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ID	Project Title	Partner Agencies	Submitting Agency	Project Summary
1	Pico Rivera Emergency Intertie	Pico Water District	City of Pico Rivera	Construct interties between the City of Pico Rivera, Central Basin MWD, and Pico Water District to transfer water among agencies when there is a need and continue fully utilize the groundwater remediation wells to protect water quality of the region. CBMWD is in the process of decommissioning its Water Quality Protection Plan (WQPP) primarily due to lack of funding and the City plans on modifying the existing wells, piping, and pumping facilities to integrate them into the City water system. Majority of the City’s production wells are over 50 years old and lost their well yield. This project will integrate an existing well of the CBMWD that was constructed less than 10 years ago to the City of Pico Rivera water system and continue pump groundwater as part of the cleanup process. Once completed, project will continue to provide ground water remediation, improve reliability of the City water system adding storage capacity, and provide assistance to neighboring agencies in emergency demand needs through inter-ties.
2	Advance Groundwater Wellhead Treatment Facility		City of Signal Hill	The Newport-Inglewood Fault runs directly through the City of Signal Hill. This unique geology essentially divides the City on a northwest axis, as well as provides a natural southern boundary for the Central Basin Groundwater Aquifer, preventing seawater intrusion from the south. However, the portion of the Central Basin Groundwater Aquifer that lies underneath the city limits, directly north of the earthquake fault has a high concentration of “organic color” within the groundwater. This project will construct an advance water treatment wellhead facility that will remove the organic color and treat this “new water source” for use as potable water supplies within the City
3	Furman Park/Rio Hondo Elementary School Recycled Water Main Extension and Irrigation System Improvement		City of Downey	The project consists of the design and construction of an 8-inch recycled water main and associated facilities from the Rio Hondo Golf Course, east to Furman Park and the Rio Hondo Elementary School for landscape irrigation purposes. The total length of new pipeline will be 2,100 feet. In addition, the irrigation system at the 14-acre Furman Park will be replaced to

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	Project			eliminate an inefficient system that is over 20 years old and uses excessive amounts of potable water. An estimated recycled water demand of 56 acre-feet per year is projected from the two sites.
4	Groundwater Well Supple Reliability Project		City of Signal Hill	This project rehabilitates two existing City groundwater supply wells located in the vicinity of Orange Ave. and Cherry Ave. Intersection and constructs a new groundwater supple well in the vicinity of Cherry Avenue and South Street. The City’s two existing water supply wells both were constructed in the 1980’s and are slowly losing groundwater production capabilities as they age. The rehabilitation/lining of these two existing wells will ensure the longest possible useable life of these facilities. The construction of a new water supply well will offset the loss of projection capacity from the two existing wells over time.
5	Hermosillo Park Well - Well No. 9 and water mains	City of Norwalk	City of Norwalk	Potable water well to serve the southern portion of the City's Municipal Water System
6	Installation of Catch Basin - Screening Devices (ARS/CPS)	City of Norwalk	City of Norwalk	Installation of CPS and ARS trash screening devices on 250 City and County owned catch basins located in Norwalk.
7	Los Angeles River Estuary Bacteria TMDL - Southeast Area Low Flow Diversion		City of Signal Hill	This project will construct a system that will divert low storm water flows from an existing storm drain outfall that services approximately 50% the Los Angeles River watershed located within the City’s boundaries directly into the Sanitary collection main for eventual treatment by the Los Angeles County Sanitation District. This project will prevent summer non-storm water flows and “first flush” storm low flows from ultimately being emptied into the Hamilton Bowl Storm water Retention facility and ultimately

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				pumped into the lower Los Angeles River Estuary.
8	Los Angeles River Estuary Bacteria TMDL - Southwest Area Low Flow Diversion		City of Signal Hill	This project will construct a system that will divert low storm water flows from an existing storm drain outfall that services approximately 40% the Los Angeles River watershed located within the City’s boundaries directly into the Alamitos Sanitary Sewer Lift Station for eventual treatment by the Los Angeles County Sanitation District. This project will prevent summer non-storm water flows and “first flush” storm flows from ultimately being emptied into the Hamilton Bowl Storm water Retention facility and ultimately pumped into the lower Los Angeles River Estuary.
9	Los Cerritos Channel Metals TMDL - Low Flow Diversion		City of Signal Hill	This project will construct a system that will divert low storm water flows from an existing storm drain outfall that services approximately 90% the Los Cerritos Channel watershed located within the City’s boundaries directly into the Spring Street sanitary sewer lift station for eventual treatment by the Los Angeles County Sanitation District. This project will prevent summer non-storm water flows and “first flush” storm low flows from ultimately being draining into the Los Cerritos Channel and ultimately into Alamitos Bay.
10	MWD West Coast Feeder Connection and Transmission Main	City of Paramount	City of Paramount	To complement the City's imported water connections this project would construct a new connection on the MWD's West Coast Feeder. It will provide the City of Paramount with more redundancy in the supply of imported water.

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11	New Groundwater Well		City of Downey	To help secure a reliable, safe, energy efficient, and economically feasible source of drinking water into the future, the City is proposing to construct a new deep groundwater well and associated equipment and piping. The scope of the project includes design, construction, materials, development, testing, and permitting of the well and associated equipment and piping. A Request for Proposals (RFP) was previously prepared and professional services agreement executed for the design and construction management of the project. The project has commenced and is currently in the preliminary design phase. City personnel would provide project oversight and administration of contracts.
12	New Water Well (1)	City of Paramount	City of Paramount	Construction of a new water well to replace an existing water well that is currently 30 years old. The project will provide the City with a reliable source of water for its residents for the future.
13	Bellflower Municipal Water Distribution System Reconstruction		City of Bellflower Municipal Water System	Project will replace approximately 44,000 linear feet of aging and undersized distribution mains to increase flow capacity for both domestic use and fire protection, minimize water loss through leakage and improve water aesthetics.
14	New Water Well (2)	City of Paramount	City of Paramount	Construction of a new water well to replace an existing water well that is currently 35 years old. The project will provide the City with a reliable source of water for its residents for the future.
15	Norwalk Park Reservoir and Booster Pump Station	City of Norwalk - could expand to City of Bellflower/Santa Fe Springs	City of Norwalk	This project is needed to increase water supply reliability and could be a joint project with neighboring communities.

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16	Norwalk Water Main/Meter Replacements - Gridley to Maidstone	City of Norwalk	City of Norwalk	Construction of approximately 3 miles of deteriorated and undersized water mains, and meters located in the south west corner of Norwalk. Design of the project has been completed. Funding request only for construction.
17	Outfall Monitoring	Cerritos, Downey, Hawaiian Gardens, Norwalk, Signal Hill, South Gate, Lynwood, Long Beach, Lakewood	City of Downey	The participating cities are subject to numerous TMDLs. Many of these TMDLs have various monitoring requirements. In addition, the new LA Regional Water Quality Control Board MS4 Permit will have new and extensive monitoring requirements. This project will be for the installation of 17 automated composite water quality monitoring stations (3 in Cerritos, 4 in Downey, 1 in Hawaiian Gardens, 3 in Norwalk, 2 in Signal Hill, 4 in South Gate) at storm water outfalls in the Los Angeles River, San Gabriel River, and Los Cerritos Channel to monitor and attain required TMDL levels and help manage water runoff in the region.
18	Pilot Plant for Treatment of Los Angeles River Water	Long Beach Water Department	Long Beach Water Department	Provide a skid mounted treatment train capable of treating 20 GPM and the engineering support to confirm the effluent will be suitable for potable use. The Pilot Plant is to be installed near West Del Amo Boulevard and Oregon Avenue Long Beach, CA. The pilot plant will be operated for 4 months with the option to increase the time of study to 24 months after review of initial data.
19	Potable Water Interconnections- Bloomfield x Hayford and Pioneer x Lakeland	City of Norwalk	City of Norwalk	Design and construction of two potable water interconnections in Norwalk, located at the intersections of Pioneer x Lakeland and Bloomfield x Hayford. The interconnections would serve as emergency back-up between City of Norwalk and two other water agencies, in case of contamination issues, or other emergencies. Currently, there is no back-up interconnection source for these locations.

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20	SCADA and Automation	City of Pico Rivera	City of Pico Rivera	<p>The City will upgrade the SCADA and Automation system to include the following:</p> <ol style="list-style-type: none"> <li>1. SCADA Workstation and new hardware plus redundant workstations</li> <li>2. Historian server for long term archiving</li> <li>3. Replace existing RTU's with PLC's</li> <li>4. Install uninterruptible power supplies for all devices</li> <li>5. Replace the leased telephone line communication with spread spectrum radio communications</li> </ol>
21	Shallow Wells Abandonment		City of Downey	To properly abandon three (3) old shallow groundwater wells (Wells 1, 13, and 20) to prevent potential cross-contamination from surface runoffs to drinking water aquifers.
22	Small System Infrastructure Rehabilitation Project	CBMWD and local retail water cities and agencies in DAC areas	Central Basin Municipal Water District	Central Basin MWD would act as the project manager and would distribute funds to local DAC cities and agencies on a first-come, first-served basis for small water system infrastructure projects to increase reliability and possibly provide water quality improvement.
23	Splash Pad/Spray and Wading Pool Retrofit	Other agencies may participate including the Water Replenishment District	City of Norwalk	Retrofit of spray pools/wading pools and splash pads in order to reuse water for irrigation purposes and/or groundwater recharge
24	Bellflower NPDES Permit and TMDL Compliance Storm water Improvements	City of Bellflower	City of Bellflower	<p>The project will consist of:</p> <ol style="list-style-type: none"> <li>1) installation of catch basin automatic retractable screens at various locations</li> <li>2) installation of bioswales at various locations</li> <li>3) installation of bioretention systems at various locations</li> <li>4) installation of infiltration basins at various locations</li> </ol>

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				5) installation of pervious pavement at various locations 6) installation of covered trash receptacles at various locations 7) NPDES permit and TMDL-required storm water and non-storm water monitoring
25	Storm Drain Improvement Project Zone 4	City of Paramount	City of Paramount	As part of the City of Paramount's Master drainage plan, several areas in the city have been identified as drainage deficient areas that are subject to flooding. This project includes the addition of storm drains to reduce or eliminate these deficiencies in Zone 4 of our established drainage zones.
26	Storm Drain Improvement Project Zone 2	City of Paramount	City of Paramount	As part of the City of Paramount's Master drainage plan, several areas in the city have been identified as drainage deficient areas that are subject to flooding. This project includes the addition of storm drains to reduce or eliminate these deficiencies in Zone 2 of our established drainage zones.
27	Storm Drain Improvement Project Zone 3	City of Paramount	City of Paramount	As part of the City of Paramount's Master drainage plan, several areas in the city have been identified as drainage deficient areas that are subject to flooding. This project includes the addition of storm drains to reduce or eliminate these deficiencies in Zone 3 of our established drainage zones.
28	Storm Drain Improvement Project Zone 6	City of Paramount	City of Paramount	As part of the City of Paramount's Master drainage plan, several areas in the city have been identified as drainage deficient areas that are subject to flooding. This project includes the addition of storm drains to reduce or eliminate these deficiencies in Zone 6 of our established drainage zones.
29	Storm Drain Improvement Project Zone 7	City of Paramount	City of Paramount	As part of the City of Paramount's Master drainage plan, several areas in the city have been identified as drainage deficient areas that are subject to flooding. This project includes the addition of storm drains to reduce or eliminate these deficiencies in Zone 7 of our established drainage zones.
30	Storm Drain Improvements in the City		City of La	City of La Mirada Storm Drainage Improvements at ten locations.

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	of La Mirada		Mirada	
31	Well 21 Conversion Project		City of Vernon	The Well 21 Conversion Project, currently in the process of having specifications developed, will convert an existing industrial well to a potable water production facility. The work will include the construction of a fully functional pump station. The installation of a discharge pump and motor, electrical equipment, inflatable packer, discharge piping, and SCADA controls are critical components of this project.
32	West San Gabriel River Parkway Phase 3 Development	City of Lakewood, Southern California Edison Company and L.A. County Public Works	City of Lakewood	The project will provide re-grading, establish predominantly native riparian flora, native grasses and add a 2,900-foot ADA trail along Lakewood’s 7.5 acres of undeveloped riverside land between Del Amo Boulevard and Candlewood Street. Project will link the new greenbelt with the existing 19 acres of the West San Gabriel River Parkway Nature Trail. The addition of this new trail development will create a mile and one-half of continuous greenbelt along Lakewood’s eastern edge. This will provide both traffic free river access for nearby residents, improve watershed, enhance the environment and add a quiet, natural oasis in an overbuilt area. The new development will also lend additional regional access for county residents seeking off road entry to the Los Angeles County San Gabriel River hiking, skating and bicycle path that extends from the base of the San Gabriel Mountains to Seal Beach. Completion of this trail will finalize Lakewood’s commitment to regional goals to establish access and greenbelt along the length of the river.
33	Catch Basin Trash Inserts and Face Plate Screens	Downey, Norwalk, Hawaiian Gardens, Lakewood	City of Downey	Trash and litter are already being removed from storm water runoff draining to the Los Angeles River via catch basin inserts. The remainder of the participating cities drains into the San Gabriel River and/or Los Cerritos Channel. No inserts have been installed in these areas. This project intends to remedy this situation by installing similar inserts and face plate screens at high-priority (i.e.: high-litter) locations.



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34	Cha'wot Open Space Preservation and Storm water Runoff Reduction		City of Signal Hill	This project proposes the purchase of up to 10 of 32 acres of available open space in the northerly hilltop area of Signal Hill to: preserve existing nature and wildlife; provide walking, hiking, and recreational opportunities; naturally reduce storm water runoff by preserving undeveloped open space; reduce the demand for potable water by reducing the amount of land available for development.
35	City of Signal Hill Recycled Water System		City of Signal Hill	This project will construct a recycled water system in the City of Signal Hill that also could be expanded in to areas of the City of Long Beach that are currently not served by recycled water. The City's Recycled Water Feasibility Study, completed in March 2012, established a recommended backbone recycled water distribution system alignment within the City boundaries that consist of approximately 47,000 linear feet of 2-inch up to 12-inch diameter distribution piping and a booster pump station. A total of 62 potential irrigation and industrial recycled water users have been identified within the City of Signal Hill with a potential total estimated recycled water demand of 183 acre-feet per year.
36	Coyote Creek Irrigation Runoff Reduction Program	City of Norwalk, City of Lakewood, and City of Bellflower	City of Norwalk	Installation of Irrigation Runoff Reduction Devices. The primary goal is to reduce metals loadings by reducing excess irrigation runoff via irrigation reduction technology, test plots of low-water using hybrid grass turf, and public outreach. This device measures soil moisture using wireless sensors that determine the optimal amount of water needed. This can reduce water usage by 50%.

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37	Disadvantaged Communities Schools Retrofit Program	CBMWD and MWD, local cities, retail agencies and various school districts.	Central Basin Municipal Water District	This program will be comprised of two components: first a retrofit program to install water and energy saving devices and second, an energy and water conservation educational program, all in 10 Disadvantaged Communities (DAC) schools. This program will retrofit schools K-12 with High-Efficiency Toilets, Zero Consumption or High-Efficiency Urinals, Custom Flow Control Valves, Waterbrooms, irrigation management systems, water saving irrigation heads, artificial turf and California Friendly plants where applicable. Potential energy retrofits will be coordinated with Southern California Edison. Additionally, an educational program will be implemented to increase student, faculty and staff’s knowledge of water and energy conservation and runoff reduction. A partnership with Southern California Edison and Southern California Gas Company will be pursued to fund a portion of the educational component.
38	Emergency Water Connection Improvements	City of Paramount	City of Paramount	The project includes various improvements to the current emergency water connections with the City of Long Beach, City of Downey and Golden State Water Company. Improvements include installation of meters, automated valving and SCADA connections at each water connection.
39	Fernwood Water Improvement Park	City of Lynwood	City of Lynwood	Fernwood Water Improvement Park is a multi-benefit project that serves disadvantaged communities in the City of Lynwood while meeting IRWMP water management objectives. The project site is currently an empty 6.5-acre lot owned by the City of Lynwood located on a long stretch along Fernwood Ave., between Atlantic Ave. and Long Beach Blvd. The park will feature storm water improvement elements such as infiltration areas and bioswales. The project also includes native shrubs and trees that will increase habitat for birds, butterfly species and mammals. Moreover, the park will provide recreational opportunities for disadvantaged communities in Lynwood.

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40	Monitoring of Activities Surrounding the Omega Chemical Corporation Superfund Site		GEOSCIENCE Support Services, Inc.	The Omega Chemical Corporation Superfund Site represents a significant threat to the quality and protection of ground water in the LA Gateway Region. Activities surrounding monitoring and remediation of the plume should be followed to ensure that the interests of the Gateway communities are being served. Future plans for remediation through pump, treat, and reinjection will provide for water quality enhancement and protection.
41	Addition and/or Expansion of Arsenic Treatment for Ground Water Extracted from the Pressure Zone of the Central Basin		GEOSCIENCE Support Services, Inc.	Naturally occurring arsenic has and continues to be a contaminant of concern within the deeper aquifers of the Pressure Zone of the Central Basin. Addition and/or expansion of arsenic treatment for potable ground water will provide for an enhancement in water supply to the region.
42	Addition and/or Expansion of Color Treatment for Ground Water Extracted from the Pressure Zone of the Central Basin	Lynwood	GEOSCIENCE Support Services, Inc.	Naturally occurring color has and continues to be a contaminant of concern within the deeper aquifers of the Pressure Zone of the Central Basin. Addition and/or expansion of arsenic treatment for potable ground water in this area will provide for an enhancement in water quality and supply to the region.
43	Addition of 1,4-Dioxane Treatment for Ground Water Extracted from the Central Basin		GEOSCIENCE Support Services, Inc.	1,4-dioxane is an emerging contaminant of concern that has been detected in many water supply wells in the LA Gateway Region. The highest detected concentrations in excess of the CDPH Notification Level (1 ug/L) occur in the northwestern portion of the Region near the Cities of Commerce and Bell, and in the central portion of the Region in the vicinity of the Cities of South Gate, Downey, and Norwalk. Addition of 1,4-dioxane treatment for potable ground water in these areas will provide for the enhancement and protection of ground water quality.

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44	Optimization of Strategies to Reduce Storm water Impacts on Surface Water Quality based on Cost-Effectiveness	Gateway IRWMP	Gateway	This planning project would identify the most cost-effectiveness approaches for reducing pollutant loading from storm water discharges. The planning process would include three components: (1) screening of locations where storm water BMPs could cost-effectively implemented, (2) application of watershed models to link storm water discharges to receiving water quality, and (3) BMP modeling to determine the most cost-effective BMP strategies. Cost-effectiveness would consider the type of BMPs (distributed vs. regional, green vs. gray, etc.), the size of BMPs, and the location of BMPs. Assessment of BMP locations would consider ownership (public versus private), footprint, and relative connectedness to receiving water. This project would greatly assist with TMDL planning and consider opportunities to infiltrate storm water and increase groundwater supplies.
45	57th Street Storm Drain Improvement Project		City of Vernon	As part of the City of Vernon's Master Drainage Plan, several areas have been identified as drainage deficient areas that are subject to flooding. This project includes the installation of 330 linear feet of 24-inch RCP pipe; 46 linear feet of lateral pipe, 2 catch basins, 1 manhole, 1 junction structure, and 2 concrete collars.
46	55th Street Storm Drain Improvement Project		City of Vernon	As part of the City of Vernon's Master Drainage Plan, several areas have been identified as drainage deficient areas that are subject to flooding. This project includes the installation of 1,520 linear feet of RCP pipe, 6 catch basins, 6 manholes, 4 junction structures, and 4 concrete collars.
47	District Boulevard Storm Drain Improvement Project		City of Vernon	As part of the City of Vernon's Master Drainage Plan, several areas have been identified as drainage deficient areas that are subject to flooding. This project includes the installation of 2,800 linear feet of RCP pipe; 326 linear feet of lateral pipe, 16 catch basins, 11 manholes, 8 junction structures, and 16 concrete collars.

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48	Vernon Catch Basin Trash Inserts and Face Plate Screen Project		City of Vernon	A vast majority of the City of Vernon's existing catch basins were fitted with inserts as part of the ARRA Funded Catch Basin Project. The City has approximately 46 City and 36 County catch basins that could not accommodate inserts due to size, shape, and angle constraints. The project will require the customer design and installation of 82 inserts in the vacant catch basins.
49	Production Well 22		City of Vernon	Well 22 Conversion Project will include the construction of a fully functional pump station. The installation of a discharge pump and motor, electrical equipment, inflatable packer, discharge piping, and SCADA controls are critical components of this project.
50	Vernon Outfall Monitoring Project		City of Vernon	The City of Vernon is subject to numerous TMDLs. Many of the TMDLs have various monitoring requirements. In addition, the new LA Regional Water Quality Control Board MS4 Permit will have new and extensive monitoring requirements. This project will be for the installation of 10 automated composite water quality monitoring stations at storm water outfalls in the Los Angeles River.
51	Cesar Chavez Park Recycled Water irrigation Project	City of South Gate, Central Basin Municipal Water District	City of South Gate	This project consists of extending a recycled water main West from Atlantic Ave. along Southern Ave. to irrigate future portions of the L.A.D.W.P right-of-way. This L.A.D.W.P. right-of-way is not landscaped and the City would like to improve this blighted property by continuing to add additional phases of Cesar Chavez Park Project and irrigating it with recycled water.
52	Firestone Blvd. Median Project	City of South Gate/Central Basin Municipal Water District	City of South Gate	This project would enhance the Firestone corridor by installing a landscaped median that will utilize recycled water to irrigate the landscape. A reverse swale would also capture storm water runoff

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53	South Gate Park Recycled Water Conversion project	City of South Gate/Central Basin Municipal Water District	City of South Gate	Conversion of South Gate Park from potable irrigation water to recycled water.
54	Tree Well Dry Weather Runoff and First Flow Storm water Capture/TMDL Project	City of South Gate/??	City of South Gate	Installation of tree wells designed to capture dry weather flows and first storm flows in tree wells along the curb before the flow reaches the storm drain.
55	Well 25 Replacement	City of South Gate	City of South Gate	Replacement of Well 25 that had well casing failure.
56	Storm Drain Improvements- The Manor and Salt Lake and Wood Avenues.	City of South Gate	City of South Gate	Improve storm water conveyance by increasing the size of the catch basins and the storm drain pipes that lead directly to the Los Angeles River.
57	Water SCADA Energy Savings Automation Project	City of South Gate/southern California Edison Company	City of South Gate	This project would give Edison the ability to shut off certain water wells during peak electricity demands of to participate in demand response events automatically.
58	Well 28 Reservoir and Booster Pump Station	City of South Gate	City of South Gate	Construction of a 1.5 million gallon reservoir and booster pump station.
59	Chittick Field	City of Long Beach, City of Signal Hill and Los Angeles County Flood	City of Long Beach	Construct additional 1) new Trash Collection Systems (TCS) and/or refurbished TCS at all inlets into the basin, 2) replace the concrete lined "low flow" swales with grass lined swales for bio-filtration, 3) construct a new underground "low flow" pipe network to convey treated water to the basin pump station and 4) replace existing pump station with new low flow

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		Control District		pump station.
60	Treatment of Low Flow and First Flush Storm water Discharges - Termino Drain	City of Long Beach	Department of Public Works, Storm water Management	This project will involve installation of a treatment train system to provide treatment for dry weather flows throughout the year and provide offline treatment of first flush flows during storm events. An on-site treatment system is proposed that will incorporate settling of larger particulates, filtration through ion exchange media, and support biological treatment by support of a plant and microbe community to provide further trapping, absorption, and uptake of pollutants through an array of physical, chemical and biological mechanisms. Reuse of the treated water for local irrigation will be explored to further reduce discharge volumes. Although a final decision has not been made with respect to the treatment system, it is expected that the installation will be comparable to the Modular Wetland System (MWS-Linear 2.0).
61	Pico Rivera 1.5 Million Gallons Reservoir	City of Pico Rivera	City of Pico Rivera	Construct a 1.5 M Gallon reservoir. Pico Rivera currently has three reservoirs that in total store less than 1 M Gallons. The proposed reservoir will enable the City to maintain an adequate quantity of water for the population and provide a source of water for itself and other municipalities, if a catastrophic event occurs.

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62	Long Beach Graywater Program	City of Long Beach,	City of Long Beach, Office of Sustainability	<p>The City of Long Beach is undertaking a pilot program that implements gray water "laundry to landscape" systems at up to 36 homes. To date, 26 homes have received gray water installations.</p> <p>The proposed project would:</p> <ul style="list-style-type: none"> <li>(1) Build on previous experience to expand the Laundry to Landscape program into 99 additional homes in Long Beach disadvantaged communities. Augment existing program to allow for appropriate landscape improvements for which the pilot project demonstrated a need.</li> <li>(2) Conduct 9 additional demonstration projects to study gray water solutions scaled for larger, multi-unit residences, residences with less open space, other uses for water from the Laundry to Landscape Program and other gray water sources (sinks/showers).</li> <li>(3) Monitor existing 36 pilot program installations to study long term maintenance requirements.</li> <li>(4) Include an outreach program to secure participants in qualifying DAC census tracts and block groups.</li> <li>(5) Installations will be conducted by a team that includes a professional plumber, college students pursuing environmental degrees and disadvantaged youth from the local community, thereby creating new knowledge-based skills in the community.</li> </ul> <p>A total of 108 properties will be retrofitted and will save approximately 2.2 AFY of potable water (Based on average of 130 gallons saved per week per installation).</p> <p>An additional unique benefit of the program is the direct engagement of DAC residents on water conservation issues and solutions.</p>



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63	Willow Springs Habitat Enhancement, Trail Improvement and Water Quality Improvements		City of Long Beach, Dept. of Parks, Recreation and Marine	This project will implement an important component of the Willow Springs Park Master Plan by restoring the existing storm water retention basin system to a naturalized system including a water treatment wetland and associated bioswales throughout the site drainage course. The existing concrete-lined detention basin will be restored to provide wetland habitat that will function as storm water retention as well as provide water quality improvements and native habitat. The basin and associated drainage system collects storm water runoff from the surrounding 50-acre site as well as surrounding areas. The trail system throughout the 50-acre site will also be constructed to provide recreational access to the native habitat and the water quality enhancements.
64	Citywide Parks Irrigation System Upgrades		City of Long Beach, Dept. of Parks, Recreation and Marine	Irrigation upgrades and central system controller to reduce potable water consumption at six parks totaling 96 acres. The project upgrades controllers at ten additional parks to central control, which will also reduce consumption of potable water. The project also installs central control hardware and software.
65	El Dorado Nature Center Lakes Water Quality and Water Conservation		City of Long Beach, Dept. of Parks, Recreation and Marine	The lakes at the El Dorado Nature Center are fed by potable water. The project would replace the potable water source with recycled water. To avoid additional nutrient problems with the reclaimed water, a nanofiltration system would be added to the reclaimed treatment to reduce nutrient levels to those in the potable water.
66	El Dorado Park Duck Pond Water Quality and Habitat Improvements		City of Long Beach, Department of Parks, Recreation and Marine	Storm water from a wide drainage area (including major streets) drains into the Duck Pond at El Dorado Park. Polluted runoff combined with avian waste from the large numbers of waterfowl who frequent the pond creates a highly contaminated water body in the midst of a large community recreational amenity. In addition, the concrete edges of the lake are crumbling and maintenance costs are escalating. The project will replace the concrete lake edges with bioengineering and vegetated treatments that will filter incoming runoff and provide habitat. Where possible, vegetated

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				swales will treat storm water as it flows to the pond, providing intermittent riparian habitat through the park.
67	El Dorado Regional Park Water Quality & Water Conservation		City of Long Beach, Dept. of Parks, Recreation and Marine	This project installs a nanofiltration system to enable reclaimed water to replace potable water for filling four recreational lakes in El Dorado Regional Park. The project also replaces hardscaped lake edges and stream connections between lakes with landscape bioengineered for filtration to provide habitat and improve lake water quality.
68	El Dorado Nature Center Lake Dredging and Leak Repair		City of Long Beach, Dept. of Parks, Recreation and Marine	The south lake at the El Dorado Nature Center is fed by potable water and has a major leak. The project will dredge the lake and repair the leak, saving approximately \$40,000 of potable water annually.
69	Long beach Urban Runoff Recycling Facility (LBURRF)	Cities of Long Beach, Signal Hill, Lynwood and South Gate	City of Long Beach, Public Work/Storm water Management	Construct a facility that would intercept non-Storm water and initial Storm water runoff flow and treat for trash, metals and bacteria after which the water would be recycle for irrigation use along the 710 Freeway and Parks along the vicinity of the Freeway.
70	The Los Cerritos, San Gabriel River and Alamitos Bay Outfall Trash Collectors	Long Beach, Signal Hill, Lakewood, Bellflower, Paramount, Downey, Norwalk,	City of Long Beach, Public Works/Storm water Management	Investigate sites along the Los Cerritos Channel, Lower San Gabriel River and Alamitos Bay to determine the feasibility of constructing full capture Trash Devices in specified storm drain outfall structures and catch basin This work will include the design and construction of these BMPs.

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		Cerritos		
71	The Los Cerritos, San Gabriel River and Alamitos Bay Low Flow Diversion System	Long Beach, Signal Hill, Lakewood, Bellflower, Paramount, Downey, Norwalk, Cerritos	City of Long Beach, Public Works/Storm water Management	Investigate sites along the Los Cerritos Channel, Lower San Gabriel River and Alamitos Bay to determine the feasibility of constructing Low Flow Diversion (LFD) Devices in locations that have high levels of metals and bacteria. This work will include the design and construction of 4 LFDs that will be identified in the feasibility report.
72	Construct Bioswales/Landscaping in various locations in Long Beach	City of Long Beach	City of Long Beach, Public Works/Storm water Management	Construct/Reconstruct new and existing medians to capture and treat storm water runoff that can be used for irrigation similar to a Filter Device/System.
73	Pump Station Vortex Separation System (VSS) Devices	Long Beach, Signal Hill, Lakewood, Bellflower, Paramount, Downey, Norwalk, Cerritos	City of Long Beach, Public Works/Storm water Management	Investigate sites upstream of storm drain pump station along the Los Cerritos Channel, Lower San Gabriel River and Alamitos Bay to determine the feasibility of constructing Pre Filter Vortex Separation System Structural BMPs to capture trash, metals and sediment possibly containing bacteria. This work will include the design and construction of these BMPs. 5 Location to be identified.