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Title: Staff Report for Appropriation of Water Pollution Control Plant Enterprise Fund Balance Reserve in the Amount of $420,000 for the Purpose of Procuring and Installing a Residential Recycled Water Fill Station in 2015-16 at the Water Pollution Control Plant

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Attachments: 1. recycled-water-uses-allowed-in-california-2013_0, 2. Rough Diagram of Tertiary Treatment System, 3. WaterBoard Residential_Recycled_August 2015

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Staff Report for Appropriation of Water Pollution Control Plant Enterprise Fund Balance Reserve in the Amount of $420,000 for the Purpose of Procuring and Installing a Residential Recycled Water Fill Station in 2015-16 at the Water Pollution Control Plant

SUMMARY AND RECOMMENDATIONS

Staff requests Council approval to appropriate $420,000 from the Water Pollution Control Plant (WPCP) enterprise fund balance reserve for 2015-16. These funds will be used to procure a 100 gallon-per-minute dual media reclaimed water filter, to fund installation of the system at the Water Pollution Control Plant, and to fund improvements to gates and fences to create a resident and traffic -friendly drive through area in the Plant. Some of these funds will also be used to develop a resident permitting program and to hire part-time attendants in 2016-17 for the station.

BACKGROUND

On January 17, 2014, the governor proclaimed a State of Emergency throughout the State of California due to severe drought conditions. On April 25, 2014, the governor proclaimed a Continued State of Emergency to exist throughout the State of California due to the ongoing drought. Because of the severity of the drought, alternative water sources and water conserving technologies will be important throughout the State, even if this is a heavy rain year.

One of the measures included in the governor's Executive Order was the prioritization of water recycling projects. Water recycling is effective and successful in creating a new and reliable water supply without compromising public health. Non-potable water reuse is a widely accepted practice that will continue to grow to accommodate environmental needs and growing water supply demands. Advances in wastewater treatment technology and health studies of blended recycle and potable water reuse cause experts to predict that planned indirect potable water reuse will soon become more common.

Currently, the WPCP produces secondary treated water, which is acceptable for use on golf courses and other lawn areas not associated with picnic uses; secondary treated water is currently in use on the City's two golf courses. It is not regulated or recommended for use in areas encompassing public picnic areas or on private garden fruits/vegetables that are consumed. A tertiary treatment system is necessary and required from a regulatory standpoint for a residential fill station. Disinfected tertiary recycled water is the only type of recycled water that can be used for residential landscaping (see attached Recycled Water Uses Allowed in California).

The first residential recycled water fill stations in the Bay area were designed and opened by Dublin San Ramon Services District (DSRSD) in 2014. It proved to be tremendously popular. For water recyclers, these stations were an opportunity to showcase the benefits of recycled water. For homeowners, they provide an opportunity to preserve landscape plants and trees despite serious potable water use restrictions during the drought. One recycled water agency noted the most satisfying benefit of their residential fill station program is educational outreach because customers become educated about recycled water, and even active advocates for increased use of a valuable and available resource. There are currently eight fill stations operating in the Bay Area, including those opened by DSRSD, Central Contra Costa Sanitary District, Delta Diablo Sanitary District, City of Livermore, and City of Brentwood.

Analysis

Currently, the WPCP produces 4.9 million gallons per day of secondary treated water. During warm weather months, approximately 9 percent of this is sold to American Golf Corporation for use on the City's two municipal golf courses and 6 percent is sold to EBMUD for use by its customers. The remainder of the unused secondary-treated effluent is discharged into San Francisco Bay. Should drought conditions continue this year, the City anticipates that 20,000 gallons per day of tertiary-treated water could be made available for residential use.

The WPCP plans to install a 100-gallon per minute tertiary treatment facility comprised of a dual tank filter system and a 10,000 gallon recycled water storage/disinfection tank. These facilities would be installed at the southern end of the Plant, close to Davis Street (see attached diagram). Appropriate modifications would be made to fencing and sidewalk areas to allow easy access to the facility when gates are open, but still provide security and prevent inadvertent access to the rest of the wastewater treatment plant by the general public.

The plans would need to be approved by the Regional Water Resources Control Board, the State Board's Division of Drinking Water, and East Bay Municipal Utility District (EBMUD). WPCP staff has already had discussions with EBMUD. EBMUD would fast track the City's application if or when it is submitted. The August 2015 notification from the Regional Water Board (see attached) indicates its general approval of residential fill stations.

Much of the labor for the installation of the system would be done in-house by WPCP staff. Fence, asphalt and sidewalk modifications would be done by contract and all required permits would be obtained. The Engineering and Transportation Department would be consulted with regard to optimizing traffic flow on Davis Street and determining operational hours for the fill station that would minimize potential traffic flow impacts.

In order to comply with State requirements regarding recycled water usage, the WPCP will need to

create a permit program for residents wishing to use recycled water. The WPCP has engaged the firm of MIG, who currently assist the WPCP with public outreach (flyers, mailers, etc.). Since there are many programs active in the Bay Area, staff believes it will be relatively simple to adapt one of the existing programs for the City's use. Staff anticipates that the facility could be constructed and available for use by summer of this year.

Applicable General Plan Policies

- **Policy 27.02 WATER CONSERVATION** Promote the efficient use of existing water supplies through a variety of water conservation measures, including the use of recycled water for landscaping.

- **Action 27.02-A: Urban Water Management Plan** Take the actions necessary to implement EBMUD's Urban Water Management Plan at the local level. EBMUD's Urban Water Management Plan states: "Recycled water use is a critical element of EBMUD's water supply management policies and stretches EBMUD's limited, high-quality drinking water supply, as any demand met with recycled or non-potable water reduces the demand for potable water supply."

- **52.05 CAPACITY** Maintain adequate capacity at the San Leandro wastewater treatment plant to accommodate projected levels of growth within the service area and encourage the Oro Loma Sanitary District to do the same. Support efforts to maintain and/or improve the high quality of treated effluent at both plants and increase the feasibility and cost-effectiveness of using recycled wastewater for non-potable purposes.

Environmental Review

The City finds that the proposed project is Categorically Exempt as defined in the CEQA Guidelines as follows:

> Section 15301 (a and b) Existing Facilities, whereby the project consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of the use beyond that existing at the time of the lead agency's determination, specifically subsections (a) Interior or exterior alterations involving such things as interior partitions, plumbing, and electrical conveyances; and (b) Existing facilities of both investor and publicly owned utilities used to provide electric power, natural gas, sewerage, or other public utility services.

Fiscal Impacts and Budget Authority

The filter for the Residential Recycled Water Fill Station will cost approximately $215,000; equipment rental and materials will cost approximately $120,000. Estimated costs for the construction of the gate, sidewalk and asphalt improvements are $70,000. Public outreach, signage, and creating and managing the permit program are estimated to cost $15,000. Additional temporary part-time personnel will need to be hired on a seasonal basis to man the station during operating hours. Maintenance and repair costs over five years are anticipated to be $5,000 to $10,000 per year.

The total 2015-16 cost to get the Residential Recycled Fill Station fully operational is estimated to be $420,000. The filter purchase and installation, public outreach, signage, and creation and

management of the permit program will come from 2015-16 appropriation request from the Water Pollution Control Plant Enterprise fund balance reserve to account 593-51-002-5240 in the amount of $420,000 . Part-time personnel costs in the amount of $25,000 will be requested during the 2016-17 budget update process.

ATTACHMENTS

- Recycled Water Uses Allowed in California
- Rough Diagram of Proposed Tertiary Treatment System at WPCP
- Water Board Residential Recycled Notice August 2015

PREPARED BY: Judy Walker, Administrative Analyst, Water Pollution Control Plant