

EXHIBIT 4-J

Project Summary

Seaside Basin Ground Water Replenishment Project (GRP) Sponsored by the Monterey Regional Water Pollution Control Agency

PROJECT TITLE: Seaside Basin Ground Water Replenishment Project

PROJECT DESCRIPTION: The proposed Seaside Basin Groundwater Replenishment Project (GRP) involves the purification and conveyance of recycled water from MRWPCA's Salinas Valley Reclamation Plant (SVRP) for recharge of the Seaside basin. Recycled water has been produced by the SVRP since 1998. That water has been delivered to 12,000 acres of farmland in the Castroville region of the lower Salinas Valley, where numerous non-processed food crops such as lettuce, broccoli, cauliflower, celery, artichokes, and strawberries are grown. This same reclamation plant could produce additional water, which would be treated to drinking water quality and either percolated or injected into the Seaside groundwater basin to help recharge that basin.

Recycled water for the GRP would be delivered to the replenishment site through a recycled water trunkline that will be constructed under the Regional Urban Recycled Water Distribution Project (RURWP). The RURWP is described in the Planning Grant application submitted by the MPWMD, and is one of the projects that will be included in the Second Round Implementation Grant application that will be submitted by the Monterey County Water Resources Agency (MCWRA). In addition to providing irrigation water to numerous golf courses, parks, and landscaped areas in the Marina, Fort Ord, Seaside, Del Rey Oaks, and Monterey areas, the RURWP will also be able to deliver recycled water for the GRP. The GRP is included in this Implementation Grant application because it is located within the region covered by this application, even though the recycled water for the GRP would be delivered through the trunkline of the RURWP that is one of the projects which will be included in the MCWRA's Second Round Implementation Grant Application.

The GRP and the RURWP would work together to expand water recycling in this area. Working together the two projects will reduce the demand for potable water and also augment the potable water supply. The GRP would also work in parallel with the MPWMD's ASR project which is a separate project described in this Implementation Grant application. The Seaside basin is a major element of the water supply for the Monterey Peninsula cities. The GRP, along with the ASR project, would augment that water supply and also help mitigate seawater intrusion which is working its way into that basin. A more complete description of the GRP is provided in Attachment 1. Also included in Attachment 1 is a map showing the location of the GRP facilities within the Planning Region for this Grant Application.

The GRP is in the planning stage. An initial feasibility study has been completed ("Feasibility of Using Recycled Water to Recharge the Seaside Groundwater Basin in Monterey County", dated September, 2004 prepared by William R. Mills, PE, RG, DDE,

contained in Attachment 1). The feasibility study was for an ultimate project that could recharge up to 4,000 AFY. The GRP which is described in this Project Summary is for the initial 2,800 AFY of that larger project. It is anticipated that this is the volume of water that will be available for recharge over approximately the next ten years. Follow-on work is in progress involving coordination with other agencies, analyzing available hydrogeologic data for the proposed recharge sites, identification of environmental, permitting, and approval issues, development of criteria and parameters for a pilot-scale recharge facility, and preparation of a design report.

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GRANT FUNDS REQUESTED: \$2.2 million in Round 1 of Implementation Grants, as shown in Attachment 3B (with \$22.0 anticipated being requested in Round 2 of Implementation Grants – see discussion of this in the detailed Project Description.)

LOCAL COST MATCH: \$0.05 million local cost match in the Round 1 Implementation Grant Application, as shown in Attachment 3B (with \$2.65 million local cost match anticipated being provided in the Round 2 Implementation Grant Application - see discussion of this in the detailed Project Description.) The local cost match will be comprised of staff labor and local capital funding contributions from either cash reserves or debt-financing.

TOTAL BUDGET: \$26.9 million, as detailed in Attachment 3A.

PROJECT GOAL(S) AND BENEFIT(S): The principle goals and objectives of the GRP are to:

- Increase the amount of water that is recycled in the region;
- Increase the amount of water available from the Seaside Ground Water Basin for pumping by existing or new domestic wells;
- Help reduce the amount of over drafting of the Carmel River basin, as required by SWRCB Order WR 95-10;
- Reduce the amount of treated effluent that is discharged to Monterey Bay and the Monterey Bay National Marine Sanctuary;

SCHEDULE: Planning work for the GRP is already in progress and construction of the GRP's facilities is scheduled to be completed in late-2010 as shown in Attachment 2 which includes activities and/or milestones yet to be completed before a grant contract would be executed.

COORDINATES: 36° 35' north latitude; 121° 50' west longitude

WATERSHED: Seaside Groundwater Basin

COUNTY: Monterey

COOPERATING ENTITIES: The GRP will be sponsored by and carried out by the Monterey Regional Water Pollution Control Agency, and will be closely coordinated with the Monterey Peninsula Water Management District.

PROJECT CATEGORY: The GRP will be consistent with the Recycling/treated Wastewater Strategy described in Section 5.7 of the "Work Plan for the Monterey Peninsula, Carmel Bay, and South Monterey Bay Integrated Regional Water Management Plan and Integrated Coastal Watershed Management Plan, May 12, 2005," which was prepared and submitted by the MPWMD with its Planning Grant application.

PROJECT STATUS: The GRP is currently in the planning stage, with an initial feasibility study already completed (see Attachment 1) and subsequent work in progress. The Schedule contained in Attachment 2 shows the planned dates for completion of the remaining planning steps including CEQA and NEPA compliance, the preparation of design documents, acquisition of permits and approvals, and construction of facilities.

ATTACHMENT 1
PROJECT DESCRIPTION

SEASIDE BASIN GROUNDWATER REPLENISHMENT PROJECT

Project Description

The proposed Groundwater Replenishment Project (GRP) for the Seaside groundwater basin involves the purification and conveyance of recycled water from MRWPCA's Salinas Valley Reclamation Plant (SVRP) for recharge of the Seaside basin. The product water would meet all drinking water standards prior to groundwater recharge. State guidelines for groundwater recharge of purified recycled water require that the water be blended with water from non-wastewater sources. The blend water could come from the Seaside basin or Carmel River water that would be injected into the Seaside basin for recharge purposes by the MPWMD. This would increase the amount of water available from this basin for pumping by existing or new domestic wells.

During the summertime, the SVRP produces tertiary treated water from the effluent of the Regional Wastewater Treatment Plant. This recycled water meets all State and Federal standards for irrigating golf courses, parks, schools, and agricultural crops, including non-processed food crops which may be eaten raw. Currently, only agricultural applications are made, as a conveyance and distribution system for urban uses does not exist. However, construction of an urban water supply system, the Regional Urban Recycled Water Project, to provide irrigation water for the southern Monterey Bay area has been in the planning stages for many years. A water demand analysis shows that even with the development of the urban project, the combined agricultural and urban demands for irrigation water in the wintertime would be minimal. Thus, the SVRP would not be operated in the wintertime unless a project is constructed to utilize the wintertime volumes. In the near-term it is estimated that after the construction of the proposed urban system, about 2,800 AFY of SVRP water could still be produced in excess of the existing agricultural and potential urban demands. This quantity could be available for purification and groundwater recharge. Ultimately, it is anticipated that as much as 4,000 AFY could be available for recharge.

Recycled water from the SVRP would be purified by an advanced wastewater treatment plant (AWT). The AWT would most likely be constructed adjacent to the SVRP, although alternate locations will be considered during preliminary design. The AWT would process water to meet all State and Federal drinking water standards and the California Department of Health Services (DHS) requirements for groundwater recharge. The treatment processes would most likely include reverse osmosis (RO) for the removal of dissolved salts, microorganisms, and other constituents. An ultraviolet disinfection system would be provided to meet bacterial requirements and for destruction of organic compounds. The ultraviolet system might be coupled with the addition of hydrogen peroxide, if necessary to improve its effectiveness.

The SVRP should provide adequate pretreatment for the RO process. However, it may be desirable to include pretreatment with microfiltration to reduce biofouling of the RO membranes.

The purified water would be recharged either through surface recharge basins or by injection wells. In either case, the recharge facilities would be constructed on the former Fort Ord, east of General Jim Moore Boulevard. The selected recharge method would depend on the findings of surface recharge pilot testing. The two groundwater recharge concepts are:

Direct Injection into the Aquifers: MPWMD's pilot ASR demonstration project has shown that direct injection of potable water into the Santa Margarita aquifer is feasible. This aquifer is the primary groundwater supply in the Seaside basin. The pilot project is part of a proposed project, known as the Seaside Basin Storage and Recovery Project, which proposes to inject surplus Carmel River water into the aquifer with subsequent extraction by dual purpose wells. Purified recycled water could also be injected into the Santa Margarita aquifer. However, the underground retention period required by DHS dictates that the extracted water could not be withdrawn for a period of 12 months and must not be extracted within 2,000 feet from the point of injection. Thus, the groundwater replenishment injection well locations would need to be sited to ensure compliance with the DHS guidelines.

Surface Recharge using Recharge Basins: The U.S. Geological Survey has previously investigated the feasibility of surface recharge in the Seaside basin. While their investigation was not exhaustive, the study indicated that surface recharge was possible and concluded that most of the natural recharge to the basin was from surface recharge of rain water. The investigation estimated that 75% of the recharge to the basin occurs from rainfall.

The former Fort Ord area east of General Jim Moore Boulevard appears to be well suited for surface recharge. The U.S. Department of Agriculture soil survey for Monterey County describes the soils in this area, which consist of stabilized sand dunes, as exhibiting infiltration rates from 6 to 20 inches/hour. Further, there exist a number of surface depressions on this former Fort Ord site that could be used as recharge basins.

Recharge water would travel downward through the Aromas Sand into the Paso Robles Formation and then probably into the Santa Margarita. (The percolation pathways into this confined Santa Margarita aquifer are not currently well defined.) The percolation of the AWT water through the Aromas Sands would further purify the percolating waters.

While the upper layers of soil are conducive to surface recharge, subsurface clay lenses within the underlying aquifers could serve to possibly inhibit or retard the downward percolation of water. Therefore, if this recharge method is selected for further consideration it would be necessary to perform a pilot recharge test to determine the degree of retardation provided by these restricting layers.

The purified water would be transported to the groundwater recharge or injection site via a pipeline during the winter period when agricultural and urban irrigation demands are minimal. The RO process usually rejects about 10% of the influent as a brine stream. The brine stream would most likely be discharged into the brine disposal facility at

MRWPCA's Regional Wastewater Treatment Plant, although alternate disposal methods will be considered during preliminary design.

The initial feasibility study of the GRP ("Feasibility of Using Recycled Water to Recharge the Seaside Groundwater Basin in Monterey County", dated September, 2004 prepared by William R. Mills, PE, RG, DDE) is included at the end of this Attachment 1.

Eligible Water Management Elements

The GRP meets the objectives of protecting communities from drought and improving local water security by reducing dependence on imported water. More specifically, the GRP will help to accomplish the following water management elements, as prescribed in Section III.C of the November 2004 Grant Program Guidelines:

Programs for water supply reliability, water conservation, and water use efficiency;

- ◆ Programs for water supply reliability, water conservation, and water use efficiency;
- ◆ Groundwater recharge and management projects;
- ◆ Contaminant and salt removal through reclamation, desalting, and other treatment technologies;
- ◆ Water banking, water exchange, water reclamation, and improvement of water quality;
- ◆ Watershed management planning and implementation; and
- ◆ Demonstration projects to develop new drinking water treatment and distribution methods.

Project Goals and Objectives

The principle goals and objectives of the GRP are to:

- Increase the amount of water that is recycled in the region;
- Increase the amount of water available from the Seaside Ground Water Basin for pumping by existing or new domestic wells;
- Help reduce the amount of over drafting of the Carmel River basin, as required by SWRCB Order WR 95-10;
- Reduce the amount of treated effluent that is discharged to Monterey Bay and the Monterey Bay National Marine Sanctuary;

Relationship to IRWM Plan

Consistency with the IRWM Plan

The GRP will be consistent with the IRWM Plan being prepared by the MPWMD, and is specifically described in the following Sections of MPWMD's "Work Plan for the Monterey Peninsula, Carmel Bay, and South Monterey Bay Integrated Regional Water

Management Plan and Integrated Coastal Watershed Management Plan, May 12, 2005," which was included with MPWMD's Planning Grant application (hereinafter referred to as the "MPWMD Work Plan"):

- Section 4.3.2 – Expand water reclamation efforts
- Section 5.7.2 – Seaside Groundwater Replenishment Project

Achievement of IRWM Plan objectives

The GRP will fit into achieving the following objectives described in Section 4.0 of the MPWMD Work Plan:

- Section 4.2.1 – Maintain sustainable yield in the Seaside Groundwater Basin
- Section 4.3.2 – Expand water reclamation efforts
- Section 4.5.5 – Complete Seaside Groundwater Basin Management Plan
- Section 4.7.1 – Comply with SWRCB Order WR 95-10

Scientific Basis for the Project

The GWR is being patterned after the highly successful and widely respected "Water Factory 21" project constructed and operated by the Orange County Water District in southern California. Water Factory 21 is a 15 mgd advanced wastewater reclamation facility which has supplied fresh water for sea water barrier and groundwater basin recharge continuously since 1975. It has produced over 150,000 acre-feet of water for extraction by domestic wells. Water Factory 21 produces water that meets all drinking water standards.

Because of its success the Orange County Water District is now constructing a new groundwater replenishment project that will replace Water Factory 21 with an 80 mgd advanced water recycling system which will incorporate technical advances that have occurred since Water Factory 21 was constructed. The GRP will employ the same types of processes and technical advances that are being used in Orange County Water District's new facilities.

Compliance with Applicable Environmental Review Requirements

As shown in the Schedule contained in Attachment 2 and the Cost Estimate contained in Attachment 3 one of the planning steps for the GRP will be to prepare and certify the necessary documents, which are expected to be a joint EIR/EIS to satisfy all applicable CEQA and NEPA requirements. The NEPA requirements are expected to apply, because the proposed recharge site is located on Federal lands.

Metrics to be Used to Show Measurable Water Supply Improvement

The quantities of recycled water that are used to replenish the Seaside Groundwater Basin will be measured and recorded in accordance with RWQCB permit requirements for this type of project. MPWMD will continue its current program of monitoring

groundwater levels and groundwater quality in this basin. The increased amount of water that can be pumped from the basin as a result of the GRP will be determined by comparing well pumping records from before and after the GRP is implemented. Collectively, this information will enable the benefits of the GRP in terms of groundwater supply improvement to be quantified.

How the Project Will be Carried Out

The GWR will be carried out in the following three phases (referred to as Tasks in the Schedule contained in Attachment 2):

Task 1 – The Planning Phase. This phase will include coordination with other agencies, preparation of feasibility studies and other preliminary technical reports, pilot testing, CEQA and NEPA compliance processes, and preparation of the final design report that will serve as the basis for Task 2 – The Design Phase.

Task 2 – The Design Phase. This phase will include preparation of plans and specifications for the full-scale GWR project, obtaining of all necessary permits and approvals, and obtaining necessary right-of-way upon which to construct the GWR facilities.

Task 3 – The Construction Phase. This phase will include bidding, contract award, construction, and start-up.

Each of these tasks is shown in the Schedule (Attachment 2) and in the Cost Estimates in (Attachment 3).

Project Need

As noted above the GWR project is needed to help achieve several of the objectives described in Section 4.0 of the MPWMD Work Plan:

- Section 4.2.1 – Maintain sustainable yield in the Seaside Groundwater Basin
- Section 4.3.2 – Expand water reclamation efforts
- Section 4.5.5 – Complete Seaside Groundwater Basin Management Plan
- Section 4.7.1 – Comply with SWRCB Order WR 95-10

The GWR project is also needed to help the Monterey Regional Water Pollution Control Agency (MRWPCA), the regional wastewater services provider, achieve its goal of recycling 100% of its wastewater. Achieving this goal will nearly eliminate the discharge of treated effluent from MRWPCA's service area to Monterey Bay and the Monterey Bay National Marine Sanctuary, and will greatly help solve critical water supply problems facing the region covered by the "Work Plan for the Monterey Peninsula, Carmel Bay, and South Monterey Bay Integrated Regional Water Management Plan and Integrated Coastal Watershed Management Plan, May 12, 2005," which was prepared and submitted by the MPWMD with its Planning Grant application.

Environmental Compliance

The recharge facilities for the GWR are proposed to be located on Federal lands within the former U.S. Army installation at Fort Ord. MPWMD's previous experience installing ASR test wells in this same vicinity indicate that because of the involvement of Federal lands, compliance with both CEQA and NEPA requirements will be necessary. An environmental firm that is fully qualified to prepare and process the required documents will be hired to manage and conduct these activities. Experience gained by MPWMD with its ASR project will be drawn upon to assist in carrying out this work.

Compliance with local, County, State, and Federal permitting requirements will be accomplished by (1) meeting with representatives of each of the entities to brief them on the proposed GWR project, (2) obtaining from them their list of concerns and issues that will have to be addressed in their permits or approval documents, and (3) preparing and submitting to them the necessary reports, plans, specifications, and other documents, along with the required permit applications, in order to secure their approvals and obtain the necessary permits. These activities are shown on the Schedule and are included in the Cost Estimate.

Funding Match

As noted in Attachment 3A the total budget for the GRP is \$26.9 million. The amount of grant funds being requested in this first round of Implementation Grant Applications is \$2.2 million to help cover costs expected to be incurred during the Planning and Design phases of the work. The MRWPCA intends to provide a local match of \$0.05 million during the performance of the Planning and Design phase work through staff labor and/or cash reserves. These grant and local match amounts should complete the Planning and Design Phases as shown in Attachment 2 and Attachment 3B.

The intent is to submit an Implementation Grant Application in the second round for the remainder of the project (the Construction phase), which would be comprised of \$2.65 million in local match and \$22.0 million in grant funding. The local cost match for the Construction phase will be comprised of staff labor and local capital funding contributions from cash reserves and/or debt-financing.

The proposed local cost match of \$2.7 million for the full project exceeds the 10% minimum required local cost match.

The MRWPCA has planned, designed, and constructed numerous large capital projects over its 30+ years of existence including \$75 million of interceptor pipelines and pump stations, a \$55 million regional wastewater treatment plant, and a \$30 million regional water recycling plant. Debt-financing for the local cost share of these projects was provided through the sale of either revenue bonds or capital finance bonds. These same debt-financing approaches would be used to provide a portion of the funding match for the GWR project. The remainder of the funding match would be provided through staff labor and cash reserves to help cover other costs shown in the Cost Estimate.

PROJECT LOCATION MAP

