



**PUBLIC WORKS DEPARTMENT  
CITY OF PACIFIC GROVE**

2100 Sunset Drive  
Pacific Grove, CA 93950  
Telephone: (831)648-5722 / Facsimile: (831)375-0627

February 4, 2015

David Stoldt  
Monterey Peninsula Water Management District  
PO Box 85  
Monterey CA, 93942

RE: Pacific Grove Stormwater and Dryweather Flow Reuse 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 Stormwater and Dryweather Flow Reuse Project. The City is requesting \$100,000 in funding from MPWMD this fiscal year, matched by a City contribution of \$100,000. The project has potential to produce 155 acre feet of water by capturing stormwater and dryweather flows.

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.

Regards,

A handwritten signature in black ink that reads "Daniel Gho".

Daniel Gho,  
Public Works Superintendent  
(831)648-5722 ex.203  
Email: [dgho@cityofpacificgrove.org](mailto:dgho@cityofpacificgrove.org)





# City of Pacific Grove

## Stormwater and Dryweather Flow Reuse Project

### Grant Application Form

DATE: February 4, 2015

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#### Eligibility Summary

- Project Geographic Eligibility:** The City of Pacific Grove is within the geographic boundaries of the Monterey Peninsula Water Management District (“District”). Benefits of the Stormwater and Dryweather Flow Reuse Project accrue to all water users within the territory of the District, including but not limited to water users within the City of Pacific Grove, the Pebble Beach Community Services District/Carmel Area Wastewater District, the Presidio of Monterey, the City of Monterey, and unincorporated portions of the County of Monterey.
- Project Sponsor:** The City of Pacific Grove (“City”) is the Project Sponsor and is a public entity located within District boundaries.
- Project Purpose Eligibility:** The increase of stormwater and dry weather flows into the sanitary sewer system will produce an additional volume of non-potable water supply that can be treated and distributed by the District to be used for irrigation purposes by the farming community.
- This project will also assist the City in achieving regulatory requirements for the Pacific Grove Area of Special Biological Significance (ASBS).
- Matching Requirement:** The City of Pacific Grove has thus far committed \$100,000 towards the ASBS Regional Discharge Monitoring Program in 2014, and has also committed \$235,000 on engineering of stormwater related projects and urban diversion systems since 2012. The City will commit to provide matching funds of at least \$100,000, equivalent to 100% or more of the requested grant funds.



**Requirements**

- 1) Project Sponsor: City of Pacific Grove
- 2) Type of entity: Public entity
- 3) Project Title: Stormwater and Dryweather Flow Reuse Project
- 4) Project Sponsor Contact Information: Mr. Daniel Gho  
Public Works Superintendent  
City of Pacific Grove  
2100 Sunset Drive  
Pacific Grove, CA 93950  
(831) 648 5722 ext. 203  
[dgho@cityofpacificgrove.org](mailto:dgho@cityofpacificgrove.org)
- 5) Amount of Funding Requested \$100,000.00
- 6) Project Geographic Location: City of Pacific Grove
- 7) Project Purpose and Description.
  - a. Description of the project – facilities, operations, direct water supply benefits, and ancillary benefits.

**Facilities:**

The City of Pacific Grove’s Stormwater and Dry Weather Flow Reuse Project consists of the design, construction, monitoring, and operation of existing and new facilities to capture and convey stormwater flows and provide additional stormwater storage.

**Major Components:**

- 1. The first component of the Project is the upgrade of existing pumps and infrastructure at the Greenwood Park Diversion System.
  - Replacement of two 100 gallon per minute pumps with two 300 gallons per minute pumps
  - Evaluation and potential upgrades of valves, controls, and pipe capacity
  - Potential to produce 100 acre feet of stormwater diversion flow per year (2014 volumes were 15 acre feet, current system potential of 70 acre feet if continuous operation occurred)

The Greenwood Park Diversion System is the primary stormwater diversion system in the City of Pacific Grove. Currently the City has completed Phase Three of the Urban Runoff Diversion Project. All outfalls east of Lovers Point



are connected to this system. During the dry weather months the system is online and pumps all flows to MRWPCA Fountain Street Pump Station, Station 13.

2. The second component of the Stormwater and Dry Weather Flow Reuse Project is to initialize the capture of stormwater flows west of Lovers Point Park.

- Engineering and design of stormwater and sanitary sewer system pipe connections with a series of flow control valves and a SCADA system
- System will accommodate increased volume and ensure all ASBS regulatory requirements are met
- Potential to produce 50 acre feet of stormwater diversion flow per year

Two-thirds of dry weather flows in Pacific Grove are not tied into the current stormwater diversion system.

3. The third component of the Stormwater and Dry Weather Flow Reuse Project is to provide additional stormwater storage at Crespi Pond. Currently Crespi Pond is 1.5 feet deep and has a maximum capacity of approximately 2 acre feet

- If dredged to 3 feet deep and expanded towards the 16<sup>th</sup> tee of the golf links Crespi Pond could hold roughly 5 acre feet
- Previous exploratory drilling showed granite at a depth of 6 feet towards the north side and 8 feet towards the south end
- Installation of a pumping system into the inflow pipelines or a direct pipeline from Crespi Pond to the reclamation equipment
- Requires engineering, design and Coastal Development permits

Expansion of Crespi Pond would allow the City to supplement stormwater and wastewater influent flows for the production of reclaimed water for irrigation purposes with time-released stored stormwater.

**Operations:**

The City of Pacific Grove is currently responsible for the operation and maintenance of all existing dry weather flow diversion systems, including the upgrades to accommodate increased stormwater collection. The addition of a diversion system west of Lovers Point would also be the responsibility of the City, in collaboration with MRWPCA, especially during design and construction phases of the Project.

For component three of the Project, Crespi Pond, the City would be responsible for all expansion and dredging activities, and engineering and



design of pumps, valves, and other infrastructure for stormwater distribution. Operation and maintenance of the system would also be the responsibility of the City.

**Direct Water Supply Benefits:**

The Stormwater and Dry Weather Flow Reuse Project will be a direct benefit to the water supply as it is directly capturing stormwater for reuse that would otherwise be going directly into the Bay. Capturing stormwater and dry weather flows through diversion systems and conveyance to MRWPCA for distribution to growers, especially once the GWR system is online, is a direct benefit as consumers have become more conscience of the drought scenarios in California, thus reducing overall usage and creating lower volumes of untreated water flowing to the PCA. It is anticipated that the upgrade of the Greenwood Park Diversion System and creation of a diversion system west of Lovers Point could capture and convey at least 155 acre feet per year if the systems are operated continuously.

**Ancillary Project Benefits:**

- **Ocean water quality improvements:** Diversion, conveyance, treatment, and distribution of stormwater flows will prevent direct discharge into the Ocean. Flows diverted by this project originate both from the City of Pacific Grove and from the New Monterey area of the City of Monterey.
- **Stormwater capture and reuse consistent with California ASBS policy goals:** The Stormwater and Dry Weather Flow Reuse Project will capture, divert, treat, and recycle dry weather discharges and the 85<sup>th</sup> percentile wet weather flows (design storm requirement for ASBS). The Project will therefore comply with the state ASBS policy goals by ensuring that these flows do not cause or contribute to a violation of the water quality objectives in Chapter II of the Ocean Plan nor alter natural ocean water quality in the PGASBS.
- **Crespi Pond Rehabilitation:** Crespi Pond is widely known by residents and visitors as one of the premier bird watching areas on the Monterey Peninsula. By dredging and enlarging the capacity of the pond, the habitat for migratory birds will be greatly enhanced.

b. Describe capacity (acre-feet and/or MDG) in annual, seasonal or monthly terms.

- Greenwood Park Diversion System Upgrades = 100 acre feet per year if operated continuously
- Stormwater Flows West of Lovers Point = 50 acre feet per year if operated continuously
- Crespi Pond= 5+ acre feet of seasonal storage



- c. Describe all project participants and roles for successful execution.
  - The Greenwood Park Diversion System: City to coordinate with MRWPCA for increased volume and system expansion.
  - Installation of a diversion system west of Lovers Point: City to coordinate with MRWPCA, the California Coastal Commission (for permitting), and California State Parks.
  - Expansion of Crespi Pond: City to coordinate with California Coastal Commission (for permitting) and CourseCo, the operators of Pacific Grove Golf Links.

- d. Project Phase:

The Project will be comprised of three independent components. This grant request is for the initial planning and design of each component.

Component one consists of the pump upgrades at the Greenwood Park Diversion System. This component is achievable as the existing infrastructure, vaults, delivery pipelines to the sanitary sewer system, electronics, and valves, are already in place. Pump replacement would be completed in coordination with MRWPCA to ensure that their systems have the capacity to accommodate the additional inflow. Preliminary engineering will need to be completed to ensure that the electronics, vaults and valves could also accommodate the increased volume of flow.

Component two would consist of preliminary design and communication with MRWPCA in regards to gravity connections of the storm drain system west of Lovers Point into the sanitary sewer system. Stormwater and dry weather flows from this area of the storm drain system would be directed through the Coral Street Pump Station, Station 15. Preliminary communication, design and engineering would need to be completed to determine pipe capacity and pump station mechanics to ensure adequate capacity to accommodate the increased flow.

Component three would consist of the dredging of Crespi Pond. Dredging activities are currently underway at the site. The City has received a five year permit to complete maintenance dredging of the pond, and conducted initial dredging in 2014, but the permit does not allow significant expansion. Simultaneously with the other two components of the Project, the City would submit a Coastal Development Permit with the California Coastal Commission for expansion of Crespi Pond. Once a permit is acquired then engineering and design for expansion would be completed.

8) District Goals:



- *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 projects noted above would supply an additional non-potable water source that could be used for irrigation purposes.

- *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, the expansion of Crespi Pond could provide seasonal storage and ultimately be used to offset outdoor irrigation that currently uses potable water.

*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 diversion of stormwater flows to the sanitary sewer system can be conveyed to MRWPCA for inclusion in the groundwater replenishment project.

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

Yes, the Stormwater and Dry Weather Flow Reuse Project results in multiple benefits to the region and the state from the expansion of the stormwater diversion systems and storage capacities:

- Provide a drought/rationing reserve,
- Provide a potential future reallocation to the MPWMD’s jurisdictions,
- Provide surplus water production that could be “banked” into the Seaside Groundwater Basin. Reduce desalination plant operations and costs.
- Ensure water supply reliability, conservation, and efficiency of use.
- Improve ocean water quality improvements.
- Reduce non-point source pollution and point source discharges, consistent with the California Ocean Plan.
- Capture and re-use stormwater reuse consistent with California ASBS policy goals.

9) Technical Feasibility of Project. Information about the project and include as exhibits or define links to documents or websites for future reference.

The Dry Weather Flows Reuse Project technically feasible. The Project proposes to upgrade and construct facilities that are common in other municipal stormwater collection systems.





The City already has a stormwater diversion system in place to capture dry weather flows. Upsizing pumps, ensuring pipe capacity, and identifying other infrastructure needs at the Greenwood Park Diversion System will allow for additional flow capture. The support of the MPWMD will give the City the opportunity to evaluate all options for specific outfall connections and determine the best design and engineering for stormwater collection west of Lovers Point. Crespi Pond has undergone dredging and the City will continue these efforts over the next four years. Expanded engineering and permitting will create additional stormwater storage facility adapting a pond that already exists.

10) Project Schedule. Describe basic project schedule milestones including, but not limited to feasibility study, conceptual design, CEQA/NEPA Process, other permits required, etc. Major milestones included in the schedule are as follow:

- The City is in the process of completing a Concept study for first two components of the Project.
  - The City has yet to undergo any regulatory permitting for improvements to the existing diversion system, but is confident that with communication between MRWPCA and the City that this component is achievable.
  - The City is dedicated to the expansion of the diversion system west of Lovers Point.
- The City currently holds a five year waiver from the California Coastal Commission for the dredging of Crespi Pond and is committed to researching expansion for future storage capacity.

11) Project Financing. Describe project capital costs and construction schedule, even if the project is currently applying only for “planning phase” projects. For “planning phase” projects, also describe costs for solely that phase and sources of funding. Funding would be applied to the planning phase of all project components.

- Greenwood Park Diversion System upgrades: Estimated upgrades \$10,000-\$20,000
- Diversion System West of Lovers Point: Engineering, design and permitting \$80,000-\$100,000
- Crespi Pond Dredge: 2014 dredging of 200 Cubic Yards - \$25,000

Demonstrate applicant’s matching share. To date the City has committed \$360,000 since 2012 for monitoring, maintenance, and engineering of the current diversion system and maintenance of Crespi Pond.

If the District does not provide a grant, how will the Applicant fund that amount and proceed with the project? The City’s General fund would continue to fund the evaluation of this project.

12) Land. Describe the site and/or right-of-way requirements and status. Identify any approvals to date.



- Greenwood Park Diversion System Upgrades consist of Right-of-Way land near a greenbelt. This is City-owned land.
- The expansion of the diversion system west of Lovers Point is also located within the City Right-of-Way. Collaboration between the City and California State Parks system will be necessary as the City has outfalls that are located within Asilomar State Park.
- Crespi Pond Expansion solely falls within property that the City owns, but does not operate. In April of 2014 the City leased the operations of the golf course to CourseCo, and together the City and CourseCo are committed to wise use of water.

13) Permits. Describe permits required, scheduled for approval, and already acquired.

- California Coastal Commission – Coastal Development Permit for all three components
- MRWPCA – Approvals to upgrade the current stormwater diversion system and increase flow to MRWPCA pump stations