



MEETING SUMMARY FORM

Please fill out the following form as best you can. All information identified as public information will be summarized and published on the *Plan Santa Barbara* website (www.YouPlanSB.org).

PUBLIC INFORMATION

Meeting Date: November 13, 2007

Plan Santa Barbara representative(s): Peggy Burbank

Host Organization: Global Warming Solutions Group

Number of Participants: 11

Please take a moment to summarize the meeting. What were the overall themes? What issues arose? What concerns did the participants express?

THE OVERALL THEME WAS PLAN SANTA BARBARA NEEDS TO ADDRESS THE ISSUE OF GLOBAL WARMING AS AN ORVERARCHING ISSUE. THE FOCUS OF DISCUSSION WAS ON SOLUTIONS TO GLOBAL WARMING AND THE GROUP PROVIDED A WRITTEN SUBMISSION CONTAINING RECOMMENDATIONS AND SUGGESTED SOLUTIONS (ATTACHED.) THE SUBMISSION PROPOSES CORE VALUES FOR ADOPTION AND PRESENTS RECOMMENDATIONS TOWARD IMPROVING THE PERFORMANCE, EFFICIENCY AND ECONOMICS OF NECESSARY SERVICES SUCH AS SOLID WASTE DISPOSAL, SEWAGE TREATMENT AND RECYCLING, AND PROMOTING ALTERNATIVE TRANSPORTATION, ENERGY EFFICIENT BUILDINGS AND ALTERNATIVE PRODUCTION OF ENERGY.

SUMMARY OF COMMENTS

IN ADDITION TO THEIR WRITTEN SUBMISSION AND SUGGESTED TECHNICAL SOLUTIONS TO GLOBAL WARMING, SOME OF THE OTHER COMMENTS EXPRESSED BY THE GROUP ARE INCLUDED BELOW.

GLOBAL WARMING

WOULD LIKE TO HAVE A FORUM ON GLOBAL WARMING (LIKE THE ONE STAGED BY HIGH SCHOOL STUDENTS IN LOS ANGELES). CAN'T FOCUS ON LITTLE ISSUES UNTIL GLOBAL WARMING IS ADDRESSED FIRST.

GROWTH SHOULD NOT BE THE ESSENTAIL QUESTION; CLIMATE CHANGE IS AND EVEN MORE ESSENTIAL CONSIDERATION. NEED TO START WITH THE SCIENCE RATHER THAN WITH PEOPLE'S WISHES.

GWSG WOULD LIKE THE CITY TO TAKE A STAND ON GLOBAL WARMING AND ADOPT THEIR PROPOSED CORE

VALUES. THEY BELIEVE THAT EVERYONE COULD ACCEPT THESE VALUES.

GWGS SUGGESTS FORMING A COMMITTEE TO WORK THROUGH THE ENVIRONMENTAL PROBLEMS IN DETAIL THAT WOULD BRING A CROSS-SECTION OF PEOPLE TOGETHER TO WORK WITH EXPERTS. THIS WOULD AVOID A SUPERFICIAL APPROACH AND MAKE SURE ALL RELATED FACTORS ARE DEALT WITH. AN EXAMPLE IS WHAT WAS DONE IN KINSALE, IRELAND REFERENCED IN THE ATTACHED SUBMISSION.

IF CLIMATE CHANGE IS NOT ADDRESSED, AFFORDABILITY WILL BE UNATTAINABLE.

GREEN HOUSE GAS EMISSIONS

THE CITY SHOULD HAVE AS A GOAL ZERO GREEN HOUSE GAS EMISSIONS.

ULTIMATELY NEED 100% REDUCTION IN GREEN HOUSE GAS EMISSIONS. THE PROPOSED SOLUTIONS WOULD GET THE CITY TO 60 – 70%; BELIEVE THAT PEOPLE WILL DO THE REST.

ENERGY CONSERVATION

ALLOW OPTIONS FOR USE OF OFF-PEAK AND WASTE ENERGY SUCH AS FOR RECHARGING OF HYBRIDS IN PARKING GARAGES (SEE SUGGESTION IN ATTACHED SUBMISSION).

DREDGE IN HARBOR IS A MAJOR ENERGY USER. IT SHOULD ONLY OPERATE AT NIGHT TO USE WASTE ENERGY – I.E. ENERGY GENERATED OFF PEAK WHEN SUPPLY IS GREATER THAN DEMAND.

BICYCLE TRANSPORTATION

THE BICYCLE MASTER PLAN IS WEAK.

PEOPLE DON'T RIDE THEIR BIKES TO GET AROUND THE CITY BECAUSE IT ISN'T SAFE. AS EXAMPLES, IRVINE AND DAVIS BOTH PROVIDE SAFE BICYCLE ROUTES.

NEED, AT THE LEAST, A CURB TO PROTECT BICYCLIST FROM AUTOMOBILES. ALSO, NEIGHBORHOOD STREETS SHOULDN'T BE USED AS MAJOR ARTERIALS.

THE MORE PEOPLE RIDE BIKES THE FEWER CARS WILL BE ON THE STREETS THEREBY REDUCING THE CONFLICT.

COULD ENCOURAGE CYCLING THROUGH A SHARED BIKE PROGRAM – THERE IS A PERSON THAT HAS OFFERED THE CITY 300 BIKES BUT THE CITY HAS YET TO RESPOND.

THE BIKE STATION (IN THE GRANADA PARKING GARAGE) IS NOT A REAL ONE. THE GRANADA IS NOT A GOOD LOCATION FOR A BIKE STATION. THERE SHOULD BE ONE AT THE BUS TRANSFER STATION AND AT THE TRAIN STATION. A GOOD EXAMPLE IS THE ONE IN LONG BEACH AT THE END OF THE BLUE LINE RAIL TRANSIT ROUTE.

NEED BICYCLE RACKS ON MORE BUSES (OR TRAILERS FOR MORE BIKES), ESPECIALLY THOSE GOING OUT TO UCSB.

OTHER ALTERNATIVE TRANSPORTATION SUGGESTIONS

FACILITATE BOTH TOURIST AND COMMUTERS COMING TO SANTA BARBARA BY RAIL RATHER THAN BY CAR. LIGHT RAIL WOULD BE MORE ENERGY EFFICIENT; COULD ALSO HAVE SOLAR PANELS ON ROOFS OF EACH TRAIN STATION. TO MAKE RAIL MORE EFFICIENT SUGGEST FOLLOWING EXAMPLE OF ORANGE LINE IN SAN FERNANDO VALLEY (A DEDICATED BUSWAY – LIKE A SURFACE SUBWAY) WHERE PASSENGERS PAY BEFORE GETTING ON THE BUS.

OPEN SPACE

DON'T PRIVATIZE THE "COMMONS" (OPEN SPACE).

ENCOURAGE PASEOS AND PARKS WITHIN THE CITY.

URBAN DESIGN

MOST AUTOMOBILE TRIPS ARE 2.0 MILES OR LESS. COULD ELIMINATE MANY OF THESE TRIPS THROUGH REZONING TO MIXED USE AND ALLOWING NEIGHBORHOODS CONVENIENT ACCESS TO BASIC SERVICES.

CURRENTLY THE CITY IS OBSTRUCTING RESIDENTIAL INSTALLATION OF SOLAR PANELS. SHOULD ENCOURAGE OR REQUIRE USE OF SOLAR.

AN INCENTIVE IS TO PAY PEOPLE FOR GENERATING EXCESS ENERGY FROM SOLAR. GERMANY PAYS PEOPLE FIVE TIMES AS MUCH FOR ENERGY GENERATED FROM SOLAR.

ADHERE TO ALL THE ARCHITECTURE 2030 BENCHMARKS. WHAT ABOUT EXISTING BUILDING STOCK? IT NEEDS TO BE ADDRESSED AS WELL. NEED MANDATORY ENERGY OPTIMIZATION, BUT MAY NEED TO MAKE EXCEPTIONS FOR HISTORIC BUILDINGS.

OTHER COMMENTS

SANTA BARBARA COUNTY IS THE ONLY COUNTY IN SOUTHERN CALIFORNIA THAT HAS WATER TO SUSTAIN ITSELF.

IN FUTURE, CITY WILL NEED TO BE ABLE TO RECYCLE WASTEWATER IN ORDER TO CONSERVE THE WATER RESOURCE.

THERE ARE GREEN TECHNOLOGIES AVAILABLE THAT COULD BE INCORPORATED INTO SERVICES PROVIDED BY THE CITY AND THE 20-YEAR PLAN SHOULD INCLUDE USING THESE TECHNOLOGIES TO SOLVE PROBLEMS CONTRIBUTING TO GLOBAL WARMING (REFER TO WEBSITES NOTED IN ATTACHMENT.) OTHER CITIES ACROSS THE COUNTRY AND AROUND THE WORLD ARE USING SUCH TECHNOLOGIES. THE CITY NEEDS TO ENGAGE IN PLANNING TO AVOID DISASTERS RATHER THAN PLANNING FOR DISASTER.

THE ECOLOGICAL FACTOR NEEDS TO BE INCLUDED IN CITY ACCOUNTING AS IT MAY INDICATE THAT GOING GREEN SAVES THE CITY MONEY.

SOLUTIONS RECOMMENDED BY GWSG EXIST TODAY AND ARE ECONOMICALLY VIABLE. THE TECHNOLOGIES HAVE MULTIPLE BENEFITS, FOR EXAMPLE, GENERATING ENERGY WHILE DISPOSING OF WASTE OR CREATING A MARKETABLE BY-PRODUCT, SUCH AS A MULCH OR COMPOST, WHICH COULD BE SOLD TO GENERATE INCOME. USE OF SUCH TECHNOLOGIES COULD GAIN BUY-IN FROM PEOPLE THROUGHOUT THE CITY.

A CONSEQUENCE OF CLIMATE CHANGES IS THAT SANTA BARBARA MAY BE DEALING WITH REFUGEES FROM OTHER PLACES IN THE FUTURE, SIMILAR TO WHAT HAPPENED AS A CONSEQUENCE OF THE 1930S DUST BOWL.

PLANNING PROCESS

THE QUESTIONS USED IN THE ROUND 1 WORKSHOPS LIMITED CREATIVE RESPONSES. QUESTIONS SHOULD HAVE BEEN MORE OPEN ENDED. AS IT WAS, IT WAS DIFFICULT TO ADDRESS THE ISSUE OF CLIMATE CHANGE IN THE BREAK-OUT GROUPS. THE COMMENTS PUT ON THE FLIP CHARTS WERE TOO ABBREVIATED AND DIDN'T FAIRLY REPRESENT WHAT PEOPLE SAID.

MEMBERS NOT PERCEIVING TRANSPARANCEY ON THE PART OF STAFF AND THE DECISION MAKERS.

PEOPLE'S COMMENTS SHOULD BE AVAILABLE ON THE PLAN\$B WEBSITE SO PEOPLE CAN HAVE AN OPEN DISCUSSION.

THE PLAN SHOULD NOT JUST CATER TO NIMBYS AND BUSINESS INTERESTS.

CONCERNED THAT, WHILE CITY COUNCIL AND PEOPLE MAY HAVE A GREEN SENTIMENT, THE DEVELOPERS HAVE THE MONEY TO PRESSURE FOR WHAT THEY WANT.

Attachment:

**Global Warming Solutions Group
Recommendations**

GLOBAL WARMING SOLUTIONS GROUP

www.plansolutions.com

November 28, 2007

The Global Warming Solutions Group submits the following statement of recommendations to Plan Santa Barbara. GWSG is a local group advocating personal lifestyle practices and community infrastructure that fulfill the fundamental needs of all residents, in harmony with the needs of our ecosystem in the face of the challenges posed by Global Warming and Resource Depletion. GWSG offers the following recommendations to Plan Santa Barbara regarding the next 20 year General Plan:

Core Values:

By Katie Mickey (Director of the Santa Barbara Body Therapy Institute), Eric Schwartz (Owner of Commuter Bicycles and Thomas Paine Farms)

Recommendation 1:

>Adopt the following core values, from which all policies are generated, in developing Santa Barbara's next 20 year General Plan:

Sustainability In an era of climate change and diminishing resources, sustainability necessitates some substantial shifts in how we function as a city. These changes offer challenges to the infrastructure and smooth running of our city. Many of these challenges are already being experienced globally,

(http://www.truthout.org/issues_06/100807EB.shtml

http://www.truthout.org/issues_06/062007EA.shtml)

as well as locally as evidenced by our recent Zaca fire, current drought conditions and past flooding of Highway 101. According to the best scientific analysis temperature increase must be kept below 2 degrees centigrade to avoid the catastrophic effects of climate change. To reach this goal scientists say we must globally reduce our Co2 emissions between 50-100% by 2050!

<http://environment.newscientist.com/article.ns?id=dn12775&print=true>

The potential challenges of an altered climate for Santa Barbara include:

- *the debilitation of our current infrastructure, bringing vital services to a standstill including the distribution of food, the treatment of waste, the transport of people and emergency respondents
- *sea level rising (a seven foot sea level rise puts our freeways, trains, airports and sewer system underwater).
- *the loss of valuable real estate, common spaces and resources
- *creation of millions of displaced environmental refugees looking for safe refuge, food and water.
- *extreme challenges to our ability to maintain law and order.

“Abrupt climate change could bring the planet to the edge of anarchy as countries defend and secure dwindling water and energy supplies.”
- Report commissioned by the Pentagon, early 2004.

In the absence of executive branch leadership implementing policies in cooperation with the global community, city governments are now taking the lead in the US and abroad. In recognition, that 75% of the world's energy consumption and 80% of greenhouse gas emissions are generated by cities, last summer 540 mayors signed the US Conference of Mayors Climate Protection Agreement <http://www.ens-newswire.com/ens/jun2007/2007-06-25-04.asp> This fall 2000 mayors, councilors, and other officials of local autonomies from 136 countries, at the second World Congress of the United Cities and Local Governments vowed to reduce greenhouse gas emissions and use renewable, clean energy sources to combat climate change.
http://www.truthout.org/issues_06/103107EC.shtml.

What is possible within the context of the city of Santa Barbara is to join with city governments around the globe in reducing our greenhouse gas emissions, using renewable, clean energy sources and supporting the stabilization of our climate. What is possible is for Santa Barbara to model an effective 90% carbon reduction program that other cities can replicate, commensurate with what science is calling for at this time.

“ If you are going to talk about (limiting global warming by) 2 degrees centigrade you are going to have to talk about a 90 percent emissions cut.”
Andrew Weaver and colleagues at the University of Victoria in Canada from their 2007 study of Climate Change
<http://environment.newscientist.com/article.ns?id=dn12775&print=true>

Safety The change in our climate induced by global warming has placed the inhabitants of our national and global community at risk. Here in Santa Barbara we are already experiencing the potential for climate change to disrupt the safety of our citizens and our infrastructure as evidenced by our recent Zaca Fire and the flooding of 101 several times in the past twelve years. As a city, we have multiple issues to address to ensure the safety of our citizens, our infrastructure and our biosphere. Continuing our current practices of carbon intensive lifestyles, threatens our safety on all levels in that our carbon output contributes to the global rise in temperature and the local impact of drought conditions, vulnerability to fire, flooding and projected sea level rising.

What is possible within the context of the city of Santa Barbara is to implement policies that will promote safety for all of its citizens, that will allow each citizen to get their needs met while reducing our CO2 emissions in accordance with the recommendations of the international scientific community and the warnings of the Pentagon.

“Recent greenhouse gas emissions place the Earth perilously close to dramatic climate change that could run out of control, with great dangers for humans and other creatures,’ the scientists say. Only intense efforts to curb man-made emissions of carbon dioxide emissions and other greenhouse gases can keep the climate within or near the range of the past one million years, they add.”

“Climate Change and trace gases” report issued by James Hansen, the director of Nasa's Goddard Institute for Space Studies, Makiko Sato, Pushker Kharecha and Gary Russell, also of the Goddard Institute, David Lea of the University of California, Santa Barbara, and Mark Siddall of the Lamont-Doherty Earth Observatory at Columbia University in New York.

http://www.truthout.org/issues_06/062007EA.shtml

Localization The localization of energy production, economy, culture and decision-making has many benefits for our city. Adopting technologies and systems that generate power locally while greatly reducing CO2 emissions allows transporting people and materials without burning of fossil fuels. Localized electric generation makes Santa Barbara less vulnerable to power shortages, the decline of oil production and less likely to participate in resource wars. More utility funds stay within the local economy.

Localizing our economy involves creating economic loops that keep more cash flow within greater Santa Barbara. This supports the economic health of all our citizens, making them less vulnerable to global fluctuations in the value of the dollar. Localization of culture and decision-making inspires greater civic participation, which translates into safer neighborhoods and engaged youth.

Affordability: The true economic costs of our carbon intensive lifestyle and unchecked pollution needs to be factored into our economic decision making process. There are enormous costs incurred by climate change, demonstrated in part by our recent fire, and what we are witnessing around the globe at this time. Implementing an infrastructure that can model reversing the causative factors in climate change has great potential economic savings.

Transforming our wastes into valuable resources Pollution has a substantial cost to our fragile ecosystem. We live in one of the world’s top “Hot spots” for threatened biodiversity. www.bioregionalism.org. With the advent of new technologies, the city of Santa Barbara has the capacity to not only clean up our waste, but also to actually create valuable resources from our wastes that can enhance our soil, be retrieved for future use and be transformed into vital energy.

Preserve our Commons Open space in the form of undeveloped land and community gathering places is vital to the health, well being and quality of life of all our inhabitants. Our ocean, our creeks, mountain trails, city parks, public squares, easements are all common spaces that are a great treasure of our city.

General Plan Recommendations

Transportation:

Compiled from submissions by Katie Mickey, Eric Schwartz (Owner of Commuter Bicycles and Organic Farmer), Ralph Fertig (President of Santa Barbara Bicycle Coalition), Diane Stevenett (Documentary Producer)

At present we are a fossil fuel dependent society. The majority of Santa Barbara residents and commuters are currently meeting their needs for transportation, safety and convenience by the use of burning large amounts of fossil fuel in their automobile. The costs to our Santa Barbara community is substantial in the form of unhealthy air locally and CO2 emissions globally, congestion of our city streets and unsafe environment for pedestrians and bicyclists. Santa Barbara attracts over million visitors annually and 30,000 commuters daily. The city's layout worked well for pedestrian and cyclists several decades ago, but the amount of vehicles traveling on them now makes it unfriendly and unsafe. There are not enough safe routes for cyclists to travel on. Local residents along with tourists are in great need of more efficient public transport.

Recommendation 2:

>Develop and implement a master plan for safe bike pathways within Santa Barbara City involving a city transportation engineer, local bicyclists, parents and neighborhood representatives. The master plan should address the following needs:

- *Safe bike routes to school.
- *Safe bike routes to shopping centers
<http://safety.fhwa.dot.gov/saferoutes/index.htm>
- * Safe bike routes to beach and major recreational and tourist destination
- *Effective, standard model bike stations (examples currently operating in the Bay area, Seattle, Denver. <http://www.bikestation.org/index.asp> Bike stations include the following features:
 - *Secure, indoor bike parking at transportation hubs
 - *Bicycles and electric cycles for rent.
<http://www.csmonitor.com/2007/0706/p01s06-woeu.html>

Recommendation 3:

>Develop and implement a comprehensive plan for addressing the traffic corridor between San Luis Obispo and Oxnard. The comprehensive plan team should include transportation engineers, efficiency analysts from industry, and consultants from communities who have successfully addressed similar challenges. The current plan to widen the 101 freeway is costly and misses the mark regarding what is needed at this time. The comprehensive plan we recommend should address the following needs:

- *Speed and efficiency in traffic flow
- *Safety

- *The rising cost of single occupancy commuting, as oil prices continue to rise
- *Minimal cost to taxpayers to implement
- *Traffic reduction on the 101 during peak commuter hours
- *Traffic reduction on Santa Barbara streets
- *Carbon emissions reduction incurred by commuter traffic
- *Avoid construction and expansion of lanes on the 101

Curitiba Brazil is one example of a major city of 1.6 million people that has eliminated congestion on their city streets by implementing an efficient traffic flow plan. The city pioneered the idea of an all-bus transit network with special bus-only avenues created along well-defined structural axes that were also used to channel the city's growth. The transit system is rapid and cheap, and is currently being integrated with the metropolitan region. Its efficiency encourages people to leave their cars at home. Curitiba has the highest public rider ship of any Brazilian city (about 2.14 million passengers a day), and it registers the country's lowest rates of ambient pollution and per capita gas consumption. Their mayor, Jaime Lerner is currently consulting for the city of Los Angeles to implement fast, and efficient bus transit throughout the city.
<http://www3.iclei.org/localstrategies/summary/curitiba2.html>

Options for the second phase of carbon reduction on the 101 corridor include alternative light rail such as cybertrans. www.cybertran.com. The benefits of cybertrans include:

- *It costs one tenth of the cost of normal train to install its infrastructure and costs considerably less to maintain.
- *It carries ten- twenty people at a time.
- *It runs on electricity that can even be solar powered.
- *It can travel up to 150 miles an hour.
- *It has multiple vehicles run on one track.
- *There id no delay, because vehicles get off the track when they come to their point of departure.

Recommendation 4:

>Improve local bus service, electric trolley and bicycle capacity within bus service including:

- * Increased frequency and duration of most MTD service
- *Additional bike racks to all MTD buses
- *Additional bike trailer on UCSB and Goleta express routes

Recommendation 5:

>Revise zoning to enhance access and walkability within our city neighborhoods to meet the needs for common goods and service. www.walkscore.com

- *Change residential zoning to allow neighborhood markets and USDA defined healthy food vendors.
- *Encourage mixed- use development.
- *Encourage high-density housing without car parking facilities to certified car free residence. (Someone who has signed a legal affidavit attesting that they don't

own or operate a vehicle –memberships in a car share organization or car renting excluded.)

Recommendation 6:

>Install infrastructure within city parking structures to support conversion to plug-in Hybrid vehicles. Electrical utilities will fund this project.

Recommendation 7:

>Offer incentives to eliminate or reduce gasoline consumption:

- *Free parking to plug-in motorists.
- *Perk to certified car free residents.
- *Perk to people residing close to their workplace

Recommendation 8:

>Adopt a city ordinance for conditions of revocable permit to modify city intersections “The City Repair Project’s Placemaking Guidebook” PG 26
Benefits of an intersection repair city ordinance as adopted by the City of Portland Oregon (City ordinance no. 175937:conditions of revocable permit to modify city intersections, passed by Portland, Oregon City Council 09/19/01) include:

- *Increase civic participation
- *Slowing of traffic
- *Increased neighborhood safety

Environment

Compiled from submissions by Katie Mickey, Eric Schwartz, Vernon Woolf (Director of the Global Alliance Foundation), Tim Manley (Computer Systems Engineer for the county of Santa Barbara, Auditor Controller’s office), Richard Tell, (General Manager Scale Viper LLC) Lane Anderson (Community Activist for Arlington West and Veterans for Peace)

Pollution and CO2 emissions currently pose a significant threat to our environment. In addition to the destabilizing effect of increasing CO2 emissions on our biosphere, we are currently contaminating our land, our streams and our oceans with chemicals, pesticides and heavy metals, due to leaks and infiltration into our sewage system and septic systems. As of 2003, Santa Barbara was dumping an average of 8.5 million gallons of secondary treated sewage into the ocean per day. Santa Barbara does tertiary treatment on the “recycled” water that goes to our parks. (Heal the Ocean - Ocean Wastewater Discharge Inventory For The State Of California, Principal author: Hillary Hauser, Heal the Ocean Executive Director, Principal researcher: D. Craig Barilotti, Ph.D., Copyright 2005 by Heal the Ocean, Heal the Ocean 1129 State Street #26 Santa Barbara, CA 93101 (805) 965-7570 www.healtheocean.org, Page 11) As of 2001, Goleta was dumping an average of 4.8 million gallons per day, some of which does not even receive secondary treatment. Goleta expects to continue this practice until 2014 (Ibid, Page 10) During a big storm, the inflow is far greater than what can be processed by our system, therefore the sewage

water flows directly into the ocean. Due to these multiple factors, sewage that contains nutrient laden wastes are feeding the primal bacteria in our oceans. This primal bacteria now threatens to kill off our ocean floor in less than 10 years.

<http://www.latimes.com/news/local/oceans/la-oceansseries,0,7842752.special>

Recommendation 9:

>Install an Electrocoagulation System at our city water sewage treatment plant and encourage the city of Goleta to do the same. <http://www.powellwater.com>

Electrocoagulation is the process of destabilizing suspended, emulsified or dissolved contaminants in an aqueous medium by introducing an electrical current into the medium.

Electrocoagulation has the following benefits as a water treatment system:

- *It meets discharge requirements
- *It uses no chemicals
- *It process multiple contaminants
- *It processes waste streams with up to 5% solid waste
- *It harvests proteins, oils and metals
- *It is considerably less expensive to operate than our current system
- *It produces clean, drinkable water

Examples of companies or municipalities using or considering using the Electrocoagulation System to treat their waste water (according to company representative for Powel Water Systems) include:

- *Andarko Petroleum Corporation, currently using
- *British Petroleum in Malasia and Trinidad, currently using
- *The city of Fillmore is considering
- *Exon Mobil is considering

Our current treatment plant is located roughly 7 feet above sea level. If sea level rising occurs, this will have significant impact on our ability to treat our water. Therefore, a contingency plan needs to be developed for having a portable system or a system at a higher altitude.

Recommendation 10:

>Repair or replace ineffective sewer pipes and upgrade or in some cases eliminate polluting septic systems.

Recommendation 11:

>Install neighborhood (16) Agrichar processing stations for local green waste.

http://www.truthout.org/issues_06/051707EB.shtml

<http://www.dpi.nsw.gov.au/research/updates/issues/may-2007/soils-offer-new-hope>

<http://www.jyi.org/features/ft.php?id=1112>

<http://terrapreta.bioenergylists.org/iai>

<http://www.abc.net.au/catalyst/stories/s2012892.htm>

Agrichar is a cutting edge technology for capturing the carbon inherent in green waste and turning it into a charcoal substance that can be buried and provide agricultural fertilizer. Agrichar has the following benefits as an industry:

- *It prevents the release of carbon into the atmosphere.
 - *It transforms green waste such that it does not have to be transported to landfills.
 - *It creates both fuel oil and a valuable, charcoal soil amendment, which greatly reduces the need for petrochemical fertilizers and retains benefits of soil fertilizer by preventing their release into the atmosphere or water table.
- <http://www.energybulletin.net/29250.html> Agrichar processes are thought to be responsible for those specific areas of the Amazon Rainforest that contain lush soil.

Examples of Agrichar in operation include:

- *Dynamotive Energy Systems, a Canadian energy solutions provider, has a 100-ton-per-day plant in West Lorne, Ontario.
- *Dynamotive is also currently building a 200-ton-per-day facility 45 minutes west of Toronto. Their fast pyrolysis method produces 200 kilograms of char to every ton of bio-oil.
- *Best Energies, a Madison, Wis.-based biofuel company has a 12-ton-per-day pyrolysis unit working in Australia

Recommendation 12:

>Implement a waste remediation park and plasmic arc technology near our Marborg recycling facility to handle the sorting and reuse of building materials and processing of our municipal waste.

“The (Tajiguas) landfill is scheduled to close in about 12 years, and that building a new one on the South coast is estimated to cost about \$100 million-\$150million <http://independent.com/news/2007/mar/08/juicing-cump/> The county also houses Casmalia superdump- a toxic waste cite. The US Environmental Protection Agency (EPA) estimates that it will cost at least \$272 million to remediate this site.” <http://www.epa.gov/Compliance/resources/newsletters/civil/enfalert/financial.pdf>

The installation of a waste remediation park can avoid the need for future landfills and retrieve valuable building materials and resources within our landfills including: minerals, precious metals, plastics, oils as well as provides a new arena for local businesses utilizing all the precious resources within the landfill.

The installation of Plasmic Arc technology will allow the city to remediate all its wastes, empty the Tajigas landfill, the seven previous landfills and Casmalia superdump toxic waste cite, and turn the waste contained therein into energy and valuable resources.

Examples of plasmic arcs in operation, being installed or being considered include:

- *Startech has a plasmic arc currently operating in Bristol Connecticut. <http://www.popsci.com/popsci/science/873aae7bf86c0110vgnvcm1000004eebccdrcrd.html>

*Japan has three plasmic arc technology plants in operation (according to Lou Circeo, director of plasma research programs at the Georgia Tech Research Institute)

<http://www.nola.com/news/t-p/metro/index.ssf?/base/news-21/1180509827134910.xml&coll=1&thispage=>

*St. Lucie County Florida has signed a contract for a \$425 million plasmic arc and waste remediation park

*New York City's city council's infrastructure division is evaluating plasma gasification to offset some of the city's exorbitant waste costs (\$400 million dollars) to truck their trash to Virginia and Pennsylvania, due to closure of local landfills.

*Panamanian government in conjunction with a local investment firm is contracting to purchase and set up 10 Startech systems. Their landfills are polluting groundwater and drinking water resulting in cholera and hepatitis A and B breakouts. The project will handle 200 tons of trash a day at each location and produce 40% of their electrical demand.

*The city of New Orleans is considering installing plasmic arc waste remediation.
<http://www.nola.com/news/t-p/metro/index.ssf?/base/news-21/1180509827134910.xml&coll=1&thispage=>

* Local entrepreneurs within the Global Alliance Foundation are developing a superplasmic arc technology available for a projected a \$10 million - a fraction of the cost of the above examples averaging \$250 million. <http://www.global-alliance-foundation.org/investor.htm>

Recommendation 13:

>Install solar power technologies within our city government buildings. Promote the installation of solar power and wind turbine technologies through tax incentives within the private sector.

Once installed solar power and wind power technologies offer cheap, carbon neutral, decentralized sources of power. Our CEC has much information available on this subject.

Recommendation 14:

>Define real penalties for the operation of leaf blowers and require the police department and courts to enforce the law and penalize violators.

<http://independent.com/news/2007/aug/10/leaf-blower-battles/>
<http://www.washingtonpost.com/wp-dyn/content/article/2006/11/08/AR2006110800709.html>

As of the 2006 Washington Post article above, more than twenty communities in California have banned leaf blowers outright and many are really enforcing the ban. Unfortunately Santa Barbara is NOT among them, although a leaf blower ban, opposed by the city government, was passed by the citizenry of Santa Barbara by a wide margin, the police continue to give the same mow and blow crews five or more warnings without real consequences. The city has compromised the ban by defining it to mean only

gas powered leaf blowers and only in front of the house. Studies show that leaf blowers can spread pollen and allergens for miles, not just into the street.

Recommendation 15:

>**Implement policies that promote sustainable landscaping and maintenance gardening** <http://www.terranovalandscaping.com/blog/about/>

Recommendation 16:

>**Collaborate with other municipalities within our bioregion (Gaviota to Rincoln) to preserve agricultural zoning and agricultural land.**

Recommendation 17:

>**Eliminate sewage fees for metered water used or for commercial agricultural within the city.**

The Built Environment and Energy

Compiled from submissions by Roy Prince (Ecological Architect), Katie Mickey, Eric Schwartz, Lane Anderson

There are many changes that will need to be made for Santa Barbara to become sustainable and thus viable in the years to come. The price of oil is within a hairs breath of \$100 a barrel (perhaps when you read this it will be more than \$100 a barrel). The US and China (and India and other emerging nations) are using oil as if it were a renewable resource. Evidence provided by geologists, and reinforced by the economy, defines oil as an ever more limited and expensive resource.

The fine work of architect Ed Mazria and Architecture2030.org indicates that roughly 50% of our energy use is buildings, commercial and residential. These figures reflect national consumption patterns. Based on the moderate weather in Santa Barbara, we would expect energy consumption related to buildings to be lower.

Conservation is the first item on any list for reducing energy needs. The more one conserves the less energy is needed. We must highly insulate the roofs/attics, walls and under floors or slab edges of our buildings. We must replace single glazed windows with high performance (not with PVC vinyl materials) windows. And we must replace our doors with highly insulated doors. In other words we must highly insulate the building or thermal envelope and seal any cracks that allow energy to be wasted.

The city recently increased the T-24 energy benchmark an additional 20% - given that T-24 is already 30% above the national average this is a move in the right direction and meets the Arch2030 benchmark for 2010 for a 50% reduction in fossil fuel use. New legislation will be required to move towards zero fossil fuel energy use in the future.

Recommendation 18:

>Adopt the Architecture2030.org recommendations instead of increasing efficiency based upon unreliable energy definitions. Citing energy efficiency requirements based upon actual reductions in fossil fuel energy use makes more sense. If the Architecture2030.org benchmarks are legislated into our building code it will not have to be renewed every few years. Once implemented the benchmarks become written into the City of Santa Barbara energy and building codes. This speaks to a long-term commitment to freedom from fossil fuel – a commitment sorely needed today – and a way for the City of Santa Barbara to lead the way.

As previously noted all new buildings, by City energy code, must meet the Architecture2030.org benchmarks. How can we upgrade our existing building stock to meet the Architecture2030.org benchmarks for reduced fossil fuel use?

Recommendation 19:**>Implement mandatory energy audits**

We need to know how bad it is – what is the current energy condition of our building stock? How much energy does each building use and what conservation strategies are already in place? We need mandatory energy audits that define the condition of each structure and define what upgrades are necessary to meet the Architecture2030.org benchmarks and City codes. These audits will show us the enormity of the job and the resultant energy retrofits will provide much needed income for our citizens.

Recommendation 20:**>Implement real time energy use management**

One of the fascinating things about Prius owners is that they get immediate feedback about how they drive. It is a great way to self-regulate how much energy one uses. Prius owners love it and even have contests to see who can get the highest mileage. Being able to see in real time the effect one is having by ones actions – very often gives one the power and incentive to make changes for the better.

We now have a similar capability for determining the energy use of our buildings. There are devices currently available that, in real time, tell a building occupant exactly how much energy the structure is using. These devices should be mandated by City ordinance and installed inside our homes and workplaces so we can monitor and manage or alter our energy use.

Recommendation 21:**>Implement net metering**

Some states and municipalities have agreements with their electric utilities to pay an energy producer (with PV solar this means you and me) when energy is fed back into the grid. It's often called "net metering." For reasons we will not go into here the utilities and the state of California have come to net metering agreements that is not equitable to the energy producer. We suggest the City renegotiate equitable net metering agreements with power providers. This will go a long way to decrease the pay back time for PV solar and

make PV solar a realistic energy option. The Buying Club concept, noted below, would leverage the cost of PV solar and make it very affordable for Santa Barbara homes and commercial structures.

Recommendation 22:

>Encourage “Buying Clubs” to leverage buying power.

Buying Clubs will allow for reduced costs for insulation and high performance windows, doors, appliances, PV and water based solar, and other energy saving products and services. The City may also offer low interest loans or other programs that assist property owners to retrofit for energy efficiency.

Recommendation 23:

>Mandate Energy Optimization

One possible option, and we know there are many other possible ways to accomplish this, is to mandate that upon the sale of a property with a building on it, that the building(s) be brought up to the current energy code. This option makes the buyer and other possible entities like product manufacturers, retail outlets, contractors, utilities and or City responsible for the cost of retrofitting energy efficient systems and states that the buyer must comply within 2 years of purchase (the structure cannot be sold again until it meets current energy efficiency codes.)

Will it be “business as usual” or a stand for making Santa Barbara sustainable? The Light Blue Line project is an example of how certain interests move against sustainability. These same forces may rise up against any requirement for making any private, business or public entity stand up and pay the price for energy efficiency.

It’s an interesting quandary; who should pay for reducing a buildings carbon footprint? The question of who is ultimately responsible or who may have contributed to the problem may not be helpful at this time. What we do know is we have a large-scale problem that calls for all segments of our community to assist in the transition to a carbon free future.

Recommendation 24:

Operate the electric dredge in the harbor during off peak hours only, (Give our dredging appliances the afternoon off.)

Operating the electric dredge in the harbor is one of the single largest uses of electricity in the city. By shifting its electrical usage to only non-peak hours it would save tremendous amount of carbon emissions, by using nighttime excess electrical generating capacity only.

Recommendation 25:

Require City College to provide on site housing to a meaningful % of their student body thereby:

- *Reduce pressure on housing market to house in flux of students
- *Reduce daily traffic to campus from surrounding communities

Recommendation 26:

Preserve common spaces between houses and encourage neighborhood cohesion.

*Offer city sponsored facilitation to neighborhoods that want to address neighborhood challenges, such as vandalism, crime, drug use. safety, traffic, isolation utilizing city repair techniques and strategies.

<http://www.cityrepair.org/wiki.php/digest>

New Categories for the General Plan

Compiled from submission by Roy Prince, Katie Mickey

Recommendation 27:

The challenges of Climate Change and Peak Oil have the potential to impact every area of how Santa Barbara functions as a city and our capacity to meet the needs of our citizenry. Thus we recommend that Plan Santa Barbara **expand the categories of our general plan and adopt the categories put forth by the Kinsale 2021- Energy Descent Action Plan** (http://transitionculture.org/?page_id=104), **which include:**

- ***Transportation**
- ***Water**
- ***Housing**
- ***Economy and Livelihoods**
- ***Health**
- ***Tourism**
- ***Waste**
- ***Energy**
- ***Food**
- ***Youth**
- ***Community**
- ***Education**

We recommend that Santa Barbara engage the creative talent and best minds in our community to generate a master-plan for each of the above categories, accompanied by the following measures:

*Each category shall have its own committee of participants including city planners, professionals in respective fields, local civic leaders, local media, neighborhood representatives, elders and youth

*Each committee member shall be selected through a process that insures there commitment to the preceding core values and knowledge of what science is telling us we will be facing in the eminent future as well as of the specific needs and assets of our community.

*Each committee shall research effective solutions that are occurring in other cities as well as those being practiced locally.

*Each master plan shall be followed with a citywide educational program to support implementation and effectiveness.

We are not suggesting that we have any final answers – but we are suggesting that we need to take bold steps to move into a fossil fuel free, climate stable future.

Addenda:

Kinsale Energy Descent Action Plan 2005

http://transitionculture.org/?page_id=104

Tertiary Treatment Study Santa Barbara:

http://www.healtheocean.org/cost_of_tertiary_wastewater_treatment.pdf

Heal The Oceans 2006

http://www.resources.ca.gov/copc/6-10-05_meeting/all_public_comment.pdf