

III. COMMENTS AND RESPONSES

Written responses to each comment letter received on the Draft EIR published in July 2007 and sections of the EIR recirculated in April 2008 are provided in this chapter. Letters received during and after the public review period on the Draft EIR and recirculated sections are provided in their entirety. Each letter is immediately followed by responses keyed to the specific comments. The letters are grouped by the affiliation of the commentor as follows: State, local and regional agencies (A); organizations (B); individuals (C); public hearing comments (D); and comments on the recirculated sections (E).

Note that text within individual letters that has not been numbered does not raise environmental issues or relate to the adequacy of the information or analysis within the Draft EIR, and therefore no response is required, per *CEQA Guidelines* section 15132.

Many of the comments received on the Draft EIR involve variations of several key issues. In order to consolidate responses to questions and comments related to these topics, and to address concerns comprehensively, several master responses have been prepared. Master responses are included below and referenced in certain responses, as appropriate.

MASTER RESPONSE #1: IMPACTS TO BENICIA ARSENAL HISTORIC DISTRICT

Additional discussion was added to Section IV.K, Cultural Resources, which was recirculated for public review in April 2008. Refer to page 82 of the recirculated section (see Appendix A) for additional detail. The analysis in the recirculated section indicates that the Draft Specific Plan would not result in a significant impact to the Benicia Arsenal Historic District as a whole. This finding is supported by the following facts/findings:

- 1) A 1976 letter from Dr. Knox Mellon of the Office of Historic Preservation to Dr. William J. Murtagh, Keeper of the National Register, which states that the Benicia Arsenal “has suffered a severe loss of overall integrity of setting” and that [m]any buildings have been demolished while others have been extensively altered for conversion to modern industrial purposes;”
- 2) The Arsenal Historic District is a non-contiguous historical resource in which the two northern subdistricts (A and B) are separated from the two southern subdistricts (C and D) by the Interstate 780 (I-780) corridor;
- 3) Subdistricts A and B would not be substantially adversely affected by new development that could occur as a result of the Draft Specific Plan due to the presence of the visually-intrusive I-780 corridor and the distance of the Plan Area from these subdistricts; and
- 4) The impacts of the Draft Specific Plan on the integrity of Subdistricts C and D would be reduced to a less-than-significant level through implementation of mitigation measures in the EIR (specifically Mitigation Measures CULT-2a, CULT-2b, CULT-7a, and CULT-7b) and the Draft Specific Plan itself, which incorporates the goals, policies, and guidelines of the Benicia Arsenal

Historic Conservation Plan and is highly protective of historic resources, including the integrity of the historic district as a whole.

The Draft Specific Plan would change the appearance of the southern portions of the Arsenal Historic District, but would not substantially adversely affect the historic integrity of the District as a whole because the historic integrity of the District is already compromised, according to the State Office of Historic Preservation, and all Draft Specific Plan development (including building rehabilitation, urban design, open space design and configuration, and infill construction) would be undertaken in accordance with the resource-protection provisions of the Draft Specific Plan and the Arsenal Historic Conservation Plan. These provisions are specifically designed to protect the remaining historic integrity of the Arsenal. Historic Preservation Action 4.1.1 (“Maintain the National Register of Historic Places listing for the Benicia Military Arsenal Historic District.”) is itself intended to prohibit development from being undertaken as part of the Draft Specific Plan that would adversely affect the District as a whole.

MASTER RESPONSE #2: HAZARDOUS MATERIALS

Section IV.E, Hazards and Hazardous Materials, in the Draft EIR was revised to: provide additional descriptive information about remedial investigations and clean-ups that have been undertaken at the Benicia Arsenal by the U.S. Army Corps of Engineers; provide descriptive information related to hazardous materials concerns in the Plan Area and its surroundings, including the 50 Series Complex (the area in the southern portion of the Plan Area identified as “Shop Buildings” in the Arsenal Historic Conservation Plan), fuel storage tanks, and groundwater contamination; identify a new impact associated with development that would occur in areas with documented and/or partially characterized environmental releases associated with historical site uses; and identify a mitigation measure to reduce this impact to a less-than-significant level. Refer to the revised section (which was recirculated in April 2008) in Appendix A for additional detail.

The new impact identified in the recirculated section (“Impact HAZ-1: Site development would occur in areas with documented and/or partly characterized environmental releases associated with historical site uses.”) was identified to address areas of contamination that are known to occur in the Plan Area but that are not fully characterized. Known contamination in the project site is the result of former military, commercial, and industrial uses that have historically occupied the Plan Area.

Mitigation Measure HAZ-1 was developed in consultation with the U.S. Army Corps of Engineers and the California Department of Toxic Substances Control (DTSC) to establish a protocol for reducing environmental harm associated with known contamination in the site, and requires that existing contamination on the site be remediated (or that contamination-related risks be reduced) to acceptable levels. It would avoid a reliance solely on observations that suggest potential contamination (e.g., discolored soil) to identify and mitigate residual hazardous materials on the site. The mitigation measure sets the following guidelines/standards for mitigation:

- The parties responsible for mitigation may include the U.S. Army Corps of Engineers, former and current property owners in the Plan Area, future Plan Area developers, and/or the City.
- The acceptable health standard for clean-up is an incremental lifetime cancer risk within the U.S. Environmental Protection Agency’s range of one in 10,000 to one in 1 million or less and a non-cancer health hazard index of less than one. Groundwater health standards are required to meet

California Environmental Protection Agency standards for designated beneficial uses of groundwater.

- Oversight will be provided by the appropriate agency (Department of Toxic Substances Control, Regional Water Quality Control Board, or Solano County Environmental Health Services).
- Soil and groundwater data will be collected, and these data will be used to develop a human health risk assessment. The human health risk assessment will be used to determine whether additional actions are required prior to development of specific sites in the Plan Area.
- Prior to issuance of a building permit for a specific development, the City will confirm that a finding of No Further Action has been made by the regulatory oversight agency in regard to site contamination and clean-up, or that other activities/controls are in place to ensure an acceptable human health risk prior to site disturbance.

MASTER RESPONSE #3: DEFERRED MITIGATION

The environmental analysis in the Draft EIR, including the identification of mitigation measures, has been conducted in accordance with the level of detail available for the proposed project. As is typical for environmental review of a Specific Plan (where development details would be specified as individual projects are proposed), certain mitigation measures require the preparation of additional technical reports (e.g., acoustical or air quality analysis), review by the City of these reports to ensure that they are adequate, and implementation of the recommendations of these reports. The mitigation measures establish specific criteria that City reviewers can use to determine if the subsequent analyses are adequate and fulfill the intent of each mitigation measure.

CEQA Guidelines section 15126.5 specifically forbids the deferral of mitigation measures to a later date, but states that “mitigation measures may specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way.” Certain mitigation measures in the Draft EIR require the project sponsor of an individual development project to undertake additional analysis at a later date, and to incorporate the results of this analysis into the project plans. However, such mitigation measures do not “defer” mitigation to a later date because: 1) the mitigation measures in the Draft EIR specify certain performance standards that must be met by both the project sponsor of an individual development project and the required analysis, and 2) these mitigation measures are adequate to reduce impacts associated with the *range* of specific development projects that could be built as part of the Specific Plan.

As an example, Mitigation Measure LU-1 requires that proposed residential uses be evaluated to determine that such uses would not be incompatible with industrial uses. This may take the form of site/project specific acoustical or air quality analysis, as determined by the City. The results of these analyses would be compared to the noise and air quality thresholds established by the City and other regulatory agencies (e.g., the Bay Area Air Quality Management District) to determine whether development in certain locations would be acceptable. The protocol for determining the acceptability of specific development projects outlined in Mitigation Measure LU-1 is a standard approach for effectively minimizing land use incompatibilities, and has been effectively used by the City for past development projects.

As stated on page 1 of the Draft EIR, “This Program EIR identifies general effects of the Draft Specific Plan. It is assumed that individual development projects proposed within the [Plan Area] would receive project-specific environmental evaluation, as necessary, during the development review process.” The Draft EIR is a program level EIR, and is not intended to identify site-specific environmental concerns, but the general environmental concerns and impacts of implementation of the program document (in this case the Specific Plan). Additionally, the identification of potential environmental impacts and creation of mitigation measures on specific sites within the Plan Area is not warranted at this time as no site-specific development plans have been incorporated into the Specific Plan. Again, it is important to understand that the focus of the CEQA analysis is on the net change of what could occur once the Specific Plan is approved. At the time that individual development projects are proposed, the City would determine the appropriate studies to be conducted based on the potential environmental effects of the project.

Therefore, the mitigation measures in the Draft EIR are adequate and are appropriate for the level of detail provided in the Draft Specific Plan. They do not inappropriately defer mitigation to a later date. The Draft EIR recommends mitigation measures which amend the Draft Specific Plan Actions in order to establish a largely self-mitigating plan. Individual development projects proposed for the Plan Area would be subject to further environmental review (see also Master Response #4).

MASTER RESPONSE #4: USING THE EIR WHEN SUBSEQUENT DEVELOPMENT PROJECTS ARE PROPOSED

As noted in Master Response #3, the Draft EIR is a program level EIR, and is not intended to identify site-specific environmental concerns, but the general environmental concerns and impacts of implementation of the Specific Plan. As a program level EIR, this EIR is a “first tier” document that assesses and documents the broad environmental impacts of the Specific Plan with the understanding that a more detailed site-specific environmental review may be required to evaluate future development projects implemented under the program. The identification of potential environmental impacts and creation of mitigation measures for specific sites within the Plan Area is not warranted at this time as no site-specific development plans have been incorporated into the Specific Plan (all plans for specific development zones, such as the plans for Jefferson Ridge, are conceptual). As individual projects with specific site plans and facilities are proposed in the Plan Area, the City will evaluate each project to determine the extent to which the EIR adequately addresses the potential impacts of the project and to what extent additional environmental analysis may be required.

The Draft EIR establishes a maximum envelope of development, which would encompass all individual development projects that would occur in the Plan Area. This maximum development envelope, organized by specific land use types, is found on page 44 of the Draft EIR (see Table III-1). This maximum development envelope (including preexisting development in the Plan Area) includes 51,574 square feet of residential uses in mixed use settings (including work/live, live/work, condominium, apartment, and home occupation uses) in addition to 22 strictly residential units. The mix of land uses anticipated for the purpose of the environmental review does not preclude other mixes of land uses from being developed in the Plan Area; however, different mixes must undergo additional environmental analysis to determine whether they would result in impacts that exceed those identified in the Draft EIR. If more substantial impacts (or new impacts) would occur, additional CEQA review would be required. It should be noted that the analysis in the Draft EIR is

based on the development assumptions outlined in the Draft Specific Plan that was released for public review – not on proposals for specific development projects in the Plan Area. No specific development projects are part of the Draft Specific Plan or analyzed in the Draft EIR.

Therefore, individual development projects (requiring a discretionary permit from the City) will be required to undergo project-level environmental review at whatever they are proposed and their specific details become known. As discussed in *CEQA Guidelines* section 15168, project-level environmental review for individual development projects could take the following forms: 1) an Initial Study leading to a Negative Declaration/Mitigated Negative Declaration or EIR, including a Subsequent/Supplemental ND/MND or EIR (if the specific projects would have effects that were not examined in the program EIR) or 2) a finding that no new environmental document is required because the effects of the specific project were adequately examined in the program EIR. Thus every specific project proposed in the Plan Area will be required to undergo some form of at least preliminary environmental review, although this review could culminate in a finding that no CEQA document (e.g., ND/MND or EIR) is required. This finding pertains to projects that have been proposed in the Plan Area during review of the Specific Plan.

The program EIR thus offers the potential benefit of streamlining environmental review for subsequent development projects. Subsequent environmental review for development projects may focus only on effects that were not fully analyzed in the program EIR. The Draft EIR thus fulfills the objectives of program level review as outlined in *CEQA Guidelines* section 15168. The Draft EIR: 1) provides a more exhaustive consideration of environmental effects and plan alternatives than would be practical in an EIR on an individual project; 2) ensures a more comprehensive analysis of cumulative effects; 3) will avoid reconsideration of basic policy considerations as individual projects in the Plan Area are proposed; and 4) has the potential to reduce paperwork by minimizing subsequent or supplemental environmental review.

MASTER RESPONSE #5: RECIRCULATION OF CERTAIN SECTIONS OF THE DRAFT EIR

Select sections of the Draft EIR (Section IV.E, Hazards and Hazardous Materials and Section IV.K, Cultural and Paleontological Resources) were recirculated on April 22, 2008 in accordance with *CEQA Guidelines* section 15088.5. The Draft EIR was first released on July 19, 2007. During and after the public/agency review period (which formally ended on September 6, 2007), 19 comment letters were submitted. In responding to these comment letters, and revising the information in the Draft EIR accordingly, “significant new information” (as defined in *CEQA Guidelines* section 15088.5) was added to the Draft EIR. *CEQA Guidelines* section 15088.5 requires recirculation of a Draft 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... but before certification.” The significant new information added to Sections IV.E and IV.K of the Draft EIR includes the identification of new hazards and cultural resources impacts that were not previously identified in the Draft EIR. After review of the comment letters received on the Draft EIR, the City and EIR consultants LSA Associates determined that only the changes made to Sections IV.E. and IV.K required recirculation. Minor text revisions have been made to other sections of the Draft EIR, but these text revisions do not constitute “significant new information” that would require recirculation.

According to *CEQA Guidelines* section 15088.5, “significant new information” requiring recirculation includes a disclosure showing:

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, which is considerably different from others previously analyzed, would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it; or
4. The Draft EIR is so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment are precluded.

Recirculation is not required where the new information added to an EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.

MASTER RESPONSE #6: POTENTIAL INCOMPATIBILITIES BETWEEN PORT USES AND PROPOSED RESIDENTIAL USES

Potential conflicts between residential uses that could be developed in the Plan Area and industrial uses at the Port of Benicia are identified as a significant impact on page 85 of the Draft EIR (see “Impact LU-1: Residential uses developed within the Plan Area may be incompatible with existing industrial uses.”). Concern has been expressed that residential uses in the Plan Area would be permitted without sufficient evaluation to determine whether new residential uses would result in unacceptable conflicts with Port uses or other industrial uses in and around the Plan Area. In fact, every proposed project in the Plan Area containing sensitive receptors would be required to demonstrate (using, for instance, acoustical and air quality analyses, and hazardous materials site investigations) that environmental conditions associated with local industrial uses would not substantially adversely affect sensitive uses. This finding would be founded upon project-level environmental review conducted for specific development projects proposed in the Plan Area.

This requirement would be codified in Mitigation Measure LU-1 (which modifies Action 1.5.3 in the Draft Specific Plan to require that residential uses only be permitted when “it can be demonstrated that adequate buffers exist, and that the presence of residents will not significantly constrain industrial operations, including the flow of goods and materials”). Other mitigation measures that are designed to protect potential residential uses from the adverse effects of industrial uses (and vice versa) include Mitigation Measures HAZ-1, HAZ-2, AIR-2, NOI-2, NOI-3a, and NOI-3b. Individual development projects would be evaluated on a case-by-case basis to determine whether they are compatible with Port uses. However, the analysis in the Draft EIR suggests that, with appropriate mitigation, residential uses can be developed in certain portions of the Plan Area without resulting in significant impacts associated with Port activities.

A. STATE, LOCAL, AND REGIONAL AGENCIES



ARNOLD SCHWARZENEGGER
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



CYNTHIA BRYANT
DIRECTOR

September 5, 2007

Damon Golubics
City of Benicia
250 East L Street
Benicia, CA 94510

Subject: Lower Arsenal Mixed Use Specific Plan Program
SCH#: 2007062021

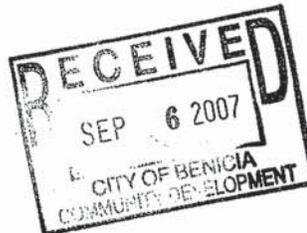
Dear Damon Golubics:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on September 4, 2007, and no state agencies submitted comments by that date. 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 call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts
Director, State Clearinghouse



**Document Details Report
State Clearinghouse Data Base**

SCH# 2007062021
Project Title Lower Arsenal Mixed Use Specific Plan Program
Lead Agency Benicia, City of

Type EIR Draft EIR
Description The proposed project includes implementation of a Specific Plan for the Lower Arsenal site, which is designated for mixed use in the Benicia General Plan. The Specific Plan covers four distinct zones, each of which exhibits a unique physical character. The Specific Plan would implement a form based code to shape future development on the project site, with primary emphasis on the physical form and character of the new development. After buildout of the Specific Plan, the area would contain approximately 741,865 square feet of mixed uses, 22 residential units, and 6.39 acres of open space. The Specific Plan area currently contains approximately 525,000 square feet of mixed uses.

Lead Agency Contact

Name Damon Golubics
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, Vallejo
Region
Cross Streets Jefferson Street and Park Road
Parcel No. Book 80
Township **Range** **Section** **Base**

Proximity to:

Highways I-680, I-780
Airports
Railways UPRR
Waterways Carquinez Strait
Schools Robert Semple Elementary
Land Use Light Industrial / Office Commercial, General Commercial, Planned Development, Public, and Semi-Public / Mixed Use, Public, and Quasi-Public

Project Issues Air Quality; Archaeologic-Historic; Biological Resources; Cumulative Effects; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Geologic/Seismic; Growth Inducing; Landuse; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife; Fiscal Impacts; Schools/Universities; Aesthetic/Visual

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 3; Office of Historic Preservation; Department of Parks and Recreation; San Francisco Bay Conservation and Development Commission; Department of Water Resources; California Highway Patrol; Caltrans, District 4; Department of Housing and Community Development; Regional Water Quality Control Board, Region 2; Department of Toxic Substances Control; Native American Heritage Commission; State Lands Commission

Date Received 07/20/2007 **Start of Review** 07/20/2007 **End of Review** 09/04/2007

COMMENTOR A1
Office of Planning and Research
Terry Roberts, Director, State Clearinghouse
September 5, 2007

A1-1: This letter indicates that the State Clearinghouse did not receive any comment letters on the Draft EIR during the public review period. The letter notes that the City of Benicia (City) has complied with State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act (CEQA). No further response is required. Additional letters from State agencies were received after the end of the Draft EIR review period. Despite their late arrival, these letters, and responses to comments in these letters, are presented in their entirety in this Response to Comments Document.



ARNOLD SCHWARZENEGGER
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



CYNTHIA BRYANT
DIRECTOR

September 7, 2007

Damon Golubics
City of Benicia
250 East L Street
Benicia, CA 94510

Subject: Lower Arsenal Mixed Use Specific Plan Program
SCH#: 2007062021

Dear Damon Golubics:

The enclosed comment (s) on your Draft EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on September 4, 2007. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

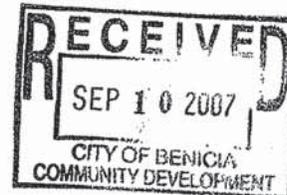
The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2007062021) when contacting this office.

Sincerely,

Terry Roberts
Senior Planner, State Clearinghouse

Enclosures
cc: Resources Agency



COMMENTOR A2
Governor's Office of Planning and Research
Terry Roberts, Director, State Clearinghouse
September 7, 2007

A2-1: This comment indicates that the State Clearinghouse received comment letters on the Draft EIR after the official close of the Draft EIR review period. This Response to Comments Document includes responses to all letters submitted on the Draft EIR, including the letters received by the State Clearinghouse after the close of the review period.

OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION
P.O. BOX 942896
SACRAMENTO, CA 94296-0001
(916) 653-6624 Fax: (916) 653-9824
culshpo@ohp.parks.ca.gov



September 10, 2007

Damon Golubics
Planner
City of Benicia
250 E. L Street
Benicia, CA 94510

- sent by facsimile (707) 747-8121 and United States Postal Service -

Lower Arsenal Mixed Use Specific Plan Program Draft Environmental Impact Report # 20077062021

Dear Mr. Golubics:

The State Office of Historic Preservation (OHP) has broad responsibility for the implementation of federal and state historic preservation programs in California. We thank you for the opportunity to comment on the above project. We have also been contacted by the public, by Belinda Smith, with concerns regarding the above project. My office is concerned with the impacts of the above project to the Benicia Arsenal District which is listed on the National Register of Historic Places. Additionally, we like to provide assistance to local governments, especially when they are a Certified Local Government (CLG) as we indicated to Mr. Charlie Knox, the City's Community Development Director.

The proposed project includes the implementation of a Specific Plan for the Lower Arsenal site, which is designated as mixed use in the City's General Plan. The Specific Plan area covers four distinct zones, the Jefferson Ridge/Officer's Row Zone, the Adams Street Zone, the Grant Street Zone, and the South of Grant Street Zone. The Specific Plan would be implemented by use of the form-based code, emphasizing the physical form and character of new development.

The vision of the Draft Specific Plan "calls for the 'preservation, enhancement, and promotion of the Benicia Arsenal National Historic District' through 'the restoration of the Specific Plan Area into a unified ensemble of high-quality, 19th and 20th century architecture through major restoration and rehabilitation of existing buildings and sites, and the careful placement and integration of new structures' in order to 'enhance the district and historic characteristics of the Arsenal and to create a finely integrated mixed-use district with a cluster of high-quality, interconnected and compatible places."

The significant impacts this Specific Plan introduces are analyzed at the policy-level. Additional project-specific environmental review may become necessary for subsequent specific development activities, but no detailed project descriptions for specific actions have yet been developed.

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Mr. Damon Golubics
September 7, 2007
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The DEIR identifies that the Benicia Arsenal National Register District consists of four smaller districts, two of which, district "C" and "D", are within the Specific Plan area. District "C" is part of the plan area and also extends beyond it including the Jefferson Ridge/Officer's Row zone, the Adams zone and Grant Street zone, the "Clock Tower", the Commanding Officers Quarters, the Officer's Quarters and Duplex and more. District D is entirely within the Specific Plan area and contains an 1872 barracks, three machine shops, including the Blacksmith's Shop. (DEIR- 285)

2
cont.

The Benicia Arsenal's Historic Conservation Plan (1993) sets forth policies and guidelines for development, alterations to properties and the landscape within, and the management of the Arsenal. The seven overarching objectives of the Conservation Plan are intended to guide any changes within the district and are undertaken in such a way that the historic integrity of the district is maintained.

My office has the following main concerns:

Archeology:

The entire Benicia Arsenal district has been identified to be of high sensitivity for pre-historic and historic archeology. No survey or systematic studies of any archeological resources have been conducted on site to date. Therefore, it is absolutely necessary that an intensive field survey for pre-historic and historic resources for the entire Benicia Arsenal site be conducted. This survey is necessary to establish a baseline of the existing resources to allow for effective planning BEFORE any ground disturbances such as specific projects as construction or demolitions, streets, roads, parking lots or other developments are planned. Resource avoidance remains the first and most desirable option.

3

Mitigation Measure CULT-1b and -1c which deal with unidentified accidental finds and human remains are adequate mitigation measures. Mitigation measure CULT-1a does not provide any mitigation for the impacts from the proposed Specific Plan because it defers the identification of archeological resources to the point when the physical implementation of any projects would occur.

4

National Register District Impact:

The proposed project does focus on cultural resource impacts that deal with architecture and building type, new buildings which may conflict with the Secretary of Interior's Guidelines for Rehabilitation. But the document does not address the impacts of the Specific Plan to the National Register district as a whole. The Benicia Arsenal District is the historical resource. What will the impacts of the Specific Plan be to the National Register district as a whole, to its eligibility, to the integrity of the district? This is an issue the document has failed to address.

5

Benicia Arsenal Historic Conservation Plan:

The DEIR further states that the Arsenal's Conservation Plan would "continue to be the primary review document for the remaining portions of the Arsenal Historic District not

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Mr. Damon Golubics
September 7, 2007
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covered by this specific plan as well as for any alternations or additions to existing historic buildings." (DEIR- 293) It appears that the Specific Plan provisions will supersede the Conservation Plan in the physical areas covered by the Specific Plan. We are concerned that the Specific Plan supersedes the Conservation Plan and does not provide the same protection for the historical resources.

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cont.

We strongly recommend the City of Benicia to reissue a DEIR which evaluates the impacts of the project to the National Register District as a whole and properly identifies the archeological resources, pre-historic and historic, which will be impacted by the Specific Plan.

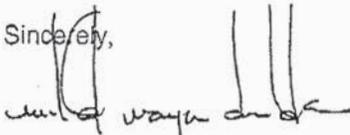
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Again, we thank you for the opportunity to comment on the above project. Please understand that our comments herein are specifically related to the environmental review process and adequacy of documents prepared for the environmental review purposes. We do not take positions in support of or against projects, but rather focus on the environmental review process itself.

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If you have any further questions, please don't hesitate to contact Michelle C. Messinger, Historian II, CEQA Coordinator Local Government Unit at (916) 653-5099 or at mmessinger@parks.ca.gov.

Sincerely,



Milford Wayne Donaldson, FAIA
State Historic Preservation Officer

CC: Belinda Smith
Leigh Jordan, Coordinator, Northwest Information Center

COMMENTOR A3

State of California, Office of Historic Preservation

Milford Wayne Donaldson, FAIA, State Historic Preservation Officer

September 10, 2007

A3-1: This introductory comment, which indicates the Office of Historic Preservation's interest in the project site and the project in general, is noted. No further response is required.

A3-2: This comment correctly indicates that the environmental impacts of the Draft Specific Plan are analyzed at a program (or policy) level, and that subsequent environmental review may be necessary as specific development projects are proposed for the project site. This comment also describes the location of the Benicia Arsenal National Historic District as it relates to the project site, and the Draft Specific Plan's relationship to the Arsenal Historic Conservation Plan. No further response is required.

A3-3: The City recognizes the utility of an area-wide intensive archaeological survey for establishing baseline conditions for archaeological resources. However, a comprehensive archaeological survey is not necessary to ensure that significant impacts to archaeological resources would be avoided. Implementation of Mitigation Measure CULT-1a would ensure that, prior to any ground disturbance in the Plan Area, each development site is: 1) assessed for the potential to contain subsurface archaeological materials and 2) subject to a plan for treatment of any resources that may be discovered, such that the integrity of significant resources would be maintained. Under this mitigation measure, no ground disturbance would be permitted in the Specific Plan Area without an archaeological assessment and the development of protocol to ensure that resources are protected. The City concurs with the comment regarding resource avoidance being the most desirable option. Avoidance of significant resources would be the default action under the recommended mitigation measures. Therefore, protection of archaeological resources is not inappropriately deferred by the specific mitigation measures in the Draft EIR.

An intensive field survey of the entire project site prior to adoption of the Specific Plan would be an extremely costly endeavor, and would likely be infeasible (since it would require permission for access from landholders in the project site and possible excavation under paved areas that may be removed as part of development that would occur under the Specific Plan). Most importantly, such a survey is not required to avoid potential impacts to archaeological resources.

A3-4: This comment notes that Mitigation Measures CULT-1b and CULT-1c are adequate measures to protect previously-unidentified archaeological materials.

Refer to Response to Comment A3-3 regarding the adequacy of Mitigation Measure CULT-1a.

A3-5: Refer to Master Response #1.

A3-6: In cases of conflict with the Draft Specific Plan, the provisions detailed in the AHCP would continue to govern. In particular, the AHCP will guide rehabilitation of existing buildings in the Plan Area. The City acknowledges the concern that “the Specific Plan. . . does not provide the same protection for historical resources” as the AHCP. The City has crafted the Draft Specific Plan to fulfill the goals, policies, and guidelines of the AHCP as they pertain to the Plan Area. As stated in Appendix B (Relationship to Historic Conservation Plan), “[i]t is the intent of the [Lower Arsenal Mixed Use Specific Plan] LAMUSP to recognize and protect the historic resources in a manner consistent with the AHCP.”

The Draft Specific Plan incorporates the protections of the AHCP in the following ways: 1) In preparing the Draft Specific Plan, historically significant buildings, architecture, landscaping, and urban design elements that contribute to the historic integrity of the Arsenal were studied and incorporated into the Draft Specific Plan. Blair Prentice of Prentice and Prentice, Inc., an experienced historic resources consultant, assisted with this work; 2) The City’s Design Review Process, as identified in the AHCP, is left unchanged in the Draft Specific Plan; 3) The Draft Specific Plan addresses all the District-wide design issues identified in the AHCP that pertain to the project site, including lack of visual cohesiveness, preservation of views and natural features, and lack of a clearly-defined entry point; 4) The Draft Specific Plan identifies comprehensive improvements to the project site that would clarify the overall identity of the historic district and improve the pedestrian environment; 5) Historic preservation is the overarching theme of the Draft Specific Plan; and 6) Historic structures would continue to be regulated under the Secretary of the Interior standards, the AHCP, and other relevant City ordinances and guidelines. In addition, the Draft Specific Plan effectively precludes the demolition of historic buildings, including those that have not yet been evaluated (e.g., buildings that were not yet 50 years old at the time of the last comprehensive survey). The Draft Specific Plan’s relationship to the AHCP is presented on pages 96 through 103, Table IV.A-2 of the Draft EIR. In summary, the Draft Specific Plan would protect historical resources to the same – or a greater – degree as the AHCP.

A3-7: Refer to Master Response #1 regarding the potential impacts of the Draft Specific Plan on the integrity of the Benicia Arsenal Historic District. Refer to Response to Comment A3-3 regarding the adequacy of the mitigation measures recommended in the Draft EIR to protect archaeological resources.

A3-8: This comment, which states that the Office of Historic Preservation is only concerned with the adequacy of the Draft EIR (and not the merits of the project), is noted. No further response is required.

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5900
FAX (510) 286-5903
TTY 711



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SOL780041
SOL-780-0.907
SCH#2007062021

September 10, 2007

Mr. Damon Golubics
City of Benicia
250 East "L" Street
Benicia, CA 94510

Dear Mr. Golubics:

Lower Arsenal Mixed Use Specific Plan Program -- Draft Environmental Impact Report

Thank you for continuing to include the California Department of Transportation (Department) in the review process for the Lower Arsenal Mixed Use Specific Plan Program project. We have reviewed the Draft Environmental Impact Report (DEIR) and have the following comments to offer:

1

Advance Planning

The project's trip generation documented in Tables IV. G-5, G-14, and G-16 show a significant traffic impact to the intersection of 5th Street and Interstate 780 (I-780). Please identify specific mitigation measures. The Department recommends that the City adequately address the project's fair-share contribution as well as financing, scheduling, implementation responsibilities, and monitoring for all proposed mitigation measures for future freeway improvements.

2

Level of service (LOS) F is shown only as traffic delay in seconds ("> 50.0") in Tables IV G-3, G-5, G-14, G-16, G-18, and G-20. Please be specific for all such measurements in each table so that accurate comparisons can be made.

3

Traffic Operations

Any future traffic signal installation at the intersection of East 5th Street and I-780 westbound ramps and the intersection of East 5th Street and I-780 eastbound ramps must meet traffic signal warrants. Please submit this information when applying for an encroachment permit. See latest California MUTCD- Chapter 4C: Traffic Control Signal Needs Studies.

4

Highway Operations

The first paragraph on page 187 states "Appendix B contains the technical background information related to traffic." Appendix B only shows the intersection turning movement summary; we would like to review the intersection LOS calculation worksheets as well.

5

Mr. Damon Golubics
September 10, 2007
Page 2

Tables IV G-4, G-17, and G-21 assume freeway capacities of 2200 vehicles/lane/hour for two-lane segments and 2300 vehicles/lane/hour. We believe that both capacities are high for state freeways. The I-80/I-680/I-780 Major Investments & Corridor Study Report by the Solano Transportation Authority uses a capacity of 2000 vehicles/lane/hour. This is the basis for estimating that future traffic volumes will create a bottleneck north of Industrial Way and I-680 under cumulative and cumulative plus conditions during the AM peak hour. In addition, a bottleneck will occur at I-780 eastbound west of East 5th Street. Subsequently, congestion will occur at segments upstream of these bottlenecks. These impacts should be addressed in the document and mitigation measures for freeway road segments proposed.

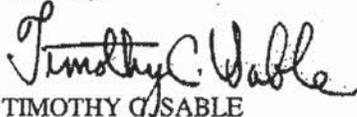
6

Tables IV G-18 and IV G-20 do not show the off-ramp traffic queues. The Department would like to review the off-ramp traffic queues in the LOS calculation sheets.

7

Should you have any questions regarding this letter, please call Christian Bushong of my staff at (510) 286 -5606.

Sincerely,



TIMOTHY C. WABLE
District Branch Chief
IGR/CEQA

c: State Clearinghouse

COMMENTOR A4
State of California, Department of Transportation
Timothy C. Sable, District Branch Chief
September 10, 2007

A4-1: This introductory comment is noted.

A4-2: Impacts TRANS-1, TRANS-2, TRANS-3, and TRANS-4 identify significant impacts to the East 5th Street/I-780 Eastbound and Westbound ramps intersections under the Existing plus Project and Cumulative plus Project conditions. Tables IV.G-15 and IV.G-19 identify Mitigation Measures TRANS-1, TRANS-2, TRANS-3, and TRANS-4, which were developed to mitigate project impacts at the East 5th Street/I-780 Westbound Ramps and the East 5th Street/I-780 Eastbound Ramps intersections.

Where potentially significant or significant traffic and circulation impacts are noted, mitigation is provided to reduce the identified impact(s) to a less-than-significant level to the extent practicable. Under Existing plus Project Conditions impacts, the sponsors of individual development projects would be responsible for fully funding the intersection improvements, as recommended, except in cases where an intersection already meets signal warrants, or the collection of fees is currently ongoing by the local jurisdiction to provide intersection improvements. In these two cases, sponsors of individual projects would be required to pay their fair share of funding for intersection improvements. Under Cumulative plus Project Conditions impacts, the sponsors of individual projects would be required to contribute a fair share of funding for intersection improvements.

Implementation of mitigation measures at both the East 5th Street/I-780 Westbound Ramps and East 5th Street/I-780 Eastbound Ramps intersections would be required in the Existing plus Project Conditions to restore acceptable operating conditions. In the case of the East 5th Street/I-780 Westbound Ramps intersection, signal warrants are met prior to the addition of project-related traffic. Therefore, the sponsors of individual development projects would be required to provide a fair share of the funding for signalization. In the case of the East 5th Street/I-780 Eastbound Ramps intersection, signal warrants are only met once project-related traffic has been added to the roadway network (relative to Existing Conditions). Therefore, the sponsors of individual development projects would be required to fully fund the signalization of this intersection. Page 215 of the Draft EIR is revised to read as follows:

Table IV.G-15: Existing Plus Project Conditions Intersection Impacts and Mitigation Measures

Existing plus Project Conditions Impacts	Level of Significance	Existing plus Projects Conditions Mitigation Measures	Significance After Mitigation
<p><u>Impact TRANS-2:</u> Unacceptable LOS at the intersection of East 5th Street / I-780 Eastbound Ramps. The effect of project traffic would result in the intersection operating at LOS E with a delay of 44.6 seconds during the PM peak hour.</p>	<p>Significant</p>	<p><u>Mitigation Measure TRANS-2:</u> The project sponsor of an individual development project shall contribute a pro-rata share to the following improvement: <u>Sponsors of development associated with buildout of the Draft Specific Plan shall together fund the entirety of this improvement.</u> Signalize intersection as it meets the Peak Hour Volume Signal Warrant for the PM peak hour. Implementation of the identified improvement would result in this intersection operating at an acceptable LOS B with 14.5 seconds of delay during the PM peak hour.</p>	<p>Less Than Significant</p>

Source: DMJM Harris, 2007.

Regarding Impact TRANS-4, although the East 5th Street/I-780 Eastbound Ramps intersection warrants signalization in the Cumulative Conditions, this impact would be triggered in the Existing plus Project Conditions first (Impact TRANS-2). As such, the sponsors of individual development projects would be required to fully fund the signalization of this intersection.

- A4-3: As discussed in the Transportation Research Board’s *2000 Highway Capacity Manual* (from which the level of service methodology was obtained), the volume-to-delay curve has an exponential shape. At intersections with low volume-to-capacity ratios, a large increase in traffic results in a small increase in delay. At intersections with high volume-to-capacity ratios, a small increase in traffic results in a substantial increase in delay. As such, for intersections operating at LOS F, delay is shown as “> 80.0 seconds” for signal controlled intersections and “> 50.0 seconds” for unsignalized intersections because delays greater than these LOS F threshold values are beyond the meaningful range of the analysis methodology.
- A4-4: Both I-780 ramp intersections were found to meet the requirements of the MUTCD Peak Hour Volume Signal Warrant in the Existing plus Project and Cumulative plus Project Conditions. Signal Warrant worksheets are included in Appendix B of the Draft EIR.
- A4-5: Intersection turning movement counts and Level of Service Calculation Worksheets are provided in Appendix B of the Draft EIR (see data included under sub-title pages: “LEVEL OF SERVICE CALCULATION WORKSHEETS”).
- A4-6: The analysis of freeway operation in the Draft EIR is consistent with Caltrans’ own manual on traffic impact analyses (see Caltrans, 2002. *Guide for the*

Preparation of Traffic Impact Studies. December), which requires that the Transportation Research Board's *Highway Capacity Manual* be used to determine freeway capacity. All assumed freeway capacities were taken directly from the *2000 Highway Capacity Manual*, as described in Section IV.G, Transportation and Circulation, of the Draft EIR. According to the *2000 Highway Capacity Manual*, Chapter 21, with a free flow speed of 60 miles per hour, a freeway's capacity is estimated as 2,200 vehicles/hour/lane. This capacity was assumed for all two-lane freeway segments.

For three-lane segments, it was assumed that the free flow speed would increase to 65 miles per hour due to the increase in overall capacity, and widening of the roadway. Using the data in the Highway Capacity Manual's Exhibit 21-2, a maximum capacity of 2,300 vehicles/hour/lane was assumed for these segments.

A4-7: Tables IV.G-19 and IV.G-21 are added to the Draft EIR to summarize queuing at freeway off-ramps, and 95th Percentile Queuing Reports for mitigated intersections (which are signalized) are attached. Pages 221 and 222 of the Draft EIR are revised to include the following tables:

Table IV.G-19: Off-Ramp 95th Percentile Queuing – Existing plus Project Conditions

No.	Off-Ramp	Storage Length	Peak Hour	Existing	Existing plus Project	Mitigated
1	I-780 WB Off-Ramp to East 5th Street	850'	AM	75'	325'	225'
			PM	250'	675'	325'
2	I-780 EB Off-Ramp to East 5th Street	1,100'	AM	75'	150'	225'
			PM	100'	200'	275'
7	I-680 SB Off-Ramp to Industrial Way	1,050'	AM	25'	25'	----
			PM	25'	25'	----
9	I-680 NB Off-Ramp to Bayshore Road	1,450'	AM	75'	75'	----
			PM	25'	25'	----

Note: **Bold** entries indicate queue lengths which exceed the available storage.
Source: DMJM Harris, 2007.

Table IV.G-21: Off-Ramp 95th Percentile Queuing – Cumulative plus Project Conditions

No.	Off-Ramp	Storage Length	Peak Hour	Cumulative	Cumulative plus Project	Mitigated
1	I-780 WB Off-Ramp to East 5th Street	850'	AM	275'	725'	300'
			PM	875'	1,250'	475'
2	I-780 EB Off-Ramp to East 5th Street	1,100'	AM	275'	525'	400'
			PM	450'	725'	400'
7	I-680 SB Off-Ramp to Industrial Way	1,050'	AM	25'	50'	----
			PM	25'	25'	----
9	I-680 NB Off-Ramp to Bayshore Road	1,450'	AM	200'	225'	----
			PM	50'	50'	----

Note: **Bold** entries indicate queue lengths which exceed the available storage.
Source: DMJM Harris, 2007.

As shown, queues would only exceed the available storage at the I-780 Westbound Off-Ramp to East 5th Street during the PM peak hour. The previously identified mitigation measure at this intersection would reduce queues to an acceptable level.

LEVEL OF SERVICE CALCULATION WORKSHEETS
EXISTING PLUS PROJECT AM PEAK HOUR CONDITIONS
MITIGATED

Benicia - Lower Arsenal
Existing plus Project Conditions
AM Peak Hour

Level Of Service Detailed Computation Report (HCM2000 Queue Method)

2000 HCM Operations Method (Future Volume Alternative)
Future Volume Alternative

Intersection #1 E. 5th St / I-780 WB Ramps

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Green/Cycle: 0.44 0.44 0.00 0.00 0.44 0.44 0.00 0.00 0.42 0.42 0.00 0.42

ArrivalType: 3 3 3 3

ProgFactor: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Q1: 1.8 3.1 0.0 0.0 3.3 3.3 0.0 0.0 0.0 0.0 3.4 0.0 0.2

UpstreamVC: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

UpstreamAdj: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

EarlyArrAdj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 0.00 1.00

Q2: 0.4 0.8 0.0 0.0 0.5 0.6 0.0 0.0 0.0 0.0 0.8 0.0 0.0

HCM2KQueue: 2.2 4.0 0.0 0.0 3.8 3.8 0.0 0.0 0.0 0.0 4.2 0.0 0.3

70thFactor: 1.19 1.19 1.20 1.20 1.19 1.19 1.20 1.20 1.20 1.20 1.19 1.20 1.20

70thHCM2KQ: 2.7 4.7 0.0 0.0 4.5 4.5 0.0 0.0 0.0 0.0 5.0 0.0 0.3

85thFactor: 1.58 1.56 1.60 1.60 1.56 1.56 1.60 1.60 1.60 1.60 1.56 1.60 1.60

85thHCM2KQ: 3.5 6.2 0.0 0.0 6.0 6.0 0.0 0.0 0.0 0.0 6.5 0.0 0.4

90thFactor: 1.76 1.73 1.80 1.80 1.73 1.73 1.80 1.80 1.80 1.80 1.72 1.80 1.79

90thHCM2KQ: 3.9 6.8 0.0 0.0 6.6 6.6 0.0 0.0 0.0 0.0 7.2 0.0 0.5

95thFactor: 2.03 1.98 2.10 2.10 1.99 1.99 2.10 2.10 2.10 2.10 1.98 2.10 2.09

95thHCM2KQ: 4.6 7.8 0.0 0.0 7.6 7.6 0.0 0.0 0.0 0.0 8.3 0.0 0.6

98thFactor: 2.54 2.44 2.70 2.70 2.45 2.45 2.70 2.70 2.70 2.70 2.43 2.70 2.68

98thHCM2KQ: 5.7 9.7 0.0 0.0 9.3 9.3 0.0 0.0 0.0 0.0 10.1 0.0 0.8

Benicia - Lower Arsenal
Existing plus Project Conditions
AM Peak Hour

Level Of Service Detailed Computation Report

2000 HCM Operations Method (Future Volume Alternative)
Future Volume Alternative

Intersection #1 E. 5th St / I-780 WB Ramps

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Green/Cycle: 0.44 0.44 0.00 0.00 0.44 0.44 0.00 0.00 0.42 0.42 0.00 0.42

ArrivalType: 3 3 3 3

ProgFactor: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Q1: 1.8 3.1 0.0 0.0 3.3 3.3 0.0 0.0 0.0 0.0 3.4 0.0 0.2

UpstreamVC: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

UpstreamAdj: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

EarlyArrAdj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00 0.00 1.00

Q2: 0.4 0.8 0.0 0.0 0.5 0.6 0.0 0.0 0.0 0.0 0.8 0.0 0.0

HCM2KQueue: 2.2 4.0 0.0 0.0 3.8 3.8 0.0 0.0 0.0 0.0 4.2 0.0 0.3

70thFactor: 1.19 1.19 1.20 1.20 1.19 1.19 1.20 1.20 1.20 1.20 1.19 1.20 1.20

70thHCM2KQ: 2.7 4.7 0.0 0.0 4.5 4.5 0.0 0.0 0.0 0.0 5.0 0.0 0.3

85thFactor: 1.58 1.56 1.60 1.60 1.56 1.56 1.60 1.60 1.60 1.60 1.56 1.60 1.60

85thHCM2KQ: 3.5 6.2 0.0 0.0 6.0 6.0 0.0 0.0 0.0 0.0 6.5 0.0 0.4

90thFactor: 1.76 1.73 1.80 1.80 1.73 1.73 1.80 1.80 1.80 1.80 1.72 1.80 1.79

90thHCM2KQ: 3.9 6.8 0.0 0.0 6.6 6.6 0.0 0.0 0.0 0.0 7.2 0.0 0.5

95thFactor: 2.03 1.98 2.10 2.10 1.99 1.99 2.10 2.10 2.10 2.10 1.98 2.10 2.09

95thHCM2KQ: 4.6 7.8 0.0 0.0 7.6 7.6 0.0 0.0 0.0 0.0 8.3 0.0 0.6

98thFactor: 2.54 2.44 2.70 2.70 2.45 2.45 2.70 2.70 2.70 2.70 2.43 2.70 2.68

98thHCM2KQ: 5.7 9.7 0.0 0.0 9.3 9.3 0.0 0.0 0.0 0.0 10.1 0.0 0.8

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.71 0.70 1.00 1.00 0.98 0.98 1.00 1.00 1.00 1.00 0.77 1.00 0.85

Lanes: 1.47 0.53 0.00 0.00 0.85 0.15 0.00 0.00 0.00 1.00 0.00 1.00

Final Sat.: 1974 715 0 0 1589 273 0 0 0 1461 0 1615

Capacity Analysis Module:

Vol/Sat: 0.13 0.20 0.00 0.00 0.16 0.16 0.00 0.00 0.00 0.19 0.00 0.02

Crit Moves: 0.44 0.44 0.00 0.00 0.44 0.44 0.00 0.00 0.00 0.42 0.00 0.42

Green/Cycle: 0.29 0.46 0.00 0.00 0.36 0.36 0.00 0.00 0.00 0.46 0.00 0.04

Volume/Cap: 10.8 12.0 0.0 0.0 11.3 11.3 0.0 0.0 0.0 12.9 0.0 10.2

Delay/Veh: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

User DelAdj: 10.8 12.0 0.0 0.0 11.3 11.3 0.0 0.0 0.0 12.9 0.0 10.2

IOS by Move: B B A A B B A A A A B A B

HCM2KAVGQ: 2 4 0 0 4 4 0 0 0 4 0 0

Note: Queue reported is the number of cars per lane.

LEVEL OF SERVICE CALCULATION WORKSHEETS
EXISTING PLUS PROJECT PM PEAK HOUR CONDITIONS
MITIGATED

Benicia - Lower Arsenal
Existing plus Project Conditions
PM Peak Hour

Level of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method (Future Volume Alternative)
Intersection #1 E. 5th St / I-780 WB Ramps

Cycle (sec): 60 Critical Vol./Cap. (X): 0.585
Loss Time (sec): 8 (Y+R+4.0 sec) Average Delay (sec/veh): 12.5
Optimal Cycle: 38 Level of Service: B

Street Name: E. 5th St I-780 WB Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Include Permitted Include Permitted Include
Rights: Include Include Include Include
Min. Green: 15 15 15 15 15 15 15 15 15 15 15 15

Lanes: 1 0 1 0 0 0 1 0 0 0 0 0 0 1 1 0 0 1
Volume Module:
Base Vol: 271 170 0 0 91 68 0 0 0 245 3 96
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 271 170 0 0 91 68 0 0 0 245 3 96
Added Vol: 49 13 0 0 5 0 0 0 0 93 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 320 183 0 0 97 68 0 0 0 338 3 96
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 356 203 0 0 107 75 0 0 0 369 3 105
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 356 203 0 0 107 75 0 0 0 369 3 105

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.66 1.00 1.00 0.94 1.00 1.00 1.00 1.00 0.88 0.88 0.85
Lanes: 1.00 1.00 0.00 0.00 0.59 0.41 0.00 0.00 0.00 0.99 0.01 1.00
Final Sat.: 1246 1900 0 0 1054 739 0 0 0 1665 15 1615

Capacity Analysis Module:
Vol/Sat: 0.29 0.11 0.00 0.00 0.10 0.10 0.00 0.00 0.00 0.22 0.22 0.06
Crit Movs: ****
Green/Cycle: 0.49 0.49 0.00 0.00 0.49 0.49 0.00 0.00 0.00 0.38 0.38 0.38
Volume/Cap: 0.59 0.22 0.00 0.00 0.21 0.21 0.00 0.00 0.00 0.59 0.59 0.17
Delay/Veh: 12.5 8.9 0.0 0.0 8.9 8.9 0.0 0.0 0.0 16.3 16.3 12.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 12.5 8.9 0.0 0.0 8.9 8.9 0.0 0.0 0.0 16.3 16.3 12.5
LOS by Move: B A A A A A A A A A B B B
HCM2kVgQ: 6 2 0 0 2 2 0 0 0 6 6 1

Note: Queue reported is the number of cars per lane.

Benicia - Lower Arsenal
Existing plus Project Conditions
PM Peak Hour

Level of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative
Intersection #1 E. 5th St / I-780 WB Ramps

Cycle (sec): 60 Critical Vol./Cap. (X): 0.585
Loss Time (sec): 8 (Y+R+4.0 sec) Average Delay (sec/veh): 12.5
Optimal Cycle: 38 Level of Service: B

Street Name: E. 5th St I-780 WB Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Include Permitted Include Permitted Include
Rights: Include Include Include Include
Min. Green: 15 15 15 15 15 15 15 15 15 15 15 15

Lanes: 1 0 1 0 0 0 1 0 0 0 0 0 0 1 1 0 0 1
Volume Module:
Base Vol: 271 170 0 0 91 68 0 0 0 245 3 96
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 271 170 0 0 91 68 0 0 0 245 3 96
Added Vol: 49 13 0 0 5 0 0 0 0 93 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 320 183 0 0 97 68 0 0 0 338 3 96
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 356 203 0 0 107 75 0 0 0 369 3 105
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 356 203 0 0 107 75 0 0 0 369 3 105

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.66 1.00 1.00 0.94 1.00 1.00 1.00 1.00 0.88 0.88 0.85
Lanes: 1.00 1.00 0.00 0.00 0.59 0.41 0.00 0.00 0.00 0.99 0.01 1.00
Final Sat.: 1246 1900 0 0 1054 739 0 0 0 1665 15 1615

Capacity Analysis Module:
Vol/Sat: 0.29 0.11 0.00 0.00 0.10 0.10 0.00 0.00 0.00 0.22 0.22 0.06
Crit Movs: ****
Green/Cycle: 0.49 0.49 0.00 0.00 0.49 0.49 0.00 0.00 0.00 0.38 0.38 0.38
Volume/Cap: 0.59 0.22 0.00 0.00 0.21 0.21 0.00 0.00 0.00 0.59 0.59 0.17
Delay/Veh: 12.5 8.9 0.0 0.0 8.9 8.9 0.0 0.0 0.0 16.3 16.3 12.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 12.5 8.9 0.0 0.0 8.9 8.9 0.0 0.0 0.0 16.3 16.3 12.5
LOS by Move: B A A A A A A A A A B B B
HCM2kVgQ: 6 2 0 0 2 2 0 0 0 6 6 1

Note: Queue reported is the number of cars per lane.

LEVEL OF SERVICE CALCULATION WORKSHEETS
CUMULATIVE PLUS PROJECT AM PEAK HOUR CONDITIONS
MITIGATED

Benicia - Lower Arsenal
 Year 2030 Cumulative plus Project Conditions
 AM Peak Hour

Level of Service Detailed Computation Report (HCM2000 Queue Method)
 2000 HCM Operations Method (Future Volume Alternative)
 Future Volume Alternative

 Intersection #1 E. 5th St / I-780 WB Ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Green/Cycle: 0.49 0.49 0.00 0.00 0.49 0.49 0.00 0.00 0.00 0.37 0.00 0.37
 ArrivalType: 3 3 3 3
 ProgFactor: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Q1: 2.5 4.6 0.0 0.0 4.6 4.6 0.0 0.0 0.0 0.0 4.4 0.0
 UpstreamVC: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 UpstreamAdj: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 EarlyArrAdj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 0.00 1.00 1.00
 Q2: 0.6 1.5 0.0 0.0 0.8 0.8 0.0 0.0 0.0 0.0 1.4 0.0
 HCM2kQueue: 3.2 6.0 0.0 0.0 5.4 5.4 0.0 0.0 0.0 0.0 5.9 0.0
 70thFactor: 1.19 1.19 1.20 1.20 1.19 1.19 1.20 1.20 1.20 1.20 1.19 1.20
 70thHCM2kQ: 3.8 7.2 0.0 0.0 6.4 6.4 0.0 0.0 0.0 0.0 7.0 0.0
 85thFactor: 1.57 1.55 1.60 1.60 1.55 1.55 1.60 1.60 1.60 1.60 1.55 1.60
 85thHCM2kQ: 4.9 9.3 0.0 0.0 8.4 8.4 0.0 0.0 0.0 0.0 9.1 0.0
 90thFactor: 1.74 1.70 1.80 1.80 1.71 1.71 1.80 1.80 1.80 1.80 1.70 1.80
 90thHCM2kQ: 5.5 10.2 0.0 0.0 9.2 9.2 0.0 0.0 0.0 0.0 10.0 0.0
 95thFactor: 2.00 1.93 2.10 2.10 1.94 1.94 2.10 2.10 2.10 2.10 1.93 2.10
 95thHCM2kQ: 6.3 11.6 0.0 0.0 10.5 10.5 0.0 0.0 0.0 0.0 11.4 0.0
 98thFactor: 2.48 2.33 2.70 2.70 2.36 2.36 2.70 2.70 2.70 2.70 2.34 2.70
 98thHCM2kQ: 7.8 14.0 0.0 0.0 12.8 12.8 0.0 0.0 0.0 0.0 13.7 0.0

Benicia - Lower Arsenal
 Year 2030 Cumulative plus Project Conditions
 AM Peak Hour

Level of Service Detailed Computation Report
 2000 HCM Operations Method (Future Volume Alternative)
 Future Volume Alternative

 Intersection #1 E. 5th St / I-780 WB Ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Cycle (sec): 60 Critical Vol./Cap. (X): 0.604
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 12.1
 Optimal Cycle: 38 Level of Service: B
 Street Name: E. 5th St I-780 WB Ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 15 15 15 15 15 15 15 15
 Lanes: 1 0 1 0 0 0 0 0
 Volume Module:
 Base Vol: 214 126 0 0 217 39 0 0
 Growth Adj: 1.44 1.44 1.44 1.36 1.36 1.36 1.36
 Initial Bse: 308 181 0 0 312 56 0 0
 Added Vol: 14 4 0 0 10 0 0 0
 PasserbyVol: 0 0 0 0 0 0 0 0
 Initial Fut: 322 185 0 0 322 56 0 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
 PHF Volume: 358 206 0 0 358 62 0 0
 Reduct Vol: 0 0 0 0 0 0 0 0
 Reduced Vol: 358 206 0 0 358 62 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol: 358 206 0 0 358 62 0 0
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.69 0.67 1.00 1.00 0.98 0.98 1.00 1.00
 Lanes: 1.46 0.54 0.00 0.00 0.85 0.15 0.00 0.00
 Final Sat: 1910 691 0 0 1586 276 0 0
 Capacity Analysis Module:
 Vol/Sat: 0.19 0.30 0.00 0.00 0.23 0.23 0.00 0.00
 Crit Moves: ****
 Green/Cycle: 0.49 0.49 0.00 0.00 0.49 0.49 0.00 0.00
 Volume/Cap: 0.38 0.60 0.00 0.00 0.46 0.46 0.00 0.00
 Delay/Veh: 9.6 12.1 0.0 0.0 10.3 10.3 0.0 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 9.6 12.1 0.0 0.0 10.3 10.3 0.0 0.0
 LOS by Move: A B A B A B A B
 HCM2kAvQ: 3 6 0 0 5 5 0 0
 Note: Queue reported is the number of cars per lane.

Year 2030 Cumulative Plus Project Conditions AM Peak Hour

Level Of Service Detailed Computation Report (HCM2000 Queue Method)

2000 HCM Operations Method (Future Volume Alternative)
Intersection #2 E. 5th St / I-780 EB Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L-T-R L-T-R L-T-R L-T-R
Green/Cycle: 0.00 0.44 0.44 0.44 0.44 0.43 0.43 0.43 0.43 0.00 0.00 0.00
ArrivalType: 3 3 3 3 3 3 3 3 3 3 3 3
ProgFactor: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Ol: 0.0 6.8 6.3 1.8 6.8 0.0 6.4 6.4 6.4 0.0 0.0 0.0
UpstreamVC: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
UpstreamAdj: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
EarlyArrAdj: 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Q2: 0.0 1.7 1.9 1.3 1.6 0.0 1.9 1.9 1.9 0.0 0.0 0.0
HCM2Queue: 0.0 8.5 8.3 3.1 8.4 0.0 8.3 8.3 8.3 0.0 0.0 0.0
70thFactor: 1.20 1.18 1.18 1.19 1.18 1.20 1.18 1.18 1.18 1.20 1.20 1.20
70thHCM2KQ: 0.0 10.0 9.8 3.7 9.9 0.0 9.8 9.8 9.8 0.0 0.0 0.0
85thFactor: 1.60 1.53 1.53 1.57 1.53 1.60 1.53 1.53 1.53 1.60 1.60 1.60
85thHCM2KQ: 0.0 12.9 12.6 4.9 12.8 0.0 12.7 12.7 12.7 0.0 0.0 0.0
90thFactor: 1.80 1.66 1.66 1.74 1.66 1.80 1.66 1.66 1.66 1.80 1.80 1.80
90thHCM2KQ: 0.0 14.1 13.7 5.4 14.0 0.0 13.8 13.8 13.8 0.0 0.0 0.0
95thFactor: 2.10 1.87 1.88 2.00 1.88 2.10 1.88 1.88 1.88 2.10 2.10 2.10
95thHCM2KQ: 0.0 15.9 15.5 6.3 15.7 0.0 15.6 15.6 15.6 0.0 0.0 0.0
98thFactor: 2.70 2.22 2.23 2.49 2.22 2.70 2.23 2.23 2.23 2.70 2.70 2.70
98thHCM2KQ: 0.0 18.8 18.4 7.8 18.7 0.0 18.5 18.5 18.5 0.0 0.0 0.0

Year 2030 Cumulative Plus Project Conditions AM Peak Hour

Level Of Service Detailed Computation Report (Future Volume Alternative)

2000 HCM Operations Method (Future Volume Alternative)
Intersection #2 E. 5th St / I-780 EB Ramps
Cycle (sec): 60 Critical Vol./Cap. (X): 0.673
Loss Time (sec): 8 (X+R=4.0 sec) Average Delay (sec/veh): 15.5
Optimal Cycle: 41 Level Of Service: B
Street Name: E. 5th St I-780 EB Ramps
Approach: North Bound South Bound East Bound West Bound
Movement: L-T-R L-T-R L-T-R L-T-R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 15 15 15 15 15 15 15 15 15 15 15 15
Lanes: 1 0 1 1 0 0 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0
Volume Module:
Base Vol: 0 316 259 89 219 0 32 1 255 0 0 0 0
Growth Adj: 1.44 1.44 1.44 1.44 1.44 1.36 1.36 1.36 1.36 1.36 1.36 1.36
Initial Bse: 0 455 373 128 313 0 44 1 347 0 0 0 0
Added Vol: 0 18 55 0 155 0 0 0 0 37 0 0 0 0
PasserbyVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 473 428 128 470 0 44 1 384 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 0 526 476 142 523 0 48 2 426 0 0 0 0
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 526 476 142 523 0 48 2 426 0 0 0 0
Saturation Flow Module:
Vol/Sat: 0.00 0.28 0.29 0.26 0.28 0.00 0.29 0.29 0.29 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.44 0.44 0.44 0.44 0.43 0.43 0.43 0.43 0.00 0.00 0.00
Volume/Cap: 0.00 0.63 0.67 0.59 0.63 0.00 0.67 0.67 0.67 0.00 0.00 0.00
Delay/Veh: 0.0 14.7 16.0 16.8 14.7 0.0 16.3 16.3 16.3 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 14.7 16.0 16.8 14.7 0.0 16.3 16.3 16.3 0.0 0.0 0.0
LOS by Move: A B B B A B B B A A A A
HCM2KAVQ: 0 8 8 3 8 0 8 8 8 0 0 0 0
Note: Queue reported is the number of cars per lane.

LEVEL OF SERVICE CALCULATION WORKSHEETS
CUMULATIVE PLUS PROJECT PM PEAK HOUR CONDITIONS
MITIGATED

Benicia - Lower Arsenal
 Year 2030 Cumulative plus Project Conditions
 PM Peak Hour

Level of Service Detailed Computation Report (HCM2000 Queue Method)

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 E. 5th St / I-780 WB Ramps

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Green/Cycle: 0.51 0.51 0.00 0.00 0.51 0.51 0.00 0.00 0.00 0.35 0.35 0.35

ArrivalType: 3 3 3 3

ProgFactor: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Q1: 6.7 2.7 0.0 0.0 2.5 2.5 0.0 0.0 0.0 7.0 7.0 1.7

UpstreamVC: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

UpstreamAdj: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

ExplYArrAdj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 1.00 1.00

Q2: 3.2 0.4 0.0 0.0 0.4 0.4 0.0 0.0 0.0 3.2 3.2 0.3

HCM2KQueue: 9.8 3.1 0.0 0.0 2.9 2.9 0.0 0.0 0.0 10.2 10.2 2.0

70thFactor: 1.18 1.19 1.20 1.20 1.19 1.19 1.20 1.20 1.20 1.18 1.18 1.20

70thHCM2KQ: 11.6 3.8 0.0 0.0 3.4 3.4 0.0 0.0 0.0 12.0 12.0 2.4

85thFactor: 1.52 1.57 1.60 1.60 1.57 1.57 1.60 1.60 1.60 1.51 1.51 1.58

85thHCM2KQ: 14.9 4.9 0.0 0.0 4.5 4.5 0.0 0.0 0.0 15.4 15.4 3.2

90thFactor: 1.64 1.74 1.80 1.80 1.75 1.75 1.80 1.80 1.80 1.64 1.64 1.76

90thHCM2KQ: 16.2 5.5 0.0 0.0 5.0 5.0 0.0 0.0 0.0 16.7 16.7 3.6

95thFactor: 1.85 2.00 2.10 2.10 2.01 2.01 2.10 2.10 2.10 1.84 1.84 2.04

95thHCM2KQ: 18.2 6.3 0.0 0.0 5.8 5.8 0.0 0.0 0.0 18.8 18.8 4.1

98thFactor: 2.17 2.48 2.70 2.70 2.50 2.50 2.70 2.70 2.70 2.16 2.16 2.56

98thHCM2KQ: 21.3 7.8 0.0 0.0 7.2 7.2 0.0 0.0 0.0 22.0 22.0 5.2

Benicia - Lower Arsenal
 Year 2030 Cumulative plus Project Conditions
 PM Peak Hour

Level of Service Detailed Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 E. 5th St / I-780 WB Ramps

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Green/Cycle: 0.51 0.51 0.00 0.00 0.51 0.51 0.00 0.00 0.00 0.35 0.35 0.35

ArrivalType: 3 3 3 3

ProgFactor: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Q1: 6.7 2.7 0.0 0.0 2.5 2.5 0.0 0.0 0.0 7.0 7.0 1.7

UpstreamVC: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

UpstreamAdj: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

ExplYArrAdj: 1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 1.00 1.00

Q2: 3.2 0.4 0.0 0.0 0.4 0.4 0.0 0.0 0.0 3.2 3.2 0.3

HCM2KQueue: 9.8 3.1 0.0 0.0 2.9 2.9 0.0 0.0 0.0 10.2 10.2 2.0

70thFactor: 1.18 1.19 1.20 1.20 1.19 1.19 1.20 1.20 1.20 1.18 1.18 1.20

70thHCM2KQ: 11.6 3.8 0.0 0.0 3.4 3.4 0.0 0.0 0.0 12.0 12.0 2.4

85thFactor: 1.52 1.57 1.60 1.60 1.57 1.57 1.60 1.60 1.60 1.51 1.51 1.58

85thHCM2KQ: 14.9 4.9 0.0 0.0 4.5 4.5 0.0 0.0 0.0 15.4 15.4 3.2

90thFactor: 1.64 1.74 1.80 1.80 1.75 1.75 1.80 1.80 1.80 1.64 1.64 1.76

90thHCM2KQ: 16.2 5.5 0.0 0.0 5.0 5.0 0.0 0.0 0.0 16.7 16.7 3.6

95thFactor: 1.85 2.00 2.10 2.10 2.01 2.01 2.10 2.10 2.10 1.84 1.84 2.04

95thHCM2KQ: 18.2 6.3 0.0 0.0 5.8 5.8 0.0 0.0 0.0 18.8 18.8 4.1

98thFactor: 2.17 2.48 2.70 2.70 2.50 2.50 2.70 2.70 2.70 2.16 2.16 2.56

98thHCM2KQ: 21.3 7.8 0.0 0.0 7.2 7.2 0.0 0.0 0.0 22.0 22.0 5.2

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.63 1.00 1.00 1.00 0.94 0.94 1.00 1.00 1.00 0.89 0.89 0.85

Lanes: 1.00 1.00 0.00 0.00 0.58 0.42 0.00 0.00 0.00 0.99 0.01 1.00

Final Sat.: 1201 1900 0 0 1096 747 0 0 0 1667 16 1615

Capacity Analysis Module:

Vol/Sat: 0.41 0.15 0.00 0.00 0.15 0.15 0.00 0.00 0.00 0.28 0.28 0.09

Crit Moves: ****

Green/Cycle: 0.51 0.51 0.00 0.00 0.51 0.51 0.00 0.00 0.00 0.35 0.35 0.35

Volume/Cap: 0.79 0.29 0.00 0.00 0.28 0.28 0.00 0.00 0.00 0.79 0.79 0.25

Delay/Veh: 18.8 8.5 0.0 0.0 8.5 8.5 0.0 0.0 0.0 24.6 24.6 14.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 18.8 8.5 0.0 0.0 8.5 8.5 0.0 0.0 0.0 24.6 24.6 14.0

LOS by Move: B A A A A A A A A A C C B

HCM2KavgQ: 10 3 0 0 3 3 0 0 0 10 10 2

Note: Queue reported is the number of cars per lane.

Benicia - Lower Arsenal
 Year 2030 Cumulative plus Project Conditions
 PM Peak Hour

Level of Service Detailed Computation Report (HCM2000 Queue Method)
 2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 E. 5th St / I-780 EB Ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Green/Cycle:	0.00	0.49	0.49	0.49	0.00	0.38	0.00	0.38	0.00	0.00	0.00
ArrivalType:	3	3	3	3	3	3	3	3	3	3	3
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
QI:	0.0	8.9	5.0	1.6	6.3	0.0	6.1	0.0	6.1	0.0	0.0
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
Q2:	2.5	1.2	1.7	1.3	0.0	2.4	0.0	2.4	0.0	0.0	0.0
HCM2Queue:	0.0	11.4	6.2	3.3	7.6	0.0	8.5	0.0	8.5	0.0	0.0

70thFactor:	1.20	1.18	1.19	1.19	1.18	1.20	1.18	1.20	1.18	1.20	1.20
70thHCM2KQ:	0.0	13.4	7.4	3.9	9.0	0.0	10.0	0.0	10.0	0.0	0.0
85thFactor:	1.60	1.51	1.54	1.57	1.53	1.60	1.53	1.60	1.53	1.60	1.60
85thHCM2KQ:	0.0	17.1	9.6	5.2	11.7	0.0	13.0	0.0	13.0	0.0	0.0
90thFactor:	1.80	1.63	1.69	1.74	1.67	1.80	1.66	1.80	1.66	1.80	1.80
90thHCM2KQ:	0.0	18.5	10.5	5.7	12.7	0.0	14.1	0.0	14.1	0.0	0.0
95thFactor:	2.10	1.82	1.92	2.00	1.89	2.10	1.87	2.10	1.87	2.10	2.10
95thHCM2KQ:	0.0	20.7	12.0	6.6	14.4	0.0	15.9	0.0	15.9	0.0	0.0
98thFactor:	2.70	2.12	2.32	2.48	2.26	2.70	2.22	2.70	2.22	2.70	2.70
98thHCM2KQ:	0.0	24.1	14.4	8.2	17.2	0.0	18.9	0.0	18.9	0.0	0.0

Benicia - Lower Arsenal
 Year 2030 Cumulative plus Project Conditions
 PM Peak Hour

Level of Service Detailed Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 E. 5th St / I-780 EB Ramps
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Green/Cycle:	60	46	15	15	15	15	15	15	15	15	15
ArrivalType:	3	3	3	3	3	3	3	3	3	3	3
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
QI:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
Q2:	2.5	1.2	1.7	1.3	0.0	2.4	0.0	2.4	0.0	0.0	0.0
HCM2Queue:	0.0	11.4	6.2	3.3	7.6	0.0	8.5	0.0	8.5	0.0	0.0

70thFactor:	1.20	1.18	1.19	1.19	1.18	1.20	1.18	1.20	1.18	1.20	1.20
70thHCM2KQ:	0.0	13.4	7.4	3.9	9.0	0.0	10.0	0.0	10.0	0.0	0.0
85thFactor:	1.60	1.51	1.54	1.57	1.53	1.60	1.53	1.60	1.53	1.60	1.60
85thHCM2KQ:	0.0	17.1	9.6	5.2	11.7	0.0	13.0	0.0	13.0	0.0	0.0
90thFactor:	1.80	1.63	1.69	1.74	1.67	1.80	1.66	1.80	1.66	1.80	1.80
90thHCM2KQ:	0.0	18.5	10.5	5.7	12.7	0.0	14.1	0.0	14.1	0.0	0.0
95thFactor:	2.10	1.82	1.92	2.00	1.89	2.10	1.87	2.10	1.87	2.10	2.10
95thHCM2KQ:	0.0	20.7	12.0	6.6	14.4	0.0	15.9	0.0	15.9	0.0	0.0
98thFactor:	2.70	2.12	2.32	2.48	2.26	2.70	2.22	2.70	2.22	2.70	2.70
98thHCM2KQ:	0.0	24.1	14.4	8.2	17.2	0.0	18.9	0.0	18.9	0.0	0.0

Volume Module:	0	382	140	80	264	0	70	0	196	0	0
Base Vol:	0	382	140	80	264	0	70	0	196	0	0
Growth Adj:	1.44	1.44	1.44	1.44	1.44	1.44	1.36	1.36	1.36	1.36	1.36
Initial Bse:	0	550	202	115	360	0	95	0	267	0	0
Added Vol:	0	62	191	0	100	0	0	0	24	0	0
PassesbyVol:	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	612	393	115	460	0	95	0	291	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	676	433	128	534	0	106	0	323	0	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0
Recovery Vol:	0	676	433	128	534	0	106	0	323	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MIF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol:	0	676	433	128	534	0	106	0	323	0	0

Saturation Flow Module:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	0.21	1.00	1.00	0.83	1.00	0.83	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	0.00	0.25	0.00	0.75	0.00	0.00
Final Sat:	1900	1900	1615	390	1900	0	367	0	1162	0	0

Capacity Analysis Module:	0.00	0.36	0.27	0.33	0.28	0.00	0.27	0.00	0.27	0.00	0.00
Vol/Sat:	0.00	0.36	0.27	0.33	0.28	0.00	0.27	0.00	0.27	0.00	0.00
Crit Moves:	0.00	0.49	0.49	0.49	0.49	0.00	0.38	0.00	0.38	0.00	0.00
Green/Cycle:	0.00	0.73	0.55	0.67	0.57	0.00	0.73	0.00	0.73	0.00	0.00
Volume/Cap:	0.0	15.0	11.5	20.5	11.7	0.0	20.5	0.0	20.5	0.0	0.0
Delay/Veh:	0.0	15.0	11.5	20.5	11.7	0.0	20.5	0.0	20.5	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	15.0	11.5	20.5	11.7	0.0	20.5	0.0	20.5	0.0	0.0
LOS by Move:	A	B	C	B	A	C	A	C	A	C	A
HCM2RAVGQ:	0	11	6	3	8	0	8	0	8	0	0

Note: Queue reported is the number of cars per lane.



Department of Toxic Substances Control

Maureen F. Gorsen, Director
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721



Arnold Schwarzenegger
Governor



Linda S. Adams
Agency Secretary
Cal/EPA

September 4, 2007

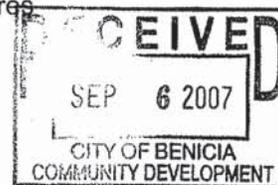
Mr. Damon Golubics
Senior Planner
City of Benicia
250 East "L" Street
Benicia, California 94510

Dear Mr. Golubics:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (EIR) for the Lower Arsenal Mixed Use Specific Plan Program (SCH# 2007062021). As you may be aware, the California Department of Toxic Substances Control (DTSC) oversees the cleanup of sites where hazardous substances have been released pursuant to the California Health and Safety Code, Division 20, Chapter 6.8. As a potential Responsible Agency, DTSC is submitting comments to ensure that the California Environmental Quality Act (CEQA) documentation prepared for this project adequately addresses any remediation activities which may be required to address hazardous substances releases.

The proposed project includes implementation of a Specific Plan for the Lower Arsenal site, which is designated for mixed uses in the Benicia General Plan. The Specific Plan covers four distinct zones, each of which exhibits a unique physical character. The Specific Plan would implement a form-based code to shape future development on the project site, with a primary emphasis on the physical form and character of new development. After build-out of the Specific Plan, the area would contain approximately 741,865 square feet of mixed uses, 22 residential units, and 6.39 acres of open space. The Specific Plan area currently contains approximately 525,000 square feet of mixed uses.

Section E, 4.b., Significant Hazards and Hazardous Materials Impacts and Mitigation Measures, on page 157, of the Draft EIR states that there is some possibility that historic or current businesses in the Plan Area have had unreported releases of hazardous materials and construction activities may unexpectedly encounter hazardous materials in soil or groundwater. The proposed project has the potential to result in adverse environmental impacts without the implementation of mitigation measures, but would be reduced to a less-than-significant level if the mitigation measures recommended in the EIR are implemented.



Mr. Damon Golubics
September 4, 2007
Page 2

Mitigation Measure HAZ-1a states that if soil, groundwater or other environmental media with suspected contamination (e.g., identified by odor or visual staining) is encountered unexpectedly during construction activities for individual development projects or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered, the applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notifying the Solano County Environmental Health Services (SCEHS) and implementing actions to determine the nature and extent of any observed contamination. An environmental professional shall oversee the subsequent assessment of the site, including the collection, analysis and interpretation of any samples of soil, groundwater or other environmental media, in accordance with local, State and federal hazardous materials and hazardous waste laws and regulations. The professional shall provide recommendations, as applicable, regarding soil/waste management, worker health and safety training, and regulatory agency notifications. General construction work shall not resume in the area(s) affected until the recommendations have been implemented under the oversight of the SCEHS or other regulatory agency, as appropriate.

3

Mitigation Measure HAZ-1 relies on odor or visual staining to identify contaminated media. This may not be an effective means for identifying all impacted media. Soil, and possibly groundwater, sampling should be performed at any areas where current or past chemical use may have resulted in a release of hazardous substances. The sampling results should be discussed in the EIR or subsequent project-specific CEQA documents and any screening levels, criteria, or risk evaluations that are used in making a determination whether detected contaminants are found at concentrations that pose a risk to human health or the environment should be identified.

4

Any remediation activities that are to be implemented as part of the project should be discussed in the EIR or subsequent project-specific CEQA documents along with the cleanup levels that will be applied. We recommend this so that it is clear what the full scope of the project will be and any potential impacts associated with remediation activities can be addressed.

5

If the remediation activities include soil excavation, the EIR or subsequent project-specific CEQA documents should include: (1) an assessment of air impacts and health impacts associated with the excavation activities; (2) identification of any applicable local standards which may be exceeded by the excavation activities, including dust and noise levels; (3) transportation impacts from the removal or remedial activities; and (4) risk of upset should there be an accident during cleanup.

6

Mr. Damon Golubics
September 4, 2007
Page 3

Please contact Robert Aragon at (510) 540-3904 if you have any questions. Thank you in advance for your consideration of our comments.

7

Sincerely,



Mark Piros, P.E., Unit Chief
Northern California - Coastal Cleanup Operations Branch

cc:

Governor's Office of Planning and Research
State Clearinghouse
P. O. Box 3044
Sacramento, California 95812-3044

Guenther Moskat
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

COMMENTOR A5

State of California, Department of Toxic Substances Control

Mark Piros, P.E., Unit Chief

September 4, 2007

- A5-1: This introductory comment, which summarizes the proposed project, is noted. While DTSC could be a potential Responsible Agency for specific development projects, DTSC would not be a Responsible Agency for approval of the Draft Specific Plan.
- A5-2: This comment, which summarizes the conclusions of the Draft EIR in regard to hazardous materials that could occur on the site (and which could be released during the construction period), is noted.
- A5-3: This comment, which summarizes the requirements of Mitigation Measure HAZ-2a (formerly Mitigation Measure HAZ-1a) in the Draft EIR, is noted.
- A5-4: A new mitigation measure (Mitigation Measure HAZ-1) has been added to the Draft EIR to establish protocols for characterizing and remediating documented and/or partly characterized contamination on the site. Refer to Master Response #2 and revised Section IV.E, Hazards and Hazardous Materials, included in Appendix A. The mitigation measure would require soil and groundwater samples to be collected and analyzed in areas where contamination may have occurred. The results of this analysis would be discussed in subsequent CEQA documents prepared for specific development projects in the Plan Area, where applicable.
- A5-5: Refer to Master Response #2. Mitigation Measure HAZ-1 would require remediation, and/or engineering and administrative controls to be implemented to reduce health risks (associated with identified contamination) to an acceptable level. Mitigation Measure HAZ-1 also includes health standards for clean-up activities. Remediation activities and required clean-up levels would also be discussed in subsequent CEQA documents prepared for specific development projects in the Plan Area, where applicable.
- A5-6: The information listed in the comment would be provided in subsequent CEQA documents prepared for specific development projects in the Plan Area. However, it is not expected that remediation activities conducted in the Plan Area as part of subsequent development activity would result in significant unavoidable secondary environmental impacts (e.g., unavoidable impacts associated with dust and noise) beyond those already identified in the Draft EIR.
- A5-7: This comment is noted. No further response is required.



Linda S. Adams
Agency Secretary
Cal/EPA

Department of Toxic Substances Control

Maureen F. Gorsen, Director
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2721



Arnold Schwarzenegger
Governor

September 4, 2007

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Mr. Damon Golubics
Senior Planner
City of Benicia
250 East "L" Street
Benicia, California 94510

Dear Mr. Golubics:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (EIR) for the Lower Arsenal Mixed Use Specific Plan Program (SCH# 2007062021). As you may be aware, the California Department of Toxic Substances Control (DTSC) oversees the cleanup of sites where hazardous substances have been released pursuant to the California Health and Safety Code, Division 20, Chapter 6.8. As a potential Responsible Agency, DTSC is submitting comments to ensure that the California Environmental Quality Act (CEQA) documentation prepared for this project adequately addresses any remediation activities which may be required to address hazardous substances releases.

The proposed project includes implementation of a Specific Plan for the Lower Arsenal site, which is designated for mixed uses in the Benicia General Plan. The Specific Plan covers four distinct zones, each of which exhibits a unique physical character. The Specific Plan would implement a form-based code to shape future development on the project site, with a primary emphasis on the physical form and character of new development. After build-out of the Specific Plan, the area would contain approximately 741,865 square feet of mixed uses, 22 residential units, and 6.39 acres of open space. The Specific Plan area currently contains approximately 525,000 square feet of mixed uses.

Section E, 4.b., Significant Hazards and Hazardous Materials Impacts and Mitigation Measures, on page 157, of the Draft EIR states that there is some possibility that historic or current businesses in the Plan Area have had unreported releases of hazardous materials and construction activities may unexpectedly encounter hazardous materials in soil or groundwater. The proposed project has the potential to result in adverse environmental impacts without the implementation of mitigation measures, but would be reduced to a less-than-significant level if the mitigation measures recommended in the EIR are implemented.

Mr. Damon Golubics
September 4, 2007
Page 3

Please contact Robert Aragon at (510) 540-3904 if you have any questions. Thank you in advance for your consideration of our comments.

Sincerely,



Mark Piros, P.E., Unit Chief
Northern California - Coastal Cleanup Operations Branch

cc:

Governor's Office of Planning and Research
State Clearinghouse
P. O. Box 3044
Sacramento, California 95812-3044

Guenther Moskat
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

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cont.

COMMENTOR A6

State of California, Department of Toxic Substances Control

Mark Piros, P.E., Unit Chief

September 4, 2007

A6-1: This comment summarizes the project and the conclusions of the Draft EIR in regard to residual soil and groundwater contamination associated with historic and current land uses that may be present on the project site. No additional response is required.



Linda S. Adams
Secretary for
Environmental Protection



Department of Toxic Substances Control

Maureen F. Gorsen, Director
8800 Cal Center Drive
Sacramento, California 95826-3200



Arnold Schwarzenegger
Governor

September 6, 2007

Mr. Damon Golubics
Senior Planner
City of Benicia
250 East L Street
Benicia, California 94510

CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL'S COMMENTS
ON LOWER ARSENAL MIXED USE SPECIFIC PLAN ENVIRONMENTAL IMPACT
REPORT JULY 2007, STATE CLEARINGHOUSE # 2007062021

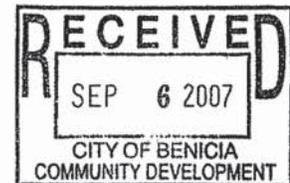
Dear Mr. Golubics:

The Department of Toxic Substances Control (DTSC) has reviewed and has the following comments on the document, *Lower Arsenal Mixed Use Specific Plan Environmental Impact Report, July 2007* (EIR). DTSC is the lead state regulatory agency overseeing the hazardous substances/wastes investigations in what encompassed the former Benicia Arsenal. The United States Army Corps of Engineers, Sacramento Office (USACE) is the federal Department of Defense authority/entity that has been conducting various investigations in areas of the former arsenal over the past few years.

Attached is a letter DTSC sent to Ms. Heather Chin-Chu McLaughlin, attorney for the City of Benicia, dated March 27, 2007, regarding the initial notification of the proposal to develop the lower arsenal. The March letter identifies issues associated with developing areas of the historic arsenal that are potentially contaminated by chemical or explosives wastes left over from former Army activities. Based on our review of the EIR, we reiterate the concerns stated in the March letter. DTSC's review of the EIR focuses on identifying areas where potential health and environmental impacts are probable as a result of former Arsenal activities.

1

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Mr. Damon Golubics
September 6, 2007
Page 2

The lower arsenal contains known and likely unknown areas of contaminated soil, groundwater and air. Some areas of previous investigations are not complete. Numerous property parcels in the proposed development area have potentially uncharacterized hazardous waste contamination. There are also areas that have known or suspected ordnance contamination from former Arsenal activities. As with areas of chemical contamination the investigations of ordnance waste to date are not complete in all areas. As stated in the March letter, this results in a degree of uncertainty which will require Preliminary Endangerment Assessments to be completed prior to reuse.

2

The EIR contains a Section titled; "IV. Setting, Impacts and Mitigation Measures: E. Hazards and Hazardous Materials." The section identifies a variety of contaminants of concern. These contaminants include lead and asbestos in historical buildings. Also discussed is the use of hazardous materials during former Arsenal activities and documented releases gleaned from several regulatory databases. The discussion and identification of contaminants and areas of potential releases is incomplete. The Table IV.E-1: Documented Environmental Releases, Hazardous Materials Usage or Hazardous Waste Generation in the Plan Area is also incomplete. As stated previously, DTSC does not consider any area of the former Arsenal as fully characterized. Some areas have been investigated and there are data that verify known contamination. What is referred to as Area I 50 Series Complex in Benicia Arsenal Investigative documents verifies contamination in soil, soil gas and groundwater by chlorinated solvents, specifically trichloroethene; metals; polyaromatic hydrocarbons; and fuel related compounds, particularly diesel and motor oil. To date, the 50 Series Complex is the most contaminated part of the former Arsenal. The groundwater contamination, although investigated, is not remediated. The storm drain system is an area of concern. Contamination in and around the storm drain system has not been characterized for potential indoor air risks. There has been inadequate air sampling for indoor vapor intrusion of contaminants from soil/subsurface hazardous waste contamination that may volatilize in the work/live areas along Jackson and Tyler Streets. There are unresolved ordnance issues in the proposed development area and in the bay. These areas have not been screened or remediated to an acceptable level. Finally, there are no approved DTSC ecological or human health risk assessments for any areas within the former Arsenal.

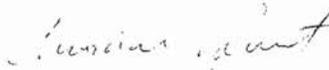
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Mr. Damon Golubics
September 6, 2007
Page 3

Please contact me with any questions you may have at (916) 255-3707 or
cparent@dtsc.ca.gov.

4

Sincerely,



Christine Parent
Project Manager
Office of Military Facilities

Attachment

- cc: Ms. Marilyn Bardot
333 East K Street
Benicia, California 94510
- Mr. John Lazorik
484 West I Street
Benicia, California 94510
- Ms. Wendy Linck
Brown and Caldwell
10540 White Rock Road
Rancho Cordova, California 95670
- Ms. Katherine Greene
U.S. Army Corps of Engineers
Sacramento District
BRAC Program Management
Office – West
1325 J Street
Sacramento, California 95814
- Mr. Charlie Knox
Planning Director
City of Benicia
250 East L Street
Benicia, California 94510

- Ms. Heather Chin-Chu McLaughlin
City of Benicia
250 East L Street
Benicia, California 94510
- City Council Members
City of Benicia
250 East L Street
Benicia, California 94510
- Mr. Colby LaPlace
Solano County
Department of Resource Management
675 Texas Street, Suite 5500
Fairfield, California 94533
- Ms. Agnes Farres
Regional Water Quality Control Board
Project Manager
1515 Clay Street, Suite 1400
Oakland, California 94612



Maureen F. Gorsen, Director
8800 Cal Center Drive
Sacramento, California 95826-3200



Arnold Schwarzenegger
Governor

March 27, 2007

Ms. Heather Chin-Chu McLaughlin
City of Benicia
250 East L Street
Benicia, California 94510

**PROPOSED DEVELOPMENT IN THE FORMER LOWER BENICIA ARSENAL,
BENICIA, CALIFORNIA**

Dear Ms. McLaughlin:

This letter is in regards to the proposed development for the lower arsenal for what was part of the former Benicia Arsenal, Benicia, California. Areas under consideration are in a document titled, "Lower Arsenal Mixed Use Specific Plan." The areas include property parcels on Grant Street and what is referred to as Commission Row; both areas were part of the former Benicia Arsenal. The Department of Toxic Substances Control (DTSC) is the lead regulatory agency overseeing the investigation into the former Arsenal and in that capacity there are a number of issues that DTSC wants to ensure the City of Benicia acknowledges before developing these areas specifically and generally any of the properties that incorporated the former Arsenal.

Although, the United States Army Corps of Engineers has conducted a number of investigations throughout areas that were part of the former Arsenal, none of these investigations have resulted in completed characterizations. Lack of complete characterizations could mean residual contamination from activities conducted during tenure of the Arsenal. Of concern are hazardous chemical contamination from industrial operations and areas where munitions and explosives of concern were stored/dumped. In addition, the potential adverse public health and ecological risk impacts have not been evaluated. Because of the uncertainty, development without adequate assessment is a potential public health concern and increased liability for the City of Benicia.

To address the uncertainty caused by incomplete site characterizations, Preliminary Endangerment Assessments (PEA) will need to be conducted for each property parcel. The PEAs will focus on the probable contaminant(s) of concern and the potential health and ecological risk from any residual contaminant of the impacted media (soil, surface

Ms. Heather Chin-Chu McLaughlin
March 27, 2007
Page 2

water, groundwater or air). An electronic version of the PEA Guidance Manual is available on the State of California DTSC public web site (http://www.dtsc.ca.gov/PublicationsForms/pubs_index.cfm).

Please contact me with any questions you have regarding the investigations necessary for the proposed development area. I can be contacted at (916) 255-3707 or cparent@dtsc.ca.gov.

Sincerely,



Christine Parent
Project Manager
Office of Military Facilities

cc: Mr. Charlie Knox
Planning Director
City of Benicia
250 East L Street
Benicia, California 94510

City Council Members
City of Benicia
250 East L Street
Benicia, California 94510

Ms. Marilyn Bardot
333 East K Street
Benicia, California 94510

Mr. John Lazorik
484 West I Street
Benicia, California 94510

Ms. Agnes Farres
RWQCB
Project Manager
1515 Clay Street, Suite 1400
Oakland, California 94612

Ms. Katherine Greene
U S Army Corps of Engineers
Sacramento District
BRAC Program Management
Office – West
1325 J Street
Sacramento, California 95814

Mr. Colby LaPlace
Solano County
Dept. of Resource Management
675 Texas Street, Suite 5500
Fairfield, California 94533

Ms. Wendy Linck
Brown and Caldwell
10540 White Rock Road
Rancho Cordova, California 95670

COMMENTOR A7

State of California, Department of Toxic Substances Control

Christine Parent, Project Manager

September 6, 2007

- A7-1: This introductory comment notes that DTSC is the lead State regulatory agency in overseeing hazardous materials investigations in the Plan Area and the rest of the Benicia Arsenal. The comment also references a March 27, 2007 letter submitted on the Lower Arsenal Mixed Use Specific Plan that raises concerns about hazardous materials issues on the project site. The March 27 letter is appended to Letter A7.
- A7-2: This comment states that the Plan Area is likely to contain soil, groundwater, and air contamination, and may include ordnance associated with historic military activities. Furthermore, it states that hazardous materials on the site have not been fully characterized, and a Preliminary Endangerment Assessment would be required prior to redevelopment of individual development parcels. Impact and Mitigation Measure HAZ-1 were added to the Draft EIR to address potential impacts associated with redevelopment of areas with hazardous materials concerns that may not be fully characterized. In such areas, Mitigation Measure HAZ-1 would require the collection and analysis of soil and groundwater samples in accordance with the requirements of DTSC's Preliminary Endangerment Assessment process or other acceptable U.S. Environmental Protection Agency or California Environmental Protection Agency regulatory guidance. Refer to Master Response #2 and revised Section IV.E (Appendix A) for additional detail.
- A7-3: This comment argues that the identification and discussion of hazardous materials concerns in Section IV.E, Hazards and Hazardous Materials, of the Draft EIR is incomplete. Section IV.E. has been substantially revised to address these concerns. In particular, additional information has been added about:
- Applicable hazardous waste regulations, including the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and the Superfund Amendments and Reauthorization Act of 1986 (SARA).
 - The U.S. Army Corps of Engineers program for clean-up of sites used by the U.S. Department of Defense, or Formerly Used Defense Sites (FUDS).
 - Remedial investigations and clean-ups undertaken in the Benicia Arsenal by the U.S. Army Corps of Engineers.
 - Contamination concerns in the 50 Series Complex referenced in comment A7-3.

- Identification and discussion of potential contamination associated with fuel storage tanks (including those associated with the 50 Series Complex).
- The key conclusions of the Expanded Site Inspection of the Benicia Arsenal that was conducted by the U.S. Army Corps of Engineers and focused on groundwater contamination.

Refer to Master Response #2 and revised Section IV.E (Appendix A) for additional detail. As noted in Response to Comment A7-2, Mitigation Measure HAZ-1 has been added to the Draft EIR to reduce effects associated with areas of potential contamination that may not be fully characterized to less-than-significant levels.

A7-4: This comment is noted. No further response is required.