Draft Proposition 84 Storm Water Grant Program (SWGP) Straw Document

(Prepared by members of the State Water Resource Control Board's Storm Water Advisory Task Force)

Overarching Vision and Selection Criteria

Public Resources Code Section 75050.2 (Attachment A) requires the State Water Board to develop project selection and evaluation guidelines for the allocation of ninety million dollars ($90,000,000) made available through Proposition 84 for matching grants to local public agencies for the reduction and prevention of stormwater contamination of rivers, lakes, and streams. The purpose of this document is to lay out an overarching vision for those guidelines and to provide selection criteria for projects to address that vision.

Relative to stormwater and runoff, the status of major elements of California's hydrologic cycle can be generally characterized:

Stormwater quality: In the many parts of the State, flows over urban landscapes, as well as dry-weather flows from urban areas, are the most significant source of pollutants that contribute to water quality degradation. These flows carry potential pollutants downstream, which often end up on the beaches and in rivers, lakes, streams, bays, estuaries, and coastal waters.

Water supply: California is plumbed to capture, store, and deliver water based on the precipitation patterns of the late 19th and the 20th centuries. These historical patterns are changing and are expected to result in a significantly different condition in the current century.[1]

Water drainage: For the majority of California over the last 160 years, drainage of water from developments has been based on the traditional flood control principle of capturing and conveying water away from people, property, and, it turns out in many instances, uses of that water that are beneficial to people, other species, and our environment.

Low Impact Development (LID) is a stormwater management strategy aimed at maintaining or restoring natural hydrologic functions to achieve natural resource protection objectives and fulfill environmental regulatory requirements. LID employs a variety of natural and built features that simultaneously help address the challenges faced in the major elements of California's hydrologic cycle related to stormwater and runoff:

- Water drainage (reducing the rate of runoff),
- Stormwater quality (filtering pollutants out of runoff), and
- Water supply (facilitating the infiltration of water into the ground).

Because of these multiple benefits, LID is considered a superior best management practice (BMP) strategy.

Accordingly, the following project selection criteria are focused on promoting the use of LID as a stormwater management strategy.

[1] As the effects of global climate change increase during the 21st century, both halves of California's plumbing – supply and drainage – are expected to become increasingly outdated. An increasing amount of California's water is predicted to fall on the state, not as snow in the mountains but as rain in the valleys and on the coast, where development tends to occur. That phenomenon will likely have a profound and transforming effect on California's hydrologic cycle: 1) much of that water will no longer be captured by California's water supply plumbing and 2) it will exacerbate the challenge of managing flooding and hydromodification by increasing the amount of water flowing to and through our storm drain / flood control systems. This expected reality is reflected in statements in a number of recent public policy and scientific documents (Attachment B).

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Draft Criteria for the Stormwater Grant Program

Eligibility to be Scored

The project must demonstrably reduce pollutant loads, increase flood control and augment water supply through a Low Impact Development (LID) approach. Funds can be used for project planning, design, construction, and monitoring that add to the overall body of knowledge of improving alternative approaches to storm water management. The project shall avoid or mitigate negative impacts including: flood control, loss of habitat hardening of creeks or rivers, and shall not exacerbate any existing environmental problems in the vicinity or downstream of the project.

Eligibility for Presentation to the COAC and AOC:

Any project that does not obtain a minimum of 75 points will not be considered eligible for funding.

Project Evaluation Criteria:

Project Significance	
10 points	1. Is the project located in a high priority catchment area? How large is the catchment area treated? 2. Are the pollution problems and the loads from the drainage area treated by the proposed project significant? Please quantify. What are the influent concentrations and projected effluent concentrations from the proposed project?
Meeting LID Goals	
20 points (7 points maximum per question)	1. Does the project achieve the pre- and post-project hydrograph requirements for the site? 2. Is the project located at a transportation land use? (parking lot, street, etc.) 3. Does the project utilize proven LID best management practices (BMPs) or principles?
Pollution Reduction	
10 points	1. Does the project result in reduction of loads/concentrations of more than one pollutant? Quantify. 2. What are the number and types of pollutants that can be reduced? Bacteria, toxic sediment, pesticides, trash, and metals have highest priority. 3. Does the project cause positive or negative impacts to other pollution problems? (Up to 4 pts for positive and minus 4 pts for negative)

Pollution Reduction (continued)	
10 points	1. Is the BMP a proven BMP for pollutant removal of this type based upon available ASCE, USEPA, or site-specific BMP scientific data? 2. Does the BMP design effluent concentrations meet at least median performance on the ASCE/EPA database?
Compliance with Water Quality Goals	
10 points	1. Does the project help achieve water quality standard compliance for the impaired waters? If so, how. Please quantify. 2. During which seasons (wet and/or dry) would measurable compliance progress be achieved? (year-round improvement is the preferred goal)
Multiple Objectives	
20 points	Additional project benefits (10 pts. maximum for each criteria) 1. Does the project augment local water supply? Quantify and describe (producing aquifer and/or surface water). 2. Does the project significantly reduce flood risk? Describe and quantify.
Project Cost Effectiveness	
10 points	1. Do the project capital and O&M costs meet industry wide standards? How long does the project remain in operation before its replacement? 2. What is cost per unit of pollutant reduction? (example – cost per pound of pollutant reduced) 3. Can the project be cost effectively adapted to changing conditions (regulatory, pollution, land-use, etc)? 4. Does the project leverage any existing or potential funds from state and other sources? How much and from where?

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Project Readiness	
10 points	1. How ready is the project for implementation? 2. How complete are the project plans and specifications? When will the project be completed? 3. What is the status of CEQA and other permitting requirements? Is it CEQA ready? 4. Is there a site available for the project? Or, does a clear process exist for attainment (the parcel size, proximity to an impaired water body, soil condition, permeability, etc. are some characteristics considered when identifying a candidate parcel)? What is the project's construction duration?
Total points	**100 points**

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Attachment A: Public Resources Code Section 75050.2.

(a) The state board shall develop project selection and evaluation guidelines for the allocation of funds made available pursuant to subdivision (m)[2] of Section 75050. Upon appropriation, the funds shall be available for matching grants to local public agencies, not to exceed five million dollars ($5,000,000) per project, for projects to achieve any of the following purposes in accordance with the requirements of that subdivision:
   (1) Complying with total maximum daily load requirements established pursuant to Section 303(d) of the Clean Water Act (33 U.S.C. Sec. 1313(d)) and this division where pollutant loads have been allocated to stormwater, including, but not limited to, metals, pathogens, and trash pollutants.
   (2) Assistance in implementing low-impact development and other onsite and regional practices, on public and private lands, that seek to maintain predevelopment hydrology for existing and new development and redevelopment projects. Projects funded pursuant to this paragraph shall be designed to infiltrate, filter, store, evaporate, or retain runoff in close proximity to the source of water.
   (3) Implementing treatment and source control practices to meet design and performance standard requirements for new development.
   (4) Treating and recycling stormwater discharge.
   (5) Implementing improvements to combined municipal sewer and stormwater systems.
   (6) Implementing best management practices, and other measures, required by municipal stormwater permits issued by a California regional water quality control board or the state board.
   (7) Assessing project effectiveness, including, but not limited to, monitoring receiving water quality, determining pollutant load reductions, and assessing improvements in stormwater discharge water quality.

(b) (1) For the purpose of implementing subdivision (a), the state board shall give preference to a project that does one or more of the following:
      (A) Supports sustained, long-term water quality improvements.
      (B) Is coordinated or consistent with any applicable integrated regional water management plan.
   (2) The allocation of funds pursuant to this section shall be consistent with water quality control plans and Section 75072[3].

(c) The state board shall require grant recipients for projects described in subdivision (a) to assess and report on project effectiveness, which may include monitoring receiving water quality, determining pollutant load reductions, and assessing improvements in stormwater discharge water quality resulting from project implementation.

[2] 75050(m). The sum of ninety million dollars ($90,000,000) to the state board for matching grants to local public agencies for the reduction and prevention of stormwater contamination of rivers, lakes, and streams. The Legislature may enact legislation to implement this subdivision.

[3] 75072. Up to 10 percent of funds allocated for each program funded by this division may be used to finance planning and monitoring necessary for the successful design, selection, and implementation of the projects authorized under that program. This provision shall not otherwise restrict funds ordinarily used by an agency for "preliminary plans," "working drawings," and "construction" as defined in the Annual Budget Act for a capital outlay project or grant project. Water quality monitoring shall be integrated into the Surface Water Ambient Monitoring Program administered by the state board.

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Attachment B: Statements in select public policy and scientific documents regarding the impact of climate change on California's water, and planned responses

Assembly Bill No. 32, the California Global Warming Solutions Act of 2006 [4]
Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include …a reduction in the quality and supply of water to the state from the Sierra snowpack.

SWRCB Resolution 2007-0059 [5]
Whereas 1. Climate change is predicted to alter water availability with consequential adverse impacts to water quality, water temperature, and the ability to meet water right allocations.

Therefore be it resolved that 6. The State Water Board supports and encourages the development and implementation of regional pilot projects to reduce greenhouse gas emissions and demonstrate adaptation strategies that can be replicated statewide.

Water Boards Draft Strategic Plan Update 2008-2012 [6]
Priority 3. Promote Sustainable Water Supplies – Goal, Objectives, and Actions

Goal 3. Increase sustainable water supplies available to meet existing and future beneficial uses by 1,725,000 acre-feet per year, in excess of 2002 levels, by 2015.

Objective 3.2. Increase the acceptance and promote the use of recycled water and the reuse of stormwater as a locally available water supply.

Action 3.2.2. Work with industrial dischargers, stormwater agencies, the Department of Water Resources, water suppliers, and other stakeholders to develop a stormwater reuse target by September 2009 that takes into account data regarding stormwater flows, locations, and timing. This target will be used to update the goal for increasing sustainable water supplies in the 2010 update of the Strategic plan.

LUSCAT Draft Submission to CARB Scoping Plan on Local Government, Land Use and Transportation [7]
2.6.3. Improving Water Planning, Supply and Quality

State-wide water management and supply
Currently the system of water management is dependent on conveyance and export water. In order to provide more regional self sufficiency, water supply needs to be managed in a manner that reduces demand, reduces regional reliance on imported water, and increases a mixed portfolio of water sources and management.

[4] California Health and Safety Code § 38501(a)
[5] SWRCB Resolution 2007-0059, September 18, 2007; Approval to develop additional information and consider actions pertaining to climate change and water resources
[6] Water Boards Draft Strategic Plan Update 2008-2012, May 30, 2008
[7] Land Use Subgroup of the California Climate Action Team (CAT), May 5, 2008; Draft LUSCAT Submission to CARB Scoping Plan on Local Government, Land Use and Transportation

Land use
Patterns of land use affect water use and water demand has a direct correlation with energy…. Traditional large lot urban development produces high water demand for landscaping, oversized parks, golf courses and commercial business parks with landscaping. As urban development occurs in hotter regions of the state, this pattern of land use is projected to increase water use for landscaping to about 80% of total water demand. More compact, mixed use urban development reduces landscaping water demand.

4.4.4. Water
State Agency Strategies
Funding / Financial Incentives
Program Criteria
The SWRCB will develop climate change criteria for Proposition 84 grants for clean beaches, stormwater, and agricultural water quality programs.

Water Efficiency Incentives
DWR will provide incentives to developers and local governments to plan and build using more resource efficient development patterns that reduce water and energy demands. Grants and other incentives should be used to increase consumer interest in urban living and to encourage infill and compact development forms.

The LUSCAT recommends the State consider the appropriateness of the following strategies:
Water Efficiency and Reuse Guidelines and Support
Provide guidelines for outdoor water conservation including storm water management, permeable surfaces, landscaping requirements.

Low-impact Development
Consider adopting new construction and redevelopment requirements in Phase I and Phase II municipal storm water permits that encourage Low Impact Development (LID) practices and other measures aimed at reducing the water quality and other impacts of hydromodification.

SWRCB Resolution 2008-0030 [8]
Whereas 2. California continues to live beyond its means in water and energy resources. The threats of urban sprawl, climate change, water overdraft, and emerging pollutants require the State Water Resources Control Board and Regional Water Quality Control Boards (Water Boards) to stretch the scope of traditional water quality control efforts;

Whereas 3. Low Impact Development (LID) includes stormwater management techniques to maintain or restore the natural hydrologic functions of a site by detaining water onsite, filtering out pollutants, and facilitating the infiltration of water into the ground. This innovative approach helps meet water quality and water supply objectives and maintain healthy, sustainable watersheds;

Therefore be it resolved that 5. The State Water Board: Directs State Water Board staff to assign a higher grant priority to climate-related and LID projects, particularly those that are supported by local policies or ordinances;

[8] SWRCB Resolution 2008-0030, May 6, 2008; Requiring Sustainable Water Resources Management

SWRCB May 20, 2008 Meeting Item 9, Status Report on Climate Change Activities

Measures recommended for further evaluation by the Water Board in collaboration with DWR: [9]

2. Modify grant selection criteria to prioritize water quality improvement projects that incorporate water conservation, urban water reuse, water recycling, energy efficiency and other measures that reduce GHG emissions. The Water Board will continue to prepare and revise grant criteria as appropriate to consider climate change and sustainability measures…. Proposition 84 will include grant funds for… Stormwater [PRC 75050(m)],… These new grant programs under Proposition 84 could include criteria for how well a proposal incorporates climate strategies. This strategy has the potential for tracking/reporting GHG reduction as part of the grantee's reporting requirements.

Water-Energy subteam (WETCAT) Strategy II Urban Water Reuse: [10]

Draft Measure 1: Urban Water Reuse *(revised 4/03/08)*…This Climate Action Team (CAT) measure proposes to increase local water supplies by:

1) increasing regional stormwater capture, infiltration, and groundwater recharge,
2) adopting emerging strategies, such as Low Impact Development, to reduce stormwater runoff and increase infiltration in urban and suburban areas, and,
3) constructing small dispersed facilities to capture and reuse dry weather flows.

US Climate Change Science Program, June 2008, The Effects of Climate Change on Water Resources in the United States[11]

Water Resources Findings

There is a trend toward reduced mountain snowpack and earlier spring snowmelt runoff peaks across much of the western United States. This trend is very likely attributable at least in part to long-term warming, although some part may have been played by decadal-scale variability, including a shift in the phase of the Pacific Decadal Oscillation in the late 1970s. Where earlier snowmelt peaks and reduced summer and fall low flows have already been detected, continuing shifts in this direction are very likely and may have substantial impacts on the performance of reservoir systems.

[9] SWRCB Meeting Item 9, Status Report on Climate Change Activities, May 20, 2008; Measures recommended for further evaluation by the Water Board in collaboration with DWR

[10] Ibid; Water-Energy subteam (WETCAT) Strategy II Urban Water Reuse

[11] Agency for International Development; Department of Agriculture; Department of Commerce, National Oceanic & Atmospheric Administration (also, National Institute of Standards and Technology); Department of Defense; Department of Energy, Department of Health and Human Services, National Institutes of Health; Department of State; Department of Transportation; Department of the Interior, US Geological Survey; Environmental Protection Agency; National Aeronautics & Space Administration; National Science Foundation; Smithsonian Institution.