CITY OF MILPITAS

455 EAST CALAVERAS BOULEVARD, MILPITAS, CALIFORNIA 95035-5479 • www.ci.milpitas.ca.gov

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September 6, 2011

DRAFT

Ann Flemer
Deputy Executive Director, Policy
Metropolitan Transportation Commission
101 Eighth Street
Oakland, CA 94607

RE: OneBayArea Grant Proposal

Dear Ms. Flemer:

On behalf of the Milpitas City Council I would like to thank you and your staff for the continued outreach to cities when drafting new policies for consideration by the Metropolitan Transportation Commission. One of the clear benefits from the passage of SB 375 has been the increased coordination of land use and transportation issues between regional and local governments.

Bay Area cities are tackling the most severe financial crisis we have ever faced, and our need for dedicated transportation funds supporting pavement rehabilitation and preventive maintenance is more critical than ever. Your staff's proposal to redistribute future transportation funding from the Local Streets and Roads Shortfall (LSRS) Program into the proposed OneBayArea Grant is poorly timed and will have significant fiscal impacts on local governments. Cities have historically received federal Surface Transportation Program funds through MTC's LSRS Program by an approved allocation formula based primarily on population and local road lane miles.

Under the OneBayArea Grant proposal, local governments would be required to compete with other cities for pavement rehabilitation and preventative maintenance funds, be required to find funds for a local match to the new grant, and have limitations on where the funds could be used (70% within Priority Development Areas). The local Congestion Management Agencies would be directed to not award OneBayArea Grant funds to cities that do not have a certified general plan housing element.

The City of Milpitas has been very supportive of the investment in transit systems serving Santa Clara County and the Bay Area through its adoption of a Priority Development Area (PDA) and the Transit Area Specific Plan. The City took these actions to transform an older industrial area into attractive and livable transit-orientated neighborhoods that can accommodate over 7,000 new households surrounding two light rail stations and the future BART station. The local roads within the PDA will be rehabilitated and/or created as new development occurs in the Transit Area. However many of the existing local roads outside the PDA will be heavily used by residents to access local schools, regional shopping centers, and job centers not located along transit corridors. Milpitas' largest need for preventative pavement maintenance is outside of our PDA. Local agencies know their streets and need the flexibility to make the best overall use of limited pavement restoration funds to maintain high pavement condition indices throughout their entire jurisdictions. This is in complete conformance with MTC's pavement management policy that encourages cities to make informed and timely decisions to prevent pavement problems through judicious maintenance in a cost-effective manner.

On behalf of the City of Milpitas, I respectfully request that your proposal for the OneBayArea Grant exclude LSRS funds and that the allocation of those funds to remains unchanged. If you have any questions please contact James Lindsay, Planning & Neighborhood Services Director, (408) 586-3273 or Greg Armendariz, City Engineer / Public Works Director, (408) 586-3317.

Sincerely

Jose S. Esteves
Mayor, City of Milpitas

TO: MTC Planning Committee /
ABAG Administrative Committee

DATE: July 8, 2011

FR: Deputy Executive Director, Policy, MTC
Executive Director, ABAG

RE: OneBayArea Grant — Cycle 2 STP/CMAQ Funding

Staff recommends the initial release of the OneBayArea Grant proposal as outlined in this memorandum for public review and discussion.

Federal Transportation Funding and Program Policies (Attachment A)
Approximately every six years, U.S. Congress enacts a surface transportation act. The current act (SAFETEA) originally scheduled to expire on September 30, 2009 is still in effect through several legislative extensions. The funding provided to our area through this legislation includes Surface Transportation Program (STP) and Congestion Mitigation and Air Quality (CMAQ) funds.

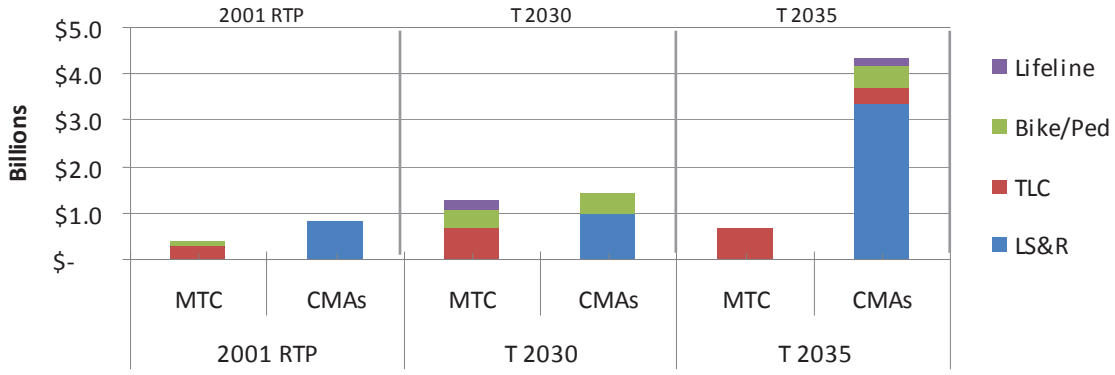
In December 2009 the Commission adopted an overall framework directing how approximately $1.4 billion in STP and CMAQ funds were to be allocated over the following six years (2010-2015). The first three years (Cycle 1) of this period were committed to projects and programs and the overall framework provided policy direction for the second three years (Cycle 2).

Staff proposes an alternative to the current Cycle 2 framework that better integrates the region's federal transportation program with land-use and housing policies by providing incentives for the production of housing with supportive transportation investments. Attachment A summarizes this framework and proposal for Cycle 2.

OneBayArea Grant Program
As shown in the chart below, over time the county congestion management agencies (CMAs) have been given increased responsibility for project selection for an increasing share of funding coming to the region.

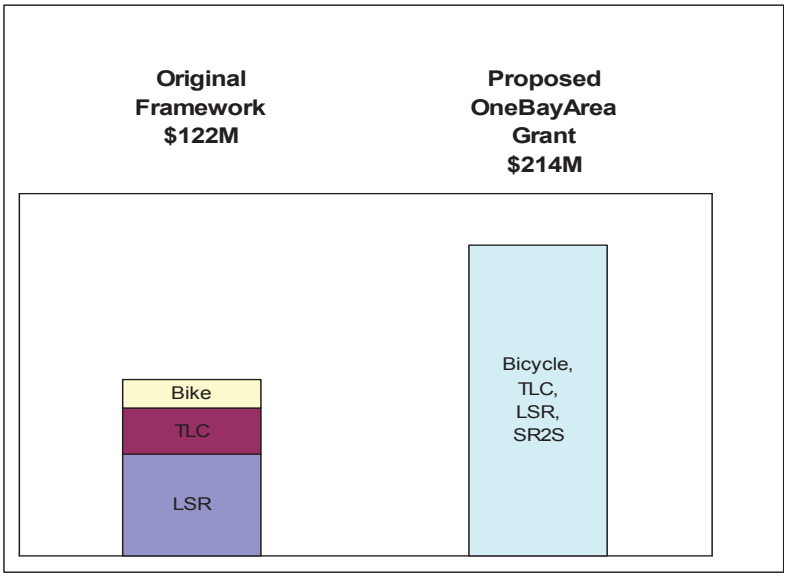
Program and Project Selection Evolves over Past Two Decades

Past Long Range Plan Discretionary Funding Assignments



For Cycle 2, staff proposes to continue this trend by shifting a larger portion of discretionary federal funding to local jurisdictions for taking on a larger share of the region's housing production. Further, additional flexibility is proposed for CMAs to address their respective transportation needs. Specifically, the proposal would:

- Shift more Funding to Locally Managed OneBayArea Grant Program: Dedicate $214 million or roughly 40% of the Cycle 2 funding program to a new OneBayArea Grant. The funding for the OneBayArea Grant is the result of merging many of the programs in the Cycle 2 framework into a single flexible grant program and is roughly a 70% increase in the funding distributed to the counties as compared to the Cycle 2 framework adopted by the Commission. By comparison, the status quo approach for Cycle 2 would result in 22% going to County Congestion Management Agency (CMA) programs down from 30% in Cycle 1
- Add Flexibility by Eliminating Program Categories: The One Bay Grant proposal provides additional flexibility under Cycle 2 by eliminating required program categories and combining funding for TLC, Bicycle, Local Streets and Roads Rehabilitation, and Safe Routes to School. See figure illustrating this change on the following page. Project selection will be limited to a degree by the project eligibility limitations of CMAQ which will make up approximately half of the funds that each county will receive.



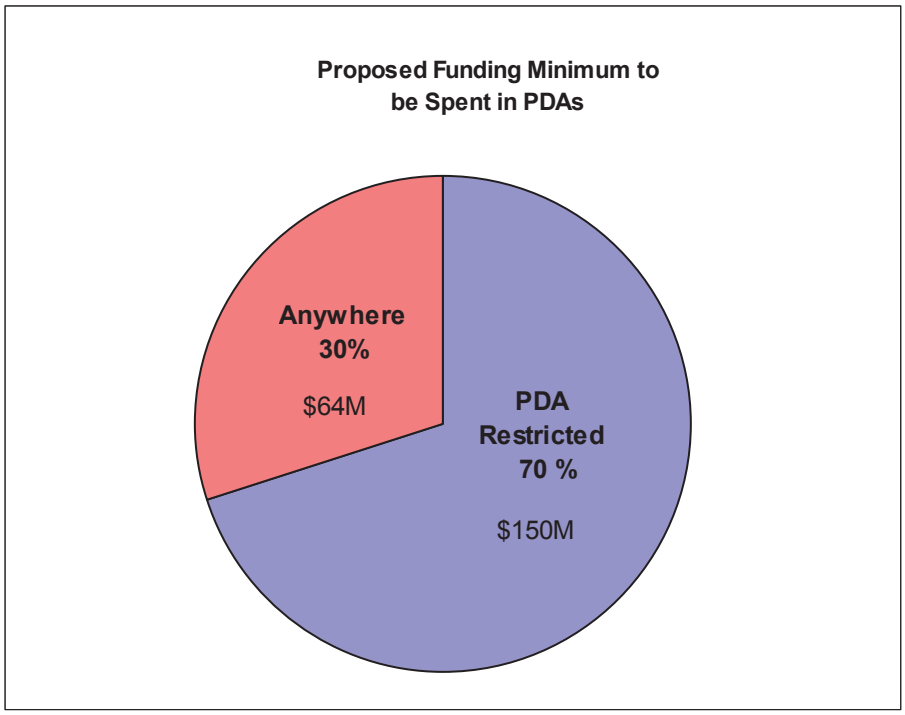
- Leverage Outside Funds to Grow Program and Meet More Objectives: Additional opportunities could be sought through other regional programs, other non-federal sources for affordable housing, and other local funds to augment program objectives. As a start, the Air District proposes $6 million from its Regional Transportation for Clean Air (TFCA) Program. TFCA eligibility considerations will be guiding the use of these funds in the overall program.
- Continue Key Regional Programs: The remaining funding is targeted to continue regional programs such as Regional Operations, Freeway Performance Initiative, and Transit Capital Rehabilitation. Refer to Attachment A-2 for a description of these regional programs.
- Establish a Priority Conservation Area Planning Program: This new $2 million program element will provide financial incentives for counties with populations under 500,000 for preservation of resource area and farmland, as defined in California Government Code Section 65080.01.

Distribution Formula for the OneBayArea Grant (Attachments B, C, D)
Staff proposes a distribution formula for OneBayArea Grant funding (Attachment B) that includes housing incentives to support the SCS and promote effective transportation investments that support focused development. In order to ease the transition to this new funding approach, staff is also recommending a 50% population share factor in the formula:

1. Formula to Counties: The proposed distribution formula to the counties includes three components: 50% population, 25% Regional Housing Needs Allocation (RHNA) for 2007-2014, and 25% actual housing production. This approach provides incentives for both future housing commitments and actual housing production. The fund distribution will be refined using the new RHNA to be adopted by ABAG next spring along with the SCS. The new RHNA being developed, which covers years 2015-2022, places a greater emphasis on city centered growth. As a result, refinements are likely to result in modest

revisions to the funding distribution consistent with these revised development patterns. The proposed OneBayArea Grant formula also uses actual housing data from 1999-2006, and has been capped such that each jurisdiction receives credit for housing up to its RHNA allocation. Subsequent funding cycles would rely on housing production from ABAG's next housing report to be published in 2013.

2. Priority Development Area (PDA) Minimum: Require that at least 70% of funding be spent on projects in Priority Development Areas (planned, potential and growth opportunity areas). Growth opportunity areas are tentatively considered as PDAs until ABAG completes final PDA designations next fall. See Attachment C for PDA program minimums for each county and Attachment D for a map and a list of the PDAs.



The OneBayArea Grant supports Priority Development Areas while providing flexibility to fund transportation needs in other areas.

Performance and Accountability

As noted at the outset, housing allocation according to RHNA and housing production will be the primary metric for distributing the OneBayArea Grant funding. In addition, staff recommends the following performance and accountability requirements.

1. Supportive Local Transportation and Land-Use Policies: Staff recommends that local agencies be required to have at least two of the following four policies adopted in order to be eligible for grant funds:

    a) Parking/pricing policies (e.g. cash out, peak pricing, on-street/off street pricing differentials, eliminate parking minimums, unbundled parking) and adopted city and/or countywide employer trip reduction ordinances
    b) Adopted Community Risk Reduction Plans (CRRP) per CEQA guidelines
    c) Have affordable housing policies in place or policies that ensure that new development projects do not displace low income housing

d) Adopted bicycle/pedestrian plan and complete streets policy in general plans pursuant to Complete Streets Act of 2008

2. Approved Housing Element: Also, a HCD-approved housing element consistent with RHNA/SB375 law is a proposed condition for any jurisdiction receiving Cycle 2 OneBayArea grants. This may be met as follows: 1) adoption of a housing element that meets the current RHNA before the new RHNA is adopted, or 2) the adoption of a housing element that meets the new RHNA after its approval early in 2012. Jurisdictions have 18 months after the adoption of the SCS to meet the new RHNA; therefore, compliance is expected and required by September 2014. Any jurisdiction failing to meet either one of these deadlines will not be allowed to receive grant funding. Lastly any jurisdiction without adopted housing elements addressing the new RHNA by September 2014 will be ineligible to receive any funding after Cycle 2 until they have adopted a housing element.

Implementation Issues

Below are issues to be addressed as we further develop the OneBayArea Grant concept:

1. Federal Authorization Uncertainty: We will need to closely monitor development of the new federal surface transportation authorization. New federal programs, their eligibility rules, and how money is distributed could potentially impact the implementation of the OneBayArea Grant Program as proposed.
2. Revenue Estimates: Staff assumes a steady but modest nominal revenue growth rate of 4% annually. Given the mood of Congress to downsize federal programs, these estimates are potentially overly optimistic if there are significant reductions in STP / CMAQ apportionments over the Cycle 2 time period. Staff recommends continuing to move forward with the conservative revenue assumptions and make adjustments later if needed.

Preliminary Timeline and Next Steps

Staff recommends the Committees release the OneBayArea Grant proposal for public review. Staff will seek feedback from stakeholder and technical working groups over the next several months. The preliminary timeline for development and approval of the OneBay Area Grant is shown on the next page.

July – Sept. 2011	▪ The Joint MTC Planning Committee / ABAG Administrative Committee release of OneBay Area Grant proposal for public review ▪ *ABAG releases preliminary draft concepts for RHNA methodology* ▪ Working Group Discussions of Cycle 2/OneBay Area Grant approach
Fall 2011	▪ Follow-up Committee Presentation of OneBayArea Grant and Cycle 2 approach ▪ *ABAG releases draft RHNA methodology*
December 2011	▪ *Adoption of Cycle 2 approach based on draft RHNA methodology* ▪ *MTC/ABAG releases draft Preferred SCS* ▪ Commission adoption of Cycle 2 funding commitments for MTC Regional Programs
February 2012	▪ *MTC/ABAG approves draft preferred SCS*
March 2012	▪ Commission adoption of Cycle 2/OneBay Area Grant with Final RHNA
April 2012 – Feb. 2013	▪ CMA Project Selection Process
April 2013	▪ Final SCS adopted

Ann Flemer

Ezra Rapport

Attachments

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Attachment A

OneBayArea Grant Proposal

New Act STP / CMAQ Cycle 2 Draft Funding Proposal

June 22, 2011

(amounts in millions $)

Funding Available: Cycle 1: $466M (after $54M Carryover) Cycle 2: $548M Air District: $6M	Existing Framework				Cycle 2 One Bay Area		Cycle 2 Total
	Cycle 1		Cycle 2 Status Quo				
	MTC	CMA Block Grant	MTC	CMA Grant	MTC	One Bay Area Grant*	
1 Regional Planning *	23		26		5	21	26
2 Regional Operations	84	0	74	0	74	0	74
3 Freeway Performance Initiative (FPI)	51	0	66	0	66	0	66
4 Transit Capital Rehabilitation *	0	0	125	0	125	0	125
5 Local Streets and Roads Rehabilitation*	6	94	7	70	3	74	77
6 Climate Initiatives *	80		40		25	15	40
7 Regional Bicycle Program *	0	20	0	20	0	20	20
8 Transportation for Livable Communities (TLC) *	51	28	64	32	15	85	102
9 Transportation Oriented Development (TOD) Fund	10	0	0	0			
10 Priority Conservation Area Planning Pilot					2		
11 MTC Res 3814 Transit Payback Commitment	6	0	25	0	25	0	25
Total	324	142	426	122	340	214	554
	70%	30%	78%	22%	61%	39%	

Grant Totals:	Cycle 1 Block Grant		Cycle 2 Status Quo		Cycle 2 One Bay Area	
	142	30%	122	22%	214	39%

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* Air District funding of $6 million adds capacity to suppport OneBay Area Grant.

1) Regional Planning:

$21M ($7M per year) for CMA Planning to be distributed to CMAs through OneBayArea Grant.

4) Transit Capital Rehabilitation:

100% Transit Rehab assigned as Regional Transit Rehabilitation, as Transit is network based and regional

5) Local Streets and Roads Rehabilitation

$3M for a scaled back PTAP program

6) Climate Initiative:

$5M for SFGo in Regional. Eastern Solano CMAQ to Solano TA part of OneBayArea Grant.

7) Regional Bicycle Program:

$20M as CMAQ rather than TE as originally proposed in Framework

8) Transportation for Livable Communities (TLC)

TLC program eliminated - All TLC funds to OneBayArea grant

Attachment A-2: Regional Programs

Regional Planning to support planning activities in the region carried out by the Association of Bay Area Governments (ABAG), the San Francisco Bay Area Conservation and Development commission (BCDC), and MTC. CMAs would access their OneBayArea grant to fund planning activities.

Regional Operations: This program includes Clipper, 511, Incident Management and a scaled-back Pavement Technical Assistance Program (PTAP).

Freeway Performance Initiative This program emphasizes the delivery of ramp metering projects on the State Highway System throughout the Bay Area to gain the most efficiency out of the existing highway network.

Priority Conservation Area Planning: Staff is recommending a new pilot for the development priority conservation area (PCA) plans for counties with populations under 500,000 to ameliorate outward development expansion and maintain their rural character.

Transportation for the Livable Communities (TLC) and the Affordable Transportation Oriented Development (TOD) Housing Fund: The bulk of the TLC Program's funding will shift to the OneBayArea Grant. The remaining funds under MTC's management are proposed to continue station area planning and/or CEQA assistance to PDAs and support additional investments in affordable housing.

Climate Initiatives: The objective of the Climate Initiatives Program launched in Cycle 1 was to make short-term investments that reduce transportation-related emissions and vehicle miles traveled, and encourage the use of cleaner fuels. Through the innovative projects selected and evaluation process, the region is building its knowledge base for the most effective Bay Area strategies for the Sustainable Communities Strategy and next long-range plan. The proposed funding for the Cycle 2 Climate Initiative Program would allow some continuation of these efforts at the regional level and protect a prior commitment to the SFGo project.

Transit Capital Rehabilitation: The Commission deferred transit rehabilitation needs from Cycle 1 to Cycle 2 in order to allow more immediate delivery of some of the other programs. The program objective, as in the past, is to assist transit operators to fund major fleet replacements, fixed guideway rehabilitation and other high-scoring capital needs that cannot be accommodated within the FTA Transit Capital Priorities program.

MTC Resolution 3814 Transit Payback Commitment: Consistent with the Cycle 2 framework, MTC is proposing to program $25 million to Lifeline, small operators, and SamTrans right-of-way settlement to partially address a commitment originally envisioned to be met with state spillover funds.

Attachment B
PROPOSAL

OneBayArea Grant Distribution Formula
Cycle 2 (FYs 2013, 2014, 2015)

County	50%-25%-25% (Pop. RHNA - Housing Production Capped)	Status Quo Grant Program
Alameda	$43.0	$25.4
Contra Costa	$31.9	$16.6
Marin	$6.4	$5.0
Napa	$4.2	$2.9
San Francisco	$25.0	$11.8
San Mateo	$17.4	$11.1
Santa Clara	$56.1	$28.1
Solano	$14.0	$9.0
Sonoma	$16.0	$12.3
Bay Area Total	**$214.0**	**$122.1**

Difference From Status Quo Grant Program

County	50%-25%-25% (Pop. RHNA - Housing Production Capped)	Status Quo Grant Program
Alameda	$17.7	-
Contra Costa	$15.3	-
Marin	$1.5	-
Napa	$1.3	-
San Francisco	$13.2	-
San Mateo	$6.3	-
Santa Clara	$28.0	-
Solano	$5.0	-
Sonoma	$3.7	-
Bay Area Total	**$91.9**	**-**

% Change From Status Quo Grant Program

County	50%-25%-25% (Pop. RHNA - Housing Production Capped)	Status Quo Grant Program
Alameda	70%	-
Contra Costa	92%	-
Marin	29%	-
Napa	45%	-
San Francisco	112%	-
San Mateo	57%	-
Santa Clara	100%	-
Solano	55%	-
Sonoma	30%	-
Bay Area Total	**75%**	**-**

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Notes:

Status quo program based on framework for Cycle 2 adopted by the Commission and continuation of Cycle 1 county block grant policies.

RHNA is based on current 2007-20014 targets

Population data from Department of Finance, US Census 2010

Housing production 1999-2006 is capped at 1999-2006 RHNA thresholds

Attachment C

PROPOSAL

PDA Investments for the OneBayArea Grant

50%-25%-25% (Pop.- RHNA - Actual Housing Production Capped) Distribution

		Allocation Areas	
Apportionment Area	**County Grant Amount**	**PDA 70% Minimum**	**Anywhere in County**
Alameda	$43.0	$30.1	$12.9
Contra Costa	$31.9	$22.4	$9.6
Marin	$6.4	$4.5	$1.9
Napa	$4.2	$2.9	$1.3
San Francisco	$25.0	$17.5	$7.5
San Mateo	$17.4	$12.2	$5.2
Santa Clara	$56.1	$39.3	$16.8
Solano	$14.0	$9.8	$4.2
Sonoma	$16.0	$11.2	$4.8
Regional Total	$214.0	$149.8	$64.2

RESOLUTION NO. 7729

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MILPITAS APPPROVING THE SUBMISSION OF THE AREA SURROUNDING GREAT MALL AND MONTAGUE LIGHT RAIL STATIONS AND FUTURE BART STATION AS A FOCUS PRIORITY DEVELOPMENT AREA

WHEREAS, the Association of Bay Area Governments and the Metropolitan Transportation Commission in coordination with the Bay Area Air Quality Management District and Bay Conservation and Development Commission (collectively, the "Regional Agencies") are undertaking a regional planning initiative called FOCUS; and

WHEREAS, FOCUS program goals support a future regional development pattern that is compact and connected; and

WHEREAS, the regional agencies seek local government partners to create a specific and shared concept of where growth can be accommodated (Priority Development Area) and what areas need protection (Priority Conservation Area) in the region; and

WHEREAS, a Priority Development Area must meet all of the following criteria: (a) within an existing community; (b) near existing or planned fixed transit (or served by comparable bus service); and (c) is planned, or is planning, for more housing; and

WHEREAS, local governments in the nine county San Francisco Bay Area are eligible to apply for designation of an area within their community as a Priority Development Area; and

WHEREAS, the Regional Agencies are committed to securing incentives and providing technical assistance to designated Priority Development Areas so that positive change can be achieved in communities working to advance focused growth.

NOW THEREFORE, the City Council of the City of Milpitas hereby authorizes submitting an application to designate the area surrounding Great Mall Parkway and Montague Expressway, as conceptually shown in Exhibit A as a FOCUS Priority Development Area.

PASSED AND ADOPTED this 15TH day of January 2008, by the following vote:

AYES: (5) Mayor Esteves, Vice Mayor Livengood, and Councilmembers Giordano, Gomez and Polanski

NOES: (0) None

ABSENT: (0) None

ABSTAIN: (0) None

ATTEST:

Mary Lavelle, City Clerk

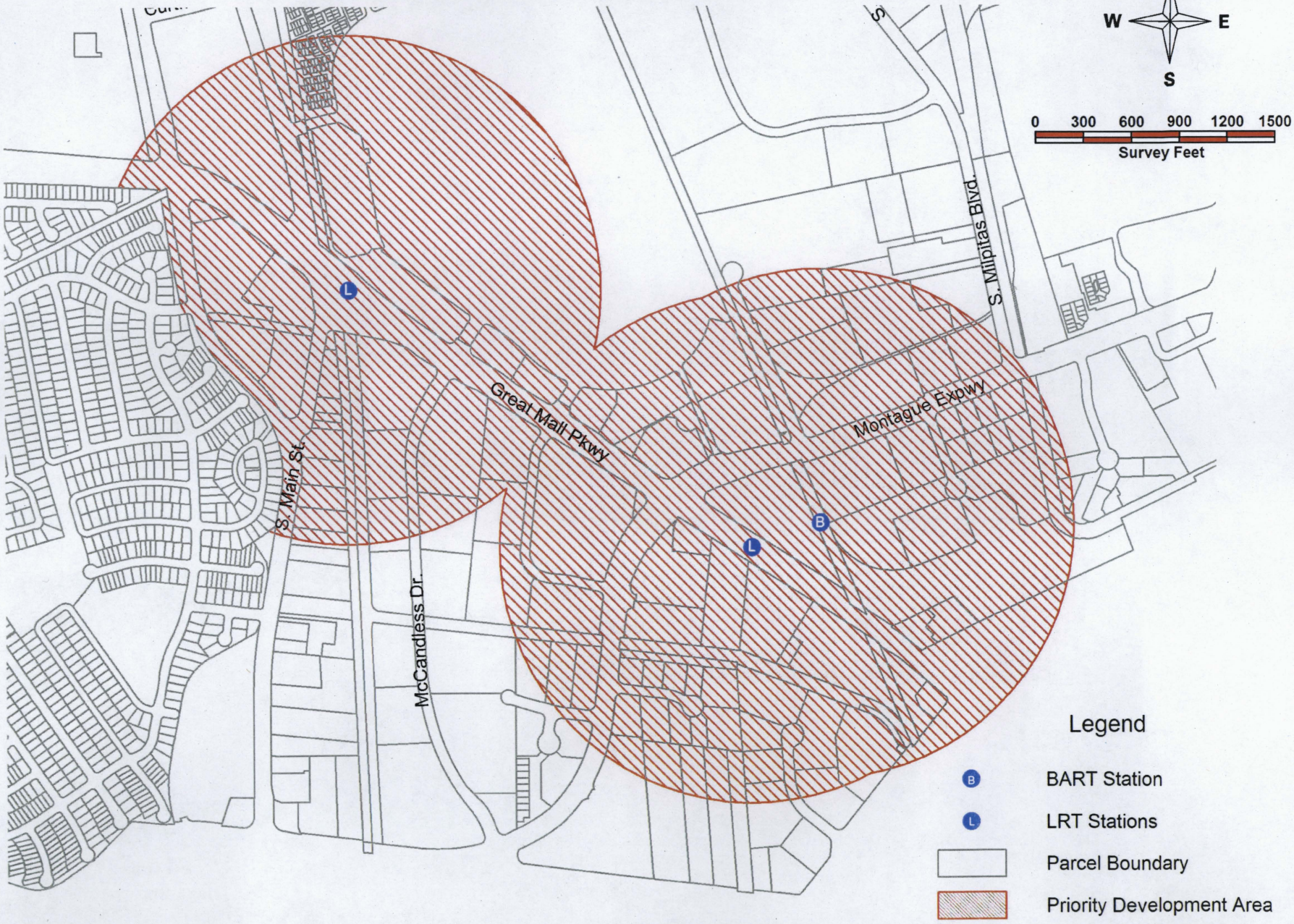
APPROVED:

Jose S. Esteves, Mayor

APPROVED AS TO FORM:

Michael J. Ogaz, City Attorney

Exhibit A:
City of Milpitas Priority Development Area



CITY OF MILPITAS
455 EAST CALAVERAS BOULEVARD, MILPITAS, CALIFORNIA 95035-5479 • www.ci.milpitas.ca.gov

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September 6, 2011

DRAFT

Joe LaClair
San Francisco Bay Conservation and Development Commission
50 California Street, Ste 2600
San Francisco, CA 94111

RE: Proposed Bay Plan Amendment 1-08

Dear Mr. LaClair:

The City of Milpitas appreciates the efforts the Bay Conservation and Development Commission has made to protect the San Francisco Bay. All levels of government are faced with the challenge of understanding the future implications of climate change and how to best plan for it. It is clear that a significant amount of inter-agency coordination has gone into developing the July 29, 2011 Preliminary Staff Recommendations for the Proposed Bay Plan Amendment 1-08.

Specifically the proposed language for Climate Change Policy No. 1 reinforces the boundaries of the Commission's jurisdiction and reduces the concerns over the loss of land use control by local jurisdictions. The language for Climate Change Policy No. 6 describes the need for a regional strategy to review and address the implications of climate change on the Bay. While the need for continued inter-agency coordination is important, sub-regional working groups would be more effective in working through local priorities. The City of Milpitas would be a willing participant in a smaller South Bay working group that would inform the Commission on adaptive strategies that respected the unique infrastructure and future land uses along the South Bay.

Sincerely,

Jose S. Esteves
Mayor, City of Milpitas

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION
50 California Street • Suite 2600 • San Francisco, California 94111 • (415) 352-3600 • Fax: (415) 352-3606 • www.bcdc.ca.gov

July 29, 2011

TO: Commissioners and Alternates

FROM: Will Travis, Executive Director (415/352-3653 travis@bcdc.ca.gov)
Joseph LaClair, Chief Planner (415/352-3656 joel@bcdc.ca.gov)
Jessica Davenport, Coastal Planner, (415/352-3660 jessicad@bcdc.ca.gov)

SUBJECT: Staff Report, Revised Preliminary Recommendation and Environmental Assessment for Proposed Bay Plan Amendment 1-08 Concerning Climate Change
(For Commission consideration on September 1, 2011)

Revised Preliminary Staff Recommendation Summary

The staff preliminarily recommends that the Commission:

1. Amend the Bay Plan Tidal Marsh and Tidal Flats findings and policies (pp. 7 through 11);

2. Add a new Climate Change findings and policies section to the Bay Plan at the beginning of Part IV "Developing the Bay and Shoreline Findings and Policies (pp. 12 through 26);" and

3. Amend the Bay Plan Safety of Fills, Protection of the Shoreline, and Public Access findings and policies (pp. 27 through 36).

Background

Between 1850 and 1960, one-third of San Francisco Bay was diked, filled or reclaimed as land. Alarmed by projections that as much as 70 percent of the remaining Bay might be lost by 2020, in 1965 the California Legislature passed the McAteer-Petris Act to create a new temporary state agency—the San Francisco Bay Conservation and Development Commission (BCDC). The new law directed BCDC to prepare a plan for the long-term use and protection of San Francisco Bay. The Commission delivered its *San Francisco Bay Plan* to the Legislature on time and under budget in 1968. The plan contained findings and policies the Commission recommended be used to guide future regulatory decisions on activities in and around the Bay. In 1969, the Legislature made BCDC a permanent state agency, adopted the Bay Plan by reference into state law, and directed the Commission to use the Bay Plan findings, policies and maps to guide the Commission's regulatory decisions on permit applications for development and other activities within BCDC's jurisdiction.

The Bay Plan includes findings and policies on 26 subject areas ranging from water quality and weather to commercial fishing and airports. All of the policies have equal status, and every BCDC permit decision must be consistent with all applicable policies. However, the policies are applied on a case-by-case basis to the specific conditions of that site where a project is proposed and the nature of the proposed project. As a result, not all of the policies apply in all situations. For example, the policies on dredging are not relevant to a proposed development project located entirely on existing land along the shoreline, and the policies on ports are not applied to a wetlands restoration project proposed in a salt pond.

In addition to serving as mandatory state policies that are enforced by the Commission through its regulatory authority, some the Bay Plan policies are declarations of the Commission's intention to undertake future studies or planning, and others offer advice to local governments, other agencies and organizations in dealing with Bay management issues. However, both state law and the Bay Plan stipulate that any such recommendations are advisory only and cannot be enforced by the Commission.

The Legislature directed the Commission to keep the Plan up-to-date so that it reflects the latest scientific research on the Bay and addresses emerging issues that could impact the Bay in the future. To accomplish this, the Legislature empowered the Commission to amend the Bay Plan if two thirds (18) of the 27 members of the Commission vote for the amendment, after providing an opportunity for public review of the proposed amendment and after holding a public hearing on the amendment. Over the past 42 years, the Commission has made numerous amendments to the Bay Plan, some of which dealt with simple matters, such as changing a boundary of a Plan map designation, and some of which have addressed major issues, such dredging and dredged material disposal.

The initial step in revising the Bay Plan is a policy decision by the Commission whether to consider an amendment dealing with a specified issue. Thereafter, the staff prepares a report containing the results of research and policy analysis on the issue, preliminary recommended findings and policies and an environmental assessment of the proposed amendment. One such staff report entitled, *Sea Level Rise: Predictions and Implications for San Francisco Bay*, was released in December 1987. Relying on this report in 1989, the Commission amended the findings and policies in the section of the Bay Plan dealing with Safety of Fills, making BCDC one of the first public agencies in the country to address the issue of sea level rise when making permit decisions and to provide policy advice to local governments.

Perhaps the biggest change the those twenty years since the Commission first adopted sea level rise policies is the attention received by the international, consensus-based approach to delivering scientific conclusions for policy-makers initiated by the United Nations Intergovernmental Panel on Climate Change (IPCC). Because the IPCC represents a wide range of scientific opinion, its conclusions are generally conservative, but widely accepted. However, another important change in the last twenty years is that the effects of climate change are already being observed. Conclusions in both the IPCC and state-sponsored work are based, in part, on observed changes in global surface temperature, ocean water temperature, ocean acidification, and land and sea ice melt. Finally, what was lacking twenty years ago was conclusive evidence that climate change is caused largely by human actions—primarily the release of carbon dioxide into the atmosphere. Today, such evidence solidly links the significant human contribution to greenhouse gases, beginning with industrialization, to increases in global temperature.

In 2006, the State of California used IPCC scenarios to develop a report on climate change impacts in the state. In that same year, the legislature passed the Global Warming Solutions Act requiring reductions in greenhouse gas emissions. The most recent update to the IPCC assessment reports was in 2007 and, in 2008, the state reported the results of an updated analysis of climate change scenarios. Both reports conclude that the reduction of greenhouse gases now will reduce the degree to which the world must adapt to the effects of climate change. However, it is inevitable that over the next century global temperatures will increase 1° to 3° C (1.8° to 5.4° F). To deal with this increase in temperature, adapting to climate change and its impacts is both unavoidable and essential.

Three years ago, the Commission decided to again deal with the issue of sea level rise within the larger context of global climate change. To accomplish this, in November 2008, the Commission initiated the process of considering Bay Plan Amendment No. 1-08 by authorizing the staff to propose amendments of the findings and policies in four sections of the Bay Plan—Tidal Marshes and Tidal Flats, Safety of Fills, Protection of the Shoreline, and Public Access—and to develop additional findings and policies in an entirely new section to the Plan entitled Climate Change. In

April 2009, the staff released a report entitled *Living with a Rising Bay: Vulnerability and Adaptation in San Francisco Bay and on the Shoreline*. In addition to providing extensive background information on the most current scientific research on climate change, the report contained maps depicting the low-lying areas around the Bay that could be vulnerable to future flooding from sea level rise and storm surge. Along with the background report, the staff provided a preliminary recommendation on proposed Bay Plan amendments to address climate change.

The background report indicated that while the rate of global climate change will depend on the volume of future greenhouse gas emissions, sea level rise in San Francisco Bay could be as much as 16 inches by mid-century and 55 inches by the end of the century. By mid-century, 180,000 acres of Bay shoreline could be vulnerable to flooding, and 213,000 acres vulnerable by the end of the century. The area vulnerable to inundation with a 16-inch sea level rise roughly corresponds to today's 100-year floodplain. The economic value of Bay Area shoreline development at risk from a 55-inch rise in sea level is estimated at $62 billion—nearly double the estimated value of development vulnerable to sea level rise along California's Pacific Ocean coastline. An estimated 270,000 people in the Bay Area would be at risk of flooding from a 55-inch rise in sea level, 98 percent more than are currently at risk from flooding.

The Commission held its first public hearing on the preliminary staff recommendation on May 7, 2009. To respond to requests for more time for public review and input, the Commission held three more public hearings, held three public workshops and kept the public comment period open for three months. The staff revised its preliminary recommendation to address the public comments and incorporate suggestions that had been made to improve the amendment language, and a revised preliminary recommendation was released on October 1, 2009. The Commission held another public hearing on the revised preliminary staff recommendation on November 5, 2009, and another public workshop on December 3, 2009.

A third staff recommendation and response to comments was released on September 3, 2010. The Commission held eight public hearings on this draft during the fall of 2010, and the staff worked with local governments, business interests and environmental organizations to further refine the amendment language. In all, since April 2009, the Commission has held 35 public hearings, workshops and meetings on the amendment language as it has evolved, and the Commission will hold another public hearing on September 1, 2011 before voting on the amendment on October 6, 2011.

Five principal policy goals will be achieved by adopting proposed Bay Plan Amendment No. 1-08.

1. Outdated language on sea level rise policy that has been in the Bay Plan since 1989 will be eliminated. This current policy language recommends that new development not be approved in low-lying areas that are in danger of flooding now or in the future unless the development is elevated above possible flood levels. The amended policies allow protection from flooding, encourage innovative means of dealing with flood danger, and make it clear that local governments will determine how best to deal with development proposals inland of the Commission's jurisdiction.
2. A variety of types of projects that have regional benefits will be encouraged, and proposed new development will continue to be evaluated by the Commission on a case-by-case basis to determine if the benefits of a project outweigh the risk from flooding and to ensure steps are taken to deal with the flooding danger.
3. The Bay and other valuable natural resources within BCDC's jurisdiction will continue to have the same level of protection that has worked so well for the past half-century.
4. Because wetlands play vital roles in both reducing greenhouse gases and providing flood protection, existing tidal wetlands will continue to be protected and, where appropriate, expanded. To accomplish this, resource protection and habitat enhancement in undeveloped low-lying areas will be encouraged, but development will not be absolutely prohibited in these areas.

5. The Commission will commit itself to working with its regional partners, local governments, businesses, labor, environmentalists, investors, insurers, and the general public to develop a comprehensive regional strategy that deals with all the impacts of climate change. Such a strategy is essential to the Bay Area's long-term economic prosperity.

In addition to concerns that have been expressed about specific language in the proposed findings and policies, there has been considerable concern expressed about the maps of shoreline areas that are potentially vulnerable to flooding from sea level rise and storm surge. These maps can be found in both the staff background report and on the Commission's website.

At the most basic level, the maps depict areas around the Bay that have low elevations. Overlays compare these ground elevations with projected Bay water depths that are 16 inches (0.4 meter) and 55 inches (1.4 meters) higher to illustrate possible sea levels around the middle of the 21st century and the beginning of the 22nd century. The maps do not take into account wind and waves that would increase the extent of inundation, and do not show existing levees that might provide protection from flooding, because detailed information on wind and wave conditions and levee heights and strengths was not available at a regional scale. Nor do the maps show where new levees or other shoreline protection to prevent flooding could be built, or the cost of any such protection. These limitations of the maps are reflected in the following legal disclaimer on each map:

> "Inundation data does not account for existing shoreline protection or wave activity. These maps are for informational purposes only. Users, by their use, agree to hold harmless and blameless the State of California and its representatives and its agents for any liability associated with its use in any form. The maps and data shall not be used to assess actual coastal hazards, insurance requirements, or property values or be used in lieu of Flood Insurance Rate Maps issued by the Federal Emergency Management Agency (FEMA)."

Despite efforts to make it clear that the maps simply show low land elevations in relation to possible future water depths, three types of objections to the maps have been raised. The first is that the presence of the maps is inhibiting capital from being invested in what critics call the "inundation zone" around the Bay. While it may be true that some investors may be more cautious about supporting development around the Bay, the maps are not the cause of concern. As noted, the maps simply depict areas around the Bay that have low elevations in relation to projected water depths. These elevations will be the same whether or not BCDC's maps exist. Similar maps have been published by the U.S. Geological Survey, the California Energy Commission, the Pacific Institute, and others.

The second objection to the maps is that they depict the area over which BCDC intends to exert regulatory authority even though the maps will not be adopted as part of the Bay Plan and, therefore, cannot be used by the Commission in making regulatory decisions.

The Commission's "Bay" jurisdiction extends to the Mean High Tide line, an elevation that is established by the National Oceanic and Atmospheric Administration. If nothing is done to protect low-lying areas around the Bay, over time these areas could become flooded and eventually fall within BCDC's jurisdiction. With this in mind, some have conjectured that BCDC intends to extend its jurisdiction over this area now. This simply is not true. BCDC cannot change its jurisdiction without a change of state law, and BCDC has not requested such a change. And even if an area becomes flooded by Bay waters, BCDC has a legal obligation to notify a landowner of the flooding, and the landowner then has a year to repair any levee or other shoreline protection. If these repairs are made, BCDC's jurisdiction remains unchanged. If the area has no pre-existing shoreline protection, the proposed policies in Bay Plan Amendment No. 1-08 would allow the construction of such protection.

The third objection raised about the maps is that the Commission could use its authority under the federal Coastal Zone Management Act and the California Environmental Quality Act to exert jurisdiction over development proposals within the low-lying areas around the Bay that are vulnerable to future flooding and to pre-empt local government control. The Commission never had any such intention. Rather, the Commission's intention is to adopt Bay Plan Amendment No. 1-08, pursuant to the provisions of the McAteer-Petris Act and the Suisun Marsh Preservation Act of 1977. The Amendment is not intended to, and does not increase or decrease BCDC's jurisdiction or authority under either act. To express this intention and to reassure critics, proposed Bay Plan Climate Change Policy 1 was drafted in consultation with the Attorney General's staff and attorneys representing the business community, labor and local governments. Proposed Climate Change Policy 1 explicitly states that the climate change findings and policies will apply only within BCDC's current jurisdiction, that local governments will retain their authority over development more than 100 feet inland from the Bay shoreline, and that the provisions of the Bay Plan do not apply outside the Commission's jurisdiction for purposes of implementing the California Environmental Quality Act.

Global climate change has been described as one of the most challenging problems ever faced by humans. The quality of the lives of future generations depends on how the current generation deals with this challenge. The course outlined in Bay Plan Amendment No. 1-08 is an initial, cautious and modest step in the long journey the people of the Bay Area will need to take to ensure that our region remains viable, sustainable and prosperous in the future and that our beloved San Francisco Bay continues to be protected.

Consideration of Alternatives

On November 18, 2010, the Commission considered the Staff Report on Optional Strategic Approaches for Dealing with Proposed Bay Plan Amendment No. 1-08 Concerning Climate Change to respond to concerns about the third preliminary staff recommendation. Public comments expressed concerns about whether any amendments were needed to the Bay Plan to address climate change, about specific language proposed by the staff, about limiting the application of the amendments to the Commission's current jurisdiction, and about whether guidance should be provided to local governments on how to deal with sea level rise. The staff report identified, and the Commission considered, six possible optional approaches to deal with these concerns.

1. Revise the proposed language in response to comments from the public as part of the process of updating the 21-year-old sea level rise findings and policies in the Bay Plan and adding a new section to the Plan to deal more broadly with climate change and adapting to sea level rise to address concerns that the proposed amendments would vastly increase BCDC's regulatory authority, usurp local autonomy, institute a moratorium on development in low-lying areas, and block all development.
2. Abandon the process of updating the Bay Plan and leave the current sea level rise findings and policies in place.
3. Amend the Bay Plan to delete the current sea level rise findings and policies.
4. Amend the Bay Plan to update the current sea level rise findings and policies in a new section dealing with climate change to clearly specify that the new provisions will be used exclusively to guide the Commission in making regulatory decisions within its permit jurisdiction and are not intended to be advisory for local governments.
5. Amend the Bay Plan to update the current sea level rise findings and policies in a new climate change section that calls only for the preparation of a long-term regional sea level rise adaptation strategy, and not include any interim guidance for the Commission or advice for local governments.
6. In combination with any of the options above, develop a guidance document that can be used by the Commission, local governments and others when dealing with sea level rise. The document would explicitly state that the guidelines are not binding or enforceable.

At its December 2, 2010 meeting, after receiving public comment on the six options, the Commission directed the staff to prepare a revised recommendation that would propose findings and policies that are exclusively for the Commission's use in carrying out BCDC's regulatory responsibilities within its current permit jurisdiction (Option 4). The Commission postponed to 2011 a decision on whether and in what form any guidance or advice will be provided for dealing with sea level rise outside BCDC's regulatory jurisdiction. To date, the Commission has not provided any additional direction with respect to preparing stand-alone guidelines for local governments.

On December 16, 2010, the Commission considered another Staff Report on Policy Alternatives for Bay Plan Amendment No. 1-08 Concerning Climate Change that considered a range of possible alternative approaches for addressing comments and issues raised during the public hearings on the third preliminary recommendation. The staff report discussed (1) the preparation of risk assessments for planning shoreline areas and designing larger projects within the Commission's permit jurisdiction; (2) the preparation of a regional adaptation strategy to address sea level rise; and (3) limiting development in low-lying areas within the Commission's jurisdiction to a broad list of project types. The Commission considered a range of alternatives for each of these policies and directed staff to utilize the discussion and public input to modify the staff recommendation.

Over the course of the Commission's consideration of Bay Plan Amendment No. 1-08, various alternatives for dealing with sea level rise were advanced. Environmental organizations recommended that state legislation should be enacted to give BCDC regulatory jurisdiction over all low-lying areas around the Bay affected by sea level rise. The California Climate Adaptation Strategy recommends that state agencies should consider prohibiting projects that would place development in undeveloped areas containing critical habitat or containing opportunities for tidal wetland restoration. Business groups and local governments suggested the Commission should not amend the Bay Plan at all until the economy improves and there is more certainty about the impacts of climate change. The Commission considered these ideas but selected a more moderate course of action—one that will provide the Commission with updated policies for regulating development within BCDC's jurisdiction to address the impacts of sea level rise and will commit the Commission to working in partnership with all stakeholders on a comprehensive and long-range climate change resilience strategy for the Bay Area.

Outreach, Public Hearings and Workshops

In 2008, the Commission mailed its descriptive notice of the proposed amendments to all interested agencies, organizations, and individuals (14 CCR §11002). Over the past three years, all three prior staff recommendations have been mailed to all federal, state and local agencies interested in or potentially affected by the amendments, as well as members of the public, including organizations and individuals who have expressed interest in the amendments. All documents are transmitted to everyone on the mail and email list, which includes approximately 1,200 addresses. All documents are posted to the Commission's website (http://www.bcdc.ca.gov).

In addition to the public hearings on October 7, 21, November 2, 4 and 18 and December 2, 2010, BCDC staff hosted a workshop on October 29, 2010 in the Commission's offices for local governments to answer questions about the proposed amendments. Local governments reiterated their comments made in the two prior public hearings and their written comments, which are addressed in the response to comments. In the winter of 2010 and again in the summer of 2011 the staff had two series of meetings with local governments and interested parties throughout the region to provide additional opportunities for input on the proposed Bay Plan amendment, to clarify the purpose and effects of the amendments, and highlight recent changes to the proposed language. The staff also consulted with a group of technical advisors with expertise in hydrology, biology, climate science, coastal management and coastal engineering who reviewed and commented on the administrative draft of the staff background report *Living with a Rising Bay*. The three prior preliminary staff recommendations summarized the public outreach efforts that the Commission conducted prior to publishing those recommendations, including the public hearings and workshops associated with the review and comment of each prior recommendation.

Fourth Revised Preliminary Recommendation

The staff preliminarily recommends that the Commission amend the Bay Plan as follows:

1. **Proposed Additions to Bay Plan Findings and Policies**
   a. Create a climate change policy section of the Bay Plan that addresses the following:
      (1) Incorporating sea level rise projection ranges and using them in the permitting process;
      (2) Developing a long-term strategy to address sea level rise and storm activity and other Bay-related impacts of climate change in a way that protects the shoreline and the Bay and allows for appropriate, well-planned development that responds to the impacts of climate change and future sea level rise;
      (3) Working with the Joint Policy Committee (JPC) and other agencies to integrate regional mitigation and adaptation strategies and adaptation responses of multiple government agencies, to analyze and support equity issues, and to support research that provides useful climate change information and tools;
      (4) Providing recommendations and requirements to guide planning and permitting of development in areas vulnerable to sea level rise; and
      (5) Including policies that promote wetland protection, creation, enhancement and migration.
2. **Proposed Changes to Existing Bay Plan Findings and Policies**
   a. Amend the findings and policies on tidal marshes and tidal flats to ensure that buffer zones are incorporated into restoration projects where feasible and sediment issues related to sustaining tidal marshes are addressed.
   b. Amend the policies on safety of fills by updating the findings and policies on sea level rise and moving some to the new climate change section of the Bay Plan.
   c. Amend the policies on protection of the shoreline to address protection from future flooding.
   d. Amend the findings and policies on public access to provide public access that is sited, designed and managed to avoid significant adverse impacts from sea level rise and ensure long-term maintenance of public access areas through site-specific adaptive management strategies.

Proposed Additions and Deletions to Bay Plan Findings and Policies

The following format has been used to clarify additions and deletions in staff's revised (fourth) preliminary recommendation:

1. Proposed additions in language are shown as <u>underlined</u>, while proposed language deletions are shown as ~~struck through.~~
2. Reasons for the proposed changes are included in the Staff Analysis in the right column.
3. Existing Bay Plan language is shown as plain text.

Copies of staff's preliminary recommendation and revised (second) preliminary recommendation are available on the Commission's website at: http://www.bcdc.ca.gov/planning/climate_change/climate_change.shtml.

Tidal Marshes and Tidal Flats. The staff preliminarily recommends the Commission revise the findings and policies in the "Tidal Marshes and Tidal Flats" policy section as shown below.

More context on how other findings and policies in this section of the Bay Plan relate to the proposed changes, especially those that the staff is not proposing to change, is available at http://www.bcdc.ca.gov/laws_plans/plans/sfbay_plan.shtml

Climate Change. The staff preliminarily recommends the Commission add a new Bay Plan "Climate Change" section at the beginning of Part IV of the Plan - Developing the Bay and its Shoreline - and include the proposed findings and policies below.

Climate Change (Add New Section to Part IV)	
Findings	**Staff Analysis**
Add underlined language as follows: a. Greenhouse gases naturally reside in the earth's atmosphere, absorb heat emitted from the earth's surface and radiate heat back to the surface causing the planet to warm. This natural process is called the "greenhouse effect." Human activities since industrialization have increased the emissions of greenhouse gases through the burning of fossil fuels. The accumulation of these gases in the atmosphere is causing the planet to warm at an accelerated rate.	The new finding describes the causes of climate change.
Add underlined language as follows: b. The future extent of global warming is uncertain. It will be driven largely by future greenhouse gas emissions levels, which will depend on how global development proceeds. The United Nations Intergovernmental Panel on Climate Change (IPCC) developed a series of global development scenarios and greenhouse gas emissions scenarios for each development scenario. These emissions scenarios have been used in global models to develop projections of future climate, including global surface temperature and precipitation changes.	The new finding describes how United Nations scenarios are used to address uncertainty regarding future global development and the corresponding impacts of development on climate change.
Add underlined language as follows: c. Global surface temperature increases are accelerating the rate of sea level rise worldwide through thermal expansion of ocean waters and melting of land-based ice (e.g., ice sheets and glaciers). Bay water level is likely to rise by a corresponding amount. In the last century, sea level in the Bay rose nearly eight inches. Current science-based projections of global sea level rise over the next century vary widely. Using the IPCC greenhouse gas emission scenarios, in 2010 the California Climate Action Team (CAT) developed sea level rise projections (relative to sea level in 2000) for the state that range from 10 to 17 inches by 2050, 17 to 32 inches by 2070, and 31 to 69 inches at the end of the century. The CAT has recognized that it may not be appropriate to set definitive sea level rise projections, and, based on a variety of factors, state agencies may use different sea level rise projections. Although the CAT values are generally recognized as the best science-based sea level rise projections for California, scientific uncertainty remains regarding the pace and amount of sea level rise. Moreover, melting of the Greenland and Antarctic ice sheet may not be reflected well in current sea level rise projections. As additional data are collected and analyzed, sea level rise projections will likely change over time. The National Academy of Sciences is in the process of developing a Sea Level Rise Assessment Report that will address the potential impacts of sea level rise on coastal areas throughout the United States, including California and the Bay Area.	The new finding explains the connection between global warming and sea level rise. It describes the Commission's responsibility to use a prudent approach to protect the public from flooding and to protect the Bay ecosystem from climate change impacts. This finding also explains the sound science that supports such an approach. The finding also acknowledges regional factors affecting sea level rise and, references the California Climate Action Team's projections for California: a mid-century range (10-17 inches), a three-quarter century range (17-32 inches) and a end-of-century range (31-69 inches) as a guide for implementing the policies. The finding also acknowledges that scientific uncertainty remains, the impact of melting land ice is not well understood and that sea level rise projections will continue to change.

Climate Change	
Findings	**Staff Analysis**
Add underlined language as follows: d. Climate change will alter key factors that contribute to shoreline flooding, including sea level and storm frequency and intensity. During a storm, low air pressure can cause storm surge (a rapid rise in water level) and increased wind and wave activity can cause wave run up, which will be higher as sea level rises. These storm events can be exacerbated by El Niño events, which generally result in persistent low air pressure, greater rainfall, high winds and higher sea level. The coincidence of intense winter storms, extreme high tides, and high runoff, in combination with higher sea level, will increase the frequency and duration of shoreline flooding long before areas are permanently inundated by sea level rise alone.	The new finding makes the point that most flooding will occur during storm events before sea level rise regularly inundates shoreline areas. The finding describes how sea level rise and storm activity combine to cause flooding.
Add underlined language as follows: e. Shoreline areas currently vulnerable to a 100-year flood event may be subjected to inundation by high tides at mid-century. Much of the developed shoreline may require new or upgraded shoreline protection to reduce damage from flooding. Shoreline areas that have subsided are especially vulnerable to sea level rise and may require more extensive shoreline protection. The Commission, along with other agencies such as the National Oceanic and Atmospheric Administration, the Federal Emergency Management Agency, the United States Army Corps of Engineers, cities, counties, and flood control districts, is responsible for protecting the public and the Bay ecosystem from flood hazards. This can be best achieved by using a range of scientifically based scenarios, including projections, which correspond to higher rates of sea level rise. In planning and designing projects for the Bay shoreline, it is prudent to rely on the most current science-based and regionally specific projections of future sea level rise, develop strategies and policies that can accommodate sea level rise over a specific planning horizon (i.e., adaptive management strategies), and thoroughly analyze new development to determine whether it can be adapted to sea level rise.	The new finding describes the potential for shoreline flooding as sea level rises and the likely need for new shoreline protection to address it, particularly in subsided areas. The finding identifies agencies, including the Commission with flood protection responsibilities. It recommends using the most current, science-based, regionally specific projections of future sea level rise, utilizing adaptive management and evaluating the resiliency and adaptive capacity of proposed development.

Climate Change	
Findings	**Staff Analysis**
Add underlined language as follows: f. Natural systems and human communities are considered to be resilient when they can absorb and rebound from the impacts of weather extremes or climate change and continue functioning without substantial outside assistance. Systems that are currently under stress often have lower adaptive capacity and may be more vulnerable or susceptible to harm from climate change impacts. Human communities with adaptive capacity can adjust to climate change impacts by taking actions to reduce the potential damages, taking advantage of new opportunities arising from climate change, and accommodating the impacts. Understanding vulnerabilities to climate change is essential for assessing climate change risks to a project, the Bay or the shoreline. Risk is a function of the likelihood of an impact occurring and the consequence of that impact. Climate change risk assessments identify and prioritize issues that can be addressed by adaptation strategies.	The new finding defines two important concepts in climate adaptation planning: shoreline resilience and adaptive capacity. It also defines the related practices of vulnerability and risk assessment and describes the outcomes of these practices.
Add underlined language as follows: g. In the context of climate change, mitigation refers to actions taken to reduce greenhouse gas emissions, and adaptation refers to actions taken to address potential or experienced impacts of climate change that reduce risks. Adaptation actions that protect existing development and infrastructure can include protecting shorelines, promoting appropriate infill development, and designing new construction to be resilient to sea level rise. Another option is relocating structures out of flood and inundation zones. Some actions can integrate adaptation, mitigation, and flood protection strategies and may be cost-effective when implemented before sea level rises. For example restoring tidal marshes sequesters carbon, provides flood protection and provides habitat, and may protect lives, property and ecosystems. Identifying appropriate adaptation strategies requires complex policy considerations. Implementing many adaptation strategies will require action and funding by federal, state, regional and local agencies with planning, funding and land use decision-making authority beyond the Commission's jurisdiction.	The new finding defines "mitigation" as the term is commonly used to address climate change. The finding also defines adaptation, points out that mitigation and adaptation efforts can be integrated, and describes the benefits of implementing some adaptation strategies early. The finding also acknowledges the many interests who will need to be involved in implementing adaptation strategies around the Bay.

Climate Change	
Findings	**Staff Analysis**
Add underlined language as follows: h. In the context of sea level rise adaptation, it is likely that myriad innovative approaches will emerge, likely including financing mechanisms to spread equitably the costs of protection from sea level rise, design concepts and land management practices. Effective, innovative adaptation approaches minimize public safety risks and impacts to critical infrastructure; maximize compatibility with and integration of natural processes; are resilient over a range of sea levels, potential flooding impacts and storm intensities; and are adaptively managed. Developing innovative adaptation approaches will require financial resources, testing and refinement to ensure that they effectively protect the Bay ecosystem and public safety before they are implemented on a large scale. Developing the right mix of approaches would best be accomplished through a comprehensive regional adaptation strategy developed though a process involving various stakeholders and local, regional, state and federal agencies.	The new finding describes the range of likely innovative adaptation approaches and describes criteria for an effective innovative strategy. The finding also outlines some of the challenges for developing innovative strategies
Add underlined language as follows: i. Adaptive management is a cyclic, learning-oriented approach that is especially useful for complex environmental systems characterized by high levels of uncertainty about system processes and the potential for different ecological, social and economic impacts from alternative management options. Effective adaptive management requires setting clear and measurable objectives, collecting data, reviewing current scientific observations, monitoring the results of policy implementation or management actions, and integrating this information into future actions.	The new finding defines adaptive management, as it is commonly understood in managing human interventions in complex systems. It also describes how effective adaptive management is implemented.
Add underlined language as follows: j. The principle of sustainability embodies values of equity, environmental and public health protection, economic vitality and safety. The goal of sustainability is to conduct human endeavors in a manner that will avoid depleting natural resources for future generations and producing no more than can be assimilated through natural processes, while providing for improvement of the human condition for all the people of the world. Efforts to improve the sustainability of natural systems and human communities can improve their resilience to climate change by increasing their adaptive capacity.	The new finding defines sustainability in the context of climate change, resilience and adaptive capacity.

Climate Change	
Findings	**Staff Analysis**
Add underlined language as follows: k. Shoreline development and infrastructure, critical to public and environmental health and the region's economic prosperity, may be, or may become, vulnerable to flooding from sea level rise and storm activity. Public safety may be compromised and personal property and agricultural land may be damaged or lost during floods. Important public shoreline infrastructure and facilities, such as airports, ports, regional transportation facilities, landfills, contaminated lands and wastewater treatment facilities are at risk of flood damage that could require costly repairs, or result in the interruption or loss of vital services or degraded water quality. A current lack of funding to address projected impacts from sea level rise necessitates a collaborative approach with all stakeholder groups to find strategic and innovative solutions to advance the Bay Area's ability to meet environmental, public health, equity and economic goals.	The new finding describes the impacts of flooding on the developed shoreline. It also acknowledges funding limitations for adaptation planning and implementation, the potential impacts of inaction, and the need for collaboration and innovation.
Add underlined language as follows: l. Waterfront parks, beaches, public access sites, and the Bay Trail are particularly vulnerable to flooding from sea level rise and storm activity because they are located immediately adjacent to the Bay. Flooding of, or damage to these areas would adversely affect the region's quality of life, if important public spaces and recreational opportunities are lost.	The new finding describes the impacts of flooding on shoreline recreation facilities areas and trails.
Add underlined language as follows: m. The Bay ecosystem contains diverse and unique plants and animals and provides many benefits to humans. For example, tidal wetlands improve water quality, sequester carbon and can provide flood protection. Tidal high marsh and adjacent ecotones are essential to many tidal marsh species including endangered species. Agricultural lands along the Bay shoreline function as buffers that can reduce the adverse impacts of nearby land uses and activities on the Bay and tidal marshes and can also provide habitat for terrestrial species. The Bay ecosystem is already stressed by human activities that lower its adaptive capacity, such as diversion of freshwater inflow and loss of tidal wetlands. Climate change will further alter the ecosystem by inundating or eroding wetlands and ecotones, changing sediment dynamics, altering species composition, raising the acidity of Bay waters, changing freshwater inflow or salinity, altering the food web, and impairing water quality, all of which may impair the system's ability to rebound and function. Moreover, further loss of tidal wetlands will increase the risk of shoreline flooding.	The new finding describes the importance of the Bay ecosystem and some of the benefits humans derive from the Bay and the impacts of climate change on the Bay ecosystem. It acknowledges benefits of agricultural lands, existing stresses on ecosystems and projected climate change effects on ecosystems and the potential loss of ecosystem services.

Climate Change	
Findings	**Staff Analysis**
Add underlined language as follows: n. Some Bay Area communities, particularly those whose residents have low incomes, disabilities or are elderly, may lack the resources or capacity to respond effectively to the impacts of sea level rise and storm activity. Financial and other assistance is needed to achieve regional equity goals and help everyone be part of resilient shoreline communities.	The new finding describes the particular vulnerabilities of residential communities to flooding, especially low-income residents, the elderly and those with disabilities.
Add underlined language as follows: o. Approaches for ensuring public safety in developed vulnerable shoreline areas through adaptive management strategies include but are not limited to: (1) protecting existing and planned appropriate infill development; (2) accommodating flooding by building or renovating structures or infrastructure systems that are resilient or adaptable over time; (3) discouraging permanent new development when adaptive management strategies cannot protect public safety; (4) allowing only new uses that can be removed or phased out if adaptive management strategies are not available as inundation threats increase; and (5) over time and where feasible and appropriate, removing existing development where public safety cannot otherwise be ensured. Determining the appropriate approach and financing structure requires the weighing of various policies and is best done through a collaborative approach that directly involves the affected communities and other governmental agencies with authority or jurisdiction. Some adaptive management strategies may require action and financing on the regional or sub-regional level across jurisdictions.	The new finding describes the range of potential human development responses to sea level rise. It also describes processes for selecting appropriate strategies.
Add underlined language as follows: p. The Association of Bay Area Governments and the Metropolitan Transportation Commission initiated the FOCUS program to develop a regional strategy that promotes a more compact Bay Area land use pattern. In consultation with local governments, the FOCUS program has identified Priority Development Areas for infill development in the Bay Area. These Priority Development Areas, along with other sites, are anticipated to be key components of the Bay Area's Sustainable Communities Strategy that will be adopted and periodically updated pursuant to SB 375. One of the Commission's objectives in adopting climate change policies is to facilitate implementation of the Sustainable Communities Strategy. Some shoreline areas that are vulnerable to flooding are already improved with public infrastructure and private development that has regionally significant economic, cultural or social value, and can accommodate infill development.	The new finding describes the FOCUS program and the region's sustainable communities strategy in the context of Bay Area shoreline development that considers sea level rise.

Climate Change	
Findings	**Staff Analysis**
Add underlined language as follows: q. When planning or regulating development within areas vulnerable to flooding from sea level rise, allowing small projects, such as minor repairs of existing facilities, and interim uses may be acceptable if they do not significantly increase overall risks to public safety.	The new finding acknowledges the need to provide a different approach to regulating minor repairs, small projects or interim uses that do not increase public safety risks.
Add underlined language as follows: r. In some cases, the regional goals of encouraging infill development, remediating environmentally degraded land, redeveloping closed military bases and concentrating housing and job density near transit may conflict with the goal of minimizing flood risk by avoiding development in low-lying areas vulnerable to flooding. Methods to minimize this conflict, include, but are not limited to: clustering infill or redevelopment in low-lying areas on a portion of the property to reduce the area that must be protected; formulating an adaptation strategy for dealing with rising sea level and shoreline flooding with definitive goals and an adaptive management plan for addressing key uncertainties for the life of the project; incorporating measures that will enhance project resilience and sustainability; and developing a project-based financial strategy and/or a public financing strategy, as appropriate, to fund future flood protection for the project, which may also protect existing nearby development. Reconciling these different worthy goals and taking appropriate action requires weighing competing policy considerations and would be best accomplished through a collaborative process involving diverse stakeholders, similar to that being undertaken by the Joint Policy Committee to develop the Sustainable Communities Strategy.	The new finding outlines some of the potentially conflicting regional goals and potential safety risks from developing in low-lying areas. It outlines possible methods for minimizing risks and avoiding unfair distribution of costs associated with those risks. It also acknowledges the need for collaborative processes to fairly allocate risks and costs.
Add underlined language as follows: s. Some undeveloped low-lying areas that are vulnerable to shoreline flooding contain important habitat or provide opportunities for habitat enhancement. In these areas, development that would have regional benefits could preclude wetland enhancement that would also have regional benefits. Some developed areas may be suitable for ecosystem restoration, if existing development is removed to allow the Bay to migrate inland, although relocating communities is very costly and may result in the displacement of neighborhoods.	The new finding acknowledges some undeveloped areas contain critical habitat or could be enhanced for habitat, and some developed areas may be ideal for bay migration and habitat enhancement as sea level rises. It also acknowledges that relocating development raises difficult public policy issues and costs.

Climate Change	
Findings	**Staff Analysis**
Add underlined language as follows: t. There are multiple local, state, federal, and regional government agencies with authority over the Bay and shoreline. Local governments have broad authority over shoreline land use, but limited resources to address climate change adaptation. Working collaboratively with local governments, including agencies with responsibility for flood protection is desirable to optimize scarce resources and create the flexibility needed to plan amidst a high degree of uncertainty.	The new finding describes the complexity of government authority over the Bay and shoreline. It further describes the broad authority and limited capacity of local governments to address climate change and benefits of collaboration and flexibility.
Add underlined language as follows: u. Government jurisdictional boundaries and authorities in the Bay Area are incongruent with the regional scale and nature of climate-related challenges. The Joint Policy Committee, which is comprised of regional agencies, provides a framework for regional decision-making to address climate change through consistent and effective regionwide policy and to provide local governments with assistance and incentives for addressing climate change. The Commission can collaborate with the Joint Policy Committee to assure that the Bay Plan Climate Change policies are integrated with the emerging Sustainable Communities Strategy and other regional agencies' policies that deal with climate change issues.	The new finding describes the need to provide a decision-making framework that resembles the scale of climate change impacts within a manageable scope. It also acknowledges the role the Joint Policy Committee can play in planning for climate change at the regional level.
Add underlined language as follows: v. The Commission's legal authority and regulatory jurisdiction were created to address the Legislative findings and advance the declarations of state policy established in the McAteer-Petris Act and the Suisun Marsh Preservation Act of 1977. Climate change and sea level rise were not considerations when this authority and jurisdiction were established.	The new finding acknowledges that the challenges climate change presents to San Francisco Bay, and shoreline development cannot be successfully met by relying solely on the Commission's existing regulatory authority.

Climate Change	
Findings	**Staff Analysis**
Add underlined language as follows: w. The California Ocean Protection Council has endorsed the guiding principles of the California Climate Adaptation Strategy, which recommends that state agencies pursue the following policy objectives in their adaptation planning: • Protect public health and safety and critical infrastructure; • Protect restore, and enhance ocean and coastal ecosystems, on which the State economy and well-being depend; • Ensure public access to coastal areas and protect beaches, natural shoreline, and park and recreational resources; • Plan and Design new development and communities-for long-term sustainability in the face of climate change; • Facilitate adaptation of existing development and communities to reduce their vulnerability to climate change impacts over time; and • Begin now to adapt to the impacts of climate change. The California Climate Adaptation Strategy recognizes that significant and valuable development has been built along the California coast for over a century. Some of the development is currently threatened by sea level rise or will be threatened in the near future. Similarly, the coastal zone is home to many threatened or endangered species and sensitive habitats. The strategy acknowledges that the high financial, ecological, social and cultural costs of protecting everything may prove to be impossible; in the long run, protection of everything may be both futile and environmentally destructive. The strategy recommends that decision guidance strategies frame cost-benefit analyses so that all public and private costs and benefits are appropriately considered. The strategy further recommends that state agencies should generally not plan, develop, or build any new significant structure in a place where that structure will require significant protection from sea-level rise, storm surges, or coastal erosion during the expected life of the structure. However, the strategy also acknowledges that vulnerable shoreline areas	The new finding summarizes some of the relevant elements of the California Climate Adaptation Strategy.

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Findings	**Staff Analysis**
(Finding w., continued) containing existing development or proposed for new development that has or will have regionally significant economic, cultural, or social value may have to be protected, and infill development in these areas should be closely scrutinized and may be accommodated. The strategy recommends that state agencies should incorporate this policy into their decisions. If agencies plan, permit, develop or build any new structures in hazard zones, the California Climate Adaptation Strategy recommends that agencies employ or encourage innovative engineering and design solutions so that the structures are resilient to potential flood or erosion events, or can be easily relocated or removed to allow for progressive adaptation to sea level rise, flood and erosion. The strategy further recommends that the state should consider prohibiting projects that would place development in undeveloped areas already containing critical habitat, and those containing opportunities for tidal wetland restoration, habitat migration, or buffer zones. The strategy also encourages projects that protect critical habitats, fish, wildlife and other aquatic organisms and connections between coastal habitats. The strategy recommends pursuing activities that can increase natural resiliency, such as restoring tidal wetlands, living shorelines, and related habitats; managing sediment for marsh accretion and natural flood protection; and maintaining upland buffer areas around tidal wetlands.	
Policies	**Staff Analysis**
Add underlined language as follows: 1. The Commission intends that the Bay Plan Climate Change findings and policies will be used as follows: a. The findings and policies apply only to projects and activities located within the following areas: San Francisco Bay, the 100-foot shoreline band, salt ponds, managed wetlands, and certain waterways, as these areas are described in Government Code section 66610, and the Suisun Marsh, as this area is described in Public Resources Code section 29101;	The new policy describes how the Commission will implement the climate change policies. It restates the McAteer-Petris Act and Bay Plan policies that limit enforceability of Bay Plan policies to the Commission's jurisdiction; describes how the policies should be used in environmental reviews; and describes how the Commission will use the policies for consistency review under the federal Coastal Zone Management Act.

Climate Change	
Policies	**Staff Analysis**
(Policy 1., continued) b. For projects or activities that are located partly within the areas described in subparagraph a and partly outside such area, the findings and policies apply only to those activities or that portion of the project within the areas described in subparagraph a; c. For the purposes of implementing the federal Coastal Zone Management Act, the findings and policies do not apply to projects and activities located outside the areas described in subparagraph a, even if those projects or activities may otherwise be subject to consistency review pursuant to the federal Coastal Zone Management Act; and d. For purposes of implementing the California Environmental Quality Act, the findings and policies are not applicable portions of the Bay Plan for purposes of CEQA Guideline 15125(d) for projects and activities outside the areas described in subparagraph a and, therefore, a discussion of whether such proposed projects or activities are consistent with the policies is not required in environmental documents.	
Add underlined language as follows: 2. When planning shoreline areas or designing larger shoreline projects, a risk assessment should be prepared by a qualified engineer and should be based on the estimated 100-year flood elevation that takes into account the best estimates of future sea level rise and current flood protection and planned flood protection that will be funded and constructed when needed to provide protection for the proposed project or shoreline area. A range of sea level rise projections for mid-century and end of century based on the best scientific data available should be used in the risk assessment. Inundation maps used for the risk assessment should be prepared under the direction of a qualified engineer. The risk assessment should identify all types of potential flooding, degrees of uncertainty, consequences of defense failure, and risks to existing habitat from proposed flood protection devices.	The new policy requires assessment of sea level rise and flood risks in shoreline area planning and project design for some permit applications submitted to BCDC. The policy specifies the approach for selecting a sea level rise projection for the assessment, how inundation maps should be prepared and by whom, and other assessment criteria.

Climate Change	
Policies	**Staff Analysis**
Add underlined language as follows: 3. To protect public safety and ecosystem services, within areas that a risk assessment determines are vulnerable to future shoreline flooding that threatens public safety, all projects—other than repairs of existing facilities, small projects that do not increase risks to public safety, interim projects and infill projects within existing urbanized areas—should be designed to be resilient to a mid-century sea level rise projection. If it is likely the project will remain in place longer than mid-century, an adaptive management plan should be developed to address the long-term impacts that will arise based on a risk assessment using the best available science-based projection for sea level rise at the end of the century.	The new policy requires certain developments to be designed to be resilient to sea level rise based on a mid-century sea level rise projection and for developments of longer duration to also develop an adaptive management plan for addressing ongoing sea level rise, based on a sea level rise projection.
Add underlined language as follows: 4. To address the regional adverse impacts of climate change, undeveloped areas that are both vulnerable to future flooding and currently sustain significant habitats or species, or possess conditions that make the areas especially suitable for ecosystem enhancement should be given special consideration for preservation and habitat enhancement and should be encouraged to be used for those purposes.	The new policy encourages the protection or enhancement of low-lying areas with diverse habitat values or those that are suitable for natural resource enhancement. The policy articulates the Commission's preference for preservation or enhancement of these areas.
Add underlined language as follows: 5. Wherever feasible and appropriate, effective, innovative sea level rise adaptation approaches should be encouraged.	The new policy encourages the development and implementation of innovative sea level rise adaptation strategies.
Add underlined language as follows: 6. The Commission, in collaboration with the Joint Policy Committee, other regional, state and federal agencies, local governments, and the general public, should formulate a regional sea level rise adaptation strategy for protecting critical developed shoreline areas and natural ecosystems, enhancing the resilience of Bay and shoreline systems and increasing their adaptive capacity.	The new policy recommends that the region develop and regularly update a regional strategy to adapt to the Bay-related impacts of climate change. The policy suggests a framework is needed to organize multiple jurisdictions and allow for the type of adaptive management planning that is necessary when working with a high degree of uncertainty, complex, interconnected systems, limited resources, and the ongoing release of new scientific information.

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Policies	**Staff Analysis**
(Policy 6., continued) The Commission recommends that: (1) the strategy incorporate an adaptive management approach; (2) the strategy be consistent with the goals of SB 375 and the principles of the California Climate Adaptation Strategy; (3) the strategy be updated regularly to reflect changing conditions and scientific information and include maps of shoreline areas that are vulnerable to flooding based on projections of future sea level rise and shoreline flooding; (4) the maps be prepared under the direction of a qualified engineer and regularly updated in consultation with government agencies with authority over flood protection; and (5) particular attention be given to identifying and encouraging the development of long-term regional flood protection strategies that may be beyond the fiscal resources of individual local agencies. Ideally, the regional strategy will determine where and how existing development should be protected and infill development encouraged, where new development should be permitted, and where existing development should eventually be removed to allow the Bay to migrate inland. The entities that formulate the regional strategy are encouraged to consider the following strategies and goals: a. advance regional public safety and economic prosperity by protecting: (i) existing development that provides regionally significant benefits; (ii) new shoreline development that is consistent with other Bay Plan policies; and (iii) infrastructure that is crucial to public health or the region's economy, such as airports, ports, regional transportation, wastewater treatment facilities, major parks, recreational areas and trails; b. enhance the Bay ecosystem by identifying areas where tidal wetlands and tidal flats can migrate landward; assuring adequate volumes of sediment for marsh accretion; identifying conservation areas that should be considered for acquisition, preservation or enhancement; developing and planning for flood protection; and maintaining sufficient transitional habitat and upland buffer areas around tidal wetlands;	The new policy acknowledges the need to identify areas where existing development should be protected, those areas where development should eventually be removed and those areas where the Bay should be allowed to migrate inland; it includes sustainability as a criterion.

Climate Change	
Policies	**Staff Analysis**
(Policy 6., continued) c. integrate the protection of existing and future shoreline development with the enhancement of the Bay ecosystem, such as by using feasible shoreline protection measures that incorporate natural Bay habitat for flood control and erosion prevention; d. encourage innovative approaches to sea level rise adaptation; e. identify a framework for integrating the adaptation responses of multiple government agencies; f. integrate regional mitigation measures designed to reduce greenhouse gas emissions with regional adaptation measures designed to address the unavoidable impacts of climate change; g. address environmental justice and social equity issues; h. integrate hazard mitigation and emergency preparedness planning with adaptation planning by developing techniques for reducing contamination releases, structural damage and toxic mold growth associated with flooding of buildings, and establishing emergency assistance centers in neighborhoods at risk from flooding; i. advance regional sustainability, encourage infill development and job creation, and provide diverse housing served by transit; j. encourage the remediation of shoreline areas with existing environmental degradation and contamination in order to reduce risks to the Bay's water quality in the event of flooding; k. support research that provides information useful for planning and policy development on the impacts of climate change on the Bay, particularly those related to shoreline flooding; l. identify actions to prepare and implement the strategy, including any needed changes in law; and m. identify mechanisms to provide information, tools, and financial resources so local governments can integrate regional climate change adaptation planning into local community design processes.	

Climate Change	
Policies	**Staff Analysis**
Add underlined language as follows: 7. Until a regional sea level rise adaptation strategy can be completed, the Commission should evaluate each project proposed in vulnerable areas on a case-by-case basis to determine the project's public benefits, resilience to flooding, and capacity to adapt to climate change impacts. The following specific types of projects have regional benefits, advance regional goals, and should be encouraged, if their regional benefits and their advancement of regional goals outweigh the risk from flooding: a. remediation of existing environmental degradation or contamination, particularly on a closed military base; b. a transportation facility, public utility or other critical infrastructure that is necessary for existing development or to serve planned development; c. a project that will concentrate employment or housing near existing or committed transit service (whether by public or private funds or as part of a project), particularly within those Priority Development Areas that are established by the Association of Bay Area Governments and endorsed by the Commission, and that includes a financial strategy for flood protection that will minimize the burdens on the public and a sea level rise adaptation strategy that will adequately provide for the resilience and sustainability of the project over its designed lifespan; and d. a natural resource restoration or environmental enhancement project. The following specific types of projects should be encouraged if they do not negatively impact the Bay and do not increase risks to public safety: e. repairs of an existing facility; f. a small project; g. a use that is interim in nature and either can be easily removed or relocated to higher ground or can be amortized within a period before removal or relocation of the proposed use would be necessary; and h. a public park.	The new policy describes an interim approach to regulating development in low-lying areas within the Commission's jurisdiction. It encourages certain types of development in low-lying areas, if that development provides significant regional benefits, is resilient to sea level rise and has a strategy for funding adaptive management. It also encourages certain projects that will not negatively affect the Bay, or increase public safety risks.
Add underlined language as follows: 8. To effectively address sea level rise and flooding, if more than one government agency has authority or jurisdiction over a particular issue or area, project reviews should be coordinated to resolve conflicting guidelines, standards or conditions.	The new policy encourages coordination between jurisdictions with overlapping authority over shoreline development.