Albany Climate Action Plan - Cost Analysis 4/9/09

Transportation and Land Use Strategy

Objective TL-1: Facilitate walking and biking in the community

	Measure	Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
TL-1.1	Create complete streets throughout the City	See below	See below	See below	See below	See below	See below	See below	See below	_
A	Improve/expand bike lanes and bicycle/pedestrian path network	Alta Planning, City of Portland, City of Albany	$14,000,000	$70,000,000	$42,000,000	$4,200,000	22.8%		High	Huge variations in cost depending on project needs. Alta Planning cost estimates: Bike Path - $500K - $3M per mile (high end indicates grade-separated crossings every 1-2 miles); Bike Lanes - $25-$50K per mile (could be more if it requires road widening and ROW acquisition); Bike Routes - $5K-$50K per mile (depends on level of treatment - route signage only would be low end, signage + shoulder striping, pavement markings, signal actuation would be higher end). Portland's Cully Blvd (separated cycle track a la Copenhagen + street re-design) cost $5.4M for 0.6 miles. Estimated cost to expand bike network across entire City: $14M - $70M
B	Incorporate bicycle-friendly intersections into street design	City of Portland Bureau of Transportation	$128,000	$139,000	$133,500	$16,688	0.1%		Low	Assume program similar to Portland's "bike boxes". $8,000 - $9,000 per box for basic striping and signage. Staff time for all locations = $40,000 (cost does not include planning time). Portland also spent $60,000 on a education program that included billboards, bus. Assume City will install bike boxes at 11 intersections. $88,000 - $99,000 + Staff time for all 11 locations ($40,000) = $128,000 - $139,000 (cost does not include planning time).
TL-1.2	Strictly enforce pedestrian rights laws on City streets	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated
TL-1.3	Require all new commercial and public buildings (and major renovations when feasible) to provide adequate bicycle parking near entrances and require buildings with more than 50 employees to provide end-of-trip facilities for bicycle commuters (e.g. showers, lockers, and secure covered bicycle parking)					$11,111		0.4%	Low	Amend City of Albany Green Building Standards of Compliance to mandate LEED 2.2 - New Construction Credit SS 4.2: Alternative Transportation: Bike Storage & Changing Rooms for commercial construction. Initial Costs: Cost of Adopting an Ordinance + Training City Staff to administer program/process applications. Possible additional education and outreach related expenses. Annual Costs: Administrative, monitoring, and oversight cost low to none, depending on availability of existing staff. Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
TL-1.4	Install bicycle racks in commercial and civic areas of City where racks do not currently exist.	Alta Planning, Creative Pipe, SFMTA	$20,000	$20,000	$20,000	$2,000	0.0%		Low	$200 per 2-bike rack ($150 per rack + $50 for installation). Assume 100 new racks.
TL-1.5	Encourage additional neighborhood serving commercial uses and mixed use development within City's existing commercial districts. Strive to provide access to daily goods and services within 1/4 mile of residences through land use/zoning changes.	EDAW	$800,000	$800,000	$266,667	$33,333		1.2%	Med	Assumed to be part of the General Plan Update. EDAW estimate of consultant fee for GP update: $800,000

Objective TL-2: Make public transit more accessible and user-friendly

	Measure	Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
TL-2.1	Conduct public transit gap study that analyzes strategies for increasing transit usage within the City and identifies funding sources for transit improvements	Nelson Nygaard	$45,000	$55,000	$50,000	$6,250		0.2%	Low	Estimates from Nelson Nygaard. It is assumed this study will require some data collection. $45,000 - $55,000
TL-2.2	Partner with BART and AC Transit to provide shuttles between BART stations, residential neighborhoods and commercial centers	City of Emeryville				$2,000,000		73%	High	Assumed to be part of the General Plan Update. EDAW estimate of consultant fee for GP update: $800,000
TL-2.3	Work with the school district to improve/expand school bus services and safe routes to school program					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
TL-2.4	Provide passes and shuttles to transit to encourage use of alternative transportation by City employees	City of Berkeley			$9,000 per year	$9,000		0.3%	Low	City is too small to qualify for the AC Transit EasyPass Program. Assume City will be able to partner with the City of Berkeley to obtain passes for employees. The City of Berkeley pays $91,837 to provide passes to the 1,374 eligible employees ($67/employee). City of Albany has 130 employees. ~$9,000 for passes per year + staff time to coordinate with Berkeley and setup program.
TL-2.5	Work with Caltrans and AC Transit to develop BRT stations on San Pablo in City	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated
TL-2.6	Work with AC transit to provide transit stops with safe and convenient bicycle and pedestrian access and essential improvements such as shelters, route information, benches and lighting.	Cost estimate based on City of Bishop 2008 Capital Improvement Plan	$150,000	$150,000	$150,000	$18,750		0.7%	Low	Assumed that City will provide bus shelters, benches and existing street lights will provide lighting. AC Transit will pay for maintenance. Cost estimate based on City of Bishop 2008 Capital Improvement Plan. Estimated that 5 stops need enhancement + 5 new stops = 10 stops total. $4,000 - $6,000 for shelter. $15,000 per transit stop = $150,000
TL-2.7	Work with AC transit to increase transit headways to every fifteen minutes at peak commute hours					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP. Assumes AC Transit is willing to do/fund service upgrades.

Objective TL-3: Promote transit oriented development

	Measure	Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
TL-3.1	Establish design guidelines for transit and pedestrian oriented development within the City	EDAW	$30,000	$30,000	$30,000	$3,750		0.1%	Low	EDAW estimate (consultant fee: $30,000)
TL-3.2	Allow greater residential and commercial density within 1/2 mile of transit corridors	EDAW	$800,000	$800,000	$266,667	$33,333		1.2%	Med	Assumed to be part of the General Plan Update. EDAW estimate of consultant fee for GP update: $800,000

TL-3.3	Provide incentives (e.g. reduced developer fees, fast-tracking, reducing processing fees, infrastructure loans, etc) for projects that promote mixed use, higher density development within 1/2 mile of transit corridors.					$11,111		0.4%	Low	Amend City of Albany Green Building Standards of Compliance to mandate LEED 2.2 - New Construction Credit SS 2: Development Density and Community Connectivity for commercial construction; Amend City of Albany Green Building Standards of Compliance to mandate 15-20 out of a possible 26 points in credits A1, A2, and A4 in the Multifamily GreenPoint Checklist for mulifamily residential. Initial Costs: Cost of Adopting an Ordinance + Training City Staff to administer program/process applications. Possible additional education and outreach related expenses. Annual Costs: Administrative, monitoring, and oversight cost: low to none, depending on availability of existing staff. Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
A	Reduced developer fees or processing fees	EDAW Seattle Green Building Policy Analysis	$200,000	$200,000	$200,000	$25,000		0.9%	Low	Fee rebate equates to __% of total fee (or of development impact fee); reduced revenues for Building Department, with budgetary implications. Initial Costs: Policy and Program Development: $200,000; Annual Costs: Additional administration dependent on existing staff availability; reduced developer fees would reduce the permit revenue
B	Fast-tracking	EDAW Seattle Green Building Policy Analysis	$50,000	$100,000	$75,000	$9,375		0.3%	Low	Existing staff time; potential redundancy with priority permitting program (though incentive is tied to different development goal). Initial Costs: Policy and Program Development: $50,000-$100,000; Annual Costs: Additional administration dependent on existing staff availability.
C	Infrastructure loans	Cascadia Consulting Group, Inc. Existing Building Energy Policy Analysis	$140,000	$1,150,000	$645,000	$80,625		2.9%	Med	The City, utilities, or private lenders could offer loans to property owners for pre-approved energy efficiency upgrades. Low interest rates could be guaranteed through volume or by utility buy-down. The goal is to to provide capital for energy efficiency upgrades at a discounted rate (something in the range of 50 to 100 basis points lower than market rate). Initial Costs: Policy assessment: $20,000 - $50,000. The City would need to assess strategies for maximizing the effectiveness of a low interest loan program, educating a contractor/auditor network and addressing the split incentives between investors and energy end-users (e.g., between a landlord and tenant). Development of billing and collection process: $20,000 - $100,000. If the City manages the loan program in-house and intends to affix the loan to the property, then a repayment system would have to be arranged. City investment: $100,000-$1,000,000. This investment is wholly dependent on how much the City intends to subsidize interest rates.
TL-3.4	Evaluate GHG emissions associated with development proposals and work with applicants to reduce emissions during project review					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
A	Prescriptive Approach - strategy based on compliance with standard; GHG emissions are estimated based on typical building performance (GHG/sf) for specified design strategies	Cascadia Consulting Group, Inc. Existing Building Energy Policy Analysis	$145,000	$350,000	$247,500	$30,938		1.1%	Med	Prescriptive approach: Commercial: LEED NC 2.2 EA Credit 1: Optimize Energy Performance Prescriptive Compliance Option, Residential - ENERGY STAR for Homes (Home Performance tool) or Earth Advantage Energy Performance Certificate. Initial Costs: Assessment of required upgrades: $75,000 - $150,000. Although sample checklists from other jurisdictions are available, assessing and establishing what upgrades are needed in each sector to meet city-wide energy efficiency goals, while also assessing the cost-effectiveness of those measures, is likely to be a significant task. -Development of a database: $20,000-$100,000. A database would be needed to track what properties are in compliance with the mandate. Alternatively, existing databases could potentially be leveraged for cost savings. -Legislative Development: $50,000 - $100,000. City staff and legal council would need to develop the policy specifics and legislation. Much of this work could be done within existing staffing levels, meaning few to moderate new resources would be needed.
B	Performance Based Approach	Cascadia Consulting Group, Inc. Existing Building Energy Policy Analysis	$225,000	$500,000	$362,500	$45,313		1.7%	Med	Performance based approach: energy modeling ordinance (possibly tied to LEED NC 2.2 EA Credit 1: Optimize Energy Performance + EA Credit 5: Measurement and Verification) or equivalent for LEED Homes. Possible synergy with expedited permitting/fast tracking policy strategies. Initial Costs: Assessment of existing rating systems: $75,000 - $200,000. Experience to date has indicated that existing rating systems must be vetted in the marketplace before making them mandatory. In addition to selecting a rating system, the City would need to assess and select appropriate performance requirements. -Development of database: $100,000 - $200,000. A database could be developed to house and provide ability for property owners or City program managers to access the ratings. Alternatively, existing databases (such as the Multiple Listing Service or EPA's Portfolio Manager) could potentially be leveraged for residential and commercial ratings, respectively. -Legislative Development: $50,000 - $100,000. City staff and legal council would need to develop the policy specifics and legislation. Much of this work could be done within existing staffing levels, meaning few to moderate new resources would be needed.
TL-3.5	Provide public education about benefits of well-designed, higher-density housing and relationship between land use and transportation.	EDAW	$300,000	$300,000	$300,000 (for 14 strategies)	$2,679		0.1%	Low	We are assuming many marketing/education-related strategies could be addressed concurrently. EDAW community-outreach professionals recommend a high tech approach consisting of a video clip, newsletter, and website activity. $75,000 per campaign (3-4 strategies per campaign) for strategies-related to marketing. Assume 4 advertising campaigns would take place for the CAP = $300,000 for all 14 strategies

Objective TL-4: Reduce vehicle emissions and trips

Measure	Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
TL-4.1	Work with ABAG and neighboring cities to create jobs-housing balance within existing transit corridors				$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
TL-4.2	Improve the fuel efficiency of City fleet by purchasing low or zero emission vehicles when vehicles are retired from service.	City of Albany			$728,000	$72,800	0.4%		Low	Estimated cost per hybrid vehicle: $26,000. City has 28 vehicles

TL-4.4	Develop electric plug-in auto charging station infrastructure					$11,111		0.4%	Low	If City partners with Better Place or Coulomb Technology, this infrastructure could have no additional cost to the City. Some cities (SF, Oakland, San Jose) are offering incentives to promote electric vehicles, such as expedited permitting and installation of electric vehicle charging outlets. Cost assumes private company will install infrastructure. Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
TL-4.5	Create and implement a transportation demand management program that reduces weekday peak period trips by at least 20% (applies to commute trips only)	Nelson Nygaard	$25,000	$75,000	$50,000	$6,250		0.2%	Low	Nelson Nygaard estimated full-fledged TDM study tailored to local conditions (including some data collection as needed): $75,000. Basic/generic "off-the-shelf" TDM: $25,000
TL-4.6	Facilitate ride-share programs					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
TL-4.7	Work with existing companies to expand car-share opportunities in the community					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
TL-4.8	Provide public education regarding reducing motor vehicle-related greenhouse gas emissions.	EDAW	$300,000	$300,000	$300,000 (for 14 strategies)	$2,679		0.1%	Low	Assume many marketing/education-related strategies could be addressed concurrently. EDAW community-outreach professionals recommend a high tech approach consisting of a video clip, newsletter, and website activity. $75,000 per campaign (3-4 strategies per campaign) for strategies-related to marketing. Assume 4 advertising campaigns would take place for the CAP = $300,000 for all 14 strategies
TL-4.9	Encourage a regional Bay Area cordon fee system for daily use of vehicles.					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.

Objective TL-5: Create disincentives for use of single-occupancy private automobiles

Measure		Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
TL-5.1	Consider a tiered residential parking fee that increases with vehicle size							0.0%	Low	Assume this would be self-financing in the long-term. There would be an upfront cost to create program and an on-going cost to implement program, but fee could be structured to pay the City's program cost and potentially make the City money.
TL-5.2	Provide preferential street parking spaces for electric and plug-in electric hybrid vehicles							0.0%	Low	Low cost. Loss of revenue associated with reduced parking fees
TL-5.3	Eliminate minimum parking standards and initiate a City-sponsored shared parking program.	Nelson Nygaard	$25,000	$35,000	$30,000	$3,750		0.1%	Low	Nelson Nygaard provided a cost estimate for parking study and plan. Assumes minimal meetings and public outreach. $25,000 - $35,000

Buildings and Energy Strategy - Minimize energy consumption, create high performance buildings, and transition to clean renewable energy sources

Objective BE-1: Lead by example with zero-emission City buildings by 2015

Measure		Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
BE-1.1	Install cost-effective renewable energy systems on all city buildings and purchase remaining electricity from renewable sources	SolarCity	No Cost (Leasing)	No Cost (Leasing)	No Cost (Leasing)	No Cost (Leasing)		0.0%	Low	Assume City will participate in PPA with solar company (lease panels). No cost to City.
BE-1.2	Require all public buildings to install building performance data (energy + water) displays	Lucid Design Group	$61,000	$81,000	$71,000	$7,100		0.3%	Low	Dashboard starter (electricity only): $10,000 - $30,000 + $950 for each additional resource (assume city will monitor electricity and water). Annual service fee + data hosting: $3,000 per year. Free for first year. City has 5 main public buildings. Touch screen available + installation: $9,950 (32 inch flat screen + preconfigured). Grand Total: $61,000 - $81,000

Objective BE-2: Retrofit existing residential buildings

Measure		Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
BE-2.1	Educate residents about the availability of free home energy audit programs and encourage implementation of audit findings.	EDAW	$300,000	$300,000	$300,000 (for 14 strategies)	$2,679		0.1%	Low	Assume many marketing/education-related strategies could be addressed concurrently. EDAW community-outreach professionals recommend a high tech approach consisting of a video clip, newsletter, and website activity. $75,000 per campaign (3-4 strategies per campaign) for strategies-related to marketing. Assume 4 advertising campaigns would take place for the CAP = $300,000 for all 14 strategies
BE-2.2	Identify and develop financial incentives and low-cost financing products and programs to encourage investment in energy efficiency and renewable energy for existing residential buildings.	See below	See below	See below	See below	See below	See below	See below	See below	–
A	On-bill Financing	Cascadia Consulting Group, Inc. Existing Building Energy Policy Analysis				$11,111		0.4%	Low	City could coordinate with PG&E to facilitate the repayment of loans for efficiency upgrades on utility bills. Upgrades would be selected by the building owner (in coordination with the City) such that the efficiency savings would pay for the investment over a fixed period of time. Customers would "share" monthly energy efficiency savings with the utility until the loan is paid back, at which point all savings would be reflected in lower monthly bills. The goal is to simplify loan repayment and (in combination with a funding source) reduce upfront cash outlay by property owners. In addition, some models of on-bill financing would allow for the loan to remain with the property (even if sold by the current owner), thereby sharing the cost of upgrades over time with future beneficiaries of those upgrades. Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.

B	Low Interest Loans	Cascadia Consulting Group, Inc. Existing Building Energy Policy Analysis	$140,000	$1,150,000	$645,000	$80,625		2.9%	Med	The City, utilities, or private lenders could offer loans to property owners for pre-approved energy efficiency upgrades. Low interest rates could be guaranteed through volume or by City buy-down. The goal is to to provide capital for energy efficiency upgrades at a discounted rate. Initial Costs: Policy assessment: $20,000 - $50,000. The City would need to assess strategies for maximizing the effectiveness of a low interest loan program, educating a contractor/auditor network and addressing the split incentives between investors and energy end-users (e.g., between a landlord and tenant). Development of billing and collection process: $20,000 - $100,000. If the City manages the loan program in-house and intends to affix the loan to the property, then a repayment system would have to be arranged. Initial or Annual Costs (depending on structure of financing): City investment: $100,000-$1,000,000. This investment is wholly dependent on how much the City intends to subsidize interest rates.
C	Energy Efficiency Mortgages	Cascadia Consulting Group, Inc. Existing Building Energy Policy Analysis	$20,000	$150,000	$85,000	$10,625		0.4%	Low	Energy Efficiency Mortgages can provide owners additional financing (whether at time-of-sale or upon refinancing) for energy efficiency improvements at discounted interest rates. Energy efficiency upgrades could be chosen that would allow owners to realize a net monthly savings. The goal is to provide capital for energy efficiency upgrades at a discounted interest rate. Initial Costs: Partner development: $20,000 – $50,000. Costs to the City would generally be low because these products would be administered through private lenders, but the City would need to devote some financial resources to assisting with partner recruiting. Technology upgrades: $0 – $100,000. Depending on the City's role in administration, there may be costs incurred in development of a database to track and verify energy efficiency upgrades in participating properties.
D	Revolving Loan from Bond Sale	Cascadia Consulting Group, Inc. Existing Building Energy Policy Analysis	$60,000	$150,000	$105,000	$13,125		0.5%	Low	Energy savings could be financed through a (potentially tax-exempt) municipal bond issue. The City would administer a revolving loan fund with the bond proceeds. The goal is to provide capital for energy efficiency upgrades at the lowest cost of capital possible. Initial Costs: Policy assessment: $40,000 - $100,000. Further research would be needed to consider whether the City's internal funds would be a better (less expensive, more flexible) option than bonds. Technology upgrades: $20,000 - $50,000. Depending on the repayment mechanism and administrative system chosen by the City, some costs would be incurred for establishing a tracking system to manage the loan fund that results from the revenue bond issue.
E	Energy Efficient Local Improvement District	Cascadia Consulting Group, Inc. Existing Building Energy Policy Analysis	$150,000	$500,000	$325,000	$40,625		1.5%	Med	Monitoring and enforcement cost: Implementation costs to the City are largely dependent on the capacity of the City for policy administration and enforcement. Additional staff training would need to take place to ensure officials fully understand the code requirements. Additional staff may also be required in order to meet the increased administration and implementation workload, particularly in the period immediately prior to and following the code's implementation. While implementation costs are likely to be high, once introduced, ongoing policy development costs to the City are likely to be manageable as updates would be conducted in line with the City's existing cyclic code review process. Initial Costs: Cost of Adopting an Ordinance + Training City Staff to administer program/process applications: ~$10,000 - possible additional education and outreach related expenses. Annual Costs: Monitoring and enforcement cost: ~$10,000 + possible additional staff
BE-2.3	Enforce California Green Building Code energy efficiency standards for residential remodels and renovations	EDAW Seattle Green Building Policy Analysis			$20,000	$2,000		0.1%	Low	Monitoring and enforcement cost: Implementation costs to the City are largely dependent on the capacity of the City for policy administration and enforcement. Additional staff training would need to take place to ensure officials fully understand the code requirements. Additional staff may also be required in order to meet the increased administration and implementation workload, particularly in the period immediately prior to and following the code's implementation. While implementation costs are likely to be high, once introduced, ongoing policy development costs to the City are likely to be manageable as updates would be conducted in line with the City's existing cyclic code review process. Initial Costs: Cost of Adopting an Ordinance + Training City Staff to administer program/process applications: ~$10,000 - possible additional education and outreach related expenses. Annual Costs: Monitoring and enforcement cost: ~$10,000 + possible additional staff
BE-2.4	Develop, implement, and incentivize performance-based point-of-sale energy and water efficiency upgrade requirements					$11,111		0.4%	Low	Cost of developing ordinance; ENERGY STAR for Homes, BOMA Energy Performance Contract. Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
BE-2.5	Identify and implement opportunities to improve efficiency improvements in rental units	EDAW	$300,000	$300,000	$300,000 (for 14 strategies)	$2,679		0.1%	Low	If advertising PG&E, this could be included in the marketing costs or could be assumed to be staff time to coordinate with major landlords. $75,000 per campaign (3-4 strategies per campaign) for strategies-related to marketing. Assume 4 advertising campaigns would take place for the CAP = $300,000 for all 14 strategies
BE-2.6	Partner with PG&E to provide public education campaign that encourages residential energy efficiency improvements					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.

Objective BE-3: Retrofit existing commercial buildings

Measure	Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
BE-3.1	Incentivize businesses to participate in free building energy audit programs and encourage implementation of audit findings.	EDAW	$300,000	$300,000	$300,000 (for 14 strategies)	$2,679		0.1%	Low	Assume many marketing/education-related strategies could be addressed concurrently. EDAW community-outreach professionals recommend a high tech approach consisting of a video clip, newsletter, and website activity. $75,000 per campaign (3-4 strategies per campaign) for strategies-related to marketing. Assume 4 advertising campaigns would take place for the CAP = $300,000 for all 14 strategies

BE-3.2	Identify and develop financial incentives and low-cost financing products and programs to encourage investment in energy efficiency and renewable energy for existing commercial buildings.	See below	See below	See below	See below	See below	See below	See below	See below	_
A	On-bill financing	Cascadia Consulting Group, Inc. Existing Building Energy Policy Analysis				$11,111		0.4%	Low	City could coordinate with PG&E to facilitate the repayment of loans for efficiency upgrades on utility bills. Upgrades would be selected by the building owner (in coordination with the City) such that the efficiency savings would pay for the investment over a fixed period of time. Customers would "share" monthly energy efficiency savings with the utility until the loan is paid back, at which point all savings would be reflected in lower monthly bills. Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP. The goal is to simplify loan repayment and (in combination with a funding source) reduce upfront cash outlay by property owners. In addition, some models of on-bill financing would allow for the loan to remain with the property (even if sold by the current owner), thereby sharing the cost of upgrades over time with future beneficiaries of those upgrades.
B	Low Interest Loans	Cascadia Consulting Group, Inc. Existing Building Energy Policy Analysis	$140,000	$1,150,000	$645,000	$80,625		2.9%	Med	The City, utilities, or private lenders could offer loans to property owners for pre-approved energy efficiency upgrades. Low interest rates could be guaranteed through volume or by utility buy-down. The goal is to to provide capital for energy efficiency upgrades at a discounted rate. Initial Costs: Policy assessment: $20,000 - $50,000. The City would need to assess strategies for maximizing the effectiveness of a low interest loan program, educating a contractor/auditor network and addressing the split incentives between investors and energy end-users (e.g., between a landlord and tenant). Development of billing and collection process: $20,000 - $100,000. If the City manages the loan program in-house and intends to affix the loan to the property, then a repayment system would have to be arranged. Initial or Annual Costs (depending on structure of financing): City investment: $100,000-$1,000,000. This investment is wholly dependent on how much the City intends to subsidize interest rates.
C	Revolving Loan from Bond Sale	Cascadia Consulting Group, Inc. Existing Building Energy Policy Analysis	$60,000	$150,000	$105,000	$13,125		0.5%	Low	Energy savings could be financed through a (potentially tax-exempt) municipal bond issue. The City would administer a revolving loan fund with the bond proceeds. The goal is to provide capital for energy efficiency upgrades at the lowest cost of capital possible. Initial Costs: Policy assessment: $40,000 - $100,000. Further research would be needed to consider whether the City's internal funds would be a better (less expensive, more flexible) option than bonds. Technology upgrades: $20,000 - $50,000. Depending on the repayment mechanism and administrative system chosen by the City, some costs would be incurred for establishing a tracking system to manage the loan fund that results from the revenue bond issue.
BE-3.3	Require lighting system upgrades to employ high efficiency technology within commercial and industrial remodels, renovations or tenant improvements for commercial and industrial buildings					$11,111		0.4%	Low	Ammend City of Albany Green Building Standards of Compliance to require use of ENERGY STAR certified lighting products, including stipulation for compliance from major renovations and tenant improvements; Encourage participation in PG&E's Residential Lighting Incentive Program. Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
BE-3.4	Encourage existing non-residential buildings to install ENERGY STAR-rated cool roof materials	EDAW	$300,000	$300,000	$300,000 (for 14 strategies)	$2,679		0.1%	Low	Assume many marketing/education-related strategies could be addressed concurrently. EDAW community-outreach professionals recommend a high tech approach consisting of a video clip, newsletter, and website activity. $75,000 per campaign (3-4 strategies per campaign) for strategies-related to marketing. Assume 4 advertising campaigns would take place for the CAP = $300,000 for all 14 strategies
BE-3.5	Partner with PG&E to provide a business education program that encourages commercial energy efficiency improvements	EDAW	$300,000	$300,000	$300,000 (for 14 strategies)	$2,679		0.1%	Low	Assume many marketing/education-related strategies could beaddressed concurrently. EDAW community-outreach professionals recommend a high tech approach consisting of a video clip, newsletter, and website activity. $75,000 per campaign (3-4 strategies per campaign) for strategies-related to marketing. Assume 4 advertising campaigns would take place for the CAP = $300,000 for all 14 strategies

Objective BE-4: Require Energy Performance in New Construction

Measure	Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
BE-4.1	Ensure compliance with California Green Building Code Standards	EDAW Seattle Green Building Policy Analysis			$11,111		0.4%	Low	Monitoring and enforcement cost: Implementation costs to the City are largely dependent on the capacity of the City for policy administration and enforcement. Additional staff training would need to take place to ensure officials fully understand the code requirements. Additional staff may also be required in order to meet the increased administration and implementation workload, particularly in the period immediately prior to and following the code's implementation. While implementation costs are likely to be high, once introduced, ongoing policy development costs to the City are likely to be manageable as updates would be conducted in line with the City's existing cyclic code review process. Initial Costs: Cost of Adopting an Ordinance + Training City Staff to administer program/process applications. Possible additional education and outreach related expenses. Annual Costs: Administrative, monitoring, and enforcement cost low to none, depending on availability of existing staff. Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.

BE-4.2	Require roofing and street, parking lot, and sidewalk paving to use materials with an albedo of 0.3 (30 percent) or greater					$11,111		0.4%	Low	Amend City of Albany Green Building Standards of Compliance to mandate LEED 2.2 - New Construction Credit SS 7.1 and 8.2: Heat Island Effect: Non-Roof for commercial construction or equivalent in GreenPoint system for residential construction. Initial Costs: Cost of Adopting an Ordinance + Training City Staff to administer program/process applications. Possible additional education and outreach related expenses. Annual Costs: Administrative, monitoring, and enforcement cost low to none, depending on availability of existing staff. Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
BE-4.3	Provide incentives, such as priority permitting for buildings that exceed the City's minimum green building requirements	EDAW Seattle Green Building Policy Analysis						0.0%	Low	Priority permitting creates an incentive for developers to incorporate green building practices and/or achieve specified energy efficiency objectives by giving greater assistance and facilitation through the permitting process for qualified projects. Assume to be no cost to City if priority permitting only includes expedited permitting.
BE-4.4	Require solar orientation, daylighting and natural ventilation in new construction when feasible					$11,111		0.4%	Low	Amend City of Albany Green Building Standards of Compliance to mandate LEED 2.2 - New Construction Credits EQ 8.1 and 8.2: Daylighting and Views for commercial construction or equivalent in GreenPoint system for residential construction. Initial Costs: Cost of Adopting an Ordinance + Training City Staff to administer program/process applications. Possible additional education and outreach related expenses. Annual Costs: Administrative, monitoring, and enforcement cost low to none, depending on availability of existing staff. Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
BE-4.5	Require that all new multi-tenant buildings be sub-metered to allow each tenant the ability to monitor their own energy and water consumption					$11,111		0.4%	Low	Initial Costs: Cost of Adopting an Ordinance + Training City Staff to administer program/process applications. Possible additional education and outreach related expenses. Annual Costs: Administrative, monitoring, and enforcement cost low to none, depending on availability of existing staff. Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.

Objective BE-5: Maximize use of renewable energy

	Measure	Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
BE-5.1	Develop comprehensive renewable energy financing and informational program for residential and commercial uses					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
BE-5.2	Identify and facilitate solar energy empowerment districts in commercial, industrial, mixed-use portions of City					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP. Also assumes most businesses will take advantage of PPAs (lease) and will not purchase solar
BE-5.3	Join Bay Area efforts to ensure green public transit energy sourcing					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.

Objective BE-6: Community energy management

	Measure	Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
BE-6.1	Evaluate potential of district heating and cooling infrastructure within the City and create implementation plan for cost-effective systems	EDAW	$40,000	$100,000	$70,000	$8,750		0.3%	Low	Consultant Fees. $40,000 for a examining a particular small district within Albany. Up to $100,000 for a larger study area.
BE-6.2	Partner with other neighboring Cities and PG&E to fast-track "Smart Grid" integration in City.					$11,111		0.4%	Low	California Public Utility Commission agreed to allow PG&E to charge ratepayers for an additional $467 million to bring 10 million gas and electric meters with two-way communications capabilities to its customers by 2011. Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
A	Require use of smart meters and smart appliances in new commercial and residential construction and major renovations when technology becomes available					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
BE-6.3	Work with County to convert all street lights to LED bulbs or LED-Solar systems	Report by Energy Solutions (Dec. 2008). "LED Street Lighting. Host Site: San Francisco, California."	Assume cost is to County	Assume cost is to County	Assume cost is to County	Assume cost is to County		0.0%	Low	Assume County would pay for all of costs, as LED/solar lights should save the County money in the long-term. $410 - $825 per light (inc. installation). City has 355 street lights.
BE-6.4	Require all new development to install LED or LED solar systems.					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
BE-6.5	Encourage utility providers (PG&E and EBMUD) to provide comparative energy and water conservation metrics on utility bills					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
BE-6.6	Join the Community Choice Aggregation efforts of Berkeley, Oakland, and Emeryville					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.

Waste and Water Strategy - *Minimize waste and celebrate water as a essential community resource*

Objective WW-1: Become a zero waste community

	Measure	Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes

WW-1.1	Establish 90% waste reduction target for 2030 and work with Alameda County, neighboring cities, Ecology Center and other organizations to leverage zero waste effort and provide public education regarding zero waste strategies					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
WW-1.2	Implement paperless office policies in all feasible City operations					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
WW-1.3	Partner with the City of Berkeley on the creation of a food industries grease- to-biodiesel recycling program					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.

Objective WW-2: Conserve water resources

Measure		Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
WW-2.1	Encourage residential and commercial users to participate in EBMUD free water audit program and provide incentives for implementation of appropriate water conservation improvements	EDAW	$300,000	$300,000	$300,000 (for 14 strategies)	$2,679		0.1%	Low	Assume many marketing/education-related strategies could be addressed concurrently. EDAW community-outreach professionals recommend a high tech approach consisting of a video clip, newsletter, and website activity. $75,000 per campaign (3-4 strategies per campaign) for strategies-related to marketing. Assume 4 advertising campaigns would take place for the CAP = $300,000 for all 14 strategies
WW-2.2	Enforce California Green Building Code water efficiency standards for residential and commercial remodels and renovations.	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	–
WW-2.3	Require low-flow irrigation systems in all new or renovated residential and commercial landscaping.	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	Not evaluated	–
WW-2.4	Encourage use of greywater and rainwater collection in residential and commercial uses. Require rainwater collection in new construction.	EDAW	$300,000	$300,000	$300,000 (for 14 strategies)	$2,679		0.1%	Low	Assume many marketing/education-related strategies could be addressed concurrently. EDAW community-outreach professionals recommend a high tech approach consisting of a video clip, newsletter, and website activity. $75,000 per campaign (3-4 strategies per campaign) for strategies-related to marketing. Assume 4 advertising campaigns would take place for the CAP = $300,000 for all 14 strategies
WW-2.5	Develop a climate station and web-based irrigation control service for both City and private use	City of Mountain View				$11,111		0.4%	Low	Assume State will construct the weather station (CIMIS). Cost to City will be coordination time and outreach/marketing. [If interested in personal irrigation control, there are numerous Self-Adjusting Irrigation Controller systems available. EBMUD offers rebates for self-adjusting irrigation controllers to customers who use more than 250 gallons per day of summer irrigation. The rebates are for $100, $250, $350, and $500, and depend on past water consumption. WeatherTRAK Smart Irrigation Controller costs between $500 - $2500 for hardware + $50 - $225 annual fee for subscription service.]
WW-2.6	Partner with EBMUD to provide water conservation outreach programs	EDAW	$300,000	$300,000	$300,000 (for 14 strategies)	$2,679		0.1%	Low	Assume many marketing/education-related strategies could be addressed concurrently. EDAW community-outreach professionals recommend a high tech approach consisting of a video clip, newsletter, and website activity. $75,000 per campaign (3-4 strategies per campaign) for strategies-related to marketing. Assume 4 advertising campaigns would take place for the CAP = $300,000 for all 14 strategies

Green Infrastructure Strategy - Conserve, create, and enhance natural assets that improve community quality of life.

Objective GI-1: Utilize natural stormwater management systems

Measure		Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
GI-1.1	Establish communitywide water sensitive urban design strategies that would include the following:	See below	See below	See below	See below	See below	See below	See below	See below	–
A	Require "low-impact development" practices in all new construction					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
B	Incentivize "low-impact development" retrofits in existing residential and commercial uses	EDAW	$300,000	$300,000	$300,000 (for 14 strategies)	$2,679		0.1%	Low	Assume many marketing/education-related strategies could be addressed concurrently. EDAW community-outreach professionals recommend a high tech approach consisting of a video clip, newsletter, and website activity. $75,000 per campaign (3-4 strategies per campaign) for strategies-related to marketing. Assume 4 advertising campaigns would take place for the CAP = $300,000 for all 14 strategies
C	Develop green streets retrofit program for City streets	EDAW, San Francisco Public Utilities Commission Urban Watershed Planning Charrette LID Toolkit	$5,200,000	$8,500,000	$6,850,000	$856,250	4.6%		Med	Assume this includes pervious pavement and bioretention swales. Based on SSMP LID analysis, permeable pavement costs are $10/ft2, assume additional $5/ft2 for underdrain. Based on cost of bioretention cells for municipal or commercial installation which typically ranges from $10 - $40 per square foot (CASQA 2003). Typically, 4% of roadway (sq ft) is required for bioretention. Assume 10% of roadway could be used for permeable pavement. Assume avg street width = 36 ft. Albany linear feet of street (main streets) = approx. 75,700 ft.
D	Facilitate and encourage the integration of green roofs into new construction or major remodels	EDAW	$300,000	$300,000	$300,000 (for 14 strategies)	$2,679		0.1%	Low	Assume many marketing/education-related strategies could be addressed concurrently. EDAW community-outreach professionals recommend a high tech approach consisting of a video clip, newsletter, and website activity. $75,000 per campaign (3-4 strategies per campaign) for strategies-related to marketing. Assume 4 advertising campaigns would take place for the CAP = $300,000 for all 14 strategies

Objective GI-2: Expand and enhance urban forestry

Measure		Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most activities)	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes

GI-2.1	Enhance street tree program to reduce urban heat island effect and provide carbon sequestration	City of Albany			$200,000	$20,000.00		0.7%	Low	Urban Forest Dept stated that the City would approach "plant-out" in approx. 10 years with an additional 5,000 trees. Estimated that this would require an additional $20,000 per year to purchase/plant trees/expand urban forest program.
GI-2.2	Evaluate the potential for carbon sequestration in urban forest and natural areas within City	EDAW	$4,000	$120,000	$62,000	$7,750		0.3%	Low	A cursory analysis and recommendations: $4,000-$10,000. If City is interested in certification with Climate Action Registry, this would require an urban forest inventory or a remote sensing study ($10K - $90k) plus $10,000 -$30,000 of analysis

Objective GI-3: Increase and enhance urban green space, including urban farm area

Measure		Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
GI-3.1	Expand community garden program to increase local food security and provide local recreation amenity	Urban Harvest	$2,600	$20,000	$11,300	$1,413		0.1%	Low	Assuming land is dedicated, new garden could be built for $1,000 - $4,000 + annual maintenance costs with volunteer labor. Potential additional cost higher depending on on-site facilities (assumed $20,000)
GI-3.2	Encourage UC Berkeley to create urban farm at Gill Tract					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
GI-3.3	Ensure that well-designed green space is provided within 1/4 mile of higher density transit-oriented development					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.

Sea Level Rise Strategy - Adapt to the reality of sea level rise

Objective SLR-1: Protect community from sea level rise

Measure		Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
SLR-1.1	Work with BCDC and other agencies to create Sea Level Rise Risk Assessment and Strategic Plan that would: a) identify areas at risk of sea level rise and significant structural, environmental, aesthetic, social, cultural and historic resources that must be protected from inundation; b) identify areas that are inappropriate for protection from inundation; c) identify areas that are most suitable for ecological restoration; d) identify strategies that will make future projects more resilient to sea level rise	EDAW			$250,000	$31,250		1.1%	Med	Consultant fees. Consultant fee estimate from EDAW ($250,000). Assumes reconnaissance level work and above grade assessment only. These costs could be appended to General Plan Update.
SLR-1.2	Use areas at risk of sea level rise inundation as open space assets					$11,111		0.4%	Low	Assume City will hire one green building/sustainability professional at ($80K + benefits/overhead = $200,000) who will be responsible for implementing all strategies related to the CAP.
SLR-1.3	Develop community education and outreach program regarding sea level rise	EDAW	$300,000	$300,000	$300,000 (for 14 strategies)	$2,679		0.1%	Low	Assume many marketing/education-related strategies could be addressed concurrently. EDAW community-outreach professionals recommend a high tech approach consisting of a video clip, newsletter, and website activity. $75,000 per campaign (3-4 strategies per campaign) for strategies-related to marketing. Assume 4 advertising campaigns would take place for the CAP = $300,000 for all 14 strategies

Objective SLR-2: Facilitate ecosystem adaptation to sea level rise

Measure		Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
SLR-2.1	Develop shoreline open space management plan for areas subject to sea level rise inundation (including the Bulb and other shoreline areas) in order to facilitate ecosystem protection and recreational goals of the community, region, and state.	EDAW	$300,000	$1,000,000	$650,000	$81,250		3.0%	Med	Can vary from $300,000 to $1 million.

Economic Development Strategy - *Create community prosperity by embracing the opportunities within today's challenges*

Objective ED-1: Develop awareness of climate change in within the business community

Measure		Data Source	Low Cost	High Cost	Average Cost	Avg Annual Cost (assume 2012 start date for most	Percent of CIP 2008/09	Percent of Comm Dev 2008/09 Operating Budget Expenditures	Simplified Cost (If less than 1% = low, 1% - 5% = med, greater than 5% = high)	Cost Notes
ED-1.1	Increase commercial development opportunities within City to improve jobs-housing balance	EDAW	$800,000	$800,000	$266,667	$33,333		1.2%	Med	Assumed to be part of the General Plan Update. EDAW estimate of consultant fee for GP update: $800,000
ED-1.2	Establish workshops to educate businesses about effects of climate change and climate change policies on their business	EDAW	$300,000	$300,000	$300,000 (for 14 strategies)	$2,679		0.1%	Low	Assume many marketing/education-related strategies could be addressed concurrently. EDAW community-outreach professionals recommend a high tech approach consisting of a video clip, newsletter, and website activity. $75,000 per campaign (3-4 strategies per campaign) for strategies-related to marketing. Assume 4 advertising campaigns would take place for the CAP = $300,000 for all 14 strategies