

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 ...

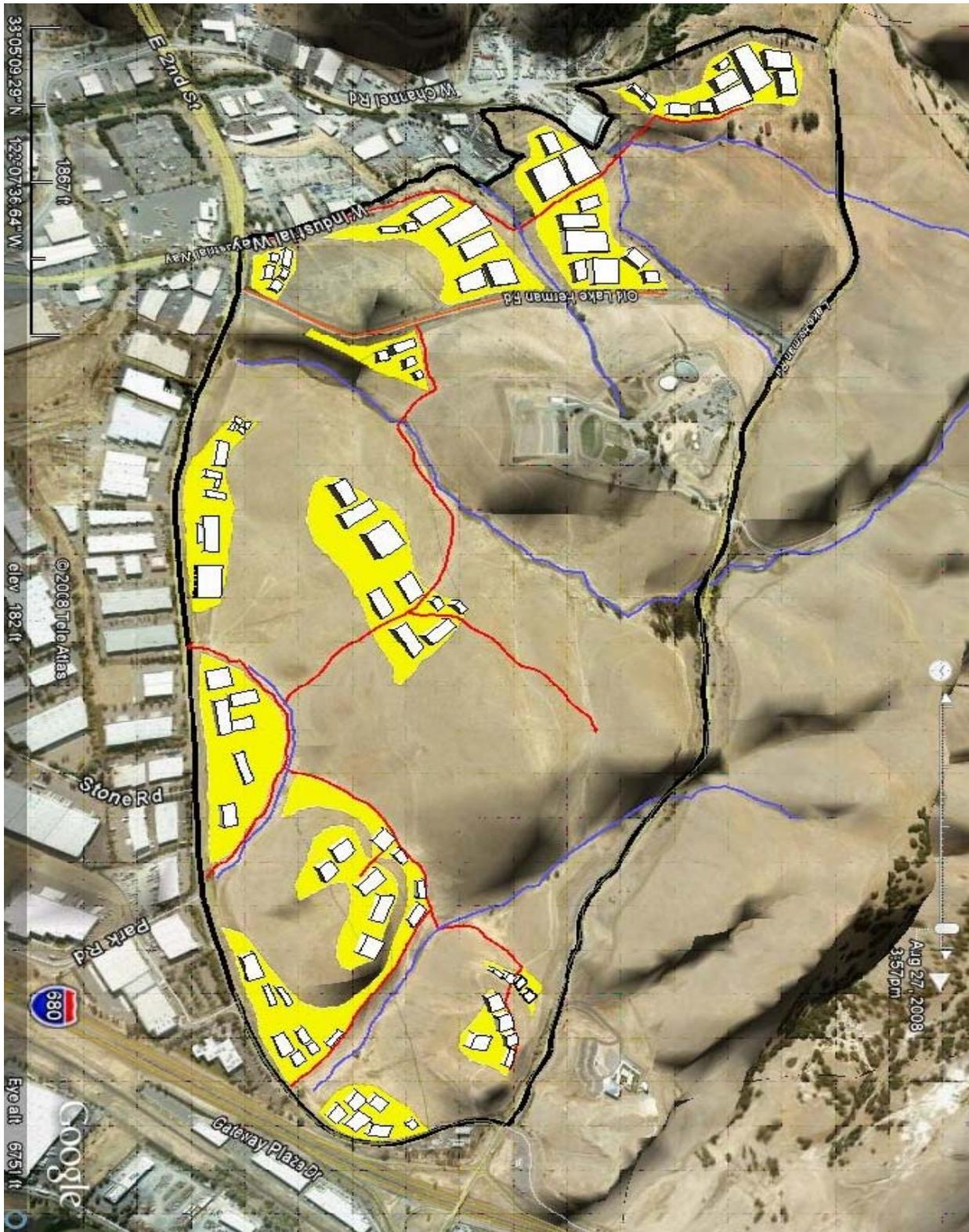
... satellite education centers from UC Berkeley, UC Davis, and other universities and Jr. colleges; green-collar skills training centers; an Expo Center showcasing state of the art demonstration projects from private industry; large areas devoted to testing of large scale solar projects and wind technology; 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.



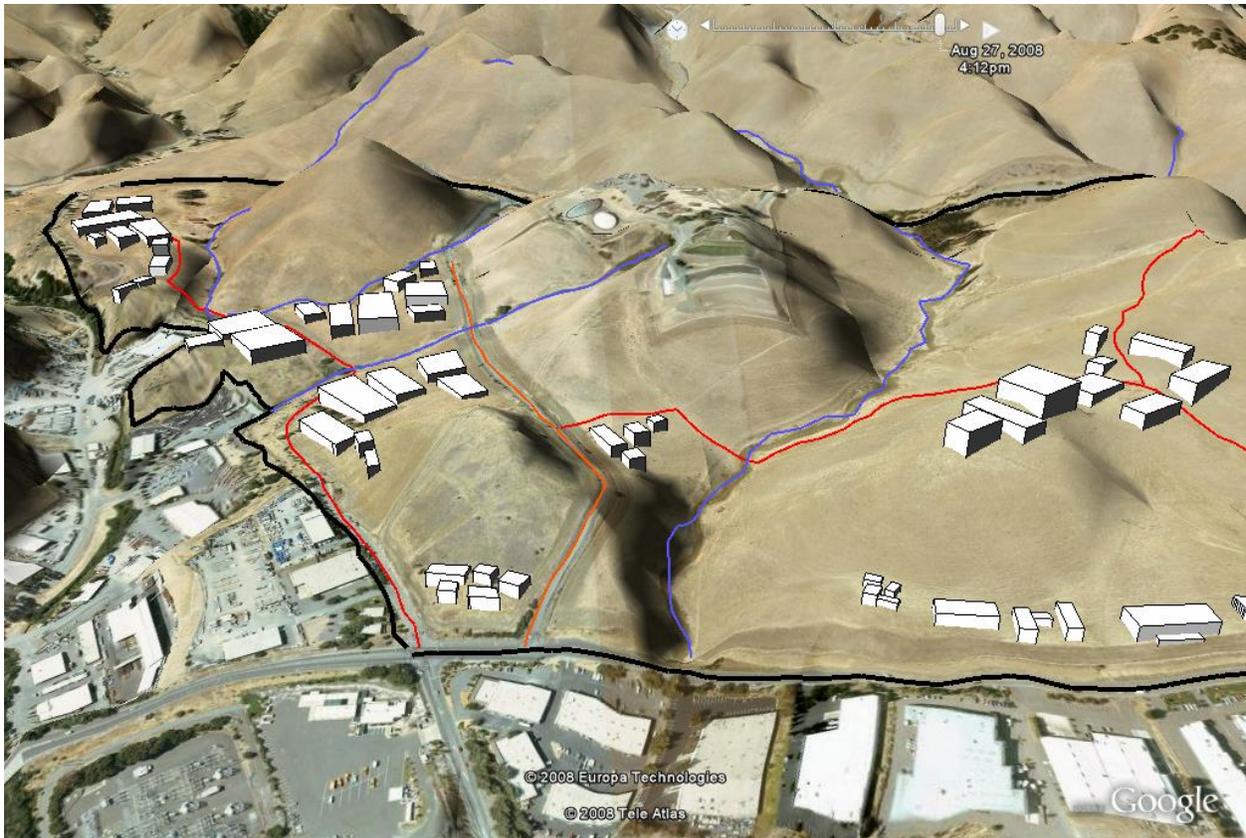
Maps and Drawings

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

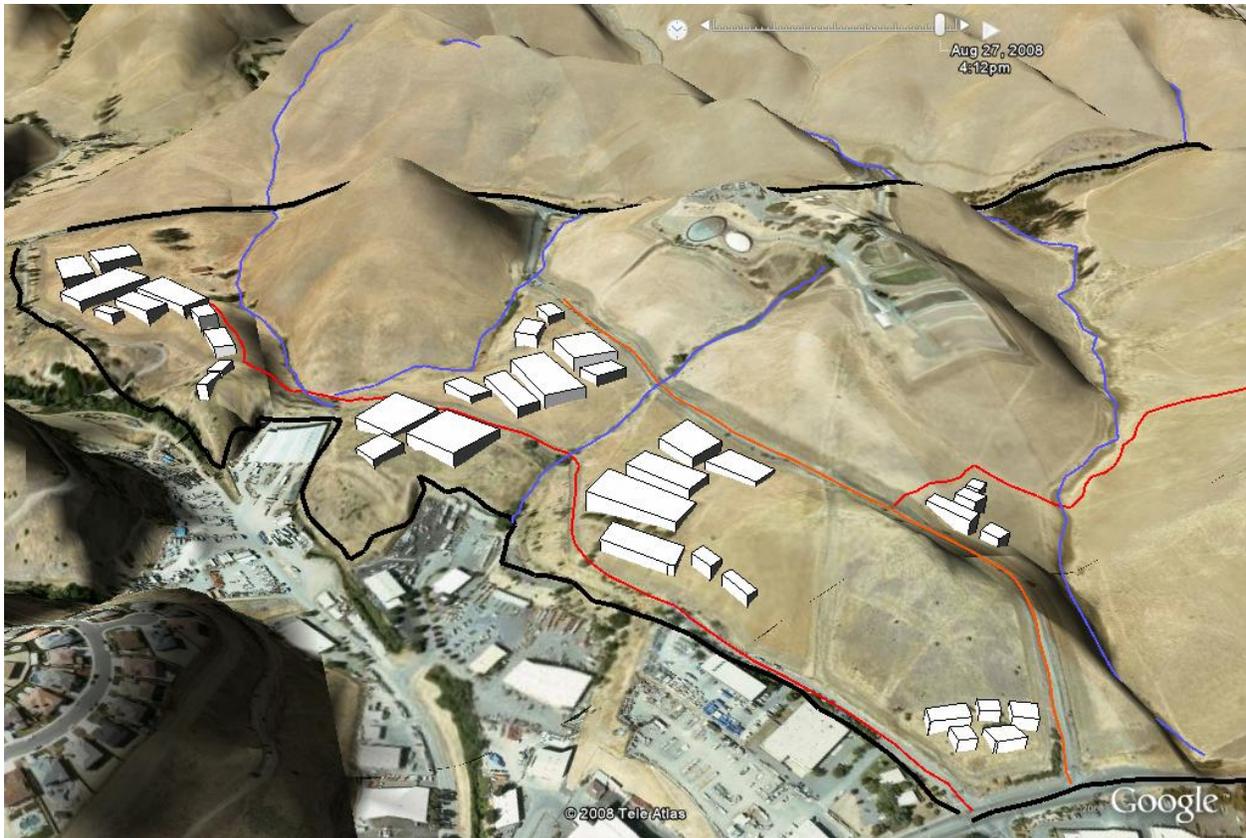
Rough mock-ups illustrating some 3D views from various close up angles of a potential campus-style Green Gateway project.



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.

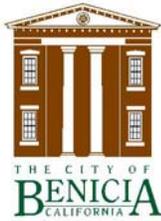
Prepare Green Gateway for private investment.

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>

SAN FRANCISCO
Business Times

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

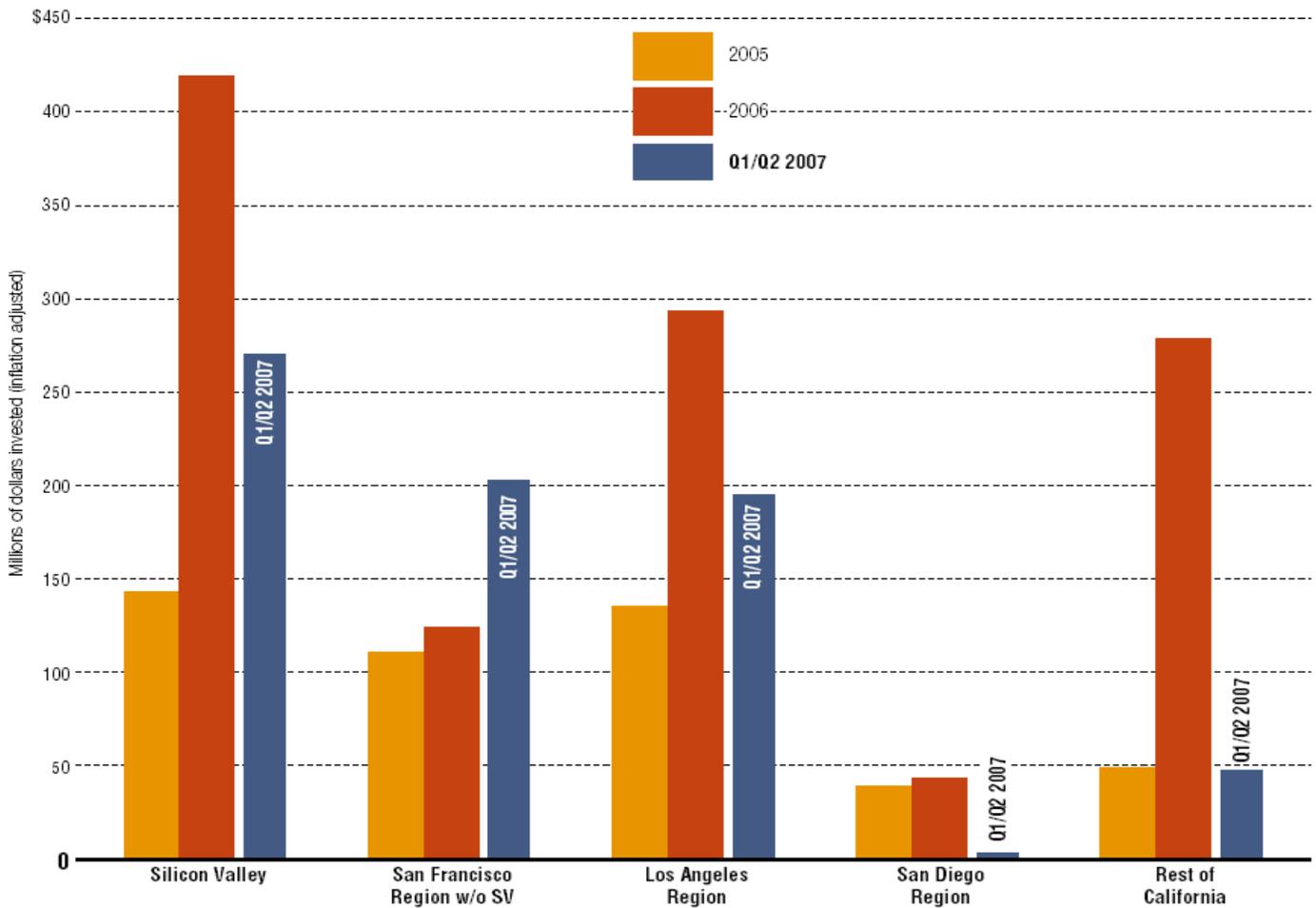
Appendix G: A list of types of green-collar jobs

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

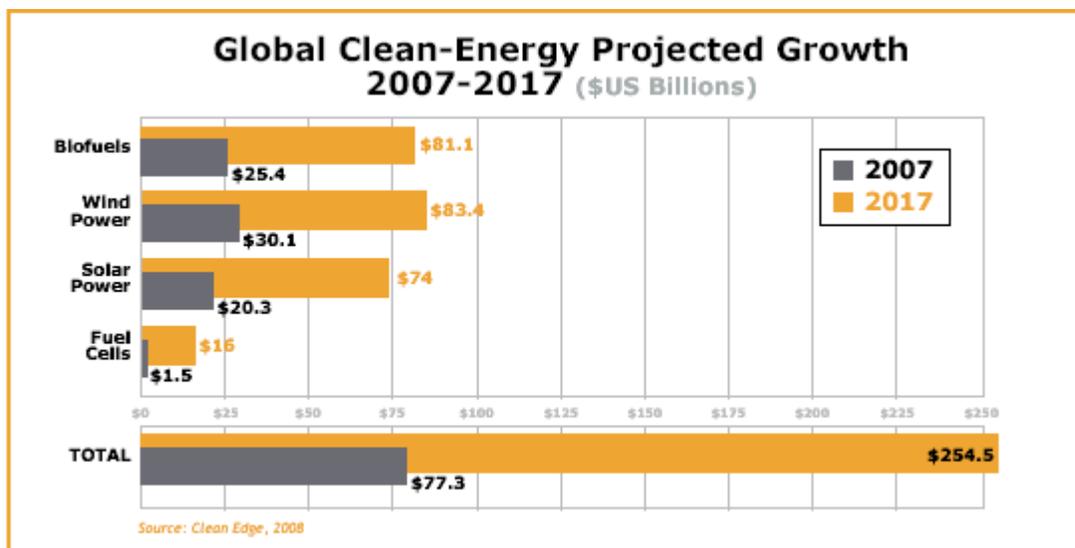
Appendix H: Charts on current and projected growth in cleantech investment

36: Venture Capital Investment in Clean Technology, California

By region



Source: Cleantech Network, LLC



Source: Clean Edge, 2008

