

EXHIBIT 16-D



CITY OF PACIFIC GROVE
Public Works Department
300 Forest Avenue, Pacific Grove, CA 93950

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SEP -1 2015

MPWMD

September 1, 2015

David Stoldt, General Manager
Local Water Projects Application
Monterey Peninsula Water Management District
PO Box 85
Monterey CA, 93942-0085

RE: Pacific Grove Ocean View Boulevard Stormwater Project Grant Application

Dear Mr. Stoldt,

The City of Pacific Grove is pleased to submit the attached application for funding from the Monterey Peninsula Water Management District for the Ocean View Boulevard Stormwater Project. The City is requesting \$75,000 in funding from MPWMD this fiscal year, matched by a City contribution of \$75,000. The Project has potential to produce 417 AFY of potable water supply from stormwater that currently flows to the Monterey Bay and Pacific Ocean.

The project would divert both wet and dry weather flows from Pacific Grove and New Monterey watershed areas into upgraded stormwater collection and treatment systems. This water can contribute to the Groundwater Replenishment Project in the Seaside Groundwater Basin for withdrawal and distribution as potable water by Cal-Am under the management of the District.

We look forward to your consideration of our request and to continue to work together collaboratively to address water issues facing the Monterey Peninsula region.

If you have any questions, please contact me at (831) 648-3188 or jkahn@cityofpacificgrove.org.

Sincerely,

Jessica Kahn
Environmental Programs Manager

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- 1) Name of Project Sponsor: City of Pacific Grove
- 2) Name of Project Sponsor: (i) Public Entity
- 3) Project Name or Title: Ocean View Boulevard Stormwater Project
- 4) Project Sponsor Contact Information: Jessica Kahn, PE, Environmental Programs Manager
City of Pacific Grove Public Works Department
300 Forest Ave
Pacific Grove, CA 93950
t(831)648-3188
jkahn@cityofpacificgrove.org
- 5) Amount of Funding Requested: \$75,000
- 6) Geographic Location of Project: The project is located in the City of Pacific Grove, primarily within the Ocean View Boulevard right-of-way from Forest Avenue west to the retired PGWWTP at Point Pinos.

7) Project Purpose & Description:

The primary project purpose is to update and complete the planning, engineering and regulatory analysis to produce a new potable water supply from stormwater that currently flows to the ocean and is not in compliance with the Pacific Grove ASBS Special Protections.

The project would produce up to 417 AFY of new potable water for the region while achieving up to a 90% reduction in pollutant loading during storm events. This will be accomplished by the completion of the plans to extend the City's successful dry weather stormwater elimination program both seasonally and geographically. Dry and wet weather stormwater system flows would be captured, diverted and conveyed to MRWPCA RTP and the advanced water treatment facility for participation in the Pure Monterey (formally Groundwater Management Project or GWR) project.

Additional project objectives and benefits:

- a. Produce an in lieu potable water offset that fully integrates with the City's Satellite Recycled Water Treatment Plant Project at Point Pinos (i.e., Pacific Grove's "Local Water Project") and that is financially and technically feasible;
- b. Produce new potable water by developing dry and wet weather storm system flows that supplement source water to the MRWPCA's indirect potable reuse project;
- c. Contribute new supplies of recycled storm water into regionally available potable water supplies;
- d. Effectively manage nuisance water discharges and watershed runoff in a manner that protects water quality and facilitates reuse;
- e. Facilitate future additions of stormwater BMPs for capture and reuse that will further enhance water quality and recycled stormwater reuse;
- f. Expand existing dry weather diversion system to collect runoff west of Lovers Point and thereby eliminate current ocean discharges;
- g. Reduce regulatory uncertainty by addressing the requirements of the ASBS Special Protections that impact the cities of Monterey and Pacific Grove;
- h. Produce a project that is operationally consistent with and does not exceed hydraulic capacities of MRWPCA's collection and treatment systems; and,
- i. Result in a project that maximizes its eligibility for additional state and federal financial support for design completion, construction, and operation.

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Project Description: The project would divert both wet and dry weather flows from Pacific Grove and New Monterey watershed areas into upgraded stormwater collection and treatment systems. Flows would be directed to a new stormwater detention facility at the former Point Pinos Wastewater Treatment Plant site and the MRWPCA RTP in Marina. MRWPCA would use this water to serve its Groundwater Replenishment Project in the Seaside Groundwater Basin for withdrawal and distribution as potable water by Cal-Am under the management of the District.

The City of Pacific Grove, in collaboration with the City of Monterey, has completed a 40 percent engineering design development. The analysis defines the Ocean View Boulevard Conveyance System sub-project and a Point Pinos sub-project that includes the proposed stormwater treatment facility. A project EIR was certified for a comprehensive ASBS Stormwater Management Project. The EIR includes Alternative 2: Treatment at the MRWPCA. This grant application focuses on several portions of the five sub-projects developed in those documents with proposed modifications of the Ocean View Boulevard Conveyance and Point Pinos Stormwater Treatment Facility and Crespi Pond sub-projects.

The hybrid project would consider stormwater detention at the PPWWTP Site. However, treatment of stormwater would be excluded since stormwater does not need to be treated before discharge to the sewer. One or more CDS units would be included to keep debris out of the system. Detention facilities would be sized and constructed adequate for the diverted stormwater flows to the PPWWTP site, thereby not overloading the MRWPCA.

MRWPCA would receive 100% of the diverted storm water that would supplement source waters to Pure Monterey as indirect potable reuse and to Castroville Seawater Intrusion Project (CSIP) for non-potable irrigation reuse. Stormwater flows would be metered into the sewage collection system in close coordination with the MRWPCA.

When stormwater flows exceed the 85 percentile event, diversion pumps could be shut off and stormwater would flow as currently occurs. Optionally, the City could capture end of season flows for management within its Satellite Recycled Water Treatment Plant project.

Onsite detention storage capacity could similarly be managed to produce a “peaking volume” that the City can draw upon if needed to meet peak irrigation demands, thereby adding flexibility into its recycled water system.

Grant funds would be used for the following purposes:

- Analyze a new hybrid project consisting of conveyance, detention and discharge facilities to MRWPCA that makes optimal use of existing facilities. This new project would be a hybrid of the 40% Design Engineering study, its alternative, and the Alternative 2 presented in the certified ASBS EIR;
- Update the engineering design of the ASBS Stormwater Management Project in conformance with the City’s Satellite Recycled Water Treatment plant Project;
- Confirm and update the underlying assumptions for hydraulic, hydrologic, civil engineering, environmental and regulatory analysis;
- Review and confirm inclusion of previously identified project alternative components for inclusion in the final project description;
- Update the project to be consistent with other regional water supply projects (City of Monterey’s David Avenue Reservoir Project), MRWPCA’s Pure Water Monterey Project (formally GWR), the Castroville Seawater Intrusion Project (CSIP), and Cal-Am’s seawater desalination project (Monterey Peninsula Water Management Project) and the City’s Satellite Recycled Water Project;
- Prepare and submit application packages for grants and low interest loan financing from the SWRCB, DWR, USEPA, and others as applicable.

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Proposed Project Facilities: The following facilities have been identified from studies completed to date. These facilities represent the current status of the project and are subject to revision based on the results of this project and the development of a new hybrid project.

- a. Approximately 1,100 feet of new gravity storm drain pipeline and 8,000 feet of pipe lining within an existing abandoned sewer force main;
- b. Diversion and bypass structures to direct stormwater from the existing storm drains into the new system components;
- c. A 320,000-gallon underground storage facility at the intersection of Caledonia Street and Pacific Avenue.
- d. A new CDS unit to remove trash and sediment prior to entering the new underground storage facility;
- e. Three new pump stations along Ocean View Boulevard designed to convey stormwater through the retrofitted existing sewer force main to the PGWWTP site;
- f. A 430,000 gallon Wet Weather Equalization Basin; and,
- g. Approximately 1,800 LF of Conveyance Pipeline.

8) District Goals:

8.1 *Can the Project provide water supply to the District for drought/rationing reserve (i.e. water that is not supplied to a beneficial use immediately upon project completion) and if so, how much?*

Yes; the proposed project will divert up to an estimated 417 AFY (almost 136 million gallons per year or roughly, when converted to potable water supplies, enough to meet the annual needs of about 2,000 families). The stormwater produced by this project would be used as an additional source to the Pure Monterey Project (GWR) for indirect potable reuse and if needed for the CSIP for agricultural irrigation by banking produced water into the Seaside Groundwater Basin (SGWB).

8.2 *Can the Project provide water supply to the District for potential future reallocation to the jurisdictions (i.e. water that is not supplied to a beneficial use immediately upon project completion) and if so, how much?*

Yes. Water diverted by the proposed project would be purified at the RTP and then injected into the SGWB to renovate the basin. Water injected into the SGWB would be under the management of the District and therefore available for future reallocation to the jurisdictions.

8.3 *Can the project be run in a manner that would provide surplus production that could be "banked" into the Seaside Groundwater Basin utilizing the District's Aquifer Storage and Recovery project?*

Yes. The proposed project would specifically convey stormwater to the RTP for recycling and participation in the GWR for injection into the Districts Aquifer Storage and Recovery (ASR) Project. See responses to 8.1 and 8.2 above.

8.4 *Are there multiple benefits to the region or the State as described in section 6, above?*

Yes. Multiple benefits result to the region and the State as identified in Section 7.a through 7.i above. These benefits include water quality protection, water supply augmentation, improvements to water supply reliability and drought protection as well as both non-potable and indirect potable reuse. From a statewide basis the proposed project helps to strengthen the regional self-sufficiency for water supplies while protecting valuable environmental resources of offshore habitat.

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9) Technical Feasibility of Project:

Based on the work completed to date, the proposed project has been determined to be technically feasible. A hyperlink to the 40% Design Engineering Report is attached:

<http://www.cityofpacificgrove.org/modules/showdocument.aspx?documentid=10782>

The environmental documentation for the City's overall stormwater program, inclusive of this proposed project is available at the following hyperlinks:

Draft EIR: [http://www.monterey.org/Portals/1/peec/stormwater/Monterey-PG ASBS Stormwater Management Project DEIR.pdf](http://www.monterey.org/Portals/1/peec/stormwater/Monterey-PG_ASBS_Stormwater_Management_Project_DEIR.pdf)

Final EIR: <http://www.ci.pg.ca.us/modules/showdocument.aspx?documentid=10633>

Additionally, the City has already determined the technical feasibility of the current portions of the dry weather stormwater project that have been operated successfully for the past five years.

10) Project Schedule:

Table 1 presents the milestone schedule for the proposed project inclusive of the following topic areas: updating of the feasibility study, conceptual design update, supplemental CEQA/NEPA process, major permits required.

Table 1. Milestone Schedule

WBS	Milestone Activity	Start Date	End Date	(Months)	Notes:
1	Grant Award	10/01/2015	10/01/2015	0.0	Project start will occur upon authorization of MPWMD Grant.
2	Update Project Description	10/01/2015	11/30/2015	2.0	
3	SWRCB Grant Application	10/06/2015	11/20/2015	1.5	
4	Inter-Agency Coordination	10/01/2015	06/17/2016	6.0	Activity occurs throught project duration
5	Prepare Facility Plan Report	12/20/2015	06/17/2016	6.0	
6	Regulatory Coordination & Permit Aps.	12/20/2015	06/17/2016	6.0	Activity occurs throught project duration
7	CEQA - Plus	10/01/2015	03/29/2016	6.0	
8	Financial Study for Construction	04/18/2016	06/17/2016	2.0	

11) Project Financing:

11.1 Project capital costs: Preliminary engineering capital cost estimates for the proposed improvements include material and labor costs, contingency (15%), project complexity factor (15%), engineering design (13%), construction management (8%), administrative and legal fees (2.5%) and inflation factor (4%). The proposed project described in this grant proposal consists of the components presented in Table 2.

Table 2. Preliminary Project Capital Cost & Annual Debt Payment			
Sub-Project	Description	Capital Costs	Annual Debt Payment
3	Ocean View Blvd. Conveyance	\$6,813,338	\$457,963
4	Point Pinos Stormwater Treatment Facility	\$4,973,686	\$334,310

11.3 Planning Phase Costs and Funding Sources: Table 3 presents the anticipated costs associated with the updates to the planning, engineering, environmental and regulatory work. Sources of these funds are also presented.

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No.	Description	Costs	Sources
1	Updating of Proposed Project Description	\$40,000	MPWMD and SWRCB
2	Facilities Plan Report	\$150,000	MPWMD and SWRCB
3	Supplemental Engineering Analysis	\$45,000	IRWMP Proposition 84
4	Supplemental CEQA Plus Documentation	\$70,000	IRWMP Proposition 84
5	Regulatory Coordination & Initial Permit Aps.	\$25,000	IRWMP Proposition 84
6	Financial Study for Project Construction Funding	\$20,000	IRWMP Proposition 84

11.4 Expected method of financing the capital costs source of debt repayment and security: A part of the proposed project will be the analysis of payment for capital costs of the project. This will include a review of potential sources of funds and security. Currently the City envisions that a portion of the project would be grant fundable through the DWR Proposition 84 Program and the SWRCB State Revolving Fund low-interest loan program.

11.5 Demonstrate applicant's matching share funding without MPWMD Assistance:

The City has previously spent over \$250,000 for the urban diversion system investigations. This has included money from the City's general fund to meet these project costs.

12) Annual Cost of Water:

The costs presented in this grant application reflect the Ocean View Boulevard Conveyance and the Point Pinos Stormwater Treatment Facility sub-projects. Costs have not yet been determined for the development of the new hybrid project. The hybrid would include removal of the stormwater treatment facility at Point Pinos, removal of the Crespi Pond diversion and energy dissipater, inclusion of a new detention facility at Point Pinos or the operational controls needed to synchronize the various project components.

Therefore, for simplicity, this grant application makes use of the cost analyses for the Ocean View Boulevard and the Point Pinos Stormwater Treatment Facility sub-projects with the understanding that the hybrid project under consideration is anticipated to cost significantly less than the full costs of these two sub-projects.

12.1 Estimated operating costs and capital cost recovery on an annual basis: O&M costs were prepared in the 40% Design Study to include the cost of labor, materials, and energy for equipment, structural and landscape components. Annual operation costs were assumed to be 3% of the preliminary capital cost estimate and were projected to increase annually by 1.5% for inflation.

O&M costs for the Ocean View Boulevard sub-project were estimated at \$235,900 and \$172,300 for the Point Pinos Stormwater Treatment Facility sub-project.

12.2 Estimated cost per acre-foot of water produced per year: The estimated production costs of 417 AF/Y would be based the capital and O&M costs previously developed. Assuming a 30-year operation of the project (based on a 30-year construction SRF loan at 2%) the unit cost for the project as previously proposed would be \$2,880. It should also be noted that in addition to the potable water that results from the project a significant avoided cost from noncompliance with the ASBS Special provisions would benefit the City.

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12.3 Annual and periodic renewal and replacement requirements: The annual O&M requirements are for the inspection, oversight, maintenance of the diversion pumps and pipelines. These activities are consistent with the City's current responsibilities for its existing dry weather diversion system.

13) Land:

13.1 Site and/or right-of-way requirements and status: The City owns the rights-of-way included in the proposed project. As currently configured, no new rights-of-way would need to be acquired.

13.2 Identify any approvals to date: The Final EIR for the Monterey-Pacific Grove Stormwater Management Project (SCH#: 2013101005) was certified by the City of Pacific Grove on June 18, 2014 and by the City of Monterey on August 5, 2014. The project was approved by both the City of Pacific Grove and the City of Monterey.

14) Permits required, schedule for approval, and already acquired permits:

The City of Pacific Grove is the Lead Agency for the project. The City of Monterey is a cosponsor and a Responsible Agency. The California Coastal Commission is also a Responsible Agency for the project.

Approvals and other permits that may be required from local, regional, state, and federal agencies as physical development occurs pursuant to the proposed project are as follows:

- Municipal Approvals and Permits
- City of Pacific Grove: Use Permit, Building Permit, Tree Removal Permit(s), and Encroachment Permits

State Permits:

- California Coastal Commission: Coastal Development Permit
- Central Coast Regional Water Quality Control Board/State Water Resources Control Board: Construction General Permit (CGP), Industrial General Permit (IGP) (for applicable built facilities), National Pollutant Discharge Elimination System (NPDES) Permit, Clean Water Act Section 401 certification or Waste Discharge Requirements (WDR), and compliance with existing Phase II Small Municipal Separate Storm Sewer System (MS4) General Permit requirements.
- California Department of Public Health: approval of treated stormwater for irrigation purposes
- California Department of Fish and Wildlife: 1602 Streambed Alteration Agreement
- California Department of Water Resources Division of Safety and Dams: approval of David Avenue Reservoir improvements

Federal Permits

- U.S. Army Corps of Engineers – Clean Water Act Section 404 Nationwide Permit

15) Consultants, Plans, and Bids:

The City has prepared the 40% Design Engineering and Certified EIR for the Monterey-Pacific Grove ASBS Stormwater Management Project. This proposal was prepared by Fall Creek Engineering with input from Brezack & Associates Planning (B&AP) who have assisted in the development and review of both of those documents. Additionally, B&AP has worked extensively on the development and analysis of the City's Satellite Recycled Water Treatment Plant Project that would directly integrate with this proposed project. Any consultant contracted for this project must have have knowledge and experience with the funding, analysis and review requirements for the Facilities Planning Grant, CEQA-Plus and SRF Loan financing. The City has not received any bids.