.4.3.12 and 3.4.3.13, respectively.

The wastewater reuse project is a project of the City and a potential source of supply to VIP that both the City and the refinery are committed to pursuing. In addition, the refinery's new Valero Cogeneration Facility (VCP) was approved under a condition of the California Energy Commission to utilize reclaimed water for the VCP. They City and the Refinery are working together to complete the feasibility study and implement an action plan. Until such time as the reclaimed water project has been evaluated in an independent environmental review and the engineering study is complete, and until the agreements between the City and Valero for use and development of the project are in

place, other mitigations and performance requirements will guide how the VIP is implemented.

P5 See the additional mitigation included in Master Response "Water". Also see response to comment P4.

P6 See Master Response "Water."

P7 See Master Response "Water."

P8 The commentor makes several assertions about monitoring stations in the vicinity of the Valero refinery and several of these assertions are incorrect. See the discussion of local monitoring stations in Section 4.2.2.3 of the Draft EIR, as well as additional information provided in Master Response "Air Quality."

P9 Based on the comment, the commentor is assumed to be proposing a mitigation measure for air quality impacts which would involve use of several air quality monitoring stations located off site (as discussed in Master Response "Air Quality") to determine compliance by Valero with air quality standards. On the surface this is a reasonable suggestion however, this is neither the best way to determine compliance nor is it the method used by the BAAQMD (and other similar air pollution control agencies in the United States). The BAAQMD uses the permitting process to regulate emissions from Valero and similar types of facilities to set limits on what can be emitted to the atmosphere. The basis for these emission limits are analyses that consider the impact of the predicted emission levels on the environment against which protection of the public health and welfare is determined by an analysis of impacts. The standard for protection of the public is provided in federal, state and local district laws and regulations. Ambient air monitoring is used by agencies like the BAAQMD to determine regional air quality levels for comparison with air quality standards. To implement a monitoring program in order to determine compliance by Valero, as suggested by the commentor, is difficult and expensive to implement at best and it becomes even more difficult to interpret the measured results to measure compliance for a single complex source like the Valero refinery. A more certain course of action is that followed by the BAAQMD which requires all permitted sources in the refinery to monitor their pollutant emissions to the atmosphere, to report this data to the BAAQMD and these data to be audited and reviewed by the BAAQMD against permits and standards. If emissions are within the permitted range, the source is in compliance.

P10 The EIR considered all sensitive receptors that might be affected by potentially hazardous emissions. There were no schools located in these areas.

P11 CEQA Guideline section 15126.2(c), Significant Irreversible Environmental Changes Which Would be Caused by the Proposed Project Should it be Implemented, goes on to cite examples:

> "Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified."

The original construction of the refinery is more likely a good example of such a large commitment of resources. Once a refinery was constructed on this location, it may be considered to be unlikely that the site would be converted to another use. However, over the years that the refinery has been operating, a number of process units have been constructed and effectively replaced (evidenced by the clean fuels modifications, the MTBE Phase-Out project and the Cogeneration Facility). The new facilities of the VIP represent continuing change of the process units at the refinery, and the VIP facilities themselves likely will be replaced at some future time. As such, the VIP components do not represent irreversible changes, in contrast to the overall refinery use of the site.

Following along, the primary and secondary impacts of the VIP components, as analyzed and described in the Draft EIR, do not commit future generations to similar uses (although continued refinery use is likely), nor does the Draft EIR analysis indicate any irreversible damage that could result from environmental accidents associated with the VIP.

The VIP would increase the consumption of energy at the refinery, as well as result in the processing of more crude oil into petroleum products, a stated goal of the project. These actions would result in the consumption of nonrenewable resources as a part of the continuing operation of the refinery, but it is not an irrevocable commitment, nor is it considered to be a significant adverse effect.

On these bases, it is considered that there are no significant adverse changes, per. Section 15126.2(c) that would be associated with the VIP.

P12 Table 2-1 in the Draft EIR actually does include cumulative impacts considered within each of the areas analyzed. Generally the cumulative impacts discussed are the final impact in each of the areas presented. For clarity additional explanatory text will be added to Chapter 2 of the Draft EIR to further summarize cumulative impacts presented in the document. See Chapter II of this document.

P13 Discussion is presented in Section 5.2 about cumulative impacts considered from projects considered in the cumulative analysis as detailed in Section 5.2.2. The commentor cites CEQA Guidelines Section 15064(i). This section pertains to whether or not an EIR need be prepared. Since the City correctly followed CEQA and prepared an EIR, CEQA Guidelines Section 15130 then define the discussion of cumulative analysis for the EIR.

To further understand how the cumulative analysis was conducted please see Master Response "Cumulative Analysis."

P14 Please see Master Response "Cumulative Analysis."

P15 As discussed in much greater detail in Master Response "Cumulative Analysis", the cumulative analysis considered both a spectrum of local known specific projects as well as consistency with regional planning documents which consider known projects as well as the effects of projects that may not be well defined or are unforeseen. Per CEQA Guidelines, Section 15064(i)(3) allows a lead agency to "determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem." This CEQA Guidelines section was upheld by the recent Appellate Court's decision cited by the commentor. Thus contrary to the commentor's statement, per CEQA it is appropriate to analyze cumulative impacts for the VIP with respect to General Plans and Clean Air Plans. This is also consistent with current BAAQMD CEQA Guidelines and was explained in the discussion text of Section 4.2.4 of the Draft EIR. Finally, while the commentor is correct that the Draft EIR does not mention such other regional projects as the Chevron Refinery project or the proposed Bechtel / Shell LNG project[11], specific consideration of these projects would not alter the conclusions stated in the Draft EIR.

P16 As discussed on p. 4.1-5 of the Draft EIR, flaring occurs because of over-pressurization in refinery processes and is an unscheduled event undertaken to prevent the uncontrolled release of combustible and toxic gases to the atmosphere. The Draft EIR indicates that flaring occurs on average of nine times a year, with approximately half of the flaring events occurring during the day and the other half in the evening. Valero has collected flare event data since 1994, but this data does not include a record of the weather conditions at the time of the specific flare event. While flaring could potentially occur during overcast conditions, the implementation of the VIP is not expected to cause an overall increase in flare events because equipment changes and additions proposed as part of the project would not increase the number of upsets or the intensity of flaring. Therefore, it is unlikely that flaring would constitute an adverse effect — either during clear or overcast conditions — to surrounding neighborhoods or to wildlife in the Suisun Marsh. See also response H110a.

P17 Page 4.1-24 of the Draft EIR includes a discussion of potential light and glare effects attributable to implementation of the VIP. In summary, the existing refinery operates throughout the night and is therefore already illuminated during nighttime hours. As discussed on p. 4.1-9 of the Draft EIR, project components would include lighting to ensure operational safety and site security, and such lighting would be required to meet

[11] As is mentioned in response to comment H104 and elsewhere, this project has been abandoned as of the end of January 2003.

Section 17.70.240.D.2 of Benicia's Zoning Ordinance, which establishes outdoor lighting standards.

The refinery facilities are already lighted at night, for worker safety and operational purposes. The individual components of the VIP would incrementally increase lighting levels. Since the existing plus proposed lighting would conform to the City lighting standards, the light levels and glare at locations off-site would be considered acceptable, not presenting a cumulative impact.

Furthermore, for reasons discussed in response to comment P16, it is not likely that there would be any increase in flaring due to the VIP. As a result, there would be no cumulative contribution to flaring or the light from flares due to the VIP.

In conclusion, the lack of cumulative effects indicates that there would be no significant cumulative impact related to light, glare and flaring.

P18 The City has elected, in conformance with the requirements of CEQA, to set the review period for the Draft EIR at 45 days.

Letter O

From: <WGreg1@aol.com>
To: <comdev@ci.benicia.ca.us>
Date: 12/4/02 6:40PM
Subject: Comments on Valero Improvement Project

OIL and
WATER

In the end, our society will be defined not only by what we create, but by what we refuse to destroy. 1.

When I first learned about Valero's Improvement Project (VIP) the one thing that jumped off the page for me was the use of water by the refinery-5 million gallons a day- seemed incredibly excessive and wasteful. Even with a possible reduction of 2 million gallons-by using re-cycled water- it doesn't solve the myriad of problems caused by pollution including drought being forecasted by scientists, and water contamination by industry. Q1

With our town nearly surrounded by polluting commercial concerns, wouldn't it be wise to seek additional safeguards, in the form of increased "water preservation" from expropriation and pollution. (e.g. the discharge of toxic chemicals into our local waterways) Q2

Here are a few examples of what scientists are finding out about the role of fossil fuels in our environment and how they are affecting the world's climate.

In a recent article titled: "California may face a dry future" researchers from U.C. Santa Cruz have found that the Sierra snowpack will fall more than 80% in February and disappear entirely by the end of April in an average year.

Denise Sloan, associate professor of earth sciences at Santa Cruz, used sophisticated computer models that take into account the variety in California's landscape to predict what might happen in specific areas...California is more vulnerable to climate change for numerous reasons, including its growing population and large agricultural sector, and its physical characteristics, including its location on the coast, and its varied topagraphy. Q3

The study, which will be published in the journal Geophysical Resarch Letters, comes days after the Bush administration acknowledged that 'climate change is inevitable and human caused.' 2.

In a related story a group of scientists from Australia and Canada say that drought may be triggered by tiny particles of sulphur dioxide spewed by factories and power plants.

Nearly two decades after after one of the world's most devastating famines in Africa, scientists are pointing a finger at pollution from industrial nations as one of the possible causes. Q4

The short-lived particles known as "aerosols," didn't have to travel to Africa to do their dirty work. Instead, they were able to alter the physics of cloud formation miles away and reduce rainfall in Africa by as much as 50 percent...the process known as teleconnection, continues in the atmosphere today. Some scientists suspect it might explain the drought

gripping parts of the United States, although that question has not been specifically examined.

One clue: In the 1990's rain returned to the Sahel. During the same period, emission laws in the industrialized West reduced aerosol pollution. A coincidence? The scientists don't think so. Cleaner air in the future will mean greater rainfall in the region. 3.

Q4 cont.

If as scientists predict, pollution is causing shortened seasons and drought conditions,even possibily affecting our own diminishing water resources locally; (the eastern seaboard of the U.S. this year experienced drought like conditions/ in the bay area we have had only a couple of days of rain in seven months) how will the VIP improve this situation/when it is part of the problem? Even with a projected reduction of 40 %(?) in emissions we still have the rest, 60% causing environmental damage? What are the other refineries in the bay area doing to protect/improve the environment? Just a thought: Shouldn't this be a bay area wide improvement project to protect our air and water? If Valero is the only refinery improving its plant and all the rest of the bay area refineries are not, how is this solving the overall problems we face with regards to air and water pollution? Is this a local band-aid approach for a regional cancerous wound? The VIP doesn't solve our present or future environmental problems it just continues the status quo.

Q5

What is needed is an energy policy based on conservation and renewable sources of power (at the local,state and national level) that don't pollute,cause health/safety problems, climate change, dependence on foreign despots and blowback because of oil !

Questions: If the refinery uses this amount of fresh and re-cycled water how will this be brokered, in the projected/coming dry years? As water resources become more scarce/valuable how will our representatives deal with the problem of industrial usage vs public consumption? Does anybody care that an outside private entity uses this much of our local finite resources? What does it mean to lose this much water per day? Do we have an alternative to our present supply from Lake Berryessa? If so, where and at what cost/compared to our present situation? If not,then what?

Q6

With regards to re-cycled water, State Senator Tom Torlakson has authored a bill (SB-1518) which would make it easier for sanitary districts to provide re-cycled water (re-cycled water is wastewater that is cleaned and treated for non-drinking purposes) to oil refineries,chemical plants and other sites that use large amounts of waste.

With such a rapidly expanding population,California needs to use its water resources efficiently, said Torlakson. 4.

In my research, I found a counterpoint to the above references, that I thought was meaningful," many point to the population growth as the culprit, but 'the truth is that consumption of water is growing at twice the rate of the planet's population.' Human beings use only 10% of the planet's fresh water-65 % goes to industrial agriculture and the rest goes to other industrial uses. 5. Some examples: "It takes 105,000 US gallons of water to make one car. Computer manufacturers use massive quanities of de-ionized fresh water. In the United States alone, the industry will use 396 billion US gallons of water each year. Originally thought to be 'clean industry' high tech has left a staggering pollution legacy in its short history. (Wall Street darling) Silicon Valley has more Environmental

Q7

Protection Agency toxic Superfund sites than any other area in the U.S. and more than 150 groundwater contamination sites..." Note: Available fresh water amounts to less than one-half of one percent of all water on the earth. 6.

Recently, California Governor, Gray Davis said, that, "water is more precious than gold." 7. If that is the case, we have some problems, with our most precious resource, right here in Benicia.

If we as a community look at our water/marine resources it does not present a pleasant picture. For Example: The San Francisco Bay is completely polluted according to the Environmental Protection Agency; the Carquinez Strait is so polluted that signs posted at various locations warn people/fishermen that fish caught in these waters are harmful:" Eat Sport Fish Safely" Sport fish in the San Francisco Bay contain chemicals at levels that may harm your health-The Office of Health Hazard Asssessment advises you to limit how much you eat of the fish that you catch in the bay; Lake Herman our local reservoir is mercury poisoned, again, with a warning sign that states: "Because of elevated mercury levels, women who are pregnant or soon may become pregnant,nursing mothers and childern under 6 should not eat fish from Lake Herman. Adults should not eat more than one pound per month of largemouth bass and childern 6-15 years of age should eat no more than eight ounces per month of largemouth bass. (this lake should be a prime recreational jewel for our community/like Lafayette Reservior or Lake Temescal in Berkeley)

To fortify the above points, last month Superior Court Judge James McBride ruled that Regional Water Quality Control Board had 'abused their discretion' and violated the Clean Water Act when it backed away from imposing stricter limits on how much dioxin (Tosco/now Tesoro) the refinery could dump into the bay.

Q7 cont.

McBride ruled that the federal Clean Water Act required the state regulators to make constant progress in reducing the discharge of dioxins, which accumulate in the tissues of humans, fish and other animals. 8. * Note: Dioxin is one of the most toxic synthetic chemicals known, has been linked to cancer, immune system problems and reproductive disorders.

Ironically, our largest user of water in this town (uses double the amount of water of residents of this town on a daily basis; residents use 2.0 to 2.5 million gallons a day) Valero Energy Corporation is also the worst polluter in the bay area when it comes to discharging contaminants into our waterways. (620,792 pounds to be precise) 9.; with stufff-you won't find under your kitchen sink...methanol, MTBE, zinc,,nickel and phenol among other toxic chemicals.* Note: a few drops of MTBE can contaminate a mid-size aquifer, this chemical has been found leaking into over ten thousand wells throughout the state of California. 10.
(Will the present environmental impact report for the VIP mention anything about contaminated groundwater at the plant site/surrounding area? There was a suit brought by Solano County against Exxon a few years ago, if Iam not mistaken, about this very issue.)

So how do we as a community resolve the serious question of pollution and all its negative climate/health/water impacts ? How much more harm will be tolerated by our representatives to our comminity? Do any of our local council members/planning commissioners, feel as I do? So far only Dan Smith and Bradford MacLane have broached this topic. (Bravo!) Seventy-five %

of your constituients have listed "environmental concerns" as a priority in a past general plan questionaire? What would they say now? Consider, the recent flare-ups, violations of the law, penalties and fines that must be paid by officials at the refinery?

Only eleven people (four councilmembers and seven planning commissioners) will decide whether to go through with the VIP or maintain the present status quo; what is so disappointing from this citizen-voter is that there are not more choices/options for the community, that don't continually contaminate our environment and endanger our health!!

We are playing biological roulette with our lives;while stuck on a treadmill of inaction because of commerical concerns: free enterprise myths; profits for the few; the fabled marketplace;seeking consensus for the few/instead of solutions for the many; wars in foreign countries, because of "oil",etc.. At the same time we are literally "at war "contaminating the air,earth,fisheries and water of our community. (Feel the heat; see the smog; smell the odours, all of this doesn't leave a very good taste of what's to come. Why? Because "air and water" are the primary indicators for our present and future quality of life; our innate senses and documented scientific data - don't lie!) Folks, this not in some distant part of the planet; this is happening right here in the good old bay area, right here in Benicia

Q7 cont.

Finally, Swedish researcher and founder of, The Natural Step, Henrik Karl-Rob'ert, whose organization is concerned with identifying and addressing the root causes of the environmental crisis states very elegantly the folly of our ambitions, "Billions of years ago our earth consisted of a toxic primeval atmosphere,toxic liquids, and a desolate and disorded surface.The transformation of this useless stew of diordered inorganic compounds into the wealth of mineral deposits,breathable air,drinkable water,soil,forests,fish, and animal life that provide the habitat from which the human species and its civilization emerged and flourished began with the green plant cell. These wonderous cells had the ability to capture surplus solar energy beyond their own growth and maintenance needs, an ability they used over a period of billions of years to create the many structured and concentrated compounds on which all human life and activity depends.

Then about a hundred years ago humans began to make significant use of concentrated energy sources-first coal, then petroleum, and eventually nuclear-to process natural resources in a linear direction. We were soon turning ordered matter into visible as well as molecular garbage far faster than the earth's remaining geen cells could reprocess it. This allowed us to expand our dominion over ecological space with such speed and force that we literally began to reverse earth's revolutionary process. Indeed, a consequential portion of human waste now consists of toxic metals and stable unnatural compounds that cannot be processed by green cells at all -- an enduring monument to our techinal mastery and biological ignorance." 11.

Q8

Postscript- With the oil tanker (Prestige) breaking in two off the coast of Spain in the last week...isn't this another problem (there so many with the fossil fuel industry) that we the residents of this community should be concerned about . With 650 tanker trips through the Golden Gate and into the Carquinez Strait on a yearly basis oil tankers pose

Q9

an enormous risk for our fragile and already maligned environment. One last thought, with an increase in oil production at the plant, we shouldn't forget that the railcars that bring in tons of chemicals into the industrial park poses another concern about safety.

Q9 cont.

Notes:

1. The Future of Life,(Quoted by John C. Sawhill, president, The Nature Conservancy, 1990-2000) Edward O. Wilson, Borzoi Book published by, Alfred Knopf, 2002.

2. Contra Costa Times, "California may face a dry future"(UC Santa Cruz study spells out climate shifts, mirror EPA study) Front page story. (6-4-02)

3 .San Francisco Chronicle, "Pollution dried up rain, scientists say" (African drought theory offered) pg. A-2. (7-22-02)

4. Martinez News-Gazette," Senator looks to refineries to save water" pg. 3. (7-18-02.)

5. "The Next World War WILL Be about Water", an advertisement by Turning Point Project, New York Times, (Dec. 6,1999). Spotted in, Covert Action Quarterly Spring/Summer 2000. Article titled:Private Blue Planet, by James Dunn.

6. Blue Gold (The fight to Stop the Corporate Theft of the World's Water), Maude Barlow and Tony Clarke. New Press 2002.

7. Ibid #6

8. San Francisco Chronicle," Refinery got illegal break,court says"(Water quality board relaxed discharge limit) pg.A13 (7-23-02).

9. San Francisco Chronicle, "Refineries top polluters on EPA list in BayArea" (Discharges taint air,water,and land) pg. A11 (5-24-02).

10. Ibid #9

11. "Beyond the Chatter of the Monkeys: Getting to Environmental Basics." PCD Forum Column #26 Feb. 25,1992 pg. 1, Karl Henrik Robert

Comments on the VIP
Will Gregory
137 Chelsea Hills Drive
Benicia, CA 94510
747-1811/e-mail: wgreg1@aol.com
November 2002

LETTER Q – WILL GREGORY

Q1 See Master Response "Water" and also see response to H17.

Q2 Comment noted.

Q3 The commentor points out examples of the impact of fossil fuel burning on the state of the environment and the world's climate. While the commentor's concerns are real, there are no project-specific issues raised by the commentor that can be responded to within the scope of this CEQA document for the VIP.

Q4 See response to comment Q3.

Q5 The Draft EIR addresses the potential impacts from the implementation of the VIP at Valero refinery. It is outside the scope of this CEQA document to address issues on other refineries and sources in the Bay Area.

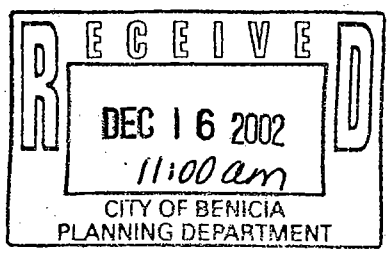
Q6 See Master Response "Water."

Q7 Comment noted.

Q8 Comment noted.

Q9 There is risk involved in transporting oil and other petroleum products, whether by tanker, barge, train, truck or pipeline. Spills can occur from any means of transport. These risks are discussed in Section 4.8 of the Draft EIR.

Letter R



December 16, 2002
City of Benicia Planning Department
Written Comment on the Valero Improvement Project's Draft EIR

Dear Sir:

The only inadequacy in the draft EIR for the Valero Improvement Project that I can clearly identify is Mitigation Measure 4.14-1a under Utilities and Service Systems in the Summary of Impacts and Mitigation Measures on p. 2-21.

I believe state law requires a firmer description of a mitigation than what is given here as Mitigation Measure 4.14-1a. It presumes an action of the City which has not occurred, and whose progress and ultimate success are by no means guaranteed. It is insufficiently specific. This is a matter of major impact on the City of Benicia's water availability, and I believe it should be spelled out much with much more detail, and not left in the realm of chance. Without more detail and a guarantee of a future source of water to cover the VIP's needs and those of the rest of the City, our decision makers cannot make a well-informed decision about this project. R1

My other objections appear not to be violations of the requirement for adequacy of the EIR. They regard the facts that (1) mitigation monitoring is not a cut-and-dried protection for the public under CEQA's evolving requirements, (2) the City will probably make a finding that monitoring the VIP's air quality mitigations is the job of the BAAQMD rather than Benicia, (3) the BAAQMD allows Valero to largely self-monitor, and (4) the state air board and the federal EPA may soon demand less of Valero, either due to new EPA regulations or to national defense needs. However, these concerns may also be relevant to the adequacy of the EIR, which is why I note them here. R2

At a proper time in the approval process, I will suggest that the air quality uncertainties listed above make it reasonable for the City to impose whatever extra conditions of approval are necessary to protect us under the circumstances.

Sincerely,

Kitty Griffin

Kitty Griffin, 236 Baker Street, Benicia.

FILE COPY

LETTER R – KITTY GRIFFIN

R1 See Master Response "Water."

R2 Please see Master Responses "Air Quality."

Terry Baldwin - comments on VIP draft EIR

From: BeniciaNews Reader Response <noreply@benicianews.com>
To: <comdev@ci.benicia.ca.us>
Date: 12/10/02 9:23 PM
Subject: comments on VIP draft EIR

Subject: comments on VIP draft EIR <page: /articles/index.cfm>
GLNMAIL: comdev@ci.benicia.ca.us
GLNMAILSUBJECT: comments on VIP draft EIR
GLNMAILRETURN: 1
GLNSHORTFORM: 1
GLNREPLYMAIL: noreply@benicianews.com
GLNMAILREPLYDEFAULT: BeniciaNews.com reader
CONTACT_FULLNAME: Linda Lewis
CONTACT_STREETADDRESS: 282 West I Street
CONTACT_CITY: Benicia
CONTACT_STATE: CA
CONTACT_ZIPCODE: 94510
CONTACT_HOMEPHONE: 7077471229
CONTACT_EMAIL:
CONTACT_ORGANIZATION:
COMMENT: My name is Linda Lewis and I have gone to the past 3 meetings regarding the EIR. As I said at the meeting on Wednesday, November 20th, this is my first EIR that I have been involved in and so I am unfamiliar with the process. I presumed that the comments that I made at that meeting and the responses to my comments from the EIR consultants would automatically be a part of public comments. It appears that may not be the case. However, I would like to include my comments and the discussions around those comments as were recorded on video to be a part of the public comments to be responded to in the full EIR. If my phrasing is not of the technical language, please excuse me; it is only because I am a novice at this and I am feeling my way through this complicated process. However, again, I would like my comments at the Nov. 20th meeting and the responses to those comments, both by the EIR consultants and the city staff to be included. Thank you. If you need to contact me for clarification, please call me at home 747-1229 or work 745-5400. Thank you for your time, consideration and work. S1

City of Benicia
City Council / Planning Commission Workshop

November 20, 2002

Public Comment Excerpts

Tape Index: 3387

Linda Lewis,
I live at 282 West I Street. I think it's great that you did the EIR. I appreciate that. I do have a few things that... This is my first EIR, so, I am not, you know, anywhere close to understanding it. But, um, so I guess, um, one of my questions is that I know you don't cover odd occurrences. So would the definition of or an example of an odd occurrence be the tanker that broke in half? Is that one of the things that is not considered? It really is, I know, it sounds kind of stupid, but we are dealing with that now, you know. S2

Staff responded regarding Public Safety Sector evaluation of accident potential, how it is determined and stated that the project will result in no changes in accidental potential.

Linda Lewis,
And I guess my question is even looking at it, even if it doesn't change, is it significant or insignificant? I mean, it just doesn't change. That's how it's defined in the...

Staff stated that we are really looking at the changes in the project.

Linda Lewis,
Only the change...

Staff responded further discussing the accident potential determination process making reference to a chart presented by Kitty Hammer.

Linda Lewis,
Because as a, you know, a run of the mill citizen, I think that accidents are a big concern. I know that they probably are. Because they are accidents, it's hard to judge how likely they are. How would we know we'd find a tanker split in half?

Staff continued to further explain and define this determination process, and cited an example that incorporated use of the chart.

Linda Lewis,
I remember that chart. Yeah I do. No, I appreciate that because, I guess from a citizen's point of view, one accident is plenty. But, you know, we're dealing with statistics; which is my question. Which is that an example of something that would be on here, and, basically what I am hearing you saying is that there's a chart here that talks about accidents, that specific occurrences would not increase because there are balancing factors.

Staff responded discussing low, medium and high chance of occurrence, the use of historical data and significance the 30 year term project lifetime.

Linda Lewis,
I appreciate that. Yeah. That is one of the things I was thinking about. When...what I also heard, basically, is that air vs. water is kind of a choice. Kind of... either... get a choice... you either get good air quality or you get... Both of them are important, you know, just looking at the whole package. The water commitment, looking at it, you said it's a 30 year project when you look at the outside, you know. The consequences will go out to about 30 years. I'm not holding you to that, I guess what I'm relating that to is this water. These days nothing seems to go down in cost; it seems to go up in cost. And the City, um, when is their commitment on that contract? Kitty, do we have a date for that? The water from the State? Sacramento? S3

City Consultant queried Ms. Lewis if the question was if we (the City) had a commitment as to when it would be approved?

Linda Lewis,
Yeah.

City Consultant responded that negotiations are actively ongoing, but there is no definite date.

Linda Lewis,
If we don't have a definite date on that, and we're committing to water usage without a definite date, that makes it uncomfortable. We're dealing with statistics and facts. I'm not the decision-maker, but I think I feel better... Like any contract, you have a deadline date. You have an actual fact. You can make a decision based on actual fact. And what will it cost? Will it cost us more? S3 cont.

City Consultant responded that cost is part of the negotiation contract.

Linda Lewis,
How long is the contract for? Do you have an idea? It is for 10 years? I think these are factors specific to the EIR.

City Consultant asked Staff whether this is a permanent allocation or if there is an end date. Staff had no information available at this time.

Linda Lewis,
So we don't have answers to that, and I actually do think that since...that personally I'm not for a weighing out either air or water... But you know, at looking at that it seems that those are very important factors. We don't know how long the effects will be. What we do know historically is that costs go up – they haven't seemed to go down. We're not quite sure of the costs and that leaves me uncomfortable. I have a couple of other questions, but I can leave them for later. I appreciate your time. I appreciate you're doing this.

LETTER S – LINDA LEWIS

S1 Comment noted.

S2 The risk of tanker accidents in the Bay is not infinitesimal. However, such risks are very small. The VIP will increase the number of ships bringing crude to the wharf, but the increased risk of accident is less than significant. Please see Sections 3.4.3.16 and 4.8.4.2 of the Draft EIR for additional information.

S3 See Section 4.14 of the Draft EIR and also see Master Response "Water."

Letter T

Comments on VIP Project EIR
Submitted by Catherine Machalinski

I would like to start by saying that I find the EIR completely inadequate in that it does not fulfill its most basic function - to clearly inform citizens and decision makers about the real impact of the proposed project. I have too many concerns to fully cover in this letter. I have therefore decided to limit myself to the areas that I find the most problematic. Points I will address, especially in the air quality section, will include:

- The EIR's interpretation of what production levels and crude mixes are possible under VIP without the main stack scrubber (its worst-case operation scenario), may not really reflect the maximum environmental impact of the project.
- The document often does not provide the reader with the numbers that would most clearly communicate the real impact of VIP.
- The EIR includes unrelated projects in calculating both individual and cumulative impacts, resulting in conclusions that do not reflect the true significance of the VIP project itself.
- The EIR relies on data provided by wholly inadequate monitoring systems. Stations in Benicia measure levels of sulfur dioxide and hydrogen sulfide only (4.2-11); these are two relatively innocuous refinery emissions. There is no local monitoring for some of the most troubling of the refinery emissions.
- The Public Health Section fails to address the health risks associated with many unregulated emissions. It also downplays health risks by relying on reductions due to projects unrelated to VIP.
- The summary section, critically important because it is often the only section that people read, is completely inadequate. It fails to make clear the real impact of VIP projects by including unrelated projects inappropriately, mingling pre- and post-mitigation impacts, and failing to mention several important environmental and health concerns.

T1

Throughout much of the document, the worst case operation scenario is judged to be VIP without the scrubber. But the "worst-case" scenario used in the EIR may not actually be the worst-case scenario for the citizens of Benicia. It assumes that throughput will only increase from 135,000 barrels per day to 150,000 barrels for a maximum of 3 years. It also assumes that the refinery will continue to use "sweet/light crude" instead of cheaper, sulfur-laden sour crude. These assumptions are based on several beliefs that may be untrue. For example, the EIR states, "The BAAQMD has indicated their intent, under these circumstances, to limit the Main Stack emissions to historically demonstrated levels." (page 4.2-27) Note that it doesn't say, "The BAAQMD shall, or will," but that it intends. This is meaningless language. The refinery has stated that it has asked BAAQMD to put a 3-year limit on increased production levels without the scrubber (as part of its Title V Federal Operating Permit). Even if this stipulation is included in the Title V permit, it is not a firm enough commitment to justify using these levels as the maximums possible. The BAAQMD has been known to modify permits; and even if Valero exceeds Title V permit levels, the paltry fines won't proof much of a

T1 cont.

deterrent. And will the refinery be able to use more sour crude, thus increasing emissions above the worst-case scenario numbers? I think the answer may be yes. Mini-scrubbers, already in place, may be modified to allow the refinery to use more sour crude and still stay within 3-year baseline levels. This would lead to a dramatic increase in many emissions that would exceed the worst case scenario numbers used in the preparation of this EIR. And given the changing federal regulations with regard to "new stationary sources" (page 4.2-6 and 4.2-7), the BAAQMD may lose some of its ability to regulate emission increases as a result of changes in refinery operations, including increases in production levels. T1 cont.

The EIR also fails to provide the reader with the numbers that are of the most significance. Changes in units also obfuscate the real impact of VIP. (tons per year, pounds per day, etc.) To really figure out what VIP will actually change, one must do most of the calculations on one's own. The most obvious example I can give is the following. The paragraph at the bottom of page 4.2-17 states, "For ROG, NO_x, and PM-10, a net increase of 80 pounds per day is considered significant .... " VIP without the scrubber will increase NO_x by 81 tons per year. Divide that by 365 days, as I did, and you see that VIP will increase NO_x by 443 pounds per day. This number, the one that must clearly communicates the impact of VIP on NO_x emissions, appears nowhere in the EIR! T2

Section 4.2-4 is a joke. To say that VIP will not have a cumulative impact is ridiculous. I quote, "According to the BAAQMD CEQA Guidelines, any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact." Yet, the VIP, which clearly does exceed significance levels for several important pollutants, emissions, criterion pollutants, or toxic air contaminants, is judged to not have a cumulative impact. How is this possible? Only by including other projects (see below). And emissions from other area refineries and industries are often not considered at all. T3

BAAQMD receives data from seven area monitoring stations (page 4.2-11). Benicia itself has just 3 stationary monitoring systems, and these measure only sulfur dioxide and hydrogen sulfide. The city's general plan requires that the city ensure clean air for Benicia residents, and that it establish whether a significant air pollution problem exists in Benicia. This has not happened. Many winter mornings, the smell of sulfur compounds and hydrocarbons blankets the city. Yet, no monitoring for dangerous toxic air contaminants, including PM-10s, occurs. How can this EIR begin to assess the impacts of VIP when almost no data about existing conditions is available? T4

Of most concern is the woefully inadequate Public Health Section. A quick perusal of the numerous charts included in section 4.7 shows that almost all toxic air contaminants (TAC) will increase as a result of VIP. Yet, this project is judged to actually constitute a "net improvement in health risks..." (page 4.7-16). It is only by including projects already completed (Cogen) or underway (MTBE phase-out) that this conclusion, which really stretches the limits of credibility, is possible. And the reader must flip back and T5

forth to tables spread throughout the document to figure out how this seeming illogical conclusion is reached. T5 cont.

Note the bottom paragraph on page 4.2-17, which states, "According to BAAQMD CEQA Guidelines, the project's contribution to cumulative impacts should be considered significant if the project's impact individually would be significant (i.e. exceeds the BAAQMD's quantitative thresholds)." This document fails to clearly separate projects completely unrelated to VIP from projects proposed in the permit request. The EIR also fails to clearly separate proposed mitigation projects from ongoing or completed projects, as well as VIP projects. As a result, the EIR which repeatedly finds no cumulative impacts as a result of VIP, does not follow established CEQA Guidelines. Below are some of the most striking and egregious examples.

- Chart 4.2-13 on page 4.2-29 indicates that the BAAQMD significance threshold for NO_x increases is 15 tons per year. VIP itself, in the no scrubber scenario, will increase emissions of NO_x by 81 tons per year, clearly in excess of the established significance threshold. Yet the EIR concludes the increase would not be significant. And how does it accomplish this? By including reductions as a result of the Cogen project. This is not an accurate portrayal of the impact of the VIP project.
- The chart also includes values for another ongoing project - the MTBE phase-out. This phase-out is occurring because of a state mandate and has nothing to do with VIP. Yet, reductions as a result of the phase-out are used throughout the document to justify a less than significant rating for VIP projects. Again, one cannot accurately assess the impact of VIP when MTBE phase-out reductions are factored into the calculations used to establish whether or not VIP exceeds significance thresholds. T6
- A proposed mitigation measure, the Light Ends Rail Rack Arm Drains, is also included in the same chart. Shouldn't mitigation measures be clearly delineated from VIP projects. Shouldn't the "Light Rails Project" be covered in a separate table so that readers are able to see the impact of VIP projects <u>before</u> mitigation?
- These same errors render table 4.2-12 on page 4.2-26 equally useless. Again, reductions as a result of the "Light Rails Project," MTBE phase-out, and Cogen make the data difficult to interpret. The changes as a result of VIP projects alone are buried within a large and confusing table. This makes it almost impossible for the average reader to accurately gauge the effect of VIP. And again, ongoing, completed and mitigation projects are used to justify a conclusion of "less than significant" impacts.
- Most troubling of all are the way these other projects are used to obfuscate the increase in volatile organic compounds (VOCs) that will occur due to VIP, with or without the scrubber. VOCs include some of the most toxic of the air contaminants produced by the refinery. A significant increase in VOCs will lead to a measurable increase in health risks for Benicians. Again, it is only by using ongoing projects, or proposed mitigation, that the EIR is able to conclude that VOCs will be reduced as a result of VIP.

- PM-10 release will also increase as a result of the VIP. The Bay Area is judged to be in nonattainment status (Table 4.2-2 on page 4.2-5) for PM-10s already. Any increase in PM-10s should therefore be judged to be significant, as it will push the Bay Area further from attainment status. Also, recent research into the adverse health effects of PM-10s show that this is a particularly dangerous pollutant. Federal and state threshold levels may be adjusted in the near future to accurately reflect the potential danger of this class of pollutant.
- The Bay Area is also in nonattainment status for ozone. Since VIP will increase releases of reactive organic compounds (ROG) and NO_x, an increase in ozone levels is to be expected. This is not clearly stated in the EIR. Since the closest monitoring site for ozone is in Vallejo, data on ozone levels in Benicia is unavailable. This lack of available data is a recurring problem in the EIR. The monitoring sites currently in existence do not measure many of the chemicals dealt with in the EIR.

T6 cont.

Reading the summary section, one could easily come away with the impression that the VIP will have no significant environmental impacts. This is not true. Note that air quality, perhaps the area most impacted by this project, gets just 2 ½ inches of text in the summary (page 2-2). And surely public health, the area of most concern for many citizens, deserves more that a very short paragraph. Table 2-1 omits or misstates the significance of VIP in several areas. Most glaring are the lack of a "significant before mitigation" notation under biological resources, geology, soils and seismicity, and utilities and service systems. Since I believe that the EIR itself is riddled with inaccurate conclusions, many of the areas where the EIR concludes that impacts are "less than significant" (air quality, public health, public safety) would not be judged "less than significant" if the EIR had been prepared correctly. Clearly, the EIR itself would need major revision before an appropriate summary section could be written. Perhaps the document is so riddled with inaccuracies, misstatements, biases, and insupportable conclusions that even a major revision could not fix this EIR.

T7

LETTER T – CATHERINE MACHALINSKI

T1 Of the two scenarios possible under the VIP as described by the project description, the scenario without the scrubber represents the worst case scenario for air quality impacts. It should be noted that this would be an interim scenario where all other components of the VIP would be constructed before the scrubber is installed. Valero has made a commitment to the City that should they operate in this interim mode, which would allow them to process some additional crude (up to 150,000 barrels per day), they would not do so for more than 36 months without installation of the Main Stack Scrubber. The emission limitations of the BAAQMD permit condition would go into effect upon implementation of any changes permitted in the VIP that have the potential to increase main stack emissions. The emission limitations of BAAQMD permit conditions would require Valero to restrict main stack emissions to historically demonstrated levels. Therefore, under this interim scenario when the scrubber is not installed, emissions from the main stack would not be allowed to increase. Valero's current permit application reflects the changes described in the project description of this EIR and any future permit modifications not covered in the project description are only speculative at this point. Since CEQA does not allow for speculation, the impacts of any such future modifications to the permit application are outside the scope of analysis for this project. If Valero in the future requests any modifications, those modifications would undergo further CEQA review before being approved by the District.

T2 The text on page 4.2-17 under "Significance Thresholds" has been revised as follows for further clarification:

> For ROG, NO_x and PM-10, on a daily basis, a net increase of 80 pounds per day is considered significant, while for CO, an increase of 550 pounds per day would be considered significant if it leads to a possible local violation of the CO standards i.e., if it creates a "hot spot" (BAAQMD 1999). If the baseline and project emissions are estimated on an annual basis, the BAAQMD recommends a significance threshold of 15 tons per year for ROG, NOx and PM-10 and a screening threshold of 100 tons per year for CO emissions. For projects such as the VIP, where daily emissions vary greatly, an evaluation based on the annual average would be more appropriate. Therefore, BAAQMD's annual thresholds have been used for the impact analysis of this project.

T3 The commentor cites a portion of the discussion of Impact 4.2-4 and concludes that as the VIP exceeds significance levels it should have a significant impact. The full text of the specific Draft EIR section is cited here for discussion purposes:

> "According to the BAAQMD CEQA Guidelines, any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact. For any project that does not individually have significant operational air quality impacts, the determination of

> significant cumulative impact is based on an evaluation of the consistency of the project with the local general plan and of the general plan with the regional air quality plan.
>
> The VIP, as mitigated, would have a less than significant impact on regional air quality. Further, the VIP together with anticipated future projects at the refinery would result in a decrease in emissions. Thus, the project would not contribute to a significant cumulative impact. In addition, the project is consistent with the applicable General Plan and Clean Air Plan..."

Note that the Draft EIR correctly states that the VIP, as mitigated would have a less than significant impact. This conclusion is reached and discussed in detail in the Draft EIR under Impact 4.2-2. In other words, Impact 4.2-2 concludes that the VIP would have a potentially significant impact and only with the imposition of Mitigation Measure 4.2-2 is this potentially significant impact reduced to less than significant. With this reduction, following BAAQMD CEQA Guidelines, the determination of significance is made against local and regional plans as is discussed in Master Response "Cumulative Analysis."

T4 Please see the Master Response "Air Quality."

T5 The Draft EIR states that the VIP will cause an increased health risk over baseline conditions. It identifies the maximum incremental risk in cancer at a receptor to be 1.76 in a million. It also states that this impact is less than significant, because the increment is less than the BAAQMD significance threshold of 10 in a million. The document states that, when other cumulative emission sources are included with the VIP, the net increase in TAC emissions is less than the increase for the project alone. There is an incremental health risk for the project plus cumulative sources, but the increment is less than the increment for the project alone.

T6 Part of the commentor's concern is due to the fact that a number of projects are underway at the refinery at the same time. The approach of this analysis is to examine the overall change in effects relative to the existing conditions. Clearly, it is possible to examine each component and each separate cumulative project separately, and in that case the results will be different. However, a number of Benicia residents have indicated that what is most important to them are the total emissions that will actually come from the refinery over time. The Draft EIR approach provides that information.

The Draft EIR discloses the criteria pollutant emissions that will result from the VIP's components in Table 4.2-12 (all VIP components in 2009) and Table 4.2-13 (VIP components without the scrubber). The Draft EIR also identifies the Cogeneration project's effects as a separate line item in Tables 4.2-12 and 4.2-13. The reductions in emissions caused by shut down of the boilers associated with phase one of the Cogeneration project will occur between the baseline dates and the date of project operation (2009). Thus, these expected reductions are not included in the Draft EIR's

description of the existing setting, and are factored into the EIR's calculation of future conditions with the project. No further mitigation is needed in order to ensure that the emissions reductions that will result from phase one of the Cogeneration project will in fact occur. The CEC and BAAQMD conditioned their approvals of the Cogeneration project to specifically require the boiler shut downs.

The emission changes associated with the MTBE project have been provided in Table 4.2-12 as additional information as they are very probable. However, please note that the significance determination was found to be less than significant prior to including the emissions changes associated with the MTBE Phase-Out Project.

The Light Ends Rail Rack Arm Drains project is a project that would reduce emissions and that Valero intends to proceed with and is therefore considered a reasonably probable future project. However, it was concluded that there was not sufficient assurance that Valero would proceed with these projects. Therefore to mitigate the impact of the VIP, the Draft EIR requires the implementation of this project to ensure that the emission reductions associated with it do occur. With this mitigation in place, the Draft EIR determined the impact of the VIP to be less than significant.

As a further means of clarifying information presented on Tables 4.2-12 and –13, the following alternate versions of these two tables are presented here. The emissions information and assumptions are exactly the same as is presented in the Draft EIR however, the initial determination of significance is made first with the VIP project not considering the effects of Cogeneration project changes. Also the additional mitigation measures are removed here as they are not needed for this discussion. Note these alternate table versions present no change in results or conclusions reached in the Draft EIR.

T7 As explained in Section 2.1 of the Draft EIR, the summary section presents a brief overview of the results of the analysis conducted in the EIR. These summaries are direct copies from each of the analysis sections in the EIR. The commentor is correct that Table 2-1 omits several indications of significance in the summary table. This was an error during document preparation and a corrected Table 2-1 is included in Chapter II of this Final EIR. However, the Draft EIR did correctly state the levels of impacts within each analysis section. The error was in transferring this information to the summary table (2-1).

TABLE 4.2-12 (alternate version)
ESTIMATED TOTAL VIP EMISSIONS (2009)

Source Type	Emissions (tons per year)				
	NOx	**SOx**	**PM-10**	**VOC**	**CO**
VIP (with scrubber) Analysis					
Total Emissions – post-VIP	2,058	2,799	240	335	975
Total Emissions – 3 year-baseline	2,639	6,610	231	318	938
Total Emissions – 1 year baseline	1,999	7,032	240	309	932
Net increase over 3 year baseline	-581	-3,810	9	17	37
Net increase over 1 year baseline	60	-4233	-0.6	26	43
BAAQMD Significance Thresholds	**15**	**NA**	**15**	**15**	**100**
Significant?	Yes	No	No	Yes	No
Future with Project Case (VIP plus Cogeneration Project)					
Emission reductions associated with Cogeneration Project	-83	0	-4	-2	-214
Post-VIP with Cogeneration Project	1,975	2,799	236	333	761
Net increase over 3 year baseline –	-664	-3,810	5	14.99	-177
Net increase over 1 year baseline –	-24	-4,233	-4	25	-171
Significant?	No	No	No	Yes	No
Mitigation Measure					
Light Ends Rail Rack Arm Drains	0	0	0	-16	0
Net increase over 3 year baseline – with mitigation	-664	-3,810	5	-1	-177
Net increase over 1 year baseline – with mitigation	-24	-4,233	-4	9	-171
Significant after mitigation?	No	No	No	No	No

NOTE: Underlined values are in excess of applicable thresholds. NA = Not Applicable.

SOURCE: URS Corporation, *Authority to Construct Application for Valero Improvement Project to the BAAQMD, July 2002; Valero Improvement Project Air Emissions Calculations*, June 2002.

TABLE 4.2-13 (alternate version)
VIP NO SCRUBBER ANALYSIS

Source Type	Emissions (tons per year)				
	NOx	SOx	PM-10	VOC	CO
VIP (with scrubber) Analysis					
Total Emissions – post-VIP	2,079	7,043	241	331	937
Total Emissions – 3 year-baseline	2,639	6,610	231	318	938
Total Emissions – 1 year baseline	1,999	7,032	240	309	932
Net increase over 3 year baseline	-560	433	10	13	-1
Net increase over 1 year baseline	81	11	1	22	5
BAAQMD Significance Thresholds	**15**	**NA**	**15**	**15**	**100**
Significant?	Yes	No	No	Yes	No
Future with Project Case (VIP plus Cogeneration Project)					
Emission reductions associated with Cogeneration Project	-83	0	-4	-2	-214
Post-VIP with Cogeneration Project	1,996	7043	237	329	723
Net increase over 3 year baseline –	-643	433	6	11	-215
Net increase over 1 year baseline –	-3	11	-3	20	-209
Significant?	No	No	No	Yes	No
Mitigation Measure					
Light Ends Rail Rack Arm Drains	0	0	0	-16	0
Net increase over 3 year baseline – with mitigation	-643	-433	6	-5	-215
Net increase over 1 year baseline – with mitigation	-3	11	-3	5	-209
Significant after mitigation?	No	No	No	No	No

NOTE: Underlined values are in excess of applicable thresholds. NA = Not Applicable.

SOURCE: URS Corporation, *Authority to Construct Application for Valero Improvement Project to the BAAQMD, July 2002; Valero Improvement Project Air Emissions Calculations*, June 2002.

Letter U

Donnell Rubay
175 West H Street
Benicia, CA 94510
(707) 746-6193

December 6, 2002

Comments on the Valero VIP Draft EIR:

The "Land Use Diagram" included as Figure 4.10-1 refers to a Downtown Mixed Use area and an Arsenal Mixed Use area (see attached.) These areas have not yet been rezoned as mixed use. Currently, for example, the bulk of the area depicted as Downtown Mixed Use in Figure 4.10-1 is zoned Medium Density Residential. U1

I am curious as to how this diagram became part of the Valero Draft EIR. This past summer, someone showed me a copy of a similar map. When I later questioned the Community Development Director about the map I'd seen, she said—in effect—such a map did not exist or, if it did, it was not being used by the City.

FILE COPY

SOURCE: City of Benicia

Figure 4.10-1
Land Use Diagram

LETTER U – DONNELL RUBAY

U1 Figure 4.10-1, Land Use Diagram, is derived from the City of Benicia's Land Use Diagram dated June 1999. This figure accurately depicts the General Plan's Downtown Mixed Use/Arsenal Mixed Use designations, not the zoning; those parcels have not yet been rezoned to conform to the land use designations in the General Plan.

Terry Baldwin - Why expand the deadline?

From: Bev Sanders <bev@surflasolas.com>
To: <comdev@ci.benicia.ca.us>
Date: 12/16/02 7:36 PM
Subject: Why expand the deadline?

Attn: Lamont Thompson

I'm very concerned about the potential impact of the Valero expansion project. I believe the draft EIR is inadequate in addressing potential health risks and water shortages in my community.

I'm afraid many people in our community, especially women concerned about the health of their families, are focused on the holidays. The citizens of Benicia haven't had sufficient time to respond to something that will impact us adversely for many years to come. V1

Bev Sanders

LETTER V – BEV SANDERS

V1 The writer's concern is noted. The 45 day review period was provided by the City in accordance with the CEQA Guidelines.

Terry Baldwin - Valero EIR (Comments & questions from a Benicia resident)

From: "Paul Slaight" <californiaroll@worldnet.att.net>
To: <comdev@ci.benicia.ca.us>
Date: 12/16/02 3:04 PM
Subject: Valero EIR (Comments & questions from a Benicia resident)
CC: <lthompson@ci.benicia.ca.us>

Greetings

My name is Paul Slaight a resident of Benicia.

Address: 696 Snapdragon Place
Benicia, Ca 94510
Telephone: 707 748-1146
E-mail: californiaroll@att.net

There has been much study, discussion and media attention on the topics of water and air pollution relative to the planned changes for Valero. My concern is for another kind of pollution that only affects Benicia and does not receive nearly as much attention, noise pollution.

Noise pollution is a local matter, the only government agency responsible to monitor and enforce the noise ordinance is the city of Benicia. That puts Benicia in the drivers seat since there is no outside agency involved. The city of Benicia must take a proactive stance on noise produced by the refinery. Instead of relying exclusively of projections on what the impact might be, it would be better if the city required that noise tests to be run periodically. Any time significant new equipment is added (cogen, scrubbers, etc.) a third party should be engaged to determine the effect on noise levels. Also, a new baseline should be made before any significant changes are made at the refinery. W1

Valero has stated that they believe the sum of all modifications to the refinery will produce an insignificant change in the overall noise level. If that's the case, then they should have no objection with periodic noise tests. In fact, the test results might provide Valero to be a good neighbor is the noise impacts are as minimal as they predict.

Please add a provision for noise levels outside of the refinery to be checked over time to verify if Valero meets the predictions or not. Noise pollution needs to be taken seriously and measured more frequently. Without data over time, the city of Benicia would not know if the noise levels increased. Noise is the only type of pollution produced by Valero, where the city of Benicia has complete oversight and control. This is the time for the city to exercise its rights and duties in the best interest of its citizens. W2

LETTER W – PAUL SLAIGHT

W1 This comment relates primarily to the considerations before the City during issuance of the Land Use Permit and project approval. However, from a CEQA perspective mitigation measures (such as suggested by the commentor) are required if project impacts are found to be significant. The analysis conducted in the Draft EIR was based on actual noise monitoring data from a noise study conducted at sites around the refinery combined with predicted noise levels potentially generated by VIP-related equipment. As is discussed in Section 4.11.4.2 of the Draft EIR, impacts from VIP equipment on existing ambient noise levels is expected to be almost 12 dba less than existing noise at reference locations. As explained in the noise section of the Draft EIR, due to the logarithmic nature of sound, if the project's contribution to noise is less than the existing noise by more than 5 dBA, the project's increment in noise would not be audible over the existing noise. Put another way, existing refinery noise levels would mask the VIP-related noise impacts. This is why VIP operational impacts on existing ambient noise levels were found to be less than significant and no mitigation measures were required. Noise monitoring in the community, as suggested by the commentor, would not be able to distinguish between existing refinery noise and VIP generated noise.

W2 See response to comment W1.

From: "Paul Slaight" <californiaroll@worldnet.att.net>
To: "Lamont Thompson" <Lamont.Thompson@ci.benicia.ca.us>
Date: 12/19/02 8:41AM
Subject: Valero's increasing noise level

Dear Lamont:

Thanks for submitting my comments. You may remember we had a chance to speak last month at the informal evening VIP presentation at city hall We spoke about my concerns (and my neighbors) for the increased noise levels from Valero.

There is no doubt in our mind that Valero is producing significantly more noise than in the past. The absolute peak volume may not be much higher than in the past but overall, the refinery is much more often running at higher noise levels. The frequency increased during the summer and continues today. During the summer (with windows open) it made sleeping difficult even though my home is over one mile from the refinery. Even now with the windows closed the noise can be heard in areas of my home that it had not penetrated in the past. Sometimes the higher noise level goes on for 24-48 hours without a break. X1

Please note that weather is not a major factor as Valero might lead one to believe. Whenever I have spoken with representatives of Valero they always talk about the influence of weather, how an inversion or the direction of the wind can affect the impact of the noise. Weather may have some impact but the refinery is often just plain nosier under any weather condition. X2

When we spoke you stated you had some suspicions on what may have changed at Valero to increase the noise level. Since the issue of noise is completely under the jurisdiction of the City of Benicia, I have hope that it can get the proper attention.

I would very much like to hear about your investigation of the increased noise levels from Valero and would be more than happy to cooperate in any way possible to help work toward an improvement in the situation. X3

Yours truly,

Paul Slaight
696 Snapdragon Place
748-1146

----- Original Message -----
From: "Lamont Thompson" <Lamont.Thompson@ci.benicia.ca.us>
To: <californiaroll@worldnet.att.net>
Sent: Monday, December 16, 2002 5:28 PM
Subject: Re: Valero EIR (Comments & questions from a Benicia resident) RESEND

Dear Paul:

I have received your comments on the VIP Draft EIR and will forward your letter, to the City's environmental consultant ESA, for the response to comments in the Final EIR.

LETTER X – PAUL SLAIGHT

X1 The commentor refers to an increase in existing noise levels from the refinery over past conditions, which is outside the scope of the CEQA analysis for this project. CEQA requires that the impact evaluation be made by comparing conditions with the project to existing baseline conditions without the project. Therefore the EIR does not address noise levels that might have been present prior to the baseline. The commentor does not raise any issues that relate to the impact analysis of the project covered in the Draft EIR.

X2 It is true that existing noise would be focused or amplified during times of atmospheric inversion. Temperature gradient effects are one of the several mechanisms affecting sound propagation. Atmospheric inversion conditions enhance sound propagation and atmospheric lapse conditions attenuate sound propagation. The noise levels presented in table 4.11-1 show typical levels recorded around the refinery during normal atmospheric conditions. While it is accepted that the noise level may be higher during inversions, the measurements show the actual noise levels during normal conditions.

X3 Comment noted.

Terry Baldwin - VIP EIR

From: <SmithDandy@aol.com>
To: <comdev@ci.benicia.ca.us>
Date: 12/16/02 4:25 PM
Subject: VIP EIR

To Whom It May Concern:

I am very concerned that what appear to be the two main emission control components of this project are labeled "optional," even though one is a specified mitigation for possible increased emissions. I refer to the scrubber and the light ends rail arm drains. Does staff and the consultant think it is acceptable that the refinery decides when and if to install these components? How is the public's health protected in this situation?

I am not at all comfortable with assurances from the applicant that it can increase its refining of sour crude and not increase emissions even without the aforementioned components. I do not have confidence in the accuracy of the established emission baselines as being reliable because of the absence of independent monitoring of the refinery. The Bay Area Air Quality Management District is a distant entity that levies fines for releases, but refineries just assume this as a cost of doing business, and not a prohibitive one, either. Are staff and the consultant confident that the emission baselines are thoroughly accurate and precise? On what is this confidence based? Y1

I think the two pollution-control components should be prerequisite to the refinery being permitted to refine more sour crude. I also think we should have more off-site air quality monitors, possibly an Internet database for public review of emission numbers, and a computerized phone warning system for accidents. I also think the city should have assurances that the public's water supply will not be affected by the project, which the report indicates can only be the case if the city's own supply increases from its current level. Is there some reason the city and its residents and other businesses should bear responsibility for the refinery having enough water to refine dirtier crude? If so, please indicate the reason.

Sincerely,
Dan Smith
365 Military East
Benicia

LETTER Y – DAN SMITH

Y1 The authors of the Draft EIR evaluated the proposed project including the Valero-requested project flexibility and have presented their conclusions within the Draft EIR. Valero proposed the scrubber, not as a mitigation, but as a part of the project, albeit an optional part. The light ends rail rack arm drains are described in the EIR as a cumulative project at Valero. Concern about optional mitigations led to the EIR recommendation that Valero implement the light ends rail rack arm drains project to mitigate a potentially significant air quality impact.

The commentor is also concerned essentially about the BAAQMD air quality permit conditions imposed on the project and Valero's ability to meet those conditions. It is the responsibility of the BAAQMD to issue air quality permits for such projects as the VIP. The commentor suggests that the BAAQMD is a distant entity and that refineries care little about penalties they may incur because of permit violations imposed by the BAAQMD. Note that fines are only one of the tools that can be used to insure compliance with permits and the BAAQMD could shut down a polluting facility just as well. Note during preparation of the EIR substantial dialogue was maintained with the BAAQMD and Valero about permit conditions, calculation of applicable baselines, and emission estimates. The BAAQMD as well as the EIR authors peer reviewed emission calculations presented by Valero and found them to be adequate.

The commentor expresses a desire to see the full VIP built, additional off-site air quality monitors, internet database of emissions, and phone warning system for accidents. These measures have not been identified in this Draft EIR as necessary mitigations for significant impacts; however the request is noted here. See also response to comment H10.

With respect to comments on water supply please see Master Response "Water."

Letter Z

From: <Rogrmail@aol.com>
To: <comdev@ci.benicia.ca.us>
Date: 12/2/02 12:55PM
Subject: Comments on the Valero EIR

I understand that it is possible to send citizen comments to the Planning Commission by email in this way. Please include my views in your current deliberations, as follows:

To the Planning Commission:

I have heard that the Valero EIR labels a sulfur scrubber as an "optional" part of the project. Getting this sulfur scrubber installed would be a great plus for those of us who live in Benicia and breathe Benicia air, not to mention those who live nearby, and on downwind, throughout the San Joaquin Valley. I also understand that the Light Ends Rail Rack Arm Drains component - (piping to drain "light ends" [butane and pentane] into rail cars rather than discharge it into the air - is also labeled as "optional" in Valero's EIR. Z1

Leaving either or both of these components out might help Valero produce cheaper crude, but it would also be dirtier crude, and it should be judged unacceptable. I hope the city will require that these two components be included in the plan minus the "optional" language.

I have also heard that the scrubber uses an enormous amount of water. Please be sure that the city has adequate plans to secure enough water to accommodate this new project. Z2

Thanks for hearing my voice along with other concerned citizens.

Roger Straw
766 West J Street
Benicia
748-7350
Rogrmail@aol.com

LETTER Z – ROGER STRAW

Z1 Valero's stated requirement for flexibility means that the main stack scrubber, or any other component of the VIP may not be built. The need for flexibility, an important objective of the project, is clearly stated in the Draft EIR (see section 3.4.1, p. 3-20, section 3.4.3, pp. 3-25 to 3-39, and section 3.5.1, pp 3-52 to 3-54).

The Light Ends Rail Rack Arm Drains Project is a cumulative project that would mitigate some air quality effects of the VIP. Construction of this project is a required mitigation, as stated in the Draft EIR.

See also Responses H10, H26 and AD3.

Z2 During the operation without the scrubber, the water use will be much less than during the full VIP operation. As stated on Draft EIR page 4.14-13, water use for the scrubber would be 172,800 gallons per day, 81.5% of the total water use of the full VIP, which would be 216,000 gallons per day.

Water supply and use is discussed in detail in Section 4.14 of the Draft EIR. See also the Master Response "Water."

Peter Weisberg
510 Grant Ct
Benicia CA 94510

COMMENTS ON DRAFT VIP EIR

Section 111 of the Clean Air Act requires the use of BACT in projects such as the VIP. Under this law, it would seem mandatory that Valero install the main stack sulfur scubber in order to attain the best quality emissions protections for the environment. AA1

Please comment on a related story which transpired in Texas. Valero was ordered by US EPA Region 6 Dallas to install a back-up SRU/Sulfur Pollution Controls due to the frequent failure of the main sulfur scrubber, which led to frequent flaring of sulfur dioxide.. There appear to common and frequent scrubber failures in facilities where they have been installed. Is there any provision for a back-up SRU in the VIP? AA2

There was also concern in Texas that accidental releases(upsets) would be allowed to bypass the sulfur recovery unit, accounting for large quantities of unplanned pollutant emissions. Is this the case in the Benicia refinery. There is no referral to this in the draft EIR under potentially significant environmental hazards. AA3

In November of 2000 two subcontractors inhaled toxic fumes, primarily hydrogen sulfide, while working at a Valero facility in Texas. They were performing turnaround services at the plant. One of the men died as a result of this exposure. What safety mechanisms have been put in place to prevent this type of accident. The EIR does not address the significance of hydrogen sulfide accidents and how to mitigate for it. AA4

Higher sulfur crude contains higher levels of many contaminants, including;
H2S, SO2, cabon disulfide. These are all very hazardous gases that can cause respiratory and neurological damage to humans.
Higher selenium, which is a serious poison to fish and birds in refinery water discharge
Higher ammonia, an acutely hazardous chemical to humans.
The EIR does not define the actual details of these hazards. AA5

If there is increased quantities of neat ethanol being used in the VIP(due to MTBE elimination) , the EIR must address the potential risks of an ethanol spill on any existing hydrocarbon plume, part of any environmental setting. Ethanol leaks increase the concentration and distance of plume travel of toxic compounds, including benzene . AA6

Many other bay area refineries are involved in making modifications to their facilities due to California's reformulated gas requirements. The EIR does not address the cumulative effect of these regional changes. AA7

The water use issues are very cloudy.(no pun intended), because they make assumptions about future use, water availability and water costs. A house of cards has been built around this issue that must be more clearly described by the EIR. Every day the news is AA8

covering stories of water shortages, cutbacks and the politicaliztion of water issues. The city cannot move forward on this project without greater clarity to this critical "uncertainty" factor. This is one area among several, that could have a significant negative impact on property valuations in Benicia.

AA8 cont.

Although the MTBE phaseout will decrease the number of ships to the Benicia waterfront, what is the net increase in ships due to larger quantities of lower grade crude, and what are the polluting effects of those ships.

AA9

Thank you for your attention to my concerns,

Peter Weisberg

LETTER AA – PETER WEISBERG

AA1 As part of the permit process, the BAAQMD has established BACT emission limits for various sources at the refinery. The District only establishes BACT limits for sources, but does not specify the means of achieving it. The District has determined that BACT for SO_2 emissions for this project is a fuel gas sulfur level not to exceed 45 ppm by volume. The refinery has achieved this level for the past three years and has therefore not had to install a scrubber. With the increase in throughput above 150,000 barrels per day, the refinery would be required to install the scrubber in order to achieve these BACT emission limits.

AA2 Valero's Corpus Christi Refinery voluntarily participated in a joint industry/EPA initiative to study and to minimize emissions associated with operating upsets. Following the study, the refinery applied for and received a permit to install additional sulfur plant capacity for redundancy and, potentially, additional processing capacity. This was voluntary. The EPA did not order this addition to the refinery.

As for the Benicia refinery, there are two existing sulfur recovery units (SRU's), proposed for expansion in capacity as part of the VIP. As is currently the situation, if one of the SRU's is shut down, processing rates will be reduced to correspond to the capacity of the remaining SRU.

Note that flue gas scrubbers are not the same as SRU's.

AA3 The Draft EIR evaluated all of the potential hazards related to accidental releases from the project that might result in significant offsite impacts. It is unlikely that sour gas would bypass the sulfur recovery unit as is stated in the comment, because there is more than one sulfur recovery train, which means that it would take a major incident for all of the equipment to fail. Most likely, one train would fail, and the others would continue processing gas. However, if gas were to bypass the sulfur recovery unit (an unlikely event) the gas would be combusted and released at the main stack. The impact from such an event would result in a much lower impact than the accidental releases that were evaluated in the Draft EIR.

Potential accidental releases involving sour gas that were evaluated in the EIR include a release of hydrogen sulfide in the process area from a break in a line, and a release of sulfur dioxide from a break in another process line. Because these events can be releases near ground level, the offsite impacts would be much greater than releases from the main stack. The EIR reported that the offsite impacts from these releases were less than significant.

AA4 The commentor cites an incident at a Valero refinery in Texas where two contractors were reported to have been exposed to hydrogen sulfide (H_2S) and one of them subsequently died. This was a very tragic incident. OSHA investigated it and concluded

that the contractors failed to follow required safety procedures. Note that OSHA has applauded Valero as one of the few refining companies that requires, and has for many years, each person working in the process area wear a personal H_2S monitor to warn of dangerous conditions.

AA5 The Draft EIR acknowledges that, under the VIP, the refinery will be handling crude with higher levels of sulfur, resulting in higher levels of hydrogen sulfide, sulfur dioxide, and carbon disulfide in the process streams. The Project Description identifies the processes that will be added to the refinery to remove these substances from the streams, such that emissions of these sulfur compounds from the refinery under normal operations will be lower than emissions under existing operations. Also, in Section 4.8 - Public Safety, evaluates the impacts of potential accidental releases of these substances from the process streams.

With respect to selenium, the Draft EIR states in Impact 4.9-2 that there would be an increase in the mass loading in the wastewater stream. However, the Wastewater treatment Plant is required to adequately treat the increase in mass loading so as not to exceed the limits required in the NPDES permit for the refinery's discharge. This impact was determined to be less than significant.

For ammonia, the Draft EIR states that ammonia will be controlled at the sour water stripper.

AA6 The increased refinery production due to the VIP will all be shipped out for blending elsewhere and there will be no increase in ethanol use at the refinery. Furthermore, with respect to the effects of a spill of ethanol on ground water and surface water, a study has reported that ethanol rapidly degrades and is not expected to persist beyond the spill (National Science and Technology Council, NTSC, *Interagency Assessment of Oxygenated Fuels*, Executive Office of the President, 1997). This Study reported that, on the other hand, the oxygenate which is being replaced (MTBE) does not readily degrade, and it persists in the environment.

AA7 The Draft EIR does address the cumulative effects of these potential projects as discussed in the Master Response "Cumulative Analysis."

AA8 See Master Response "Water."

AA9 The net increase in ship traffic due to the VIP alone is 24 ships per year. This is presented in the discussion under "Mobile Sources" on page 4.2-24.

Terry Baldwin - Valero EIR

From: "Jean Yates" <redfoxred@earthlink.net>
To: <comdev@ci.benicia.ca.us>
Date: 12/16/02 8:03 PM
Subject: Valero EIR

The Bay Area Air Quality Management District should not issue additional emission credits to Valero because it is cutting back on emissions on one stack and wants to be allowed to increase emissions from another stack. AB1

The BAAQMD EIR has indicated that Valero's proposed Alternative Compliance Plan has the potential to cause an adverse impact on the air quality in the Bay Area. AB2 Will increasing the production of crude oils at the refinery mean an improvement in air quality for the residents of Benicia? AB3

Sincerely, Sabina E. Yates
302 Bridgeview Ct.
Benicia, CA 94510

Jean Yates
redfoxred@earthlink.net

FILE COPY

LETTER AB – SABINA YATES

AB1 This comment refers to regulatory requirements of the BAAQMD and does not raise any issues associated with the VIP Draft EIR.

AB2 This comment refers to a separate project that is being undertaken by Valero to comply with new regulatory requirements of the BAAQMD. This comment does not raise any issues associated with the VIP or the VIP Draft EIR.

AB 3 The refinery will not produce crude oil, but would process increased amounts of crude oil. The air quality effects of the VIP are discussed in section 4.2 of the Draft EIR. For added information about air quality effects, see Master Response "Air Quality."

Terry Baldwin - EIR Comments

From: nancy yates <nanyat1234@yahoo.com>
To: <comdev@ci.benicia.ca.us>
Date: 12/16/02 4:41 PM
Subject: EIR Comments

Dear Valero EIR Committee

I have lived in Benicia for 7 years and am very concerned about the long term effects of raw oil processing on people's health who live in the immediate area.

I have heard that many times pollution standards are ignored because the fines (if they are accrued) are cheaper for the company.

I belive that the community should be portected by a contract that states that after X number of fines the company loses their license to operate machinery that has caused the breach in pollution standards.

This sould ensure a "good faith" effort on Valero's part and help neighbors to know that kids on the nearby playgrounds are not breathing heavy pollutants resulting in fines.

AC1

Thank-you.

Nancy Yates

LETTER AC – NANCY YATES

AC1 The commentor expresses concern about the long-term effects of processing crude oil on people's health that live in the immediate area. The commentor is also concerned about the ineffectiveness of pollution standards and fines levied for violations of the pollution standards and recommends regulatory changes to make the polluters more accountable for their actions. This comment expresses the writer's views and the comment is noted.

From: "Haddon Zia" <haddonezia@hotmail.com>
To: <comdev@ci.benicia.ca.us>
Date: 12/3/02 7:55PM
Subject: Valero Expansion - Attn Lamont Thompson

Dear Mr. Thompson

I am writing to express my concern about the proposed expansion of the Valero Energy refinery. I am opposed to the expansion because:

1) As a taxpayer and property owner I feel the presence of the refinery is a severe impediment to property value appreciation. We live in Benicia DESPITE the plant, but most of my friends from out of town would not even consider living here because of the refinery. In the short run, the expansion might bring in more tax revenues from Valero, but the increased tax payments from the plant would, in my opinion, be offset by losses in property tax revenue. AD1

2) As a resident and father, I fear for the health of my children who are forced to breath polluted air. More output would mean more pollution. AD2

It has also come to my attention that Valero originally intended to install more pollution control equipment as part of the expansion, but is now trying to back away from this commitment. Is this true? AD3

My wife has already said that we will move out of Benicia if they expand the refinery. I don't think we are alone!!!!

Please share my concerns with the CDD.

Sincerely,

Haddon Zia
1630 St Francis Court
Benicia

LETTER AD – HADDON ZIA

AD1 The writer is expressing his views about the refinery and the comment is noted.

AD2 The air quality effects of the VIP are discussed in detail in section 4.2 of the Draft EIR. For more information, please see response to comment H113.

AD3 Valero has proposed a project that has some built in flexibility to respond to potential future needs. The VIP if fully built would include a main stack scrubber, which would significantly reduce emissions from the refinery. Valero has also proposed, that if this scrubber is not installed, to only do a portion of the proposed VIP. This is explained in detail in the project description of the EIR and the analysis of the EIR was conducted on this basis. Please see also response to comments H10, H26 and H41.

CHAPTER V

ORAL COMMENTS AND RESPONSES TO COMMENTS

A. INTRODUCTION

This chapter includes oral comments received on December 5, 2002 during the City of Benicia Planning Commission hearing on the Draft EIR. The minutes of the Planning Commission hearing are presented in this section as well as overall responses to concerns expressed during this meeting. Each oral comment is labeled with a number in the margin and the response to each comment is presented after the minutes of the Planning Commission. Some of the written responses are intended to confirm the responses made orally at the Planning Commission hearing. In many cases, the responses to the oral comments refer the reader to Chapter IV, *Written Comments and Responses to Comments*.

B. ORAL COMMENTS FROM DECEMBER 5, 2002 PLANNING COMMISSION MEETING

AE - Commissioner Alan Schwartzman

AF - Commissioner Fred Railsback

AG - Richard Bortolazzo, 846 Dorsett Lane, representing the Benicia Chamber of Commerce.

AH - Brad MacLane, 436 York Drive, Benicia.

AI - Rod Cameron, Business Manager, Plumbers and Steamfitters of Napa/Solano County.

AJ - Dana Dean, Cambridge Drive, representing Good Neighbor Steering Committee.

AK - Bob Craft, 323 Columbia Circle, Benicia.

AL - Catherine Machalinski, 1561 Shirley, Benicia

AM - Sue Kibbe, 22 Del Centro, Benicia

AN - Linda Lewis, 282 West I Street, Benicia

AO - Maggie Catt, 240 East K Street, Benicia.

AP - Marilyn Bardet, 333 East K, Benicia.

AQ - Sam Hammonds, Valero Refining Company

MINUTES
Benicia Planning Commission
City Council Chambers

December 5, 2002 **7:00 p.m.**

I. OPENING OF MEETING

A. Pledge to the flag
B. Roll Call of Commissioners

Present: Chair Silveria, Vice Chair Schwartzman, Commissioners Martinez, Railsback and Lobdell.
Absent: Commissioners Askham and Kalian

Staff Present: Community Development Director Colette Meunier
Consultant to the City Kitty Hammer
Associate Planner Lamont Thompson
City Attorney Heather McLaughlin
Utilities Manager Chris Tomasik
Administrative Clerk Peggy Mekki

II. MINUTES

A motion to approve the minutes from the November 20 special workshop meeting of the Planning Commission was made by Vice Chair Schwartzman and seconded by Commissioner Lobdell.

A roll call vote was taken as follows:
Ayes: Commissioners Lobdell, Martinez, Railsback, Vice Chair Schwartzman and Chair Silveria
Noes: None
Absent: Commissioners Askham and Kalian

II. AGENDA CHANGES AND DISCUSSION

A motion was made by Commissioner Railsback and seconded by Vice Chair Schwartzman to accept the agenda as written. The motion was approved unanimously.

III. CONSENT CALENDAR – no items

IV. PUBLIC HEARING ITEM

Draft EIR – VIP

Chair Silveria stated that the Commission received correspondence from Dr. Jerri Curry for the Sierra Club; the Benicia Chamber of Commerce signed by Scott Goldie, Chairman of the Board; Bay Planning Coalition signed by Ellen Joslin Johnck, Executive Director; e-mail from Zia Haddon, citizen of Benicia; also from Roger Straw, citizen of Benicia; and Will Gregory of Benicia.

Chair Silveria introduced the public hearing item.

Kitty Hammer gave an overview of the Draft EIR for the Valero Improvement Project (VIP). She also introduced the following authors of the Draft EIR from Environmental Sciences Associates (ESA): Chuck Bennett, Project Manager; Tim Morgan, Assistant Project Manager; Bob Vranka, air quality and public health risk specialist; and Matt Zidar, who evaluated the effects of the VIP on the City water supply.

Community Development Director Meunier reiterated the purpose of this meeting, and noted that this was the only evening to receive oral comments; however, written comments will be accepted until December 16, 2002. She also encouraged the Commissioners to make their comments during the meeting and indicated that, at the conclusion of the meeting, the Commission would be in a position to make the decision to move forward with the next phase of the process.

Chair Silveria asked for questions and comments from Commissioners.

AE-1 Vice Chair Schwartzman requested clarification about the changes in numbers of ships related to the MTBE Phase-Out Project and the VIP, and whether there would be an increase in NOx emissions related to the ships. Bob Vranka of ESA replied that there would be a net increase of 24 ships a year which would increase ship emissions of NOx, but overall cumulative post-project emissions of NOx would decrease.

AE-2 Vice Chair Schwartzman inquired about an update regarding the City's request for an additional allotment of water from the Sacramento River. Chris Tomasik, Utilities Manager, indicated that there was no new information. Vice Chair Schwartzman then asked for the

AE-3 City of Benicia's current demand for water in acre feet per year and the projected demand in 5-year increments. Tomasik cited page 4.14-14 of the Draft EIR, pointing out that the table gives supply and demand assessments for normal and dry years for the next 20 years. Tomasik further clarified that the raw water demands shown in the table are the refinery water demands while the treated water demands account for the usage of the rest of the City.

AE-4 Vice Chair Schwartzman requested that the EIR clarify that point. He also inquired about page 4.14-6 regarding the Good Neighbor Agreement, asking if the 6,720 acre feet per year covers only raw water demand by the refinery. Tomasik answered in the affirmative. Vice

AE-5 Chair Schwartzman pointed out that the title of Table 4.14-1, "Historical Raw Water Deliveries to Valero", implies that the table refers only to water used by Valero. Tomasik clarified that the treated water delivery in the table is water used by the rest of the City, and Director Meunier noted that the bottom line of the table shows the refinery raw water use as a

AE-6 percentage of the total City usage. Vice Chair Schwartzman asked why, in the text below Table 4.14-1, the high forecast is based on an assumed doubling of industrial treated water from baseline. Matt Zidar of ESA explained that the number was taken from the City's "Urban Water Management Plan" and it was derived by looking at all land uses in the City and applying a "duty factor" to all industrial uses, consistent with guidance by the

AE-7 Department of Water Resources. Vice Chair Schwartzman requested that the EIR clarify that

AE-7 cont. point and also asked whether Table 4.14.2 is similar to Table 4.14.1 as it relates to refinery water use vs. other water use in the City. Tomasik confirmed that was correct.

AE-8 Vice Chair Schwartzman noted, per page 4.14-19, that the California Energy Commission has set a deadline by which additional water use by the cogeneration project must be offset by implementation of the wastewater reuse project and/or a refinery water use reduction plan, and he asked what issues would arise if Valero does not comply with the condition. Kitty Hammer stated that the reuse project is not expected to be finished by the 2004 deadline set by the Energy Commission, but she did not know what the implications would be for the cogeneration project. Sam Hammonds of Valero stated that the refinery is hoping the reuse project will come to fruition in time. If not, the refinery will have to request an extension of time to meet the condition or find another way to offset the water use. The refinery has not identified another way to do it.

AE-9 Vice Chairman Schwartzman noted that, if the second cogeneration unit is not built, the VIP and other planned refinery projects would continue to use power from the statewide power grid, as would the existing refinery when the cogeneration unit was off-line. He asked how the percentage of time the cogeneration unit would be off-line was determined. Chuck Bennett of ESA responded that the number was determined by the Energy Commission, based, in part, on information from Valero.

AE-10 Vice Chair Schwartzman asked whether there could be a time period between the increase in processing of heavy crude and the time the scrubber is installed. Tim Morgan replied that the refinery could operate at a somewhat higher rate in the interim but it could not significantly

AE-11 increase its use of sour crude. Vice Chair Schwartzman asked whether the refinery could alter other equipment, perhaps increasing use of oxygen and hydrogen, to allow more sour crude to be processed prior to installation of the scrubber. Colette Meunier clarified that the refinery could alter the feedstock mix, including processing of heavier crude, but that the Bay Area Air Quality Management District (BAAQMD) would not allow emissions to increase

AE-12 above existing levels authorized by the refinery's Air District permits. Vice Chair Schwartzman asked whether the recent change in federal New Source Review regulations would affect the VIP. Kitty Hammer responded that, according to BAAQMD staff, the changes will have no effect on this project. The VIP will remain subject to the California rules in effect at time of the application.

AF-1 Commissioner Railsback noted that emissions of particulates less than 10 microns in diameter (referred to as "PM10") would increase if all of the VIP components are installed and asked what would be the source of those emissions. Tim Morgan of ESA responded that the emissions would come from combustion sources as shown in Table 4.2-8 of the Draft

AF-2 EIR. Commissioner Railsback asked what would be the biggest consumer of electricity. Mr. Morgan responded that he thought the largest consumers would be fans and the scrubber, but the information is not quantified in Draft EIR. Sam Hammonds agreed that the fans and scrubber would be large consumers of electricity, but he said the largest use would be the O2 generator. He further noted that the energy use shown in the Draft EIR is the maximum possible for the project.

Chair Silveria opened the hearing up to public comment.

AG-1 Richard Bortolazzo, 846 Dorsett Lane, representing the Benicia Chamber of Commerce, reiterated three points from the letter submitted by the Chamber, concluding that the Draft EIR adequately addresses the project scope, and mitigates the significant adverse environmental impacts to an acceptable level. The Chamber supports the type of EIR chosen, and applauds efforts to communicate with the community about the VIP.

AH-1 Brad MacLane, 436 York Drive, referred to the Water Section, page 14. 4- 2, suggesting that the Setting section should make clear what the proposed water use is for the VIP and for the cogeneration project. He stated that the 1996 Water System Master Plan and the 2001 Urban

AH-2 Water Management Plan should be made part of the EIR because they were not available on-line with the EIR itself. He would like clarification as to whether Valero's commitment to

AH-3 the wastewater reuse project referenced on page 14.4-3 is legally binding, and he would like the EIR to include a summary of the existing water supply agreement between the City and Valero. With respect to the Good Neighbor Agreement between the City and Valero, he

AH-4 asked what would happen if the City does not have enough water in future to supply Valero with the 6,720 acre feet mentioned in the agreement. Whose water would be cut? Mr.

AH-5 MacLane stated that he thinks Table 4,14. 2, Baseline Water Demand Forecast, is out of date because it does not include the VIP demand or the cogeneration project demand. He further stated that, if the VIP is combined with the cogeneration project, the result would be a "project" under Senate Bill 610 (passed in 2001 – requires a Water Supply Assessment for projects over a certain size).

AH-6 Mr. MacLane noted that, if we have to implement water conservation, the Draft EIR states that Valero is not subject to requirements of that type of ordinance. He feels that needs to be addressed in terms of the equity of water sharing and the implications for public health and safety.

AH-7 Finally, Mr. MacLane stated with respect to Table 4.14-3 on page 4.14-14, that, putting aside the supplemental water rights application which is still in negotiation, if you get up to year 15 and add up the state water, Vallejo contracts, and Mojave water project, we're up to 10,900 acre feet; and Table 4.14-2 shows that we are scheduled to use 13, 688 feet. He concluded that more work needs to be done on water analysis.

AI-1 Rod Cameron, Business Manager of the Plumbers and Steamfitters of Napa/Solano County, stated that they have reviewed the Draft EIR and conclude it provides the balance required among social, economic, and environmental concerns. Under Section 3.55, page 356, the EIR

AI-2 should provide more discussion of the construction labor force. Taking 1.7 million worker hours generated over the term of the project and multiplying by an estimated $40 /hour, there would be about $70 million in wages and benefits involved in just this project, not including turnaround project wages and the cost of the VIP. Each construction dollar generates about $7 in the local economy or close to $500 million that could be generated by the VIP. He urged the Commission to adopt the Draft EIR.

Dana Dean, 503 Cambridge Drive, representing Good Neighbor Steering Committee, stated that the Committee will submit written comments. She stated that there seems to be confusion surrounding what CEQA is about. Do the people of Benicia want to take on this $140 million expansion project as a community? To allow the community to do that, the EIR

AJ-1 must look at the project and its components standing alone and determine the significant and insignificant impacts. Then it must look at whether the applicant can do something to correct the problem (a mitigation) and determine what the project will look like when the impact is mitigated. The point of the EIR is to clearly state that for the public so that an average person can understand. The Draft EIR fails to do that.

AJ-2 Ms. Dean said that, in terms of the water reuse issue, an average Benician cannot interpret the Environmental Impact summary and understand what the impacts of the project could be in terms of effects on other water users. Those effects should be clearly explained prior to explaining the reasons that the effects are not expected to occur.

AJ-3 She said that the Draft EIR should not rely on other permit requirements, such as the Title V permit and the NPDES permit, for mitigation. The EIR must examine the actual effects of the project by itself. For example, if Valero is not emitting up to its permit limits now, the EIR must evaluate the impacts of the project with relation to actual emissions and not to existing permit limits.

AJ-4 Finally, Ms. Dean said that the applicable reference documents should be readily available as part of the document.

Bob Craft, 323 Columbia Circle, stated that he will provide written comments.

AK-1 He commended the City and contractors for producing a document that can easily be read.

AK-2 He noted that the VIP would clearly have economic benefits for Benicia. He is concerned

AK-3 that the scrubber "is not even a definite maybe" as described in the Draft EIR. Given that situation, and the many other variables involved in the project, it is difficult to get a good understanding of "what the current situation is vs. what the delta might be". He is also

AK-4 concerned at the apparent lack of "real Benicia baseline" data, in particular with respect to toxic air contaminants. None of the "real toxics" are measured here on a routine basis. Some are not even measured by the BAAQMD but rather are measured at California Air Resources Board sites as far away as San Jose. He is concerned about lack of relevant data for dangerous toxics such as hexavalent chromium. He also noted that source tests relied upon for some emission data were conducted at different times and questioned the reasons for selection of test dates and the types of emissions tested on those dates. Twelve year old data seems too old to be relevant.

AK-5 Mr. Craft is concerned that the Draft EIR gives too much credence to the possibility of new water supplies. He notes that the City "almost never" gets its full allotment from the state and Vallejo water is likely to become less available and more expensive. He believes that wastewater reuse is the best approach. Mr. Craft also believes that the noise data presented

AK-6 in the Draft EIR is not comprehensive enough. He can hear steady noise from the refinery at his house, especially at night, and he believes that noise is louder than the noise levels

AK-7 specified in the EIR. In general, he thinks that the Draft EIR relies too much on data from

AK-8 the early and mid 1990s. Finally, Mr. Craft said that he thinks the cumulative visual impacts of the Seeno project would not be "less than significant" as claimed in the Draft EIR because the Seeno project would involve massive grading and development.

AL-1 Catherine Machalinski, 1561 Shirley Drive, stated that her concerns will be put in writing. She said that Valero is now less interested in bringing in sour crude, with reference to the list of projects on page 3-5, and she believes that the scrubber is less likely and that increased capacity is the key to the VIP. With reference to Operational Changes on page 3-27, she does not trust the BAAQMD to keep Valero's emissions within current limits when production capacity increases. She thinks the BAAQMD might amend Valero's permit at a later date.

AL-2 She noted that EPA recently reduced pollution controls for power plants and refineries and she further stated that the EPA has clarified that states will no longer be able to enforce more stringent requirements than the federal requirements. She is very concerned that, despite BAAQMD statements to the contrary, the EPA could limit pollution controls at the refinery.

AL-3 Ms. Machalinski referred to the chart on page 4.2-29 which shows the project impact in terms of emissions without the scrubber. The chart also shows emission reductions resulting from the cogeneration project and other projects that are not part of the VIP. She indicated that the EIR needs to say that, if VIP did not exist, contaminants would still be reduced as a result of the other projects. The impacts of VIP by itself, with or without the scrubber, should be clearly stated.

AL-4 Ms. Machalinski said that, on page 4.7-16, the Draft EIR concludes that VIP will reduce health risks for Benicians. She finds this misleading, stating that the risk reduction is due to other projects, not the VIP.

AM-1 Sue Kibbe, 22 Del Centro, noted that the VIP water demand, as stated on page 4.9-12, differs from the VIP water demand stated on page 4.14-12. She believes that the City's supplemental water rights application, if approved, would have a big impact on the Sacramento River. Water supply problems are a big issue worldwide, especially in view of

AM-2 global warming. She believes that a separate EIR is needed for the wastewater reuse project, noting the limited description of potential impacts of that project in the VIP EIR.

AN-1 Linda Lewis, 282 West I Street, asked whether there might be a consideration of a building moratorium at some time in the future, as a consequence of lack of water. She expressed

AN-2 concerns about visual impacts, asking the size of the new facilities, and the height and diameter of the tanks, and whether they would be covered or open tanks. She questioned

AN-3 whether the project would emit steam from equipment other than the scrubber, citing the potential for related visual impacts. Ms. Lewis also questioned how the viewpoints for the

AN-4 photo-simulations in the EIR were selected and whether they are truly representative of the most noticeable visual effects of the VIP. She thought that the project might have greater visual impacts when viewed from Rose Drive, Panorama Drive, and the Tourtelot property.

AN-5 She objected to what she perceived as the EIR's view of Benicia as an "industrial city".

AN-6 Finally she noted with respect to the discussion of odors on page 4.2-16, subsection 4.2.2-5, that it appears to be the duty of citizens to complain about odors in order to obtain enforcement, and she thought that the citizens should be informed of that duty.

AO-1 Maggie Catt, 240 East K Street, acknowledged that she had not read the EIR but stated that, on the basis of what she has heard, she thought the mitigations were too uncertain and she wanted to know how this project would benefit the City of Benicia.

Director Meunier suggested that persons who read the EIR may not find the mitigations to be so vague. She also stated that the EIR is intended to provide information about the environmental effects of the VIP. When the EIR is completed, the Planning Commission will debate the merits of the project in the Use Permit hearing and Ms. Catt's concerns would be best addressed in the consideration of the project's merits.

AP-1 Marilyn Bardet, 333 East K, stated that she is also a member of the Good Neighbor Steering Committee, and she will be submitting her comments and concerns in writing as well. She said that the VIP has been promoted on the basis that the scrubber will be constructed, and she was surprised to find that the EIR states that the scrubber is optional. She questioned whether the changes in EPA regulations might eventually affect the VIP, prior to its completion in 2009, or even after project construction in the future. She is concerned that national priorities might result in relaxation of regulatory controls on the refinery. She noted

AP-2 that the Urban Water Management Plan was not included in the Draft EIR glossary. She also noted the EIR reference to the Draft State Water Project Reliability Report of 2002 and

AP-3 questioned what month that report was completed, expressing concern that the EIR should have the latest information. Ms. Bardet also expressed her concern that global warming could reduce future water supply in the west. She read a November 22, 2002 Associated

AP-4 Press article on that subject. She is concerned that, because of scarcity, the price of new water will be high.

AQ-1 Sam Hammonds, 902 Bradford Way, representing Valero, thanked the Commission for their attention and dedication to reviewing the Draft EIR. He also thanked staff and the consultants and noted that the refinery will submit written comments on the Draft EIR. He stated that Valero agrees with the Draft EIR evaluation of potential impacts of the project. They look forward to the project commencing and going forward.

Chair Silveria closed the public hearing.

AE-13 Vice Chair Schwartzman asked for clarification on the next step. If the Commission approves the Draft EIR, will all comments be included in the Final EIR? Director Meunier stated that oral comments will be captured only at this meeting, not from the workshop. All other written comments will be included.

Vice Chair Schwartzman questioned whether additional mitigations could be added or was the document final. Director Meunier stated that the Commission will have an opportunity to look at the Response to Comments and see if all issues raised have been adequately addressed. If, in reviewing the Response to Comments, there are alternative mitigations for

impacts which are discussed in the EIR, these can be addressed in the certification process. If there are new mitigations for impacts not adequately addressed in the EIR, then the EIR would need to be recirculated for public review of the new impacts. Written comments can still be submitted by the Commission up until the December 16 deadline.

Vice Chair Schwartzman asked about the timing of the Use Permit.

Director Meunier stated that the first step is to assess the project and its consequences and mitigations. When the EIR comes back in February, then the Commission beings to look at the merits of the project. After this point, the project will be discussed in the public.

AE-14 | Vice Chair Schwartzman stated that he would like the Water Study to be included in the EIR.

Commissioner Martinez moved to accept the Draft EIR with corrections and written comments to become part of the Final EIR. The motion was seconded by Commissioner Lobdell and approved unanimously.

On a motion by Commissioner Lobdell seconded by Vice Chair Schwartzman, the Commission voted unanimously to schedule completion of the Final EIR for the month of February.

VI. STAFF COMMUNICATIONS

Director Meunier wished the Commission the best of the holiday season.

VII. COMMUNICATIONS FROM THE AUDIENCE

There were no communications from the audience.

VIII. COMMUNICATIONS FROM THE COMMISSIONERS

Commissioner Railsback encouraged the public to provide written documents far enough in advance of the meeting date to give the Commission adequate time to read them before the meeting.

Chair Silveria wished the Commission and staff a happy holiday season.

Chair Silveria noted that with respect to comments by Linda Lewis, that in the past there was no industry in Benicia, she noted the town depended upon the military Arsenal economically. When the Arsenal closed in the 1960's, the economic impact was devastating to the City. The City was able to attract industrial development, which ultimately contributed greatly to the quality of life that Benicians enjoy today.

IX. ADJOURNMENT

Chair Silveria adjourned the meeting at 9:12 p.m.

PLANNING COMMISSION MEETING MINUTES

AE1 At the meeting, Bob Vranka of ESA replied that there would be a net increase of 24 ships a year which would increase ship emissions of NOx, but overall cumulative post-project emissions of NOx would decrease.

AE2 At the meeting, Chris Tomasik, City of Benicia Utilities Manager, replied that there is no new information.

AE3 At the meeting, Chris Tomasik cited Table 4.14-1 of the Draft EIR, which gives supply and demand assessments for normal and dry years for the next 20 years. The raw water demands shown in the table are the refinery water demands while the treated water demands account for the usage of the rest of the City.

AE4 At the meeting, Chris Tomasik replied that the 6,720 acre feet per year does cover only raw water demand by the refinery.

AE5 Table 4.14-1 with a revised title and headings is included in Chapter VI of this Final EIR document. Planning Director Meunier noted that the bottom line of Table 4.14-1 shows the refinery raw water use as a percentage of the total City usage.

AE6 At the meeting, Matt Zidar of ESA explained that the number was taken from the City's "Urban Water Management Plan." The value was derived by looking at the areas for each designated land use in the City and applying a "duty factor" to all industrial uses, consistent with guidance by the Department of Water Resources.

AE7 At the meeting, Chris Tomasik confirmed that Table 4.14-2 is similar to Table 4.14-1 as it relates to refinery water use vs. other water use in the City. A revised Table 4.14-2 is included in Chapter VI of this Final EIR.

AE8 At the meeting, Kitty Hammer stated that the reuse project is not expected to be finished by the 2004 deadline set by the Energy Commission and that she did not know what the implications would be for the cogeneration project. Sam Hammonds of Valero stated that if the City reuse project is not completed by that time, the refinery will have to request an extension of time to meet the condition or find another way to offset the cogeneration Facility's water use.

AE9 At the meeting, Chuck Bennett of ESA responded that the number was determined by the Energy Commission, based in part on information from Valero.

AE10 At the meeting, Tim Morgan of ESA replied that the refinery could operate at a somewhat higher rate in the interim but it could not increase sour crude.

AE11 Planning Director Meunier clarified that the refinery could alter the feedstock mix, including processing of heavier crude, but that the Bay Area Air Quality Management District (BAAQMD) would not allow emissions to increase above existing levels.

AE12 At the meeting, Kitty Hammer responded that, according to BAAQMD staff, the changes will have no effect on this project. The VIP will remain subject to rules in effect at time of the application. See also Master Response, "Air Quality."

AF1 At the meeting, Tim Morgan responded that the emissions would come from combustion sources as shown in Table 4.2-8 of the Draft EIR. For more information in response to other air quality comments, see Master Response, "Air Quality."

AF2 At the meeting, Tim Morgan and Sam Hammonds responded that the largest consumers would be the O2 generator, the fans and the scrubber, but the information is not quantified in Draft EIR. The energy use shown in the Draft EIR is the maximum possible for the project.

AG1 The speaker stated points addressed in the Benicia Chamber of Commerce's written response. Responses to those comments are stated in Chapter IV following Letter G.

AH1 Please refer to Chapter IV, response to comments H17 and Master Response, "Water."

AH2 The 1996 Water System Master Plan and the 2001 Urban Water Management Plan are reference documents that were available at City of Benicia offices for review in accordance with CEQA requirements. The documents continue to be available for review.

AH3 The existing water supply agreement between the City and Valero is available for review at City offices during normal business hours. There is no legally binding agreement between Valero and the City regarding the wastewater reuse project at the present time. Refer to responses to comment H57 and Master Response "Water" for further information regarding the wastewater reuse project. See the Draft EIR Section 4.14.2.1 for a summary of the Raw Water Agreement.

AH4 See response to comment H62.

AH5 See response to comment H17 and Master Response, "Water Supply."

AH6 See Responses H65 and H66.

AH7 The 10,900 acre feet is a dry year calculation. Tables 4.14-3 and 4.14-14 indicate that the demand is in fact larger than supply during the dry year. Please refer to the Benicia Water Study for more detail.

AI1 Comment noted.

AI2 In accordance with CEQA, an EIR does not evaluate the economic effects of the project.

AJ1 As mentioned by the commentor, extensive written comments were received from the Good Neighbor Steering Committee referred to here as comment letter "H." Detailed responses to these comments are provided in Chapter IV of this document. Specific responses to the commentor are provided in response to comments H1 through H18.

AJ2 In response to received comments, the EIR summary of impacts and mitigations has been revised and updated. Revised text is located in Chapter II of this document.

AJ3 Regulatory agencies, such as the BAAQMD and the RWQCB, have been delegated the responsibility to regulate air and water emissions through their permitting powers. CEQA recognizes the authority of these regulatory agencies and also recognizes that such agencies can and will fulfill their regulatory responsibilities. CEQA also recognizes that the City, as a lead agency, must rely on the permitting and regulatory actions of these other agencies to control emissions to the environment. By preparing this EIR, the City is providing the CEQA document for the use of both the City of Benicia and other, responsible agencies that must grant permits for the VIP. See also Master Response, "Air Quality."

AJ4 All reference documents have been available for public review at City of Benicia offices during normal business hours.

AK1 The commentor stated that the Draft EIR is a document that can easily be read.

AK2 The commentor noted that the VIP would have economic benefits for Benicia. CEQA ignores cost considerations. Comment noted.

AK3 See Master Response, "Project Description."

AK4 The Bay Area Air Quality Management District is responsible for setting criteria for assessing environmental impacts of toxic air contaminants emissions. See response to comment A14 and N12 for more information. Also see Master Response "Air Quality."

AK5 The Draft EIR makes no assumption as to how the City will obtain its additional water supply. Table 4.14-1: Historical Raw Water Deliveries on page 4.14-7 of the Draft EIR shows that the total water delivery to the City over six years varied from a low of 9,606 acre-feet in 1995 to a high of 11,292 acre-feet in 1997. Wastewater reuse and/or obtaining the supplemental water rights application would eliminate the impact.

AK6 Note that the Community Noise Survey cited in the Draft EIR used measurements from a station located at Allen Way. This monitoring location is a short distance from the commentor's residence. Please see responses to comments N15, N16 and N18.

AK7 Without specific reference to data from the early 1990's mentioned by the commentor, it is uncertain as to what data the commentor is referring to. However, based on the commentor's written comments (Letter N), responses to comments N6 and N12 provide responses to this comment.

AK8 This comment was also received in written form from the commentor. Refer to N4

AL1 Comment noted.

AL2 See response to comments H44 and AA12.

AL3 See response to comment T6.

AL4 See the Cumulative Impacts discussion in section 4.7.5 (page 4.7-16) of the Draft EIR. The cumulative impacts discussion includes all relevant cumulative projects as described in section 3.6 on page 3-57 of the Draft EIR. Individual VIP impacts are discussed in section 4.7.4 (pages 4.7-6 through 4.7-16).

AM1 The text on page 4.9-12 is incorrect and will be changed to be consistent and reflect the project water demand of 242 acre feet per year. Revise the first two lines of the first paragraph on page 4.9-12 of the Draft EIR as follows:

> per day. The VIP will require an additional ~~432,000~~ 216,000 gallons per day or ~~0.432~~ 0.216 million gallons per day (or ~~484~~ 242 acre feet per year).

Please also see master response "Water."

AM2 The City's Wastewater Reuse project will require its own environmental review.

AN1 The commentor asked whether a building moratorium would be considered in the future as a consequence of a lack of water. The decision to impose a building moratorium can only be made by the City. Forecast shortages would not occur until approximately 2015.

AN2 Refer to Table 3-1 in the Draft EIR which contains a description of VIP components.

AN3 The commentor asked whether the project would emit steam from equipment other than the scrubber because of concern for related visual impacts that the steam would cause. Many of the process units that would be modified and some of the new units may emit steam. However, the scrubber will emit, by far, the largest amount of steam. The visual plume assessment prepared for the project predicts that visible plumes would occur less than 0.4% of the year (28 hours per year) from the main stack operating under proposed conditions. This constitutes a 24-hour increase in the overall visible plume formation from current operating conditions.

AN4 The locations of six representative viewpoints were chosen in consultation with City staff. Chosen viewpoints were representative of views from public property as opposed to private property views. Please refer to section 4.1 of the Draft EIR for more information.

AN5 The General Plan designation of the portions of eastern Benicia is industrial and the EIR focused on the immediate site and vicinity. However, it is noted that the western portions of the City are generally devoted to residential and commercial uses.

AN6 Master Response, "Odors" describes the process for reporting odor complaints.

AO1 The Draft EIR is intended to provide information about the environmental effects of the VIP. When the EIR is completed, the Planning Commission will debate the merits of the project.

AP1 See response to comment H44.

AP2 The Glossary was intended to contain technical terms used in the refining industry. However, the text in section 8.2 Acronyms Used in this EIR will be changed to add the following:

SWP	State Water Project
UWMP	Urban Water Management Plan

AP3 The Draft State Water Project Reliability Report of 2002 was published in August 2002 and was the latest version available at the time the Draft EIR was published.

AP4 It would be speculative to try to determine the effects global warming would have on water prices.

AQ1 Refer to Letter J from Valero Refining Company for more information.

AE13 Director Meunier stated that the first step is to assess the project and its consequences and mitigations. When the EIR comes back in February, then the Commission begins to look at the merits of the project. At this point, the project will be discussed in public.

AE14 The Water Study is available for review at the Benicia Public Library and the Community Development Department during normal business hours, and is also available online at the City of Benicia website.

CHAPTER VI

TEXT CHANGES TO THE DRAFT EIR

The following text changes are made to the Draft Environmental Impact Report (Draft EIR). The changes are shown by page number in the Draft EIR and identified as to the location of the change in the body of the text or table.

Where changes are shown inserted in the existing Draft EIR text, revised or new language is underlined, deleted language is indicated by ~~strikethrough~~, and the original text is shown without underline or strikethrough.

Where not ambiguous, new or replacement text is shown without markings.

Page ***Identification*** **/ Text Change:**

1-1 *Revise 5th bullet item as follows:*

Flue Gas Scrubber to reduce SO_2 and some NO_x emissions from the main stack.

1-2 *Add a sentence at the beginning of the last paragraph of section 1.2:*

Valero may not construct some of the VIP units, including the Flue Gas Scrubber or any other unit, if conditions are not favorable. Valero would implement the project, in a series of steps, starting ...

1-4 *Revise line 3 of first paragraph as follows:*

Construct and ~~Authority~~ Permit to Operate...

2-6 *Add Section 2.3 as follows:*

2.3 CUMULATIVE IMPACTS

Cumulative impacts considered in this report are presented in Table 2-1 usually as the final impact or impacts within each topical area considered. A complete discussion of cumulative impacts is presented in Section 5.2.

2-7 *Table 2-1 is revised to include changes to impact and mitigation measure text as presented in this Chapter. See Chapter II.*

Page ***Identification*** **/ Text Change:**

3-3 *Add the missing footnote #1 at bottom of page as follows:*

> [1] As used in this document, the term "raw materials" is defined as crude oil and gas oil feedstocks.

3-5 *Revise 5th bullet item as follows:*

> Flue Gas Scrubber to reduce SO_2 and some NO_x emissions from the main stack.

3-17 *Replace paragraphs 3, 4, 5, and 6 on Page 3-17 with the following new text:*

> Oily wastewater streams are first treated in corrugated plate separators, and induced static flotation units to remove oils and solids. Most of the non-oily waste stream from the sour water stripper (stripped sour-water) is initially aerobically treated in two prebiox activated sludge units. A smaller portion of the stripped sour water is then combined with the oily wastewater streams and the prebiox effluents and is treated in three parallel, activated sludge biological treatment units to which powder activated carbon is added. Treatment continues with three clarifiers in parallel. Effluent from the clarifiers is discharged to an induced air flotation (IAF) unit, which provides additional solids removal. From the IAF unit, wastewater flows to a reactor clarifier where ferric chloride is added to co-precipitate selenite. Polymer is also added to enhance flocculation. Caustic is then added for pH control and wastewater flows to a sump. From the sump, effluent is pumped to Outfall 001 (RWQCB, 2002).

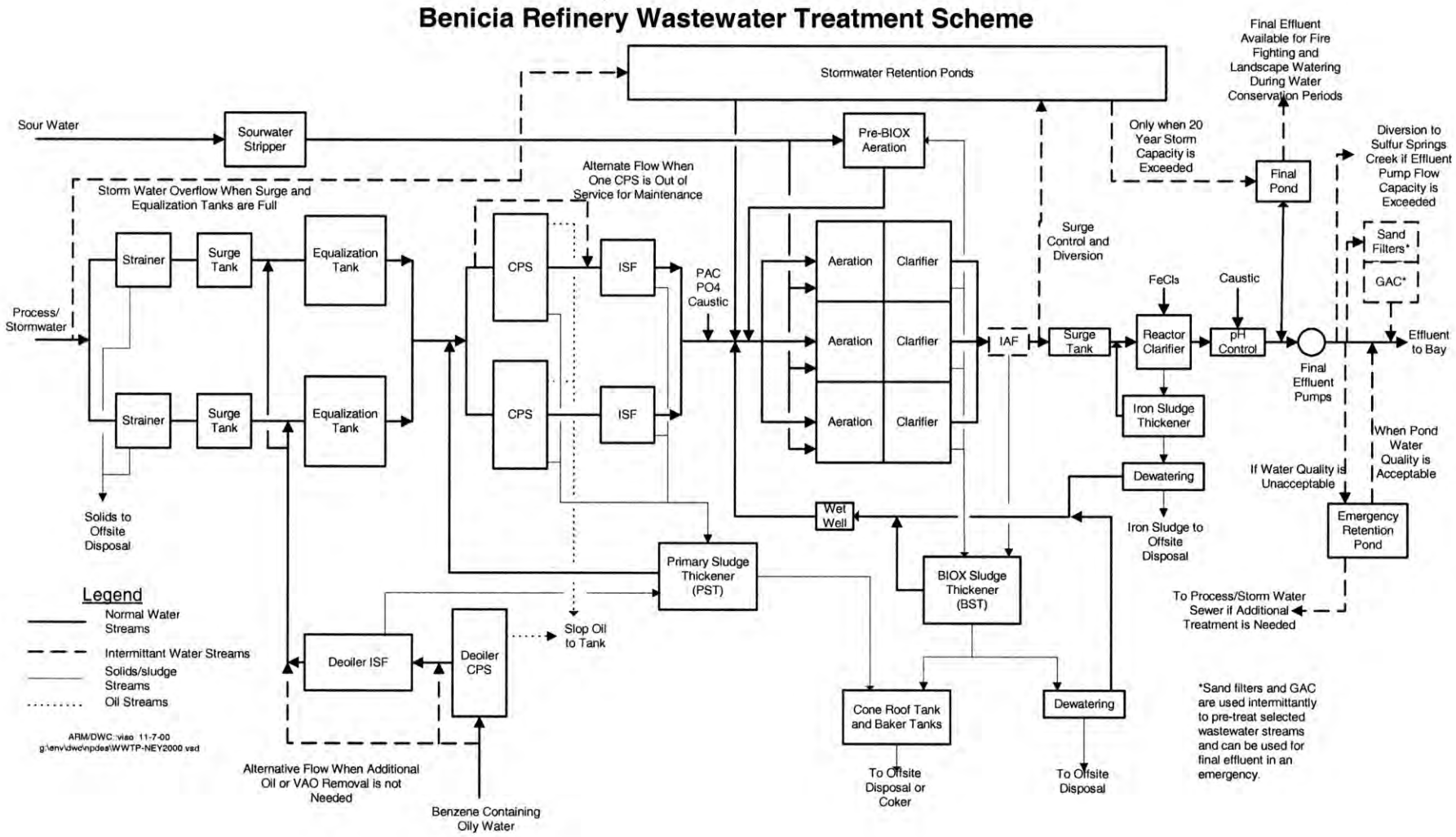
3-19 *Figure 3-5 is replaced. See following page.*

3-20 *Text is added at line 12 of the first paragraph, as follows:*

> … Valero may alter the schedules and Valero may not construct some units, including the Flue Gas Scrubber, if conditions are not favorable. However, for the purposes …

3-52 *The following new text is added immediately following the table in Section 3.4.3.16:*

> BAAQMD Shipping Variant. The BAAQMD proposes to impose approval conditions that place new limits on VIP ship and barge emissions and require monitoring and reporting throughput at the Main Benicia Crude Dock and at the Valero Coke Dock. These new limits on ship and barge emissions are at the emission levels that would occur with the VIP ship movements described in the table above. In the future, the new emission limits could constrain Valero's current ability to choose between shipping and pipeline transport.



SOURCE: RWQCB NPDES Permit No. CA0005550 - Figure 2 (Attachment B)

Figure 3-5

Wastewater Treatment Plant

Page ***Identification*** **/ Text Change:**

The table above provides Valero's best estimate of the VIP's increase in ship traffic. However, it remains possible, whether due to unforeseen effects of the VIP or to other unforeseen circumstances, that Valero may need to increase ship traffic by up to approximately 36 more ships per year, in addition to the VIP increase of 24 ships, to obtain sufficient crude feedstocks.

Valero has requested the District to approve a mechanism to offset shipping-related emission increases above this new limit by making further emission reductions at the main stack, or at other projects to fully offset any increased emissions due to ship traffic in excess of that proposed as part of the VIP.

4.1-26 *Replace the second sentence of the second paragraph with the following text:*

The City of Benicia's General Plan is the master planning document that governs land uses and guides and manages growth by providing a framework of how the city ought to grow, based on community input and values. The project that would interact the most with the VIP would be the adjacent Benicia Business Park project. The General Plan designates the 527.5-acre Benicia Business Park / Seeno parcel as Limited Industrial, with a portion adjacent to I-680 designated General Commercial. To comply with the General Plan, that development must be expected to be industrial in character. Given the expected size of current industrial buildings and the use requirements, it must be anticipated that substantial grading would be required to develop those lands. Thus, the appearance of the industrial site would change substantially. Such substantial visual changes are implicit in the City's General Plan land use designation. Any proposed development on the Business Park/Seeno site requires its own environmental review, in which the visual and aesthetic effects of the project would be analyzed and considered before the project could be approved. Furthermore, that industrial development would be subject to the City's Industrial Design Guidelines and undergo design review, which considers the design and visual appearance concepts previously described in Section 4.1.2.4. It must be presumed that the appearance and visual character of the industrial development, as it could ultimately be approved by the City, would satisfy the visual criteria of and would conform to the General Plan and thus, should result in no significant adverse visual impacts. In a cumulative context, although the overall changes in the visual environment would affect much of the southeast portion of the City, these cumulative changes also would be considered to be less than significant, because they, too, would be the realization of the General Plan's adopted vision of the future industrial development of the lands in that part of Benicia.

Page ***Identification*** **/ Text Change:**

4.2-1 *The following new text is added at the end of Section 4.2.2 Setting:*

Hydrogen sulfide and other sulfur-bearing compounds are also a concern at the local level due to their potential to cause odors. The BAAQMD also regulates concentrations of toxic air contaminants in the ambient air.

4.2-13 *The following changes are made to the table on page 4.2-13. The text below and Figures 4.2-1 through 4.2-3, and Tables 4.2-6A through 4.2-6C are added following the table:*

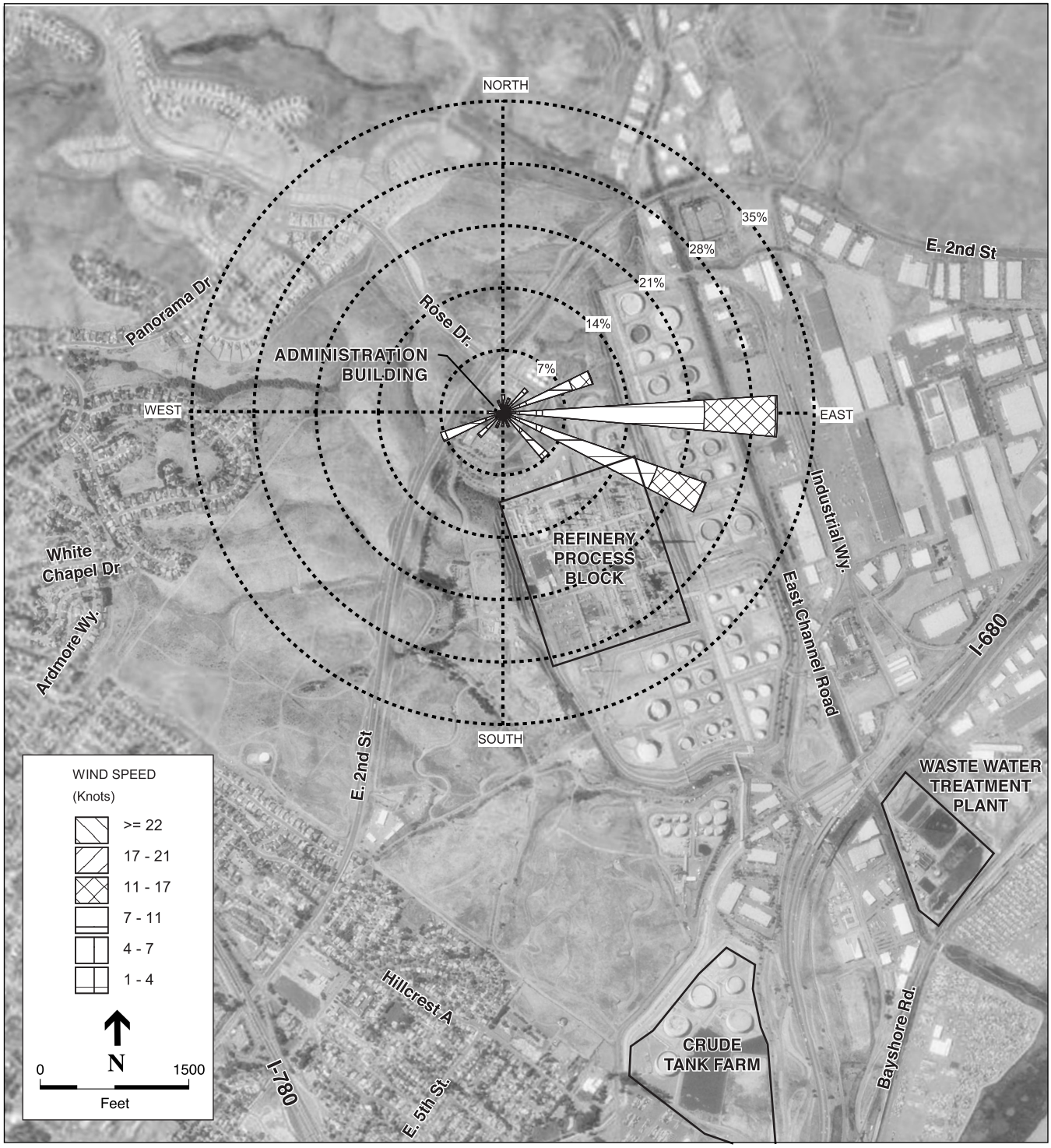
Local Sulfur Dioxide Concentrations (parts per billion)

	Vallejo	Valero[1]	Pittsburg	Martinez	Concord	Crockett
1997	5	2	7	7	7	NA
1998	6	2	14	7	9	NA
1999	7	9	9	8	12	34
2000	5	6	7	5	4	24
2001	4	7	11	5	4	16

Valero operates two meteorological towers on-site: one at the administration building on the west side of the site and the other on the east side of the refinery site. The meteorological data gathered at these two towers are regularly reported to the BAAQMD. Wind speed and direction data have been summarized and converted into "wind rose" diagrams, which summarize and show the frequency with which various combinations of wind speed and wind direction occur at each station. These wind roses are shown on Figures 4.2-1 and 4.2-2. These figures show the frequency of wind speed and wind direction for the most current three years of data on an annual basis. To assist the understanding of these figures, they have been configured to show the "flow vector", which stretches out in the direction that the wind is blowing, i.e., if the figure shows a directional radial stretching toward the east, this identifies a "west wind", a wind that blows from the west over the refinery and toward the east.

These wind data show clearly that there is a strong westerly wind (from west to the east) much of the time, with a weaker return flow, from the east to the west, over the refinery. Interestingly, there is an approximately 15 degree directional difference between the winds at the two stations (west and east) with the difference most likely having to do with the winds flowing over and around the hill upon which the City and refinery are built.

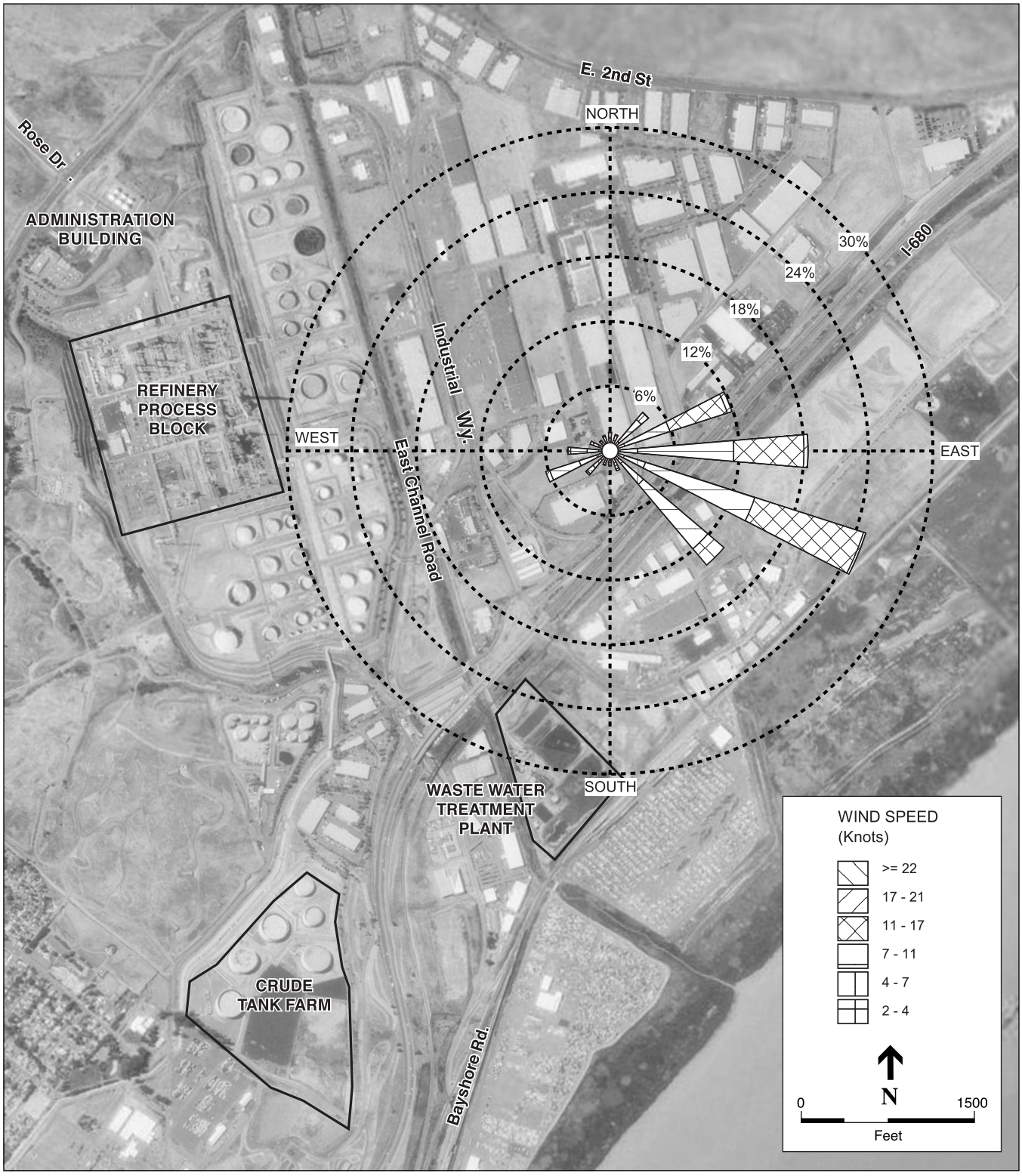
[1] These data shown for Valero represent the highest 1-hour monitored SO_2 value from any of the three Valero monitoring stations.



The diagram shown on this figure depicts the annual frequency of wind speed and wind direction classes observed at the Valero meteorological monitoring station. The flow vectors stretch out in the direction that the wind blows over the station. For example, where the vectors stretch to the east, the frequency shown represents the percent of time the wind blows from the west to the east over the monitoring station.

SOURCE: Environmental Science Associates

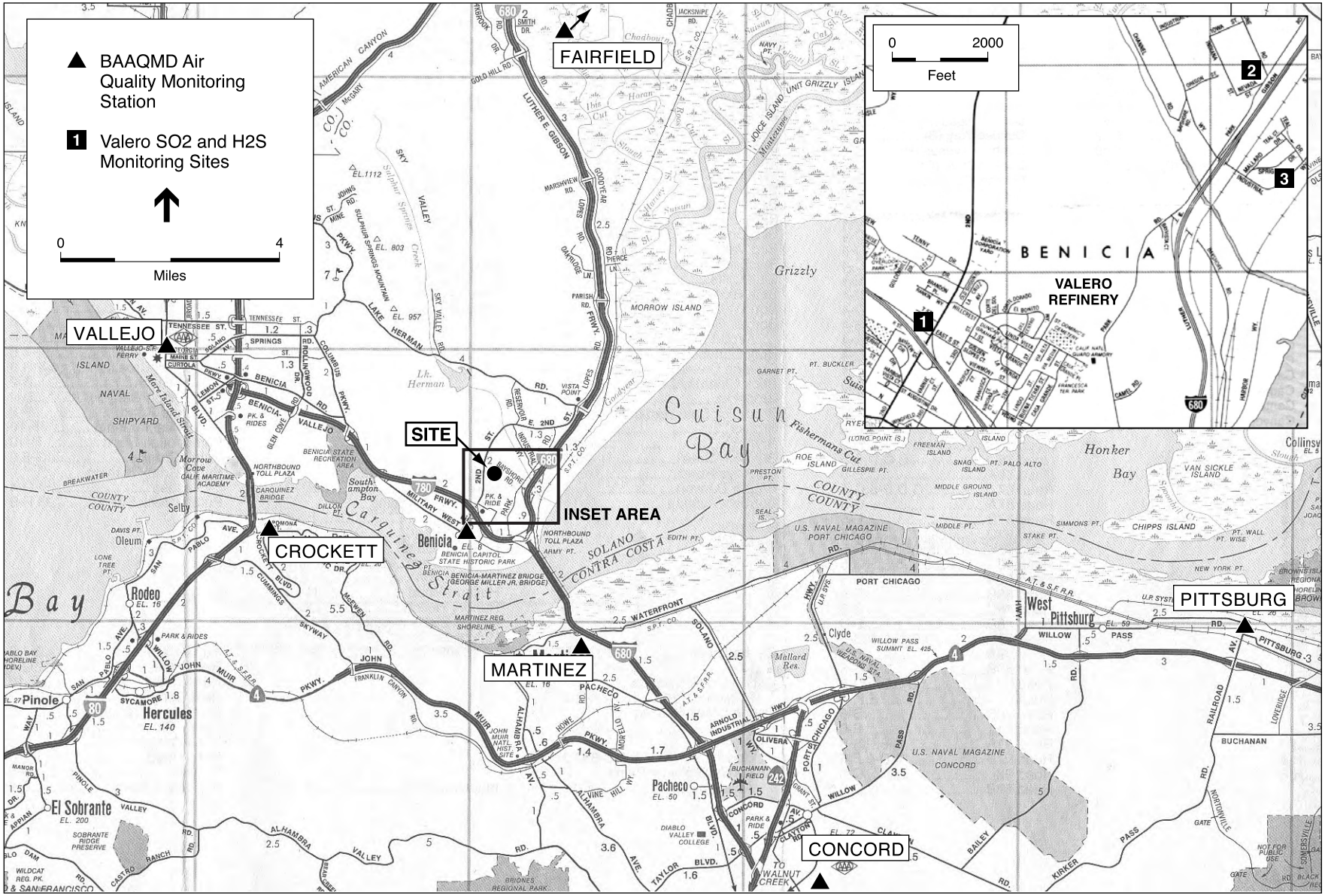
Figure 4.2-1
Valero Refinery Administration Building
Meteorological Station
Annual Flow Vector 1999-2001



The diagram shown on this figure depicts the annual frequency of wind speed and wind direction classes observed at the Valero meteorological monitoring station. The flow vectors stretch out in the direction that the wind blows over the station. For example, where the vectors stretch to the east, the frequency shown represents the percent of time the wind blows from the west to the east over the monitoring station.

SOURCE: Environmental Science Associates

Figure 4.2-2
Valero Refinery Warehouse Tower
Meteorological Station
Annual Flow Vector 1999-2001



SOURCE: Environmental Science Associates

Figure 4.2-3
Monitoring Station Locations

TABLE 4.2-6A
AIR QUALITY DATA SUMMARY (1997–2001) FOR VALERO STATION 1

Pollutant[b]	Standard[a]	Monitoring Data by Year				
		1997	1998	1999	2000	2001
Sulfur Dioxide						
Highest 1-Hour Average (ppb)		2	2	9	4	5
Highest 24-Hour Average (ppb)		1.3	1.8	1.9	1.7	1.2
Days over State Standard	40 ppb	0	0	0	0	0
Days over National Standard	140 ppb	0	0	0	0	0
Annual Average (ppb)	30 ppb	0.108	0.093	0.357	0.486	0.292
Hydrogen Sulfide						
Highest 1-Hour Average ($\mu g/m^3$)		4.2	11.1	13.9	11.1	19.5
Days over State Standard	43 $\mu g/m^3$	0	0	0	0	0
Frequency (hours) > odor threshold[c]		0	72	19	16	29
Annual Average (ppb)		0.86	1.41	1.50	1.62	2.73

[a] Generally, state standards are not to be exceeded and national standards are not to be exceeded more than once per year.

[b] ppm = parts per million; ppb = parts per billion; g/m^3 = micrograms per cubic meter.

[c] The odor threshold for H_2S is 7 $\mu g /m^3$.

SOURCE: BAAQMD, Data Summaries, 1997, 1998, 1999, 2000, 2001

TABLE 4.2-6B
AIR QUALITY DATA SUMMARY (1997–2001) FOR VALERO STATION 2

Pollutant[b]	Standard[a]	Monitoring Data by Year				
		1997	1998	1999	2000	2001
Sulfur Dioxide						
Highest 1-Hour Average (ppb)		3	2	5	6	6
Highest 24-Hour Average (ppb)		1.4	1.1	2.3	1.5	1.5
Days over State Standard	40 ppb	0	0	0	0	0
Days over National Standard	140 ppb	0	0	0	0	0
Annual Average (ppb)	30 ppb	0.289	0.163	0.301	0.398	0.398
Hydrogen Sulfide						
Highest 1-Hour Average (µg/m^3)		11.1	22.3	29.2	22.3	11.1
Days over State Standard	43 µg/m^3	0	0	0	0	0
Frequency (hours) > odor threshold[c]		1	20	25	44	10
Annual Average (ppb)		0.50	0.86	0.66	0.47	0.36

a Generally, state standards are not to be exceeded and national standards are not to be exceeded more than once per year.

b ppm = parts per million; ppb = parts per billion; g/m^3 = micrograms per cubic meter.

c The odor threshold for H_2S is 7 µg /m^3.

SOURCE: BAAQMD, Data Summaries, 1997, 1998, 1999, 2000, 2001

TABLE 4.2-6C
AIR QUALITY DATA SUMMARY (1997–2001) FOR VALERO STATION 3

Pollutant	Standard	Monitoring Data by Year				
		1997	1998	1999	2000	2001
Sulfur Dioxide						
Highest 1-Hour Average (ppb)		2	2	4	5	7
Highest 24-Hour Average (ppb)		1.4	1.5	1.1	1.4	1.5
Days over State Standard	40 ppb	0	0	0	0	0
Days over National Standard	140 ppb	0	0	0	0	0
Annual Average (ppb)	30 ppb	0.086	0.093	0.107	0.116	0.113
Hydrogen Sulfide						
Highest 1-Hour Average ($\mu g/m^3$)		13.9	16.7	11.1	12.5	29.2
Days over State Standard	43 $\mu g/m^3$	0	0	0	0	0
Frequency (hours) > odor threshold[c]		8	13	6	4	9
Annual Average (ppb)		0.32	0.51	0.59	0.48	0.46

[a] Generally, state standards are not to be exceeded and national standards are not to be exceeded more than once per year.

[b] ppm = parts per million; ppb = parts per billion; g/m^3 = micrograms per cubic meter.

[c] The odor threshold for H_2S is 7 $\mu g /m^3$.

SOURCE: BAAQMD, Data Summaries, 1997, 1998, 1999, 2000, 2001

Page ***Identification*** **/ Text Change:**

The essential information that is revealed by these wind data is that the predominant flow of the winds tends to carry pollutants from the refinery away to the east, rather than toward the City. That predominant flow of the wind also brings to the City those pollutants created in locations to the west. Therefore, air quality conditions are influenced as much or more by pollutant sources within and to the west of the City, rather than by the refinery. However, during calm conditions or during return flow periods, the opposite is the case.

Valero monitors SO_2 and H_2S at each of three air quality monitoring stations near the Refinery. One station is located west of the refinery at a gas station near I-780 and East Second Street (station 1), the second is located in an industrial area to the east (station 2) and the third is located to the southeast on Industrial Way south of I-680. All three monitoring stations are outside the refinery boundary and are located within the community. The locations of these monitoring stations are shown on Figure 4.2-3. Valero has operated these monitors for many years as part of its BAAQMD permit compliance efforts. Data collected by Valero are routinely reviewed by the BAAQMD for validity and to determine any trends in pollutant concentrations. Tables 4.2-6A to C, show the most recent SO_2 and H_2S data collected by Valero at each of its three off-site monitoring stations for the five-year period 1997 to 2001.

As shown in Tables 4.2-6A to 4.2-6C, for the most recent 5 years, the three Valero monitoring stations show no exceedances of air quality standards. The Valero hydrogen sulfide data, while below the standards, does show a low frequency of values above the odor threshold, typically less than one percent of the time annually.

In summary, based on the comparison of SO_2 data shown above, we see the relative uniformity in existing annual air quality in the region and at the Valero monitoring stations. Furthermore, the same relative uniformity is seen for other pollutants, including TACs, at the surrounding BAAQMD stations. Therefore, it can be concluded that the data from the Vallejo station adequately represents conditions that occur in Benicia and near the refinery.

4.2-17 *The text in the third paragraph under "Significance Thresholds" is revised as follows:*

For ROG, NO_x and PM-10<u>, on a daily basis</u>, a net increase of 80 pounds per day is considered significant, while for CO, an increase of 550 pounds per day would be considered significant if it leads to a possible local violation of the CO standards i.e., if it creates a "hot spot" (BAAQMD 1999). <u>If the baseline and project emissions are estimated on an annual basis, the BAAQMD recommends a significance threshold of 15 tons per year for ROG, NOx and PM-10 and a screening threshold of 100 tons per year for CO emissions. For projects such as the VIP, where daily emissions vary greatly, an evaluation based on the annual average would be more appropriate.</u>

Page ***Identification*** **/ Text Change:**

Therefore, BAAQMD's annual thresholds have been used for the impact analysis of this project. According to …

4.2-20 *Mitigation Measure 4.2-1b is revised as follows:*

Mitigation Measure 4.2-1b: To mitigate ~~the~~ impact of construction equipment exhaust emissions, the project sponsor should require its construction contractors to comply with the following requirements:

- Construction equipment shall be properly tuned and maintained in accordance with manufacturers' specifications.
- Best management construction practices shall be used to avoid unnecessary emissions (e.g., trucks and vehicles in loading and unloading queues would turn their engines off when not in use).
- Any stationary motor sources (such as generators and compressors) located within 100 feet of any residence shall be equipped with a supplementary exhaust pollution control system as required by the BAAQMD and CARB. In such cases, the project sponsor shall require construction contractors to mitigate diesel emission by measures such as the use of catalyzed diesel particulate filters, use of ultra-low sulfur diesel fuel, and/or use of EPA and CARB 1996 certified diesel engines.

4.3-3 *The following is added to the end of the paragraph under the heading "**Riparian**":*

Sulphur Springs Creek is shown on Figure 4.9-1, Drainage Parcel and Stormwater Outfall Locations.

4.3-12 *Mitigation Measure 4.3-1 is revised as follows:*

Mitigation Measure 4.3-1: Unless protocol surveys during the period ~~November 15 through May 15~~ May 1 through November 1 establish that the retention ponds are not occupied by either species, the modification of any Tank Farm retention pond should be preceded by a period of at least six months during which the pond is drained and minimal water allowed to collect in the basin.

4.3-15 *The first paragraph is revised, beginning at line 9, as follows:*

If these conditions continue to be met, the levels of contaminants resulting from the project should not have a significant effect on the more susceptible special status fishes as noted above. To ensure that the discharge protects aquatic life, for its NPDES permit, Valero must also meet concentration limits for pollutants that could pose toxicity to aquatic life. The proposed increase in crude throughput should not cause the concentration of pollutants to increase. Further, to strictly limit the mass of

Page ***Identification*** **/ Text Change:**

pollutants discharged, and therefore the mass of any pollutants that could pose a risk to human health through food chain bioaccumulation, Valero must also meet discharge flow and/or pollutant load limits for pollutants consistent with Resolution No.68-16 Statement of Policy with Respect to Maintaining High Quality of Waters in California. Specifically, the Anti-Degradation Report required by the RWQCB must show those measures Valero will implement to minimize the mass of pollutants discharged and must evaluate the capacity of each treatment unit. (See Section 4.9 for a more detailed discussion of these RWQCB requirements.)

4.7-5 *The second paragraph is revised as follows:*

BAAQMD is responsible for administering Federal and State regulations related to TACs. Under Federal law, BAAQMD adopts regulations to satisfy National Emission Standards for Hazardous Air Pollutants (NESHAPs) and Maximum Achievable Control Technology (MACT) for affected sources. BAAQMD also administers the state regulations AB1807 and AB 2588 which were discussed above. In addition, the Agency requires that new or modified facilities, which emit TACs, have to perform air toxics screening analyses as part of the permit application. The air toxics screening involves comparing the toxic emission rates with guideline emission levels presented in BAAQMD's Toxics Risk Screening Policy. If the toxic emissions equal or exceed guideline levels, the entire permit application file along with a completed engineering evaluation and "Risk Screening analysis: Request for Information" form are submitted to the Toxics Section of the Permit Services Division for a risk screen.

4.7-14 *In TABLE 4.7-8, revise both entries for the number of ships, under the headings titled "Count", to* "24 per year"*, to replace* "16 per year".

4.7-16 *The text of Impact 4.7-2 is revised as follows:*

Impact 4.7.2: The proposed project, along with other ongoing and approved projects would lead to a net reduction in emissions of TACs when compared to TAC emissions from the Refinery under existing conditions. These TACs ~~which~~ are responsible for public health impacts. The reduction in TAC emissions would constitute a net improvement in health risks over baseline conditions, and the impact would be less than significant.

4.8-16 *Table 4.8-7 is revised as follows:*

TABLE 4.8-7
SUMMARY OF BASELINE IMPACT ESTIMATES FOR MAJOR ACCIDENTAL RELEASE SCENARIOS WITH VIP IMPACTS WHERE APPROPRIATE

		Baseline Impacts				VIP Impacts			
No.	**Accident Scenario**	**Worst-case Frequency**	**Frequency Qualitative Ranking**	**Consequence at Benicia Fenceline**	**Consequence Qualitative Ranking**	**Worst-case Frequency**	**Frequency Qualitative Ranking**	**Consequence at Benicia Fenceline**	**Consequence Qualitative Ranking**
1	Vapor cloud explosion resulting from $^3/_4$" release in process area	3.0×10^{-4}/yr –	low	0.07 psi	very low	3.0×10^{-4}/yr no change	low	0.07 psi[a] no change	very low
2	Vapor cloud explosion resulting from 2" release in process area	3.0×10^{-5}/yr –	low	0.23 psi	very low	3.0×10^{-5}/yr no change	low	0.23 psi[a] no change	very low
3	Vapor cloud explosion resulting from truck release in storage-loading area	8.4 x 10-7/yr	low	~4 psi	high	1.6×10^{-7}/yr (VIP incr.) 9.2 x 10-^{6}/yr, total risk	low	~4 psi[a] no change	high
4	Fire from truck release in storage-loading area	7.6 x ^{10}-6/yr	low	<5 kW/m^2	low	16×10^{-6}/yr (VIP increment)– 9.2×10^{-6}/yr total risk	low	(<5 kW/m^2)[b] no change	low
5	Pool fire in process area	1.0×10^{-4}/yr	low	<1.6 kW/m^2	very low	1.0×10^{-4}/yr no change	low	(<1.6 kW/m^2)[b] no change	very low
6	Hydrogen sulfide dispersion from $^3/_4$" release in process area	3.0×10^{-4}/yr	low	0.09 ppm	very low	3.0×10^{-4}/yr no change	low	0.18 ppm[c] increase	very low
7	Hydrogen sulfide dispersion from 2" release in process area	3.0×10^{-5}/yr	low	4.0 ppm	low	3.0×10^{-5}/yr no change	low	8.0 ppm[c] increase	low
8	Sulfur dioxide dispersion from $^3/_4$" release in process area	3.0×10^{-4}/yr	low	0.18 ppm	very low	3.0×10^{-4}/yr no change	low	0.36 ppm[c] increase	very low
9	Sulfur dioxide dispersion from 2" release in process area	3.0×10^{-5}/yr	low	0.36 ppm	low	3.0×10^{-5}/yr no change	low	0.64 ppm[c] increase	low

[a] Overpressure expressed in pounds per square inch
[b] Radiant heat expressed in Kilowatts per square meter
[c] Concentration in parts per million

SOURCE: Based on previous estimates from Exxon (1993) and Woodward-Clyde (1993), and new analysis for Scenarios No. 3, 4, 6, 7, 8, and 9.

Page ***Identification*** **/ Text Change:**

4.9-2 *Lines 1 through 2 of the first paragraph of Section 4.9.2.1 are revised as follows:*

per day. The VIP will require an additional ~~432,000~~ 216,000 gallons per day or ~~0.432~~ 0.216 million gallons per day (or ~~484~~ 242 acre feet per year).

4.9-2 *Lines 6 through 8 of the first paragraph of Section 4.9.2.1 are revised as follows:*

reservoir, Sulphur Springs Creek flows in an engineered channel that runs through the Benicia Industrial Park, at the eastern border of the refinery. The creek then traverses a narrow band of marshland and discharges to Suisun Bay. ~~Along the eastern border of the refinery, this creek flows through an engineered channel through the Benicia Industrial Park.~~

4.9-4 *Figure 4.9-1 is revised to show Sulphur Springs Creek. See the following page.*

4.9.5 *Text is revised and added to in the last paragraph, second line, as follows:*

Oily wastewater streams are first treated in corrugated plate separators~~, which provide separation of the oil and suspended solids from the wastewater. An organic polymer (ferric chloride) is added, which co-precipitates selenite and enhances flocculation, to the wastewater before it enters the induced static flotation units.~~ and induced static flotation units to remove oils and solids. Most of the non-oily waste stream from the sour water stripper (stripped sour-water) is initially aerobically treated in two prebiox activated sludge units. A smaller portion of the stripped sour water is then combined with the oily wastewater streams and the prebiox effluents and is treated in three parallel activated sludge biological treatment units to which powder activated carbon is added. Treatment continues with three clarifiers in parallel. Effluent from the clarifiers is discharged to an induced air flotation (IAF) unit, which provides additional solids removal. From the IAF unit, wastewater flows to a reactor clarifier where ferric chloride is added to co-precipitate selenite. Polymer is also added to enhance flocculation. Caustic is then added for pH control and wastewater flows to a sump. From the sump, effluent is pumped to Outfall 001 (RWQCB, 2002). The coagulated solids that float to the surface of the ISF units and are skimmed before returning to the treatment cycle. The skimming of these solids results in the production of waste sludge that is disposed of at the Kettleman Hills Class I landfill in Kettleman City, California. Kettleman Hills Landfill is a Class I facility that accepts most types of hazardous waste for treatment, storage, and/or disposal and provides stabilization, solidification, macro and micro encapsulation and landfill of hazardous sludge. Currently, the refinery ships waste sludge from its wastewater treatment area to Kettleman Hills Landfill roughly once every three days.

SOURCE: Environmental Science Associates

Figure 4.9-1

Drainage Parcel and Stormwater Outfall Locations

Page ***Identification*** **/ Text Change:**

4.9-9 *Text is revised in the third full paragraph, as follows:*

The discharge limitations for Outfall 001 are summarized for effluent mass loading, which is the total effluent discharge of each pollutant included in Section 303(d) of the federal Clean Water Act (see Section 4.9.2.3), and for concentration limits in the RWQCB NPDES Order (RWQCB 2002a).[4] Interim effluent limitations were derived for those constituents ~~that~~ for which the refinery has demonstrated that compliance is infeasible. For copper and selenium, final water quality based effluent limitations are based on the California Toxics Rule, and therefore, the permit indicates that interim limits shall remain effective for five years (until January 1, 2008). However, for lead, mercury, and nickel, final water quality based effluent limitations are based on the San Francisco Basin Plan, and therefore, the permit allows interim limits to remain effective until March 31, 2010~~. Specifically, the RWQCB NPDES Order has established a five-year compliance schedule for copper, selenium, lead, mercury, and nickel.~~ A ten-year compliance schedule has been established for dioxin toxic equivalency (dioxin TEQ). In addition, a data collection period has been set (present – May 18, 2003) to gain a sufficient amount of data for cyanide; whereas, the RWQCB intends to include, in a subsequent permit revision, a final limit on the study results (RWQCB 2002a).

4.9-9 *Text is revised in the second full paragraph, as follows:*

Final ~~E~~effluent limitations contained in Order No. 2002-0112 are based on whichever criteria (marine or fresh water) would result in the most stringent limit. ~~are derived from marine criteria and have been included in the RWQCB NPDES Order for the refinery.~~ The State Board's Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy, or SIP) allows background ambient monitoring data to be determined on a discharge-by-discharge or water body-by-water body basis. The RWQCB has chosen to use a water body-by-water body basis because of the uncertainties inherent in accurately characterizing ambient background in the complex San Francisco Bay estuarine system. The Yerba Buena Island and Richardson Bay Stations fit the guidance for ambient background in the SIP compared to other stations in the Regional Monitoring Program. The RWQCB believes that data from these stations are representative of water that will mix with the discharge from Outfall 001 (RWQCB 2002a).

4.9-9 *Text is revised in the fourth full paragraph, as follows:*

Toxicity bioassays are required for Outfall 001 discharges. These bioassays consist of placing ~~three-spine stickleback~~ rainbow trout and Fathead minnow ~~(or rainbow trout)~~ in undiluted treatment plant effluent and evaluating their survival over a 96-hour period. The permit limitation on the toxicity tests requires an eleven sample

Page *Identification* / Text Change:

median value of not less than 90 percent survival and 90th percentile value of not less than 70 percent survival. ~~a survival rate of not less than 50 percent~~. Discharge from Outfall 001 is also subject to the following receiving water limitations: ...

4.9-10 *The first line of the third paragraph is revised as follows:*

Near the refinery, the principal source of groundwater recharge is from the …

4.9-12 *The first two lines of the first paragraph are revised as follows:*

per day. The VIP will require an additional ~~432,000~~ 216,000 gallons per day or ~~0.432~~ 0.216 million gallons per day (or ~~484~~ 242 acre feet per year).

4.9-24 *The explanatory paragraph following Impact 4.9-6 is revised as follows:*

The refinery's wastewater treatment plant is located within a 100-year flood zone. Components of the project include support facilities that may be needed. These facilities are dependent on the water reuse design and NPDES permitting requirements and may include any of the facilities that are described in Section 3.4.3.13, *Wastewater Treatment*. If additions to the facilities at the Wastewater Treatment Plant are determined to be necessary, flood hazard mitigation measures in ~~accordance~~ compliance with the City of Benicia Floodplain Management Policy and the Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits (Standard Provisions) General Provisions A.7 are required to be included in the design criteria. This will comply with construction standards established by the California Building Code.

4.11-14 *The text is revised as follows:*

1. **Cogeneration Project** – Based on the noise analysis conducted for the cogeneration project as part of the California Energy Commission approval process, the predicted steady state background noise (represented by the statistical descriptor L_{90}) from the cogeneration facility would be 39 to 42 dBA, L_{eq} at the nearest representative residential receptors. Therefore, the analysis concluded that the cogeneration plant would cause an increase of up to 1 to 3 dBA in the background noise level assuming two LM6000 gas turbines are operating. ~~to the existing ambient L_{eq} and would cause no change to the overall CNEL.~~ Because the hourly L_{eq} and the CNEL or DNL noise descriptors include noise from many sources near and far at sensitive receptor sites, and because these levels are significantly higher than the background noise levels during any hour, the analysis concluded that there would be no change in the CNEL or DNL. The hourly L_{eq} is also not expected to change. Therefore, the Cogeneration project will not contribute to any significant cumulative effects on noise.

Page ***Identification*** **/ Text Change:**

4.11-15 *The text is revised as follows:*

The cumulative impact of all these projects operating simultaneously at the refinery would be less than significant increase in existing noise levels at nearby sensitive receptors. ~~at most cause a 3 dBA increase in background L_{eq} at the nearest residential receptor.~~ No measurable change is predicted in the hourly L_{eq} or DNL at the residential receptors. Since the VIP would not affect ambient noise levels at these receptors, the total increase in ambient noise level due to the cumulative projects in conjunction with the noise generated by the VIP, at the nearest residential receptors would ~~be up to 3 dBA, L_{eq}. This increase would be less than significance thresholds identified for this project and would~~ constitute an imperceptible increase over existing levels. Therefore, the project, along with the other cumulative projects at the refinery would lead to a less than significant cumulative noise impact.

4.13-18 *The text of Mitigation Measure 4.13.1 is revised as follows:*

> **Mitigation Measure 4.13-1: Since this significant impact would be temporary and only occur for a period of approximately 45 days, there are several measures that can be applied to improve intersection levels of service at the I-680 northbound off-ramp / Bayshore Boulevard intersection without the installation or construction of additional transportation facilities (e.g., lane widening, traffic signal installation, etc.). Implementation of these measures would effectively reduce the a.m. ~~and p.m.~~ peak hour construction traffic volumes at the project site.**

4.14-2 *The numbering of the first subheading on the page is revised, as follows:*

~~14.14.2.1~~ 4.14.2.1 WATER SUPPLY

4.14-7 *TABLE 4.14-1 is revised, as follows:*

TABLE 4.14-1
HISTORICAL RAW WATER DELIVERIES ~~TO VALERO~~ (ACRE-FEET PER YEAR)

Year	1995	1996	1997	1998	1999	2000
Valero Raw Water Delivery	5,112	6,008	6,255	5,788	4,979*	5,460
Treated Water Delivery to the City	4,494	4,717	5,037	4,595	5,011	4,989
Total Use (City and Valero)	9,606	10,725	11,292	10,383	9,980	10,449
Refinery Percent of Total Use	53.2%	56.0%	55.4%	55.7%	49.9%	52.3%

* In 1999, the refinery conducted a major turnaround, affecting its water use for that year. (See also Section 3.6.1.1).
SOURCE: *Urban Water Management Plan*, City of Benicia, 2001.

Page ***Identification*** **/ Text Change:**

4.14-7 *TABLE 4.14-2 is revised, as follows:*

TABLE 4.14-2
BASELINE WATER DEMAND FORECAST (ACRE-FEET PER YEAR)

Year	2000	2005	2010	2015	2020
Valero Raw Water Demands	5,370	5,450	5,525	5,600	5,660
City Treated Water Demands	6,537	6,777	7,057	8,088	8,956
Total Use (City and Valero)	11,907	12,227	12,582	13,688	14,616
Refinery Percent of Total System Use	45.1%	44.6%	43.9%	40.9%	38.7%

SOURCE: *Urban Water Management Plan*, City of Benicia, 2001.

4.14-8 *The last sentence of the fourth paragraph on page 4.14-8 is revised as shown:*

> Valero ~~is not subject to the requirements in the ordinance, although~~ has limited ability to conserve water in accord with provisions of the ordinance. Therefore, during past water shortages, the refinery has instead reduced water use and funded temporary water purchases.

4.14-15 *The following additional mitigation measure is added after Mitigation 4.14-1b.*

> **Mitigation 4.14-1c: Drought Contingency**
>
> **If a "water shortage" (as defined below) occurs, then Valero will take the steps necessary to reduce water consumption at the refinery by an amount equal to or greater than the amount of raw water that is being consumed due to implementation of the VIP during the period of the water shortage. This reduction would be in addition to any amount of reduction required by Condition WATER RES-2, approved by the California Energy Commission on October 31, 2001, for the Valero Cogeneration Project. Upon notification that a water shortage exists for any given year, Valero will provide prompt documentation to the City of: the amount of water expected to be consumed by the VIP during the year of the shortage; a description of the steps planned to reduce consumption; the amounts to be saved by the steps; and the timing of implementation. Valero will notify the City as the steps are implemented and will provide an annual report at the end of the year, verifying the amounts of water saved by the steps taken.**
>
> **For purposes of this mitigation, "water shortage" means that all of the following conditions have occurred:**

Page ***Identification*** **/ Text Change:**

a. The City is unable to secure, pursuant to Supplemental Water Rights Application 30681, rights to the amount of water projected to accommodate City demand for the year of the water shortage, as shown in Table 4.14-3 of the VIP EIR, plus the amount of water needed for the VIP;

b. The City is unable to secure other water entitlements to the amount of water projected to accommodate City demand for the year of the water shortage, as shown in Table 4.14-3 of the VIP EIR, plus the amount of water needed for the VIP;

c. Valero has not secured a separate water entitlement, valid for the year of the water shortage, adequate for the amount of water needed for the VIP;

d. The City has not implemented the wastewater reuse project; and

e. The City has announced a water alert, as defined by Benicia Municipal Code Title 13, Chapter 13.35, section 13.35.060(B), and has ordered implementation of conservation stage two pursuant to the City Code.

The City of Benicia would require the refinery to implement the steps that will fully offset the amount of water used by the VIP should the additional sources of supply not be obtained and should the City announce a water alert.

Significance after Mitigation: Less than Significant.

4.14-19 *Change the second full paragraph is revised as follows:*

The VIP and other refinery projects, in addition to all other planned demands for the City accounted for in the UWMP would have a cumulative impact related to water supply since demands would exceed supply in dry years. Mitigation measures 4.14-1a, ~~and~~ 4.14-1b and 4.14c above, by mitigating direct impacts of the VIP, also would reduce cumulative impacts of the VIP to less than significant.

6-10 *The third paragraph of Section 6.2.2 is revised as follows:*

This alternative is practical and viable, and given the limited actual difference between this alternative and the VIP, also could be considered as a supplement or an alternative to mitigation measure 4.13-1~~3~~, which is included in Section 4.13, Traffic and Transportation.

Section 8.2 *Section 8.2 Acronyms Used in this EIR will be changed to add the following*:

SWP	State Water Project
UWMP	Urban Water Management Plan

CHAPTER VII

AGENCIES, ORGANIZATIONS, AND PERSONS THAT RECEIVED THE DRAFT EIR

AGENCIES, ORGANIZATIONS, AND PERSONS THAT RECEIVED THE DRAFT EIR

Regional Water Quality Control Board, San Francisco Region
Bay Area Air Quality Management District
Solano County Department of Environmental Management
Solano County Transportation Department
Solano County Water Agency
Solano Transportation Authority
Contra Costa County
City of Martinez
City of Vallejo
City of Fairfield
City of Vacaville
State Clearinghouse:

Resources Agencies

- Department of Fish and Game, Region 2
- Department of Parks and Recreation
- San Francisco Bay Conservation and Development Commission
- California Highway Patrol
- Caltrans, District 4
- Air Resources Board, Major Industrial Projects

Major Industrial Projects

- State Water Resources Control Board, Division of Water Rights
- Regional Water Quality Control Board, Region 5 (Sacramento)
- California Energy Commission
- Native American Heritage Commission
- Public Utilities Commission
- State Lands Commission

Print and electronic copies of the Draft EIR were made available to the public at the City of Benicia Community Development Department. Print and electronic copies of the Draft EIR were also available for review and for circulation at the Benicia Public Library. In addition, the Draft EIR was available for review on the City of Benicia website.

APPENDIX

MYTHS AND FACTS ABOUT NEW SOURCE REVIEW REFORM

The following text is from the US Environmental Protection Agency's website. http://www.epa.gov/nsr/ Accessed March 7, 2003.

MYTHS AND FACTS ABOUT NEW SOURCE REVIEW REFORM

The New Source Review (NSR) program covers (1) the construction of new major emitting industrial facilities and (2) existing facilities that make major modifications that significantly increase pollution emissions. The program requires that new plants and major modifications of existing plants obtain a permit before construction, which will be issued only if the new plant or major modification includes pollution control measures that reflect best technology available.

Responding to a longstanding, bipartisan call for reform, EPA is making a number of regulatory improvements in the way the program works for existing facilities. These improvements will not change the NSR program as it applies to new facilities and will not change which facilities are subject to the NSR rules.

EPA is promulgating one set of final rules and is issuing one set of proposed rules. The final rules already have been through the full notice-and-comment rulemaking process. In 1996, EPA proposed several changes to the NSR program, and accepted extensive public comments on this proposal, several elements of which are now being finalized. These improvements will:

1) Remove needless regulatory barriers to pollution control and prevention projects;

2) Encourage modernization of plants and provide operating flexibility by establishing stringent pollution caps known as “Plantwide Applicability Limits” (PALs);

3) Create incentives for facilities to install state-of-the-art pollution controls by providing operational flexibility for facilities that install “clean units,” and

4) Calculate actual emissions increases and establish actual emissions baselines.

In addition, EPA is seeking public comment on a proposed rule concerning the definition of “routine maintenance, repair, and replacement” under the NSR program. The proposed rules would amend that exemption, which is currently contained in EPA’s regulations, to make clear that two categories of activities constitute routine maintenance, repair and replacement.

EPA proposes to establish an annual routine maintenance, repair and replacement allowance, so that activities undertaken to promote the safe, reliable and efficient operation of a plant whose costs fall within the allowance would automatically constitute routine maintenance. EPA also proposes to establish an equipment replacement approach, whereby most replacements of existing equipment with functionally equivalent new equipment to allow plants to run more safely, efficiently and reliably – for example,

a utility's replacement of turbine rotor shafts or turbine blades with upgraded shafts or blades - would constitute routine maintenance, repair and replacement. EPA is asking for public comment on these proposals and will not take final action on them until after the public has had an opportunity to comment on the proposed rules and the agency has considered those comments.

(1) MYTH: EPA is finalizing changes to the NSR program without analyzing the impact of those changes on public health and the environment.

FACT: EPA has evaluated the impact of the changes to the NSR program and found that these improvements will reduce overall emissions by (1) eliminating unintentional regulatory barriers that stand in the way of environmentally beneficial projects at existing plants, (2) removing counterproductive incentives that encourage facilities to maintain their emissions as high as legally allowed, and (3) establishing regulatory incentives for sources to decrease emissions. The final rules are based on an enormous amount of public comment that EPA has gathered and evaluated over the last 10 years, and on EPA's own legal, technical and policy review. In addition to reducing emissions, the changes will provide regulatory certainty, administrative flexibility and permit streamlining.

(2) MYTH: EPA is making major changes to the NSR program without providing an opportunity for full public notice and comment.

FACT: The matters addressed in the final rule have already been through the full notice-and-comment process and have been the subject of extensive public hearings and comment. There has been a broad, bipartisan consensus for many years that the NSR program needs improvement. The nation's governors, state environmental commissioners, environmental groups, industry, academia and other groups have acknowledged problems with the current NSR program. The Democratic Leadership Council's think tank, the Progressive Policy Institute, has also called for NSR reform, recognizing that the existing regulations are inefficient and counterproductive.

The final rule changes to NSR are the result of a 10-year multi-stakeholder process that has included numerous opportunities for interested parties and individuals to provide input. State regulators, environmental groups, industry and the public commented extensively on the provisions in the final rule – which were proposed in 1996 – and we have considered these comments fully in developing the final rule.

The routine maintenance proposal will be subject to a full public comment process.

(3) MYTH: EPA is making major changes to the NSR program that will undercut the NSR enforcement cases it brought against utilities.

FACT: Governor Whitman has stated numerous times that she strongly supports enforcement of the law and is moving forward with these cases. None of the changes, either in the final rule or the proposed rule, will apply to the existing enforcement cases. The final rule will apply only prospectively. EPA will not make any final decisions with

respect to the proposed rule until after the completion of public notice and comment, and in any event, EPA is proposing to apply the proposed rule only prospectively as well.

(4) MYTH: EPA is making regulatory changes that effectively rewrite the Clean Air Act.

FACT: The changes that we are making to the NSR rules do not change the Clean Air Act at all. All the changes are fully authorized under and are consistent with the Act.

(5) MYTH: Because EPA estimated in 1996 that, with these improvements, 50% fewer sources would go through NSR, the improvements will have an adverse impact on air quality.

FACT: The number of times sources have to go through the permitting process is not a good measure of NSR benefits. EPA's analysis of the NSR reforms is that they will benefit the environment by reducing emissions and improving energy efficiency.

Even though a source may make a change without obtaining a new NSR permit, it does not mean that source is not covered by NSR or that NSR is reducing air emissions from the source. For example, a source that takes an emissions cap known as a Plantwide Applicability Limit (PAL) may avoid some future NSR permitting, but only in exchange for an agreement to cap its overall emissions under the NSR program. By so doing, it would reduce its emissions and also reduce the frequency of its NSR permit reviews.

Conversely, requiring an NSR permit for some types of projects (e.g., those at clean units) can result in no or only trivial environmental benefits. The NSR rule being finalized today is designed to streamline review in such cases. Likewise, requiring an NSR permit for some environmentally beneficial projects may deter some projects from going forward. In such instances, no permit is now recorded, but real environmental benefits are lost. Our rules are designed to remove NSR barriers and promote these beneficial projects.

(6) MYTH: Because some of the final rule changes allow facilities to freeze their emission levels for 10 years, EPA's changes to the NSR program will not lead to air quality improvements.

FACT: This claim is simply untrue. As noted above, EPA's review shows that the changes made by the final rule will provide a net benefit to air quality by removing current NSR barriers to environmentally beneficial projects and by removing incentives in the current NSR rules to keep pollution at high levels.

It is important to understand that the NSR program was never designed to require facilities to reduce existing levels of pollution – that is not its purpose. NSR review is designed to be triggered when a new facility is being built or when one is undergoing a major modification that could significantly increase emissions. NSR is a permitting process to review and control emissions increases, not a tool to require reductions. The best way to require reductions in emissions is through legislative action such as the President's Clear Skies proposal.

In practice, sources' emissions fluctuate as part of the business cycle, as well as for other reasons. The current rule often results in lengthy discussions over what time period is truly representative of normal operations. EPA's rule would resolve this by allowing industrial sources to select any two-year period in the last 10 years – consistent with the business cycle. However, importantly, the baseline would have to be adjusted to reflect all current emissions limits. This allows a facility to operate at maximum capacity during peak periods of the business cycle, while still maintaining strict air quality controls.

(7) MYTH: EPA's changes to the NSR program will allow new sources to be built without installing pollution controls.

FACT: EPA's changes to the NSR program would not affect new sources at all, and new sources account for a large majority of NSR permits issued every year. Neither the final rule nor the proposed rule being announced by EPA would change NSR requirements for new sources.

(8) MYTH: EPA's changes to the NSR program will pre-empt state programs.

FACT: The changes do not pre-empt any state program more stringent than the federal program. Rather, under the Clean Air Act, states are specifically authorized to establish their own programs that may be more stringent than federal law. This continues to be the case.

EPA believes that the changes will significantly improve the NSR program. Thus, EPA will include the changes in the base NSR program as has been EPA's consistent practice and will encourage states to adopt these changes in their own programs.

(9) MYTH: The final rule has not been subject to enough public comment and is a complete departure from the Clinton Administration's 1996 proposal.

FACT: These proposals have been subject to an extraordinary amount of public input. The history of the final rule goes back to 1992 when EPA formed a federal advisory committee to determine how NSR could be improved. The committee included representatives from environmental groups, state and local governments, federal agencies and industry. The work of this committee ultimately led to the publication of two Federal Register notices (in 1996 and in 1998), each followed by an opportunity for public comment. EPA also held two public hearings and hosted more than 50 stakeholder meetings. Over 600 detailed comments have been submitted during the decade EPA has spent working on these rule improvements.

These final rules address the same issues as those originally proposed in 1996. EPA has made improvements based on the public comments and analysis, and, as is required by law, these changes are consistent with the scope of the 1996 proposal.