

Rethinking the Benicia Business Park ...

Green Gateway Business Community

A 21ST CENTURY POSSIBILITY



Prepared by Benicia citizens
organized as the Green Gateway Group

September, 2008

Disclosure

The Green Gateway Group fully believes that the Benicia City Council has sufficient data, facts, information, and legal opinion from numerous sources to fully deny the current project as proposed by Discovery Builders.

This document is not intended and shall not be used as grounds for the Benicia City Council to deny the current project as proposed.

We are simply formulating possibilities, based on our research and discussion with visionaries in the industry. We are not presenting an Alternative Project. We are simply taking a positive step in presenting a framework for a 21st Century vision.

Green Gateway Group
September, 2008

GREEN GATEWAY BUSINESS COMMUNITY

A 21st Century Possibility

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Introduction and Summary

Visionary 21st Century Planning based on a City-Sponsored Specific Plan

Benicia's Green Gateway Group proposes an achievable visionary business community in contrast to the current proposed project for Benicia Business Park. We believe the best way to achieve this goal is to exercise our right as citizens to encourage a Specific Plan. A Form-Based Code would provide the basis for a LEED-ND certified campus-style business community, with mixed-use retail/commercial, research and development, and light industrial uses.

We join our voices with a chorus of local citizens and professionals who have advised a vote to deny the current Seeno plan, which is archaic, unsustainable and unsuited to the future. We believe that Benicia needs a 21st Century alternative that would be forward-looking and specific in its vision. We also recognize that a developer needs to be advised clearly by the citizens as to what we would require, what we want, and what would and would not be acceptable.

To do this, the City Council must deny the current project and direct staff to seek input from all parties, including the public, in the writing of a Specific Plan (a sub-set of our City's General Plan, written for a specific bounded section of the city). When adopted by our City Council, a Specific Plan would make all conditions of approval legally binding according to State of California law, and it would enable the City to conform to "AB32," the California "Global Warming Solutions Act," now approved and codified as Division 25.5 (commencing with Section 38500) of our California Health and Safety Code.

Industry Standard Sustainable Development

Our Green Gateway Business Community example follows current industry standards, calling for sustainable, profitable, green development. It envisions an environmentally sustainable and highly profitable research park, having its uses and activities guided by an overarching concept and focus on the emerging field of clean technology. There should be protections against grading slopes beyond 20% incline (a common development standard), a richer mixed-use layout, road alignment that will encourage greater walking and biking accessibility, an emission-free electric or low-emission hybrid public transit system to serve the entire city of Benicia, and Form-based code to guide the development of a livable and sustainable business *community*.

To make this visionary possibility more tangible in the minds of the public and our City Council and City staff, we plan to present an example of a Site Plan (map) and other illustrative documents, that show the topography and the proposed grading of the current proposed project as it contrasts with our recommended Green Gateway Business Community. And we will present still images of what a new project could look like with the least disruption to the site topography. Finally, we hope to present a rough example of a Specific Plan, showing how a community like Benicia, in partnership with a landowner and developer, can take charge of the direction in which local projects like this one move forward.

Good for the Community, Good for the Owner/Developer, Good for the World

We are hopeful that this work will help to create a profitable 21st Century sustainable development for our beloved town and our beautiful rolling hills. We ALL will be affected by whatever happens to the 527 acres of land at East Second and Lake Herman Road. The community will benefit in the development of a forward looking, campus style business community that will enhance and strengthen our economy and make us all proud of what we can do here in Benicia.

Context and Framework

We offer the following background information as a way of placing the Green Gateway Business Community in the wider context of (1) Benicia's General Plan, (2) California Assembly Bill AB32, the California Global Warming Solutions Act (now a section of our California Health and Safety Code), and (3) an understanding of "sustainability."

1. General Plan goals

Benicia's General Plan governs all forms of community development and lays out goals for Sustainability, Identity and Health and Safety. Our General Plan is the law in Benicia. A summary of relevant and applicable goals follows. The whole General Plan is an integrated document the overarching goal of which is sustainability. All goals and policies contribute to the whole, therefore the following is not an exhaustive list.

Community Development and sustainability - Growth Management

- 2.1 Preserve Benicia as a small sized city
- 2.2 Maintain lands near Lake Herman and north of Lake Herman Road in permanent agriculture/open space
- 2.3 Ensure orderly and sensitive site planning and design for large undeveloped areas of the city
- 2.4 Ensure that development pays its own way

Community Development and Sustainability - Economic Development

- 2.5 Facilitate and encourage new uses and development which provide substantial and sustainable fiscal and economic benefits
- 2.6 Attract and retain a balance of different kinds of industrial uses
- 2.7 Attract and retain industrial facilities that provide fiscal and economic benefit to Benicia

Community Development and Sustainability - Downtown

- 2.12 Strengthen the Downtown as the City's central commercial zone
- 2.13 Support the economic viability of existing commercial centers

Community Development and Sustainability - Circulation

- 2.14 Enhance Benicia's small town atmosphere of pedestrian-friendly streets and neighborhoods
- 2.15 Provide a comprehensive system of pedestrian and bicycle routes which link the various components of the community; employment centers, residential areas, commercial areas, schools, parks, open space
- 2.17 Provide an efficient, reliable and convenient transit system
- 2.18 Encourage the provision of convenient rail service to Benicia with a station near the Benicia Bridge
- 2.21 Encourage Benicia residents and employees to use alternatives to the single occupant automobile
- 2.22 Alleviate traffic near school sites
- 2.24 Continue to provide safe and direct access to the Industrial Park
- 2.26 Ensure that scenic and environmental amenities of I-680 and I-780 are not compromised
- 2.27 Ensure an active community deliberation process in response to Caltrans proposals now and in the future

Community Services - Parks

- 2.31 Maintains safety and parks/open space
- 2.32 Expand the City's park system to accommodate the city's future needs

Community Development and Sustainability - Community Services - Water

- 2.36 Ensure an adequate water supply for current residences and businesses
- 2.37 Identify and preserve groundwater resources
- 2.38 Protect water quality
- 2.40 Ensure adequate wastewater treatment capacity to serve all development shown in the General Plan

Community Development and Sustainability - Community Services - Recycling

- 2.42 Enhance the recycling of solid waste

Community Development and Sustainability - Community Services - Utilities

- 2.43 Allow installation of telecommunications equipment and distribution networks that maintain and protect health, safety and quality of life and avoid visual clutter

Community Identity - Historic Preservation

- 3.1 Maintain and enhance Benicia's historic character

Community Identity - Historic and Archaeological Resources

- 3.2 Protect archaeological (including underwater) sites and resources

Community Identity - Cultural

- 3.3 Increase public awareness of cultural resources and activities
- 3.5 Promote events with wide community attraction

Community Identity - Art

- 3.6 Support and promote the arts as a major element in Benicia's community

Community Identity - Visual character

- 3.7 Maintain and reinforce Benicia's small town visual characteristics
- 3.8 Preserve First Street as the community focal point of Benicia
- 3.9 Protect and enhance scenic roads and highways
- 3.10 Enhance the streetscape along Military East and West
- 3.11 Enhance the eastside
- 3.12 Improve the appearance of the Industrial Park

Community Health and Safety

- 4.1 Make community health and safety a high priority
- 4.6 Prevent and reduce crime in the community
- 4.7 Ensure that existing and future neighborhoods are safe from risks to public health that could result from exposure to hazardous materials
- 4.9 Ensure clean air for Benicia residents
- 4.10 Support improved regional air quality
- 4.11 Minimize harm from geologic hazards
- 4.12 Accommodate runoff from existing and future development
- 4.14 Prevent ground and surface water contamination
- 4.17 Minimize hazardous waste generation
- 4.23 Reduce or eliminate the effects of excessive noise

2. AB 32 - California Global Warming Solutions Act – (Passed by the California Assembly and approved by the Governor September 27, 2006). Our California Health and Safety Code relating to air pollution now mandates a reduction in greenhouse gas emissions back to the “1990 emissions baseline” by 2020. By 2020 the bill would require the state board to adopt regulations to require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with this program. The bill defines “greenhouse gas emissions limit” as an authorization, during a specified year, to emit up to a level of greenhouse gases specified by the state board, expressed in tons of carbon dioxide equivalents. (Greenhouse gas or greenhouse gases includes all of the following gases: carbon dioxide, methane, nitrous oxide, hydroflourocarbons, perfluorocarbons, and sulphur hexaflouride.)

Greenhouse gas emissions predominantly come from Transportation (38%), Industry (20%) and Electricity (23%) according to a study of 2002-2004 by the Air Resources Board. When considering any development, it is clear that the City's responsibility lies in encouraging reduction in traffic and alternate transportation solutions, green-tech solutions to building and alternative sources of energy.

The AB32 goal should primarily be achieved through innovative land-use and transportation strategies to (1) reduce per capita “vehicle miles traveled”; and (2) reduce buildings’ energy consumption, through following LEED Neighborhood Development Rating System criteria for the entire buildable site area. An example of the kind of plan seeking to meet sustainability criteria under AB32 is the Rohnert Park “Sonoma Mountain Village” development. “Toward Sustainability: The Rohnert Park Story”, the presentation by Jake Mackenzie, Mayor, City of Rohnert Park, to the Haagen-Smit Symposium, April 2008.].

From the Attorney General's Office, titled: “The California Environmental Quality Act – Addressing Global Warming Impacts at the Local Agency Level”, comes the following recommendations that local agencies can require of development projects in order to carry out their duties under CEQA as they relate to Global Warming and AB32: (See <http://ag.ca.gov>)

Energy Efficiency

- Design buildings to be energy efficient. Site buildings to take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use.
- Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems in buildings.
- Install light colored “cool” roofs, cool pavements, and strategically placed shade trees.
- Provide information on energy management services for large energy users.
- Install energy efficient heating and cooling systems, appliances and equipment, and control systems.
- Install light emitting diodes (LEDs) for traffic, street and other outdoor lighting.
- Limit the hours of operation of outdoor lighting.
- Use solar heating, automatic covers, and efficient pumps and motors for pools and spas.
- Provide education on energy efficiency.

Renewable Energy

- Install solar and wind power systems, solar and tankless hot water heaters, and energy- efficient heating ventilation and air conditioning. Educate consumers about existing incentives.
- Install solar panels on carports and over parking areas.
- Use combined heat and power in appropriate applications.

Water Conservation and Efficiency

- Create water-efficient landscapes.
- Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.
- Use reclaimed water for landscape irrigation in new developments and on public property.

Install the infrastructure to deliver and use reclaimed water.

- Design buildings to be water-efficient. Install water-efficient fixtures and appliances.
- Use graywater. (Graywater is untreated household waste water from bathtubs, showers, bathroom wash basins, and water from clothes washing machines.) For example, install dual plumbing in all new development allowing graywater to be used for landscape irrigation.
- Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff.
- Restrict the use of water for cleaning outdoor surfaces and vehicles.
- Implement low-impact development practices that maintain the existing hydrologic character of the site to manage storm water and protect the environment. (Retaining storm water runoff on-site can drastically reduce the need for energy-intensive imported water at the site.)
- Devise a comprehensive water conservation strategy appropriate for the project and location. The strategy may include many of the specific items listed above, plus other innovative measures that are appropriate to the specific project.
- Provide education about water conservation and available programs and incentives.¹⁶

Solid Waste Measures

- Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.
- Recover by-product methane to generate electricity.¹⁷
- Provide education and publicity about reducing waste and available recycling services.¹⁸

Land Use Measures

- Include mixed-use, infill, and higher density in development projects to support the reduction of vehicle trips, promote alternatives to individual vehicle travel, and promote efficient delivery of services and goods.¹⁹
- Educate the public about the benefits of well-designed, higher density development.²⁰
- Incorporate public transit into project design.
- Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio.
- Develop "brownfields" and other underused or defunct properties near existing public transportation and jobs.
- Include pedestrian and bicycle-only streets and plazas within developments. Create travel routes that ensure that destinations may be reached conveniently by public transportation, bicycling or walking.²¹

Transportation and Motor Vehicles

- Limit idling time for commercial vehicles, including delivery and construction vehicles.
- Use low or zero-emission vehicles, including construction vehicles.
- Promote ride sharing programs e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading and waiting areas for ride sharing vehicles, and providing a web site or message board for coordinating rides.
- Create car sharing programs. Accommodations for such programs include providing parking spaces for the car share vehicles at convenient locations accessible by public transportation.²²
- Create local "light vehicle" networks, such as neighborhood electric vehicle (NEV) systems.
- Provide the necessary facilities and infrastructure to encourage the use of low or zero- emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).
- Increase the cost of driving and parking private vehicles by, e.g., imposing tolls and parking fees.
- Build or fund a transportation center where various public transportation modes intersect.
- Provide shuttle service to public transit.
- Provide public transit incentives such as free or low-cost monthly transit passes.
- Promote "least polluting" ways to connect people and goods to their destinations.²⁴
- Incorporate bicycle lanes and routes into street systems, new subdivisions, and large developments.
- Incorporate bicycle-friendly intersections into street design.
- For commercial projects, provide adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience. For large employers, provide facilities that encourage bicycle commuting, including, e.g., locked bicycle storage or covered or indoor bicycle parking.
- Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points.
- Work with the school district to restore or expand school bus services.
- Institute a telecommute work program. Provide information, training, and incentives to encourage participation
- Provide incentives for equipment purchases to allow high- quality teleconferences.
- Provide information on all options for individuals and businesses to reduce transportation-related emissions.
- Provide education and information about public transportation.

Off-Site Mitigation

If, after analyzing and requiring all reasonable and feasible on-site mitigation measures for avoiding or reducing greenhouse gas-related impacts, the lead agency determines that additional mitigation is required, the agency may consider additional off-site mitigation. The project proponent could, for example, fund off-site mitigation projects (e.g., alternative energy projects, or energy or water audits for existing projects) that will reduce carbon emissions, conduct an audit of its other existing operations and agree to retrofit, or purchase carbon "credits" from another entity that will undertake mitigation.

The topic of offsets can be complicated, and a full discussion is outside the scope of this

summary document. Issues that the lead agency should consider include:

- The location of the off-site mitigation. (If the off-site mitigation is far from the project, any additional, non-climate related benefits of the mitigation will be lost to the local community.)
- Whether the emissions reductions from off-site mitigation can be quantified and verified.
- Whether the mitigation ratio should be greater than 1:1 to reflect any uncertainty about the effectiveness of the offset.

3. Sustainability defined ...

Sustainability is defined as "development that meets the needs of the present without compromising the future generations to meet their own needs". It is about balance between environmental protections, social equity and economic performance, the three major components of sustainability, and about balance between short and longer term returns on public and private investment.

Environmental Considerations

- Meet US Green Building Council LEED-ND Certification standards for building and site design
- Account for and protect ecological systems and functions
- Incorporate a "green building" approach for future development
- Maximize pedestrian circulation modes
- Provide for alternative/renewable energy use - work toward "energy neutral" development
- Safely and efficiently accommodate traffic with out adverse impact to surrounding community
- Develop alternative public transportation modes and efficient connectivity between them
- Promote water conservation/gray water use

Social Equity

- Create active, vibrant "public places" that gather people and lend a special sense of identity to the community
- Maintain open space and provide wide range of passive and active public recreational opportunities
- Provide employment opportunities that are in synch with community
- Contribute to critically needed solutions to regional transit and transportation issues
- Recognize any regional significance and strive to ensure that it positively impacts its surrounding community (ies)
- Provide site opportunities for public art and education to contribute to public understanding of the site - history, ecology, sustainability mission

Economics

- Enhance a city's tax base and future ability to improve services within the city
- Establish a project which remains economically viable on a long term basis, including excellence in architecture that can stand the test of time
- Build in flexibility so a project can adapt to changing market conditions
- Provide jobs and other choices for residents that may not be available currently

(The above information was adapted from Brisbane, California's Baylands Plan

The Green Gateway Business Community - Basics for a 21st Century plan

Transportation is key to air quality.

Fully 38% of the greenhouse gases in our Bay Area air comes from automobiles. It is simply no longer an acceptable alternative to develop new retail and industrial land usages that fail to take this into account.

A 21st Century development must be planned in such a way as to keep trip generation at a minimum. We need to enable and encourage many if not most of those fewer trips to be made on foot and by bicycle, and on clean-tech public transit. In this way, a primary goal of the Green Gateway Business Community is to provide alternatives to cars.

We propose:

1. A much smaller development, (fewer lots on less acreage, less grading, fewer square feet of building space) with accordingly fewer trips to and from the Business Community (see also the Comparison Table A1 on page 10). In summary, the acreage of the Green Gateway Business Community would comprise:
 - 100 acres of Research & Development and other office and limited industrial use
 - 15 acres of mixed commercial use: hotel, retail (no big box) and office (no residential)
 - 12 acres roads
 - 2 million square yards of grading
 - 400 acres open space
 - 1.5 million square feet of Research and Development, office and other limited industrial building space
 - 300,000 square feet of mixed use (office and retail, but no residential) business space
 - 1.8 million square feet total buildings
2. Plentiful pedestrian and bicycle paths within the Community, and whenever possible, interconnected streets (as opposed to cul-de-sacs). This design would encourage foot and bicycle traffic.
3. Focus most business and industrial uses on cleantech R&D and related commerce, so that Green Gateway becomes known and recognized as a central cleantech hub in the emerging East Bay/Sacramento Green Corridor. By focusing on cleantech R&D and University collaboration, the Park would create a good job match for Benicia's employment demographics, thereby reducing commute traffic. A clean tech green-collar training center would generate a skilled green-collar workforce for the many businesses on site and elsewhere.
4. A distribution of commerce and retail throughout the acreage rather than concentrated near Interstate 680. This retail and commerce would primarily serve the Community itself, and would result in much less traffic off Interstate 680, although high-quality restaurants and other commercial ventures would appeal to hotel and retreat center guests, Benicians and others from nearby cities.
5. An Intermodal Transportation hub and shuttle service – paid for through assessment district financing – (note for example, Emeryville, CA), to cut down on trips from other cities.
6. Minimal parking which would encourage use of connector buses.
7. A citywide local transit system of electric -- or hybrid -- short buses (vans or cutaways) and a system of elegantly designed bus stops to serve all of Benicia. Buses would run frequently enough to make car trips to and from the Green Gateway Business Community (and elsewhere in Benicia) unnecessary in most cases.

Protection of Habitat, Streams

Benicians love the hills and open space that surround our beautiful city. For aesthetic reasons, then, as well as the increasingly urgent environmental imperatives, the Green Gateway Business Community will preserve and enhance the natural and pastoral beauty of the original hills, valleys and streams. Those who do business in the community will enjoy a park-like setting.

We propose:

- No grading resulting in slopes over 20%
- 200 foot wide buffers on each side of all creeks, drainages, swales and other wetlands.
- 75% open space
- No extension of Industrial Road to Lake Herman

A profitable development that serves the City of Benicia

Our research shows that the Green Gateway Business Community, while substantially smaller than ventures proposed for this location in the past, meets and exceeds industry standards for profitability. In developers' terms, the project "pencils." Development of 127 acres will enrich the owners, developers, contractors and builders, bring significant new jobs, and serve the City of Benicia and its citizens throughout a 21st Century that promises to unfold like no previous era in human history.

Cleantech R&D is projected to be the most vigorous and growth oriented business sector in the coming decades. Additionally, the activities of cleantech R&D provide a good match for our employment demographics, offering a wide spectrum of jobs for Benicians from skilled labor to scientific and professional. The project will put Benicia on the map as a leader in clean technology, will strengthen the overall economy in Benicia and in the San Francisco Bay Area, and will draw new research and development that is key to combating climate change and growing a more sustainable world.

(For more, refer to "Clean Technology Green Innovation for 21st Century Challenges" pp. 16-20 below)



Guidelines / Goals / Types of Companies and Businesses

GGG Brainstorm

Guidelines

- Leeds Certifications (Gold if possible)
- Form based Code
- Meets the requirements of Benicia's General Plan
- Sustainable under California law (AB32)
- Visionary
- 21st century
- 0 Carbon footprint
- Clean tech / Green tech R&D
- Net positive energy outflow
- This is a venue for Benicia, not for tourists

Goals

- Intermodal transport site
- Connect to electric trolley service that connects BIP, downtown, Yuba, Arsenal, Rose Drive business, Southampton, Community Park etc
- Walking/biking trails
- Connecting streets
- Pay attention to the creek/bridges over the creeks
- Lots of trees
- Keep hills, no more than 20% grading
- Anchor companies placed like a spider web
- Campus style
- Mixed use means retail below, office above (not residential)
- Parks, small areas of rest
- Pool, lake
- Playground
- Vista points
- View corridors
- Use wind, solar
- Community garden

Types of companies/buildings

At a minimum, the Green Gateway Business Community would be **built** green, and every business/occupant would commit to a green operation. An even better option would be for the Community to foster only businesses/occupants that are generating clean-tech research, development and manufacture. Our group favors the latter option. We envision a hotel, conference center and restaurants to serve the Green Gateway, and mixed use distribution of additional retail to serve the business community, along with R&D and light industry.

COMPARISON: SEENO AND THE GREEN GATEWAY VISION

The Green Gateway model would result in an estimated 78% reduction in traffic over Seeno's 2007 proposal based on trip generation alone. With an intermodal transit station, on-campus shuttle service and an electric or hybrid transit system serving all of Benicia, there would be even greater reductions.

The Green Gateway Business Community model is a 21st Century design that will be profitable for the developer within industry standards. The time necessary for all parties to agree on a revised project along these lines, (about a year), will be much less than a protracted lawsuit over the suitability of the currently proposed project.

Seeno 2007	Seeno 2008	Green Gateway Vision
80 lots	80 lots	lots as needed
280 acres light industrial	150 acres light industrial (54% of 2007)	100 acres of primarily Research and Development / clean-tech / light industrial (67% of 2008)
35 acres highway commercial	35 acres highway commercial (no change)	15 acres hotel, mixed use retail and office, no big box, spread throughout the project (43% of 2007/2008)
32 acres roads	30 acres roads (94% of 2007)	12 acres roads (40% of 2008)
180 acres open space	313.2 acres open space (174% of 2007)	400 acres open space (128% of 2008)
527.8 acres total	527.8 acres total	527.8 acres total
9 million square yards grading	4 million square yards grading (44% of 2007)	2 million square yards grading (50% of 2008)
4.44 million sq. ft. light industrial building space	2.4 million sq. ft. light industrial building space (54% of 2007)	1.5 million sq. ft. of primarily Research & Development / clean-tech business space (62% of 2008)
857,000 sq. ft. of commercial building space	857,000 sq. ft. of commercial building space (no change)	300,000 sq. ft. of mixed use retail & office building space (35% of 2007/2008)
5.3 million sq. ft. total building space	3.3 million sq. ft. total building space (62.3% of 2007)	1.8 million sq. ft. total building space (55% of 2008)

Sample: Monterey Sustainability Checklist
A possible source for a report card
comparing Seeno and the Green Gateway Vision

SOURCE: http://www.monterey.org/building/greenbuilding/docs/Monterey_GBP_NonResInstructions.doc

NON-RESIDENTIAL NEW CONSTRUCTION TOTAL POINT REQUIREMENTS

Total Points Possible	69
<i>Action</i>	<i>Points required to receive action</i>
Receipt of Building Permit - New construction project over 500 sq.ft.	15
Green Building Award and Incentive Level	33

GREENPOINTS CHECKLIST FOR NON-RESIDENTIAL PROJECTS

(Based on USGBC's LEED v2.2 Guidelines, directions can be found on the Monterey Green Building Program web site, <http://www.monterey.org/building/greenbuilding/>)

A. Sustainable Sites		Total	Green Gateway Vision	Seeno
Prereq 1	Construction Activity Pollution Prevention	Required		
Credit 1	Site Selection	1		
Credit 2	Development Density & Community Connectivity	1		
Credit 3	Brownfield Redevelopment	1		
Credit 4.1	Alternative Transportation , Public Transportation Access	1		
Credit 4.2	Alternative Transportation , Bicycle Storage & Changing Rooms	1		
Credit 4.3	Alternative Transportation , Low-Emitting & Fuel-Efficient	1		
Credit 4.4	Alternative Transportation , Parking Capacity	1		
Credit 5.1	Site Development , Protect or Restore Habitat	1		
Credit 5.2	Site Development , Maximize Open Space	1		
Credit 6.1	Stormwater Design , Quantity Control	1		
Credit 6.2	Stormwater Design , Quality Control	1		
Credit 7.1	Heat Island Effect , Non-Roof	1		
Credit 7.2	Heat Island Effect , Roof	1		
Credit 8	Light Pollution Reduction	1		

		Sustainable Sites Total Available Points	14		
B. Water Efficiency			Total		
Credit 1.1	Water Efficient Landscaping , Reduce by 50%		1		
Credit 1.2	Water Efficient Landscaping , No Potable Use or No Irrigation		1		
Credit 2	Innovative Wastewater Technologies		1		
Credit 3.1	Water Use Reduction , 20% Reduction		1		
Credit 3.2	Water Use Reduction , 30% Reduction		1		
		Water Efficiency Total Available Points	5		
C. Energy & Atmosphere			Total		
Prereq 1	Fundamental Commissioning of the Building Energy Systems		Required		
Prereq 2	Minimum Energy Performance		Required		
Prereq 3	Fundamental Refrigerant Management		Required		
Credit 1	Optimize Energy Performance		1-10 points		
	10.5% New Buildings or 3.5% Existing Building Renovations		1		
	14% New Buildings or 7% Existing Building Renovations		2		
	17.5% New Buildings or 10.5% Existing Building Renovations		3		
	21% New Buildings or 14% Existing Building Renovations		4		
	24.5% New Buildings or 17.5% Existing Building Renovations		5		
	28% New Buildings or 21% Existing Building Renovations		6		
	31.5% New Buildings or 24.5% Existing Building Renovations		7		
	35% New Buildings or 28% Existing Building Renovations		8		
	38.5% New Buildings or 31.5% Existing Building Renovations		9		
	42% New Buildings or 35% Existing Building Renovations		10		
Credit 2	On-Site Renewable Energy		1-3 points		
	2.5% Renewable Energy		1		
	7.5% Renewable Energy		2		
	12.5% Renewable Energy		3		

Credit 3	Enhanced Commissioning	1		
Credit 4	Enhanced Refrigerant Management	1		
Credit 5	Measurement & Verification	1		
Credit 6	Green Power	1		
	Energy & Atmosphere Total Available Points	17		

D. Materials & Resources		Total		
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Prereq 1	Storage & Collection of Recyclables	Required		
Credit 1.1	Building Reuse , Maintain 75% of Existing Walls, Floors & Roof	1		
Credit 1.2	Building Reuse , Maintain 100% of Existing Walls, Floors & Roof	1		
Credit 1.3	Building Reuse , Maintain 50% of Interior Non-Structural Elements	1		
Prereq 2	Construction Waste Management , 100% non-hazardous construction material taken to a bonafide facility	Required		
Credit 2.1	Construction Waste Management , Divert 50% from Disposal	1		
Credit 2.2	Construction Waste Management , Divert 75% from Disposal	1		
Credit 3.1	Materials Reuse , 5%	1		
Credit 3.2	Materials Reuse , 10%	1		
Credit 4.1	Recycled Content , 10% (post-consumer + ½ pre-consumer)	1		
Credit 4.2	Recycled Content , 20% (post-consumer + ½ pre-consumer)	1		
Credit 5.1	Regional Materials , 10% Extracted, Proc. & Man. Regionally	1		
Credit 5.2	Regional Materials , 20% Extracted, Proc & Man. Regionally	1		
Credit 6	Rapidly Renewable Materials	1		
Credit 7	Certified Wood	1		
	Materials & Resources Total Available Points	13		

E. Indoor Environmental Quality		Total		
--	--	--------------	--	--

Prereq 1	Minimum IAQ Performance	Required		
Prereq 2	Environmental Tobacco Smoke (ETS) Control	Required		
Credit 1	Outdoor Air Delivery Monitoring	1		
Credit 2	Increased Ventilation	1		
Credit 3.1	Construction IAQ Management Plan , During Construction	1		

Credit 3.2	Construction IAQ Management Plan , Before Occupancy	1		
Credit 4.1	Low-Emitting Materials , Adhesives & Sealants	1		
Credit 4.2	Low-Emitting Materials , Paints & Coatings	1		
Credit 4.3	Low-Emitting Materials , Carpet Systems	1		
Credit 4.4	Low-Emitting Materials , Composite Wood & Agrifiber Products	1		
Credit 5	Indoor Chemical & Pollutant Source Control	1		
Credit 6.1	Controllability of Systems , Lighting	1		
Credit 6.2	Controllability of Systems , Thermal Comfort	1		
Credit 7.1	Thermal Comfort , Design	1		
Credit 7.2	Thermal Comfort , Verification	1		
Credit 8.1	Daylight & Views , Daylight 75% of Spaces	1		
Credit 8.2	Daylight & Views , Views for 90% of Spaces	1		
	Indoor Environmental Quality Total Available Points	15		
F. Innovation & Design Process		Total		
Credit 1.1	Innovation in Design : Provide Specific Title	1		
Credit 1.2	Innovation in Design : Provide Specific Title	1		
Credit 1.3	Innovation in Design : Provide Specific Title	1		
Credit 1.4	Innovation in Design : Provide Specific Title	1		
Credit 2	LEED® Accredited Professional	1		
	Innovation & Design Process Total Available Points	5		
Total Available Non-Residential Points		69		

Maps and Drawings

Table I - Google Earth map (p. 20)

A rough mock-up showing some of what could be

Table II - Map of Key Constraints - showing the Seeno plan (p. 21)

Note especially the red-orange shading showing the current proposal's grading cuts. These cuts are all 30% or over. Many communities have adopted a minimum standard maximum grading of 20%.

The map also shows the streams in blue, with 100 foot green buffer zones on each side of all streams.

The brown shading shows where proposed cuts impinge on existing streams.

Table I – GOOGLEEARTH MOCK-UP, showing some of what could be

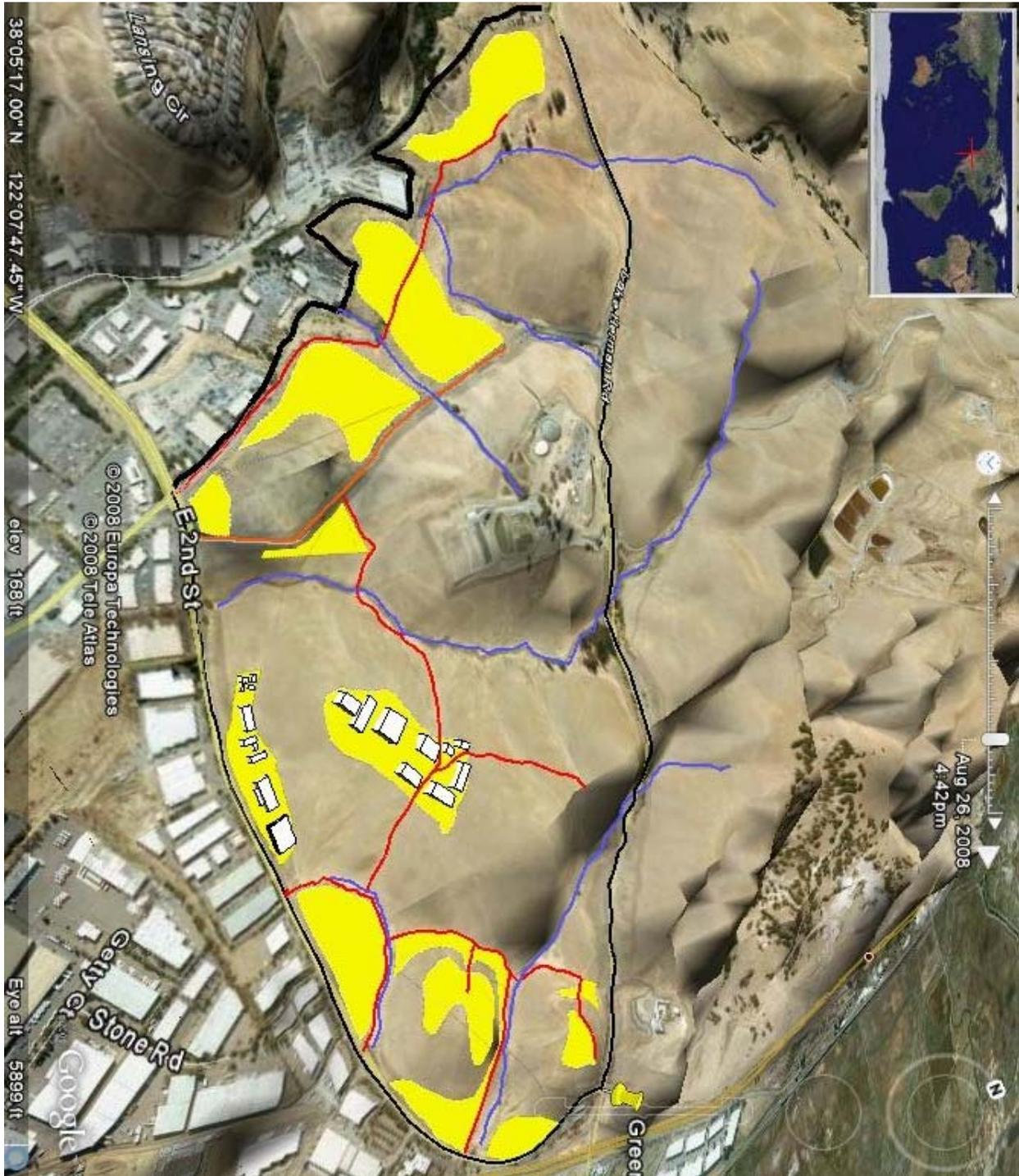
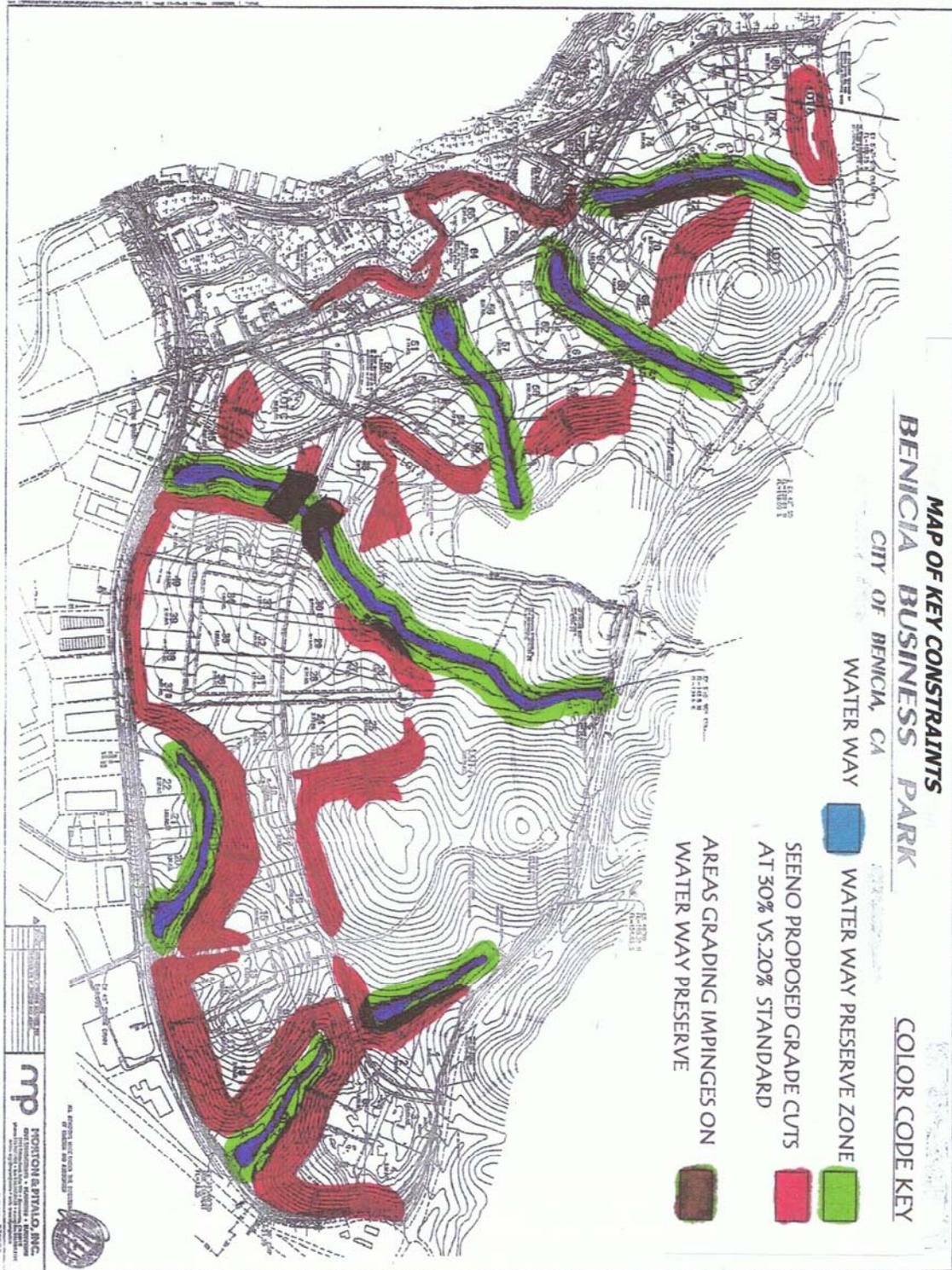


Table II – MAP OF KEY CONSTRAINTS



Clean Technology

Green Innovation for 21st Century Challenges

OVERVIEW¹

The most serious challenge that we face in the 21st Century is the dangerous rise in global warming. A parallel and related problem is the sharply increasing price of imported oil. Our over-dependence on fossil fuels lies at the root of both of these problems. Government, industry, and investors are now mobilizing an all out effort to address this problem through the development of new technologies aimed at reducing our use of carbon based fossil fuels. The Bay Area is emerging as a major national leader in this burgeoning new field of clean technology.

Benicia is ideally situated to become an important part of the solution to this challenge. The huge space available in our proposed business park, combined with our proximity to UC Berkeley and UC Davis – two of the key cleantech research centers – creates a golden opportunity for Benicia to focus the activities of its business park on the generation of clean technologies which will help reduce carbon emissions while producing new businesses and high quality “green collar” jobs.

GREEN GATEWAY

Portal to Clean Technology Innovation

With cleantech as its overarching theme, Benicia's Green Gateway Business Community could become a major Bay Area focal point for developing, testing, and commercializing clean technologies. The high market demand in this sector is projected to continue to increase, even as other sectors of the economy are sagging. Venture capital investments in cleantech have doubled and tripled in just the last 2-3 years. The State of California actively promotes policies (such as AB 32) that curb greenhouse gas emissions, and offers encouragement and support, and many incentives and rewards, for green business initiatives that help to reduce our consumption of fossil fuels.

A business park with clean technology as its central concept and focus (for both its industrial and its commercial uses) would have an enormously positive economic impact on Benicia:

- Thriving and growing cleantech business activity would provide reliable revenue for the city.
- Cleantech offers a wide spectrum of high quality jobs.
- Cleantech provides good job match for Benicia employment demographics, thus improving housing/jobs balance and reducing commuters.
- Economic multiplier effect: the project and its employees would boost sales at other local businesses and keep money re-circulating in local economy.
- Cleantech businesses would not compete with downtown businesses or contribute to urban decay of our downtown business district.

GREEN INNOVATION ZONE

Green Gateway would be much more than simply a collection of industrial facilities and offices focused on cleantech activities. It would be a comprehensive “green innovation zone” with a full

¹ Our Thanks to Doug Henton of Collaborative Economics (www.coecon.com) whose writings have inspired many of the ideas in this model relating to cleantech as the central concept and focus for the business community.

spectrum of mutually supportive components grouped into the following areas:

Education and Research Commons

A Conference Center and educational campus would offer space for institutions such as UC Berkeley, Lawrence Berkeley Lab, UC Davis, State colleges, and Solano Community College to create an interdisciplinary gathering place for top global talent from academic, business, technical and policy areas. The commons would be a focal point for active idea exchange, research collaborations, and a wellspring for innovations with potential commercial applications. It would offer comprehensive specialized education and training programs, from green-collar job training to post graduate research.

Green Innovation Test Bed

A combination of shared facilities, equipment, and simulation environments would help researchers and entrepreneurs develop and test their new technologies and products. The clean technology field has greater capital equipment needs than many other fields, so cost effective and accessible use of specialized facilities and equipment is particularly important to support innovation.

Green Business Launching Pad

Venture capital-backed early-stage enterprises would benefit from on-site assistance and use of support services, where they could exchange innovative ideas with other start-ups and larger firms, showcase emerging products for potential investors and other collaborators, and introduce products into the global marketplace.

Anchor Innovator Businesses

Large established businesses would act not only as generators of new technologies and products, but also as technology development partners and early customers for the products of new and smaller firms. These anchor firms would also provide a long term presence that would help accelerate development of the other components of the business park.

Green Exposition Center

An Exposition Center would offer demonstrations of new models, products and processes. There is tremendous opportunity to create a comprehensive, practical demonstration to the general public of how people can use clean technology at home, work, and for transportation. The Expo Center would welcome visitors from the region and worldwide to see and experience these existing and emerging green applications.

THE CASE FOR CLEAN TECHNOLOGY

What is Clean Technology?

Establishing a clear accounting of the growing number of businesses with primary activities in providing environmentally sustainable products and services is challenging. According to Clean Edge, a cleantech research firm, clean technology is "a diverse range of products, services, and processes that harness renewable materials and energy sources, dramatically reduce the use of natural resources, and cut or eliminate emissions and wastes."

Cleantech businesses span a wide range of industry categories. They provide services designed to,

- Greatly reduce or eliminate negative ecological impact
- Improve the productive and responsible use of natural resources
- Provide superior performance at lower costs.

Cleantech business activities can be broken down by the following broad segments:

- Energy generation
- Energy Storage
- Energy Infrastructure
- Energy Efficiency
- Transportation
- Water & Wastewater

- Air & Environment
- Materials
- Manufacturing/Industrial
- Agriculture
- Recycling & Waste

[Note: to better attract cleantech companies to our business community, cleantech and allowable cleantech uses should be added to our zoning code for Light Industrial districts (IL)]

Clean Technology Jobs

Clean technology jobs can be found in almost every industry sector and they cover a wide spectrum of jobs including skilled labor, management, office support services, engineering, scientific, and more. Two of the largest industry sectors represented by green business establishments are Professional Scientific & Technical Services (representing 36% of the business establishments and 28% of employment), and Manufacturing (representing 15% of the business establishments and 41% of the employment). Retail Trade represents an additional 9% of green business establishments and 3% of employment. ¹

The type of clean technology business park that is envisioned in this model (with its emphasis on science and engineering innovation and collaboration with Universities) would provide an excellent match for Benicia's education and employment demographics. Census 2000 showed that Benicia's population of 27,000 is above average for both income and education, relative to both the County and the State -- 37% of Benicia adults had a bachelor's degree or higher, compared to 27% in California, and 24% nationally. The Census 2000 data also showed that white-collar professions (management, office, sales, etc.) were predominant among the 14,139 employed residents. By far, the largest occupation category for Benicia residents was management/professional/related, consisting of 46% of the total. Most of these residents currently have to commute out of town for work. The 2000 Census only showed 4080 people who lived and worked in Benicia. ²

Cleantech has Strong Market Potential

The Cleantech Network, in a press release for their report called Cleantech Venture Capital: How Public Policy Has Stimulated Private Investment noted that:

Investments in the clean technology sector soared in 2006, as venture capitalists increased investments by 78 percent to \$2.9 billion. Experts say the market is hot amidst concern about global warming, higher energy prices, improved technology, and public policies enacted at the state and national levels. The report also found that cleantech is now the third largest venture investment category, ahead of telecommunications and medical devices. Venture capital investments in the cleantech sector are projected to exceed \$19 billion by 2010 and create up to 500,000 new jobs. However, further public policy initiatives, such as cap-and-trade, a national renewable energy standard, and increased public funding for research and development, are likely to accelerate cleantech investments.

Research Funding and Commercial Applications

UC Berkeley, Lawrence Berkeley Lab, and UC Davis have all been recipients of large amounts of funding, totaling hundreds of millions of dollars, for clean technology development. For example, in Jan. 2007, the Energy Biosciences Institute was established by BP, and UC Berkeley and LBL will receive \$500 million from BP to host the research center dedicated to developing biofuel technologies. Another project at LBL, the Helios Project, is focused on producing the next generation of super-efficient solar energy technology. Governor Schwarzenegger dedicated \$30 million in bonds for that project in Dec. 2006. In April 2008, the UC Davis Energy Efficiency Center received a boost of \$1.1 million in corporate funding to continue its energy efficiency research in areas related to lighting, cooling, transportation, agriculture, and biomass.

¹ Clean Technology and the Green Economy, March 2008, Collaborative Economics, p.15

² Benicia Economic Development Strategy, Sept.2007. p.2

Much of this innovative research results in products and processes with commercial potential. The UC Davis Center for Entrepreneurship and the Innovation Access Office assists research teams develop their spinoff products into start up businesses at business incubator sites. UC Berkeley and LBL have similar programs and centers to assist in the development of commercial applications for their clean technology research.

Physical Concentration of Clean Technology Activities

Benicia's Green Gateway Research Park could be a physical focal point that provides a "magnet" for talent, companies, and investment. The Park could potentially accelerate the emergence of a cleantech Green Corridor along the East Bay and in the greater Sacramento region.

The concentration of clean technology related activities in a physical hub is important for several reasons:

Visibility. The Park could provide a tangible, visible showcase for potential innovators, investors, and companies. It would help provide a focal point for the media doing stories on clean technology innovation in the region.

Shared equipment and facilities. Clean technology tends to be capital intensive, requiring access to specialized technical equipment for development and testing. For example, the Bay Area solar industry lacks nearby and timely access to testing facilities. The closest testing facility is at Arizona State University and has a six-month waiting list. Access to shared equipment and facilities in one location could not only serve the firms that are currently in the Bay Area, but act as a magnet to draw new companies.

Unplanned innovation. A physical hub of research, development, testing and commercialization for clean technology provides an opportunity for entrepreneurs, investors, technical talent, and others to have unplanned encounters that spark new ideas, partnerships, and business models.

COMPONENTS OF THE GREEN INNOVATION ZONE

The Green Gateway Business Community would consist of five components which together would create a multi-faceted "green innovation zone" – a visible, focal point for clean technology and application in Benicia.

Education and Research Commons

The education and research commons would include a full range of institutions including UC Berkeley, LBL, UC Davis, Sacramento State University, Solano Junior College, and others, who would create an interdisciplinary gathering place for top global talent from academic, business, technical and policy areas. The commons would be a focal point for active idea exchange, research collaborations, specialized education and training of talent and a wellspring for innovations with potential commercial applications. It would offer comprehensive specialized education and training programs, from green-collar job training to post graduate research. The synergy from multiple institutions having presence there could provide an environment for cross-fertilization, a collaborative environment for generating new ideas—a free and open environment to experiment and see what sticks.

Green Innovation Test Bed

A Green Innovation test bed would be a combination of shared facilities, equipment, and simulation environments would help researchers and entrepreneurs develop and test their new technologies and products. The clean technology field has greater capital equipment needs than many other fields, so cost effective and accessible use of specialized facilities and equipment is particularly important to support innovation. No other region has yet assembled the range of equipment and facilities in one place to provide a comprehensive test bed for new clean technology innovations.

The Bay Area's emerging solar technology industry already urgently needs testing and certification facilities closer to the Bay Area – and could benefit immediately from early development of such a facility. U.S. market testing is currently performed at one location, Arizona State University's Photovoltaic Testing Facility. These tests can take six months or longer. By establishing a second testing facility at Benicia's Green Gateway, it would establish Benicia as a hub of the solar industry, act as a magnet to attract innovators and their companies, as well as help firms move more quickly to market.

Green Business Launching Pad

A green business launching pad would be where venture capital-backed early-stage enterprises benefit from on-site assistance and use of support services, exchange innovative ideas with other start-ups and larger firms, showcase emerging products for potential investors and other collaborators, and introduce products into the global marketplace.

The launching pad could go beyond the traditional incubator model. It could not only provide relatively low-cost space, but on-site access to venture capitalists who have satellite offices at the Park, as well as top researchers from around the world, large company decision-makers and mentors, and business support services. They could arrange for use of expensive and specialized development and test equipment and prototype fabrication facilities—much like researchers sign up for time on the Hubble Telescope.

Anchor Innovation Businesses

In addition to new enterprises, the Zone needs larger established businesses would act not only as generators of new technologies and products, but also as technology development partners and early customers for the products of new and smaller firms. These anchor firms would also provide a long term presence that would help accelerate development of the other components of the Green Gateway Business Community.

Green Gateway Business Community could become the Bay Area's new neighborhood for established companies that are becoming new players in clean tech. Firms can establish R&D, as well as prototype fabrication facilities. Larger firms would be attracted to the prospect of access to talent, small entrepreneurial companies (who could be partners or acquisitions), and the exchange of ideas that would be created by the interplay of the components of the Green Innovation Zone.

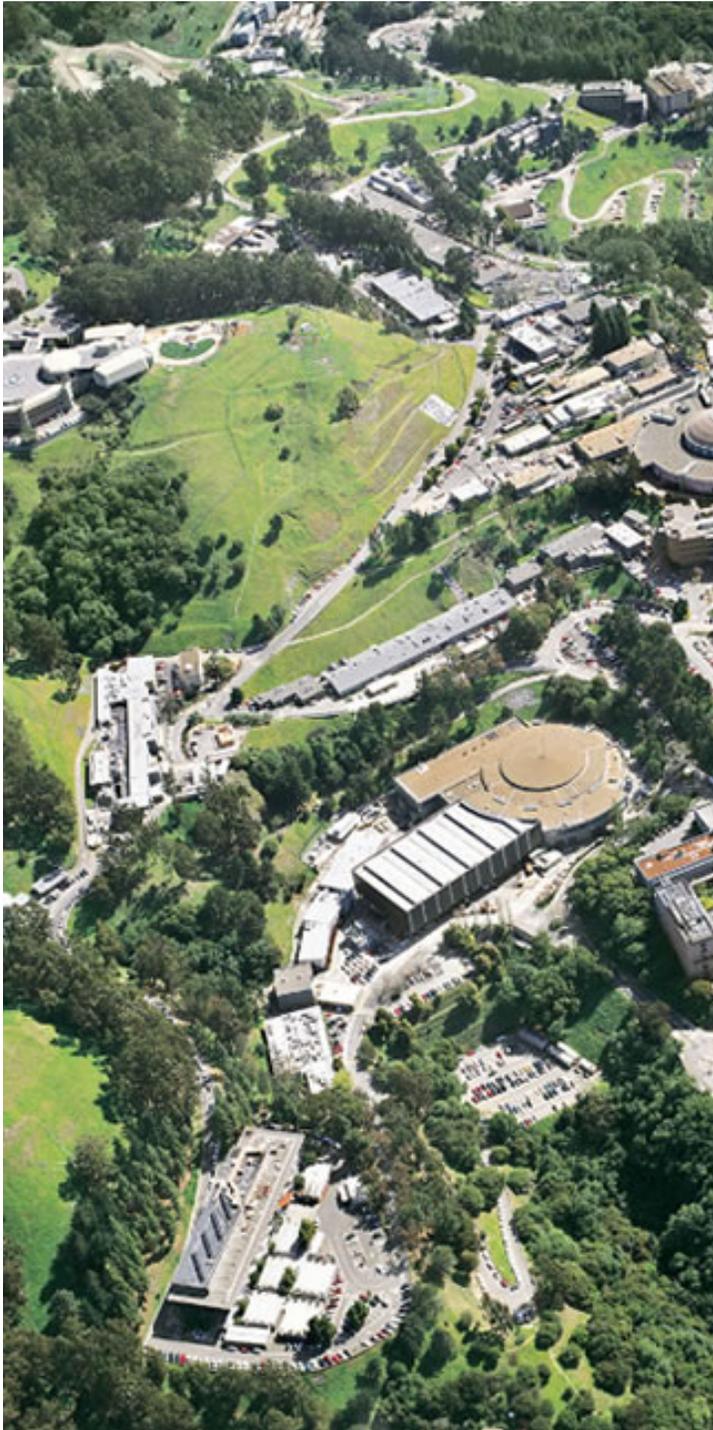
Green Exposition Center

An Exposition Center would offer demonstrations of new models, products and processes. There is tremendous opportunity to create a comprehensive, practical demonstration to the general public of how people can use clean technology at home, work, and for transportation. For example, the Zone can demonstrate "state of the art" smart buildings and green materials, how to create affordable green housing, and welcome visitors from the region and worldwide to see and experience these existing and emerging green applications. Quite possibly, the Expo Center could even become a tourist destination.



**PHOTOS OF CAMPUS-STYLE PROJECTS:
scientific & technical research labs; light industrial facilities; administrative offices &
support services**

Lawrence Berkeley Laboratory, Berkeley, CA. Large hilly terrain site behind UC Berkeley. Minimum of grading. Dense walkable clusters of mixed use buildings, built into hillsides. Building clusters follow contours of terrain. Pedestrian pathways from one building cluster to another. Winding roads between building clusters follow contour of terrain. Limited parking lot space. Free and convenient shuttle bus system. Shuttle buses run constantly between building clusters and to and from downtown Berkeley, connecting with bus/BART stations. Site has auditorium, various conference rooms, cafeterias, but no large conference center, hotels, or restaurants. These are easily accessible downtown.

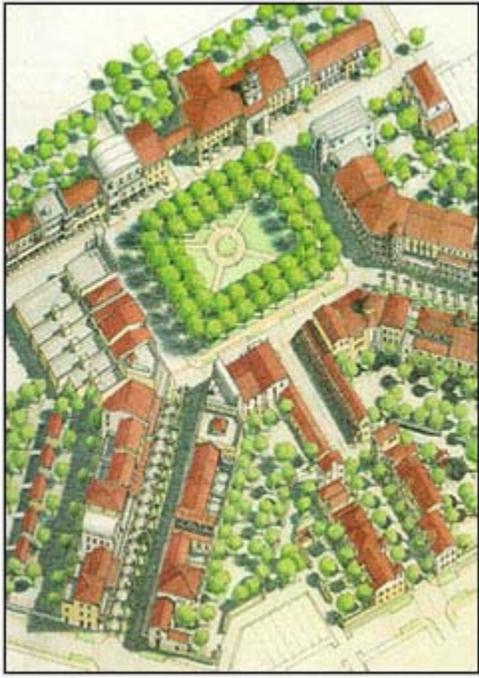


Pacific Union College (PUC) in Angwin, northeast of St. Helena, Napa County. Site of proposed Angwin Ecovillage. Scenes of college show walkable, densely clustered campus on hilly terrain





Illustration of courtyard on PUC campus



Illustrations of “new urbanism”. Example of a walkable, densely clustered, mixed use community.



Proposed Brisbane Baylands project. Illustration of courtyard at proposed R&D campus (focused on cleantech research).



Research building at LBL, built into hillside. No parking lot.



Model of a proposed research center. Clustered buildings, dense, walkable, minimal parking.



Research lab. Built into hillside. No parking lot.



Wellcome Trust Genome Campus (55 acre): housing Sanger Institute and EBI , in Great Britain.



Pacific Research Center, Newark, CA
(105 acres)



Advantages for All Parties and a Rough Timeline for Development

The world is turning to sustainable development out of necessity. In the 21st century, even small town Benicia must do its part to decrease its carbon footprint. A new plan for Benicia's Green Gateway Business Community could do exactly that with walkable streets, a plan to disburse the retail commercial throughout the project, green technology, and a focus on urging people to utilize alternate ways of getting to work. The vision stresses maintaining increased acres of open space, thereby protecting more habitat and streams and grading less, reducing our carbon footprint by keeping as much undisturbed land as possible. A new plan would conform to state law AB 32, requiring all cities to reduce their carbon footprints to 1990 level by 2020. The Green Gateway Business Community vision is a better model for Benicia and the 21st Century.

A new plan could probably be completed faster than the current project that will be denied. If Seeno decides to sue Benicia for denying the project, it will be tied up in court longer than it would take for the developer to jump on the bandwagon and build a new Green Gateway Business Community. Surely time is important to the developer. Additionally, information from legal experts and those who have monitored the EIR and approval process in Benicia, including the lengthy record of citizen and professional critique, indicates that the City's defense in a suit by Seeno is almost assured of holding, based on CEQA findings, the General Plan inconsistencies, and many other factors.

A rough timeline for a new project could look like this:

October 2008 - Deny the current project based on findings.

October 2008 - February 2009: Start the Specific Plan Process: Direct Staff through a resolution to establish a Specific Plan for Benicia Green Gateway Business Community, convening a stakeholder group consisting of 15 members:

- 3 planning commissioners (chosen by PC),
- 2 EDB members (chosen by EDB),
- 10 public members, 2 chosen by each council member

The Specific Plan Stakeholder Group would review planning principles for LEED-ND, LID, smart growth and R&D campus criteria, staff conditions of approval, alternative site plans and/or specific plans from others, and through as many workshops as necessary, prepare and recommend to Council a Benicia Green Gateway Business Community Specific Plan and a draft Site Plan (map) in 90 days. The process is intended to be collaborative and consensus facilitated.

Direct staff to solicit Request For Proposal for the supplemental EIR concurrently.

The Stakeholder Group process should be facilitated by a skilled mediator, possibly from Sacramento State, Center for Collaborative Policy (see their website, www.csus.edu/ccp, for list of projects they have facilitated.) Another option would be the consultants Dyett and Bhatia who have skillfully led the community of Brisbane through its Specific Plan process for their proposed Brisbane Baylands project (600 acres, industrial/commercial).

February - April 2009 - Draft supplemental EIR, which is intended to cover future projects and should be at a level of detail to meet the requirements. Hold public hearings for supplemental EIR and specific plan. Direct staff to prepare incentive program to expedite future application for new project.

April 2009 - Certify supplemental EIR and adopt specific plan.

April 2009 - Process new application and determine consistency with specific plan. Based on supplemental EIR, no additional environmental review is required and initial study will confirm this.

May - June 2009 - Public hearing by Planning Commission and City Council, approval and entitlements by June, 2009.

June 2009 – March 2010 - Tentative map filed, assessment districts established, grading plans reviewed and approved.

April 2010 – Begin construction.

Perhaps the new Green Gateway Business Community vision could help the city avoid a lawsuit altogether. If the developer knows that we are intent on a new Specific Plan AND that it would save time in the long run, why would they not consider it, especially if the city is very cooperative in providing financial incentives and incentives to expedite approval.

Pride in our City will be enhanced in many ways. We will feel that Benicia is leading the way in green technology in Solano County. We will all be proud of the fact that we have worked together in a project and reached a common goal. We will improve the quality of life in Benicia by being sure that the downtown is protected, that this large development will provide a myriad of choices for Benicians to seek employment and that the 2nd Street and Lake Herman Road exits off 680 will be attractive and well kept. The Council and citizens can be proud that we set high standards and expectations to which the developer must conform.

There is another possible benefit to the new approach; an opportunity for Seeno to build a reputation of teamwork and cooperation with cities. It could also begin its own foray into green tech, finding that it will be a desirable and profitable approach to cities in which it owns property, thereby becoming appropriate to the 21st century.

This new Green Gateway example is a beginning, and provides the Council with an outline of the genesis of a new process. It will take time and effort on the part of the Council and all stakeholders. The more stakeholders that participate, the more consensus there will be in the end. The more consensus, the more enthusiasm for the final product.

The new plan will be a better solution for Benicia.

Advocating that Benicia Undertake Development of a Specific Plan

Everyone agrees that any development in Benicia must conform to Benicia's General Plan. California law provides for a method by which communities can focus on planning and development in a particular neighborhood or boundaried parcel, utilizing what is called a Specific Plan. (See appendix A, About Specific Plans.)

A Specific Plan is simply a subset of a community's General Plan. In much the same way as a General Plan, the Specific Plan is written by citizens and interested parties over a period of time, and adopted by the local governing body, in our case, the City Council. It then becomes binding, and is backed by State of California law.

A Specific Plan sets out the guidelines and protections of the community at large, and offers a developer clear requirements and a visionary model for land use, distribution and construction on the property.

A final Specific Plan can be a rather lengthy and technical document, involving careful analyses, professionally designed maps and financial modeling. Costs for gathering input and producing a Specific Plan can be substantial, **and can by law be recouped by the City as fees levied on the landowner/developer and those who purchase and build in the area covered by the Specific Plan.**

The Green Gateway Group strongly urges the preparation and adoption of a Specific Plan as the only way to properly plan for a 21st Century development the citizens of Benicia can be proud of, and the only way to require conformation to California's new AB32 challenges. It is regrettable that this step has not been taken heretofore, but that is no excuse for not undertaking it now. Any development of this size and significance in Benicia will surely impact our community -- and the Bay Area -- far into the future. We must take every precaution to ensure that the planning is first class, and that the project itself will help reduce our city's carbon footprint.

Appendix A About Specific Plans

The Governor's Office of Planning and Research published a document, "General Plan Guidelines," (see http://opr.ca.gov/planning/publications/General_Plan_Guidelines_2003.pdf), which describes the Specific Plan on p. 152 (note our emphasis in ***bold italics***):

SPECIFIC PLANS

A specific plan is a great tool for systematically implementing the general plan within all or a portion of the planning area (§65450, et seq.). ***Any interested party may request the adoption, amendment, or repeal of a specific plan. A plan may be prepared by either the public or private sector, however, responsibility for its adoption, amendment, and repeal lies with the city council or county board of supervisors. As a legislative act, a specific plan can also be adopted by voter initiative and is subject to referendum.***

At a minimum, a specific plan must include a statement of its relationship to the general plan (§65451(b)) and text and diagram(s) specifying all of the following in detail:

- The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.
- The proposed distribution, location, extent, and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.
- Standards and criteria by which development will proceed and standards for the conservation, development, and utilization of natural resources, where applicable.
- A program of implementation measures, including regulations, programs, public works projects, and financing measures necessary to carry out the provisions of the preceding three paragraphs (§65451(a)).
- Any other subjects that, in the judgment of the planning agency, are necessary or desirable for general plan implementation (§65452).

For greater detail, see the "**Planner's Guide to Specific Plans**," also published by the Governor's Office of Planning and Research (http://www.opr.ca.gov/planning/publications/specific_plans.pdf).

Appendix B

About the possibility of a Citizen-Sponsored Referendum and a Ballot Initiative

Citizens who have gathered informally under the name Green Gateway Group are hopeful that the City Council will vote no in October, 2008, and thus deny the currently proposed project based on the Planning Commission and City Council findings that the project

- does not adequately mitigate traffic concerns
- does not sufficiently plan for a reduction of the City's carbon footprint to 1990 levels as required by California Assembly Bill 32
- does not meet the requirements of Benicia's General Plan
- does not provide a timely and adequate economic analysis as the basis for the city's signing of a Statement of Overriding Considerations
- etc..

When the Council votes to deny the current proposal, we will eagerly support our city leaders and staff as they undertake a renewed effort to plan for a 21st Century development in the Benicia hills.

Anticipating, however, that our City Council may not vote to deny the current project, we have obtained legal counsel, given thought to a referendum to reverse a Council approval, and prepared a rough draft of a Ballot Initiative, which would impose land use and design standards, conservation easements, and density allowances on the 527 acre parcel. We sincerely hope to have prepared in this way to no avail.

Rethinking the Benicia Business Park ...

Green Gateway Business Community
A 21ST CENTURY POSSIBILITY

ADDENDUM – LATE ADDITIONS



Prepared by Benicia citizens
organized as the Green Gateway Group

September, 2008

GREEN GATEWAY BUSINESS COMMUNITY
A 21st Century Possibility

ADDENDUM – LATE ADDITIONS

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Potential Companies, Buildings, Occupants

(additional material for p. 13 in the original document)

At a minimum ...

... the Green Gateway Business Community would be built green, and every business/occupant would commit to a green operation.

An even better option would be ...

... for the Community to foster only businesses/occupants that are focused on clean-technology research, development, manufacture, commerce, education, and related support activities. Our group favors this latter option.

We envision ...

... a hotel, conference center and restaurants to serve the Green Gateway, an education commons, an expo/demonstration center, cleantech testing facilities, and mixed use distribution of additional commerce and retail to serve the business community, along with cleantech R&D and light industry.

Some potential occupants might include ...

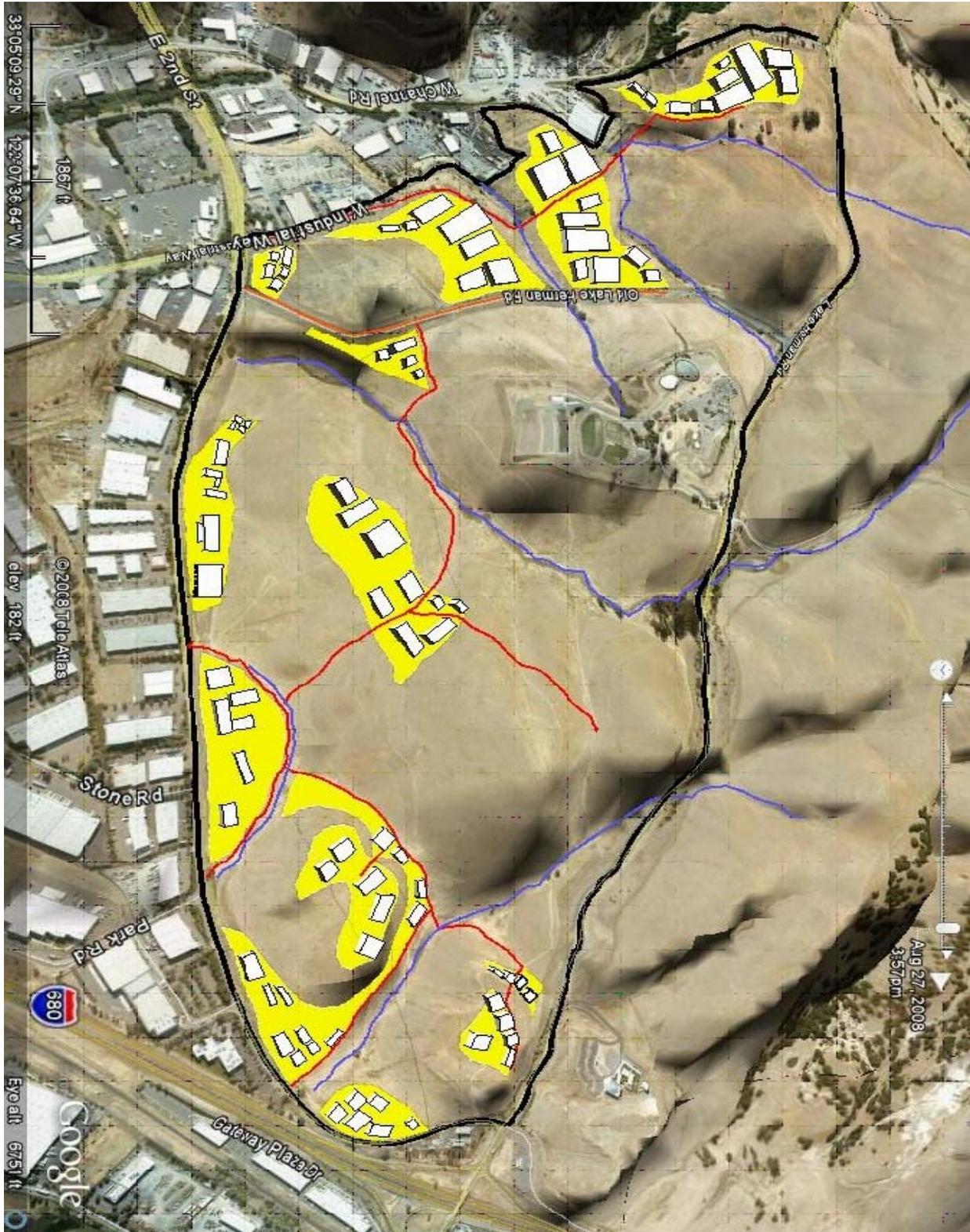
... satellite education centers from UC Berkeley, UC Davis, and other universities and Jr. colleges; green-collar skills training centers; an Expo Center showcasing state of the art demonstration projects from private industry; large areas devoted to testing of large scale solar projects and wind technology; a cleantech business incubator; and many start-up and established companies focusing on cleantech R&D, manufacture, and sales and services relating to a wide range of categories such as energy, transportation, water, air, materials, agriculture, and recycling..

GGBC_20080828_ADDENDUM I

Maps and Drawings

Table III – Revised Google Earth map *(replaces p. 20 in the original document)*

A rough mock-up illustrating some of what could be ... roads and buildings conforming to contour of the land with minimal grading, buildings clustered in mini campuses, etc.



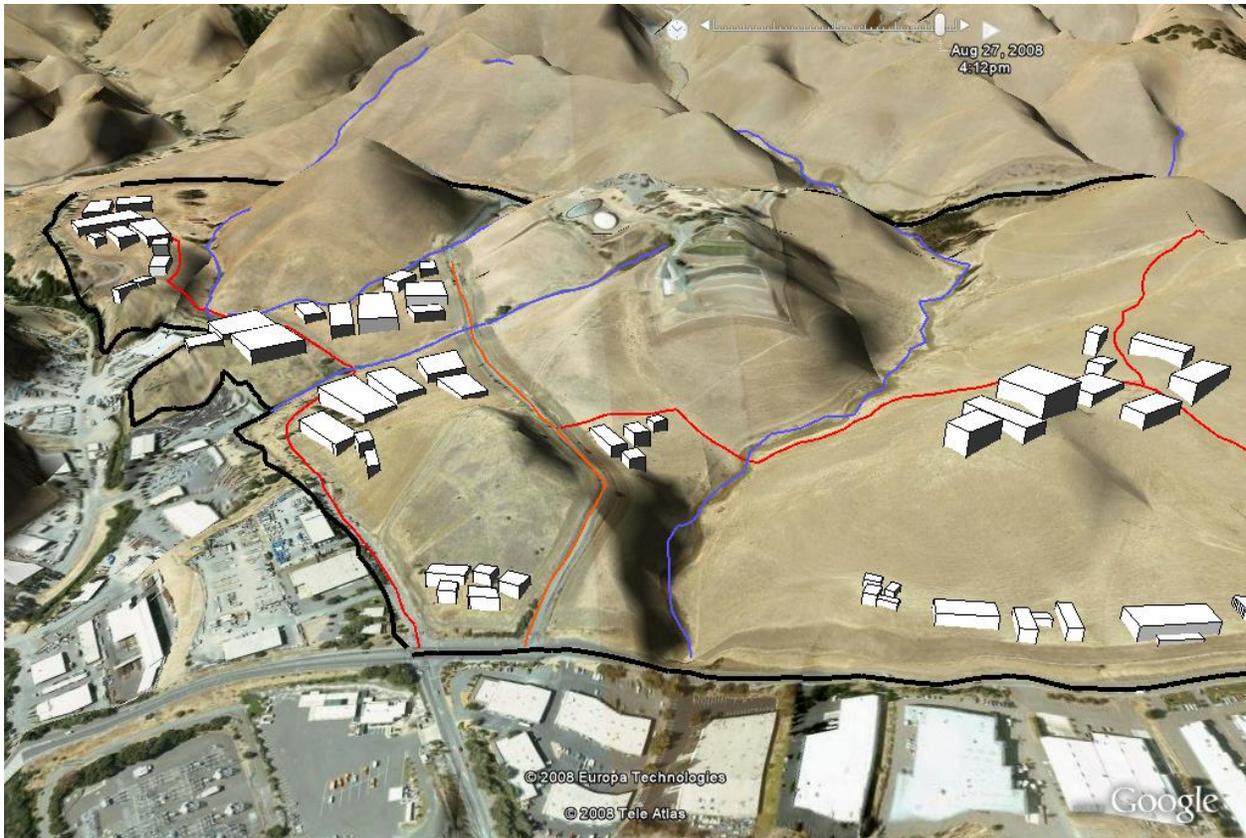
Maps and Drawings

Google Earth maps – Additional 3-D Views *(additional material)*

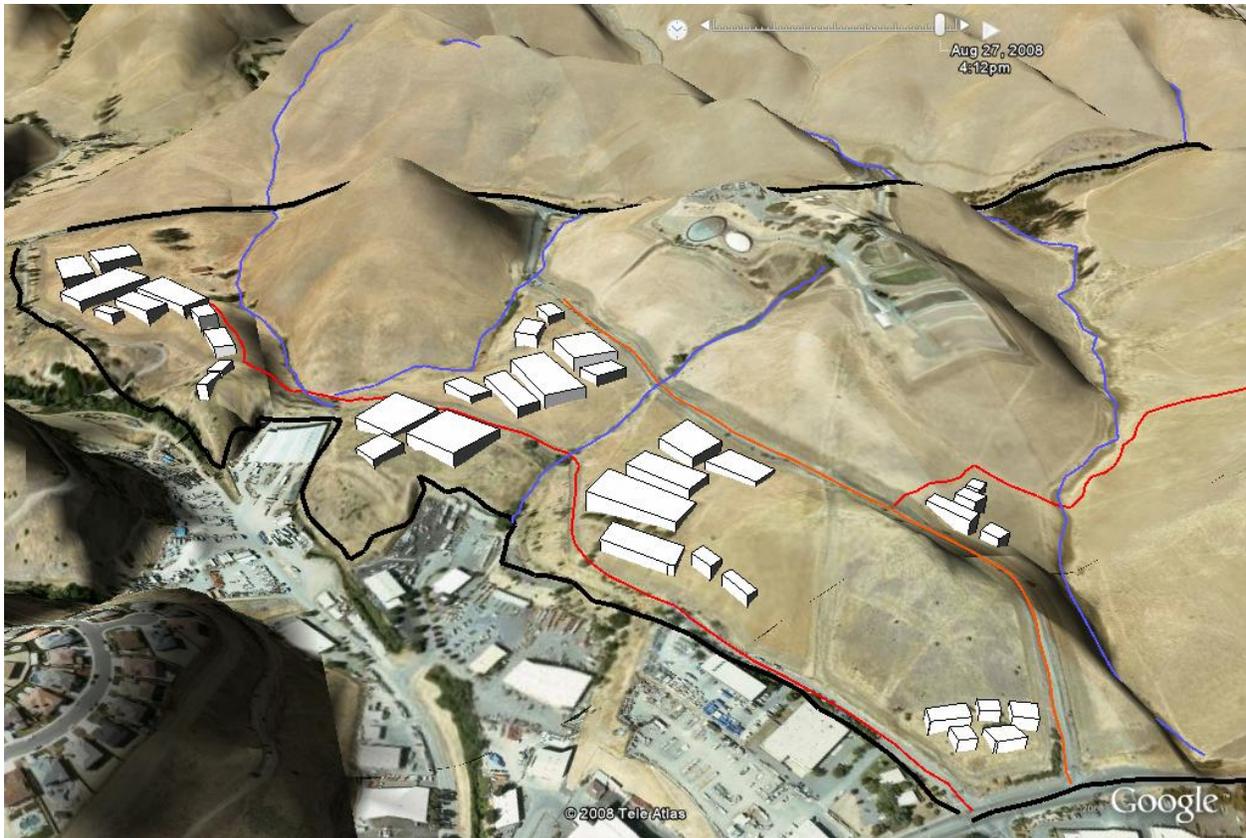
Rough mock-ups illustrating some 3D views from various close up angles of a potential campus-style Green Gateway project.



Right side: E 2nd Street & Lake Herman Rd.



Left side: East 2nd St. , Reservoir Rd, and Industrial Way



Far left side: (Industrial and Reservoir do not go to L. Herman Rd.)



Aerial whole view.

ADDENDUM

(additional material beginning on p. 26 of the original document)

Clean Technology Green Innovation for 21st Century Challenges

IMPLEMENTATION STRATEGY

Achieving this bold vision would require a concerted public-private partnership with strong city and community leadership and creative thinking. Active private sector participation would be essential in each component of this vision. But first the city must set the right conditions and environment for investment, such as establishing revised zoning language that clearly includes cleantech uses, and a developing a detailed Specific Plan for the site.

All reports confirm that there is strong interest in investment in cleantech, and a growing need for a comprehensive magnet site – a clean technology hub – (particularly in the East Bay/ Capital Corridor region) that would provide an all-in-one location for cleantech industry, commerce, R&D, and education to congregate in one place, providing mutual support and stimulation. But in order to attract that investment to Benicia and recruit businesses and educational institutions, various steps must be taken, with each step providing conditions for the next.

We recommend the following suggested steps:

Launch Green Innovation Zone Working Group.

This group would act as the catalyst to advance the concept, and would include key drivers and stakeholders from the city staff and the community, the developer, the Universities, and other early supporters. The Working Group should be assigned both dedicated staff and resources to advance the concept.

Widely communicate the concept, identifying potential champions.

The Working Group would share the concept to raise the visibility of the effort, inviting additional ideas from potential investors and participants. The Group could organize op/ed pieces and other media coverage, as well as host a signature event, showcasing the possibility of a green innovation zone. In the process, the Group would build a list of champions, aligning university, philanthropic, and corporate interests (technology companies, venture capitalists, etc.) with each of the five specific components of the green innovation zone. At the same time, the Group would broad based community support for the concept.

Build momentum with early wins.

Based on investment trends and Benicia's unique resources, perhaps the most immediate opportunity lies in becoming an East Bay/Solano County focal point for wind and solar technology innovation. Early momentum can be built by developing "letters of intent" with established anchor companies, VCs, start-ups, R&D institutions, and others indicating their interest in being part of the green innovation zone.

Create Green Innovation Zone Leadership Group.

To achieve this vision, it is recommended that a Green Innovation Zone Leadership Group be established to help develop and implement a business plan for the Green Gateway Park. This Leadership Group would include business leaders, venture capitalists, and government officials. Based on the initial communication and outreach activities, the Working Group would recruit public and private leaders to serve on the Green Innovation Zone Leadership Group. The Working Group should provide the support to the Leadership Group as it reviews and refines the concept and develops a business plan for development of the site.

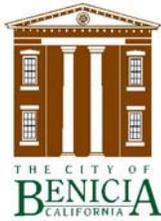
Prepare Green Gateway for private investment.

The Leadership Group must take steps to create the conditions for and remove the obstacles to development. To build support, progress will need to be made to demonstrate that obstacles to development (e.g., financing, access, environmental, and infrastructure concerns) are manageable. At the same time, by building momentum for the concept as outlined above, there can be greater urgency to address key issues and obstacles and prepare Green Gateway for successful development.



Appendix C:

Cleantech Opportunities and Issues



Amalia Lorentz, Economic Development Manager

What is Cleantech and why is it a growth industry?

"Cleantech" is a new business term used to refer to a set of industries or companies whose operations result in an environmentally sensitive, low-emissions, and/or energy-efficient process, product, or innovation. Among other sectors, this can encompass (depending on the specifics of the operation) renewable energy, recycling, water and wastewater treatment, and hybrid (gas-electric) engines. For example, here in Benicia, one company that identifies as cleantech is Pacific Ozone, which has a proprietary process to use ozone as a cleaning agent for water and other liquids. Pacific Rim Recycling could also be considered cleantech. The biggest cleantech sectors statewide are energy efficiency and energy generation, of which solar is the largest component. *(From "Clean Technology and the Green Economy" draft, Economic Strategy Panel, 2008. p. 5.)*

Cleantech in California has grown in both number of companies and number of jobs since 1990, and experts expect that Assembly Bill 32's impact will accelerate the industry's growth as companies innovate in response to California's forceful greenhouse gas reduction goals. *("California Green Innovation Index", Next 10, 2008. pp. 46-47.)* (One strike against continued industry expansion in California is other states' aggressive use of incentives (corporate tax credits, subsidies, etc.), but there is a push among economic development advocates here to reinstate the manufacturing tax credit.)

Cleantech industries can be considered a subset of the "green economy", a.k.a. the source of "green-collar jobs", although the two terms may be starting to be used interchangeably. Generally cleantech implies a higher degree of innovation while green industry implies greater environmental benefit. The definitions are still loose because these industries are not included as separate categories in the North American Industry Classification System (NAICS), the standard method of classifying businesses used by the U.S. Economic Census, Mexico, and Canada. Mainly they get lumped in with "Professional, Scientific, and Technical Services", among other broad categories.

Companies engaged in biotechnology research and development or manufacturing, web-based enterprise, software design, hardware manufacturing, and medical device testing, generally are not considered cleantech uses or part of the green economy (unless the end product in some way meets cleantech criteria).

How and where does cleantech fit in Benicia?

The wide spectrum of types of cleantech means that it can be difficult to assume the companies do or don't fit in existing zoning districts. The existing Zoning Code divides the BIP mainly into Limited (IL) and General (IG) industrial districts, with smaller areas designated as Water-related Industrial (IW) and Industrial Park (IP). "Research and development" (R&D) is currently allowed in all the industrial districts except IW. Benicia's Zoning Code defines R&D as "the research, development, and controlled production of high-technology electronic, industrial, or scientific products or commodities... Uses include biotechnology, films, and nontoxic computer component manufacture". *(City of Benicia Zoning Code, p. 17-19.)*

Most cleantech uses could fall into a number of categories, including R&D or office, depending on a specific company's operations. Stand-alone office uses are not allowed in any industrial district except IP (which is a very small corner of the BIP covering Bio-Rad). However, those cleantech companies whose operations fit within Benicia's existing definition of R&D are currently allowed uses in the vast majority of the Benicia Industrial Park, including the area within the proposed Benicia Business Park.

Cleantech uses whose operations involve a higher intensity of noise, traffic, visual impact, etc. - for example, another recycling facility or a biodiesel refinery - would possibly be limited to IG-zoned areas, which is the bulk of the existing Benicia Industrial Park although not the proposed Benicia Business Park area.

How can we encourage more cleantech uses in Benicia?

Better defining the uses the community would like to encourage, and clarifying in which districts they are allowed, is a process that would undoubtedly assist in attracting those businesses. As staff and the Economic Development Board have frequently heard from brokers, adding certainty to the development process is good.

A great example of that is in one of our Solano County neighbors. The City of Dixon recently added the specific use of "bioscience" to its Zoning Code, making it allowed in light industrial districts to help bring in those uses to the community. Result: A Genentech research and development campus. The zoning was not necessarily the deciding factor, but according to Dixon City staff, it gave Dixon an advantage because it minimized the corporation's entitlement time and costs. Bioscience, a relatively new industry, otherwise could have been considered to fit – or not fit – into a variety of zoning categories, potentially leading to ambiguity and delays.

As the business community has evolved and grown in the transition to the 21st century, new industries have emerged. Some communities are starting to grapple with the implications in their zoning ordinances – some old uses just don't exist any more, as new ones apply for business licenses that don't fit into any known category. Creating a zoning definition of cleantech is a start; even better would be defining its related subcategories – "cleantech energy infrastructure", "cleantech manufacturing" - so that the ground rules are very clear. This is an emerging field, so there exists the opportunity to help shape the dialogue at the intersection of planning and economic development.

July 2008

Appendix D:

Article on hopeful Cleantech Hubs in Bay Area

San Francisco Business Times - December 17, 2007

<http://sanfrancisco.bizjournals.com/sanfrancisco/stories/2007/12/17/focus2.html>



Friday, December 14, 2007

Hopeful cleantech hubs proliferate around the bay

San Francisco Business Times - by [Lizette Wilson](#) San Francisco Business Times Contributor



Cleantech is the Bay Area's future, says Scharfman

With more brains and bucks devoted to the topic than any other region, the Bay Area emerged this year as the nation's stickiest cleantech cluster.

California's cleantech companies, the lion's share located in the Bay Area, scored \$726 million in venture capital investment during the first nine months of 2007. That's more than double what Massachusetts companies received and nearly five times that of Texas, which ranked No. 3 in cleantech investments, according to the National Venture Capital Association.

The roster of Bay Area startups focused on solar power, alternative fuel, water purification and other clean technologies is growing quickly while homegrown big boys like **SunPower Corp.** and Amyris Biotechnologies continue to expand -- a trend area policymakers are trying to encourage.

From land-use policies in Brisbane and payroll tax exemptions in San Francisco to political pacts in the East Bay, players across the Bay Area are benefiting from policies that help plant the seeds to grow a green economy.

"We believe that cleantech is the future of the tech economy in the Bay Area," said Jonathan Scharfman, development director for Universal Paragon Corp., which hopes to transform the Brisbane Baylands from a backwater brownfield to a cleantech hub. "We see global, environmental and political forces merging to drive this next generation of innovation and technology."

Universal Paragon decided last year to make clean technology the centerpiece of its proposed development at Baylands -- a 660-acre swath between San Bruno Mountain and Highway 101 bordering San Francisco.

It's a massive undertaking.

Universal Paragon has owned the site since 1989 and is spending \$220 million to install infrastructure and clean up toxics left from the area's days as a Southern Pacific railyard and a

city landfill. Scharfman expects the development agreement with Brisbane will be in place by the end of 2008 with construction beginning in early 2009. The first building should be ready for users by late 2011.

Plans call for 2 million square feet of office space and 650,000 square feet for research and development labs, along with hotel, international exposition space and other uses.

"The Baylands will be a part of the Bay Area cleantech cluster. It's a many-spoked wheel," said Scharfman.

Located four miles south of downtown San Francisco and four miles north of San Francisco International Airport, the Baylands development is a short ride from the cleantech cluster San Francisco hopes to create in the Hunter's Point area.

Already offering payroll tax exemptions and other financial incentives to qualifying companies, San Francisco aims to create a cleantech zone similar to clusters for biotech in Mission Bay and digital entertainment in the Presidio.

And efforts to create a similar cleantech center in the East Bay are accelerating.

Earlier this month, the mayors of Oakland, Berkeley, Emeryville and Richmond said they would work together -- along with officials from **Lawrence Berkeley National Laboratory** and the **University of California, Berkeley** -- to build a regional green economy.

Each city is already is pushing its own green agenda

Berkeley officials last month agreed to finance the upfront costs for home and business owners to install solar panels and make other energy efficiency improvements. Zoning changes in West Berkeley and in Oakland at the former Army base and on other industrial lands are also under consideration.

"We want to make this area the Silicon Valley of the green industry," said Paul Rose, spokesman for Oakland Mayor Ron Dellums. "The mayor believes it's imperative to explore public-private partnerships to make this happen."

Bay Area officials aren't the only ones looking for green-collar jobs, Cleantech clusters are developing, albeit more slowly, in Boston, New Mexico, Texas and the Midwest's corn belt.

"I'm getting contacted by state-level government officials every month or so asking me about cleantech -- trying to create a cluster," said Rob Day, a principal with VC firm @Ventures who also writes the cleantechvc.com site.

"They don't want to be left behind or beat out. There's room for multiple winners, but in the end it is a competition."

Appendix E:

REPORTS & CHARTS ON CLEANTECH INDUSTRY

CLEAN TECH REPORTS

The reports listed below reveal the strength and extremely promising economic potential of the emerging cleantech phenomenon, globally and particularly in the Bay Area, even during the current economic downturn affecting all other business sectors.

The reports describe a dramatic explosion of University R&D, spin off businesses, government initiatives and grants, venture capital, etc., all focused on cleantech innovations spread across a wide spectrum of industries. So far, most of the action has been focused in the South Bay (Silicon Valley), but they are experiencing increasing pressure to locate elsewhere due to space constraints, housing costs, and traffic congestion.

Benicia is perfectly situated to capitalize on this economic opportunity, as we are situated 40 minutes from both UC Davis and UC Berkeley -- two of the key cleantech research centers -- with 527 acres of vacant land already zoned industrial/commercial. We also have a perfectly matched employment pool, most of whom currently have to commute elsewhere for jobs. And we have comparatively low cost housing and good schools.

Note: to view the reports, click on the links at:

<http://beniciafirst.googlepages.com/cleantechreports&articles>

REPORTS

[Clean Technology And the Green Economy](#), March 2008

[Clean Energy Trends 2008](#), March 2008

[California Green Innovation Index](#), 2008

[Sustaining the Bay Area's Competitiveness in a Globalizing World](#), March 2008

[Green Collar Jobs in America's Cities](#), 2008

[Innovative Energy Solutions from the SF Bay Area: Fueling a Clean Energy Future](#), June 2007

[Green Collar Jobs](#), (Berkeley, CA) 2007

[The Economic Development Potential of the Green Sector](#), June 20

Appendix F: Inventory of California's Green Industry Firms

Source: Cleantech Group, LLC™

How Large is the Industry?

Establishing a clear accounting of the growing number of businesses with primary activities in providing environmentally sustainable products and services is challenging. Exactly what types of businesses are meant when referring to this new and growing industry can vary widely.

What is a "Green" Business?

The scope of businesses examined for this study is based roughly on the definition of Cleantech established by the Cleantech Group, LLC™.

Cleantech is new technology that spans a broad range of products, services and processes that lower performance costs, reduce or eliminate negative ecological impact, and improve the productive and responsible use of natural resources.¹⁰

In addition to new technology firms, this analysis aims to capture other related business activities that either support the wide-spread application of new technologies such as solar system installations or apply new technologies as service providers for instance in emissions monitoring. In addition, specialized business services are developing with a focus on serving the particular needs of green businesses.

Complicating the categorization, the activities of a business often blur across categories.

Typically, industry analyses examine a sample of business establishments defined by a select set of industry codes such as the North American Industry Classification System (NAICS). For indentifying green businesses; however, these codes do not provide sufficient detail.

GREEN INDUSTRY

SEGMENTS

adapted from Cleantech™ *

Energy Generation

Energy Efficiency

Transportation

Green Building

Energy Storage

Environmental Consulting

Water & Wastewater

Finance/Investment

Environmental Remediation

Air & Environment

Business Services

Research & Alliances

Agriculture

Recycling & Waste

Materials

Manufacturing/Industrial

Cleantech Industry Segments

Source: Cleantech Group, LLC™

<p>Energy Generation</p> <ul style="list-style-type: none"> Wind Solar Hydro/Marine Biofuels Geothermal Other <p>Energy Storage</p> <ul style="list-style-type: none"> Fuel Cells Advanced Batteries Hybrid Systems <p>Energy Infrastructure</p> <ul style="list-style-type: none"> Management Transmission <p>Energy Efficiency</p> <ul style="list-style-type: none"> Lighting Buildings Glass Other <p>Transportation</p> <ul style="list-style-type: none"> Vehicles Logistics Structures Fuels 	<p>Water & Wastewater</p> <ul style="list-style-type: none"> Water Treatment Water Conservation Wastewater Treatment <p>Air & Environment</p> <ul style="list-style-type: none"> Cleanup/Safety Emissions Control Monitoring/Compliance Trading & Offsets <p>Materials</p> <ul style="list-style-type: none"> Nano Bio Chemical Other <p>Manufacturing/Industrial</p> <ul style="list-style-type: none"> Advanced Packaging Monitoring & Control Smart Production <p>Agriculture</p> <ul style="list-style-type: none"> Natural Pesticides Land Management Aquaculture <p>Recycling & Waste</p> <ul style="list-style-type: none"> Recycling Waste Treatment
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This data taken from Report: **Clean Technology & the Green Economy, March 2008**
http://www.labor.ca.gov/panel/pdf/DRAFT_Green_Economy_031708.pdf

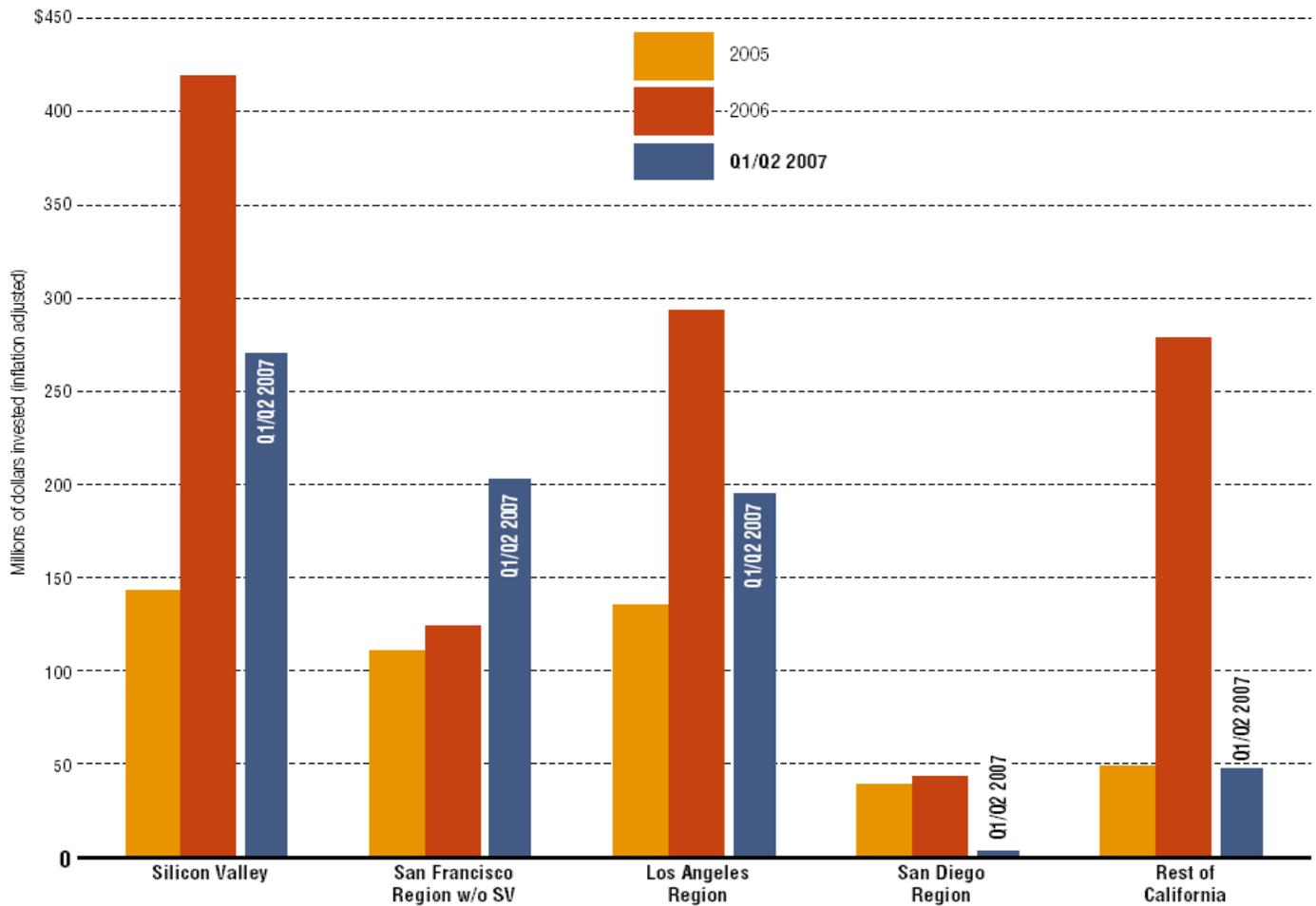
Appendix G: A list of types of green-collar jobs

Green Collar Jobs Are Community Serving Work Force Opportunities			
Green Business Sector	Types of Services Providing Green Collar Jobs	Types of Entry Level Green Collar Jobs Currently Available	More Advanced Green Collar Work
Energy	Energy Retrofits HVAC (Heating, Ventilation, Air Conditioning) Solar Installation Water Conservation Whole Home Performance	Customer Service, Evaluation, Installation, Construction, Maintenance, Repair	Energy Partner Journeyman Solar Electrician Service Technician Project Manager
Water	Water Conservation Adaptive Grey Water Reuse	Installation, Construction, Maintenance, Repair	Journeyman Project Manager
Green Building	Construction Demolition & Removal	Construction, Carpentry Demolition, Hauling, Driving	General Contractor Project Manager
Woodworking	Custom architecture, cabinetry, furniture, repairs	Assembly, Sanding, Finishing, Carpentry, Installation	Journeyman Head Carpenter
Green Space	Parks & Open Space Landscaping	Planting, Maintenance Tree Cutting/Pruning	Project Manager Head Gardener
Food	Urban Agriculture Farmers' Markets Specialty Foods Production Baking	Growing, Packaging, Delivery Set-up/Tear-down, Selling Brewing, Roasting, Packaging Baking, Mixing, Cleaning	Production Manager Market Manager Floor Manager Head Baker
Transportation	Bicycle Delivery Bicycle Repair Bio-Diesel/Veggie Fuels Public Transportation	Dispatch and Delivery Assembly and Repair Fuel Production, Distribution Driving, Maintenance, Repair	Messenger/Owner Shop Manager Production Manager Head Mechanic
Non-Toxic Printing	Commercial Printing Services	Binding, Post-Press, Delivery	Press Op, Pre-Press
Non-Toxic Cleaning	Residential & Commercial Cleaning	Cleaning, Customer Service	Team Leader
Waste Stream Diversion	Materials Recycling, Materials Re-use	Collection, Sorting, Driving, Loading, Salvaging, Warehouse, Packaging and Composting	Warehouse Manager, Floor/Department Manager

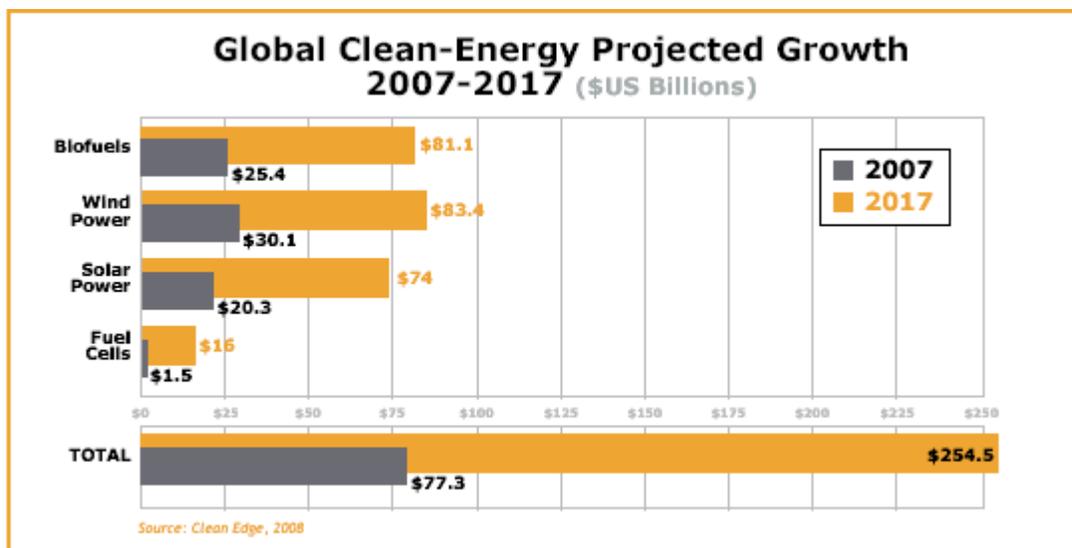
Appendix H: Charts on current and projected growth in cleantech investment

36: Venture Capital Investment in Clean Technology, California

By region



Source: Cleantech Network, LLC



Source: Clean Edge, 2008

