Compilation of Goals and Recommendations through 5/22/13

GOALS		
GOAL NO. 1, REDUCTION IN TOTAL IMPORTED WATER Based on anticipated delivery of approximately 200,000 acre feet of imported water from the County Water Authority in 2015, reduce the volume of purchases of water originating outside the County 12% by 2025 and 35% by 2035.		
GOAL NO. 2, INCREASE IN TOTAL RECYCLED WATER Increase production of recycled water, from potable reuse and/or other sources, to 10% of total treated water delivered within the City by 2025 and 35% of total by 2035. Adjust these goals upward if potable reuse is increased at a greater rate than currently anticipated.		
GOAL NO. 3, RECYCLING STORM WATER Establish a program for treatment and recycling of storm water, based on a collaborative study between the Public Utilities Department and the Transportation & Storm Water Department, with a goal of commencing implementation of such a program by 2020.		
RECOMMENDATIONS	**PERFORMANCE STANDARD**	**TIMING**
CONSERVATION		
RECOMMENDATION NO. C1: Modify Emergency Water Regulations as required to update and clarify text in the document, to make the current Level 1 Drought Alert a permanent voluntary standard. Examples of modifications may include, but are not limited to: a. Modifying and renaming the Level 1 Drought Alert to a permanent voluntary standard. b. Modifying the other stages of Drought Alert as required to clarify standards. c. Clarifying standards for non-potable water use during Drought Alerts. Include an Alternative Compliance application process for all drought alert levels for large water users such as parks, cemeteries, and golf courses.		

RECOMMENDATION NO. C2: To strengthen the Code and to encourage more water-conserving (e.g., WaterSmart) landscapes in new construction, modify the Water Conservation Code requirement for new landscape construction as follows: a. Reduce the Evapotranspiration Factor from 0.7 to 0.6. b. Modify the Plant Factors from "ranges" to specific numbers as follows: • Very Low Water Use Plantings 0.1 • Low Water Use Plantings 0.3 • Moderate Water Use Plantings 0.5 • High Water Use Plantings 0.8. Special Use Landscape Areas including parks, edible gardens, and special botanical areas should retain 1.0 ET adjustment factor.		
RECOMMENDATION NO. C3: Implement a water budget based billing program for commercial landscape meters. This includes the utilization of Geographic Information Systems (GIS) to quantify irrigated areas and modifying billing systems to charge commercial customers based on a water budget for the size of their irrigated landscape area.		
RECOMMENDATION NO. C4: Implement a permanent and ongoing water conservation and outreach program. City leaders, elected officials and others should take on the responsibility of helping to create a city-wide water conservation ethic. The City should substantially increase funding for public outreach and education on water conservation, beginning with the next municipal budget cycle, in order to promote conservation on an ongoing basis and not only during drought periods. This is a key factor in creating a citywide water conservation ethic. Provide the City Council Natural Resources and Culture Committee (NRCC) with quarterly updates on conservation efforts and outcomes, much like the status reports regarding water recycling efforts and the Water Purification Project. Examine the education and outreach tactics used in countries such as Australia to achieve their massive reduction in water use. Coordinate regional water consumer education campaigns using the latest research from social		

psychology that shows what messaging is most effective in influencing thoughtful water use behavior. Water agencies can also work with the private sector to develop public-private partnerships that can help reduce consumer demand.		
RECOMMENDATION NO. C5: Implement the Sustainable Development Incentive Program outlined in the most recent update of Council Policy 600-27. In addition, implement a voluntary (up to 100%) water offset program utilizing significant development incentives.		
RECOMMENDATION NO. C6: In coordination with the San Diego County Water Authority, investigate implementing an outreach and education program that concentrates on home improvement stores and nurseries in the region. Evaluate programs for labeling water conserving products, especially in the landscape industry, such as labeling drought tolerant plant materials.		
RECOMMENDATION NO C7: Expand "Cash for Grass" programs to effect real change in the landscape, with a goal of converting 1,000 residential and 200 commercial sites per year to water conserving landscapes.		
RECOMMENDATION NO. C8: Investigate expanding rebate programs for indoor or outdoor water-conserving fixtures and equipment that would be cost effective and successful.		
RECOMMENDATION NO. C9: Modify Municipal Code Section 147.04 to require retrofit at resale of all plumbing fixtures to water conserving fixtures, including replacing toilets that utilize greater than 1.6 gallons per flush.		
RECOMMENDATION NO. C10: Pursue new technology that provides real-time feedback tracking of indoor and outdoor water consumption for both residential and commercial property owners. Study technologies, and engage in a pilot study if appropriate (at the cost of the vendor), to demonstrate the success of products and methodologies, with the intent of promoting more widespread implementation of this technology.		

WATER RECYCLING AND REUSE		
Stormwater		
RECOMMENDATION NO. WR1: Direct the Transportation and Stormwater Department and the Public Utilities Department to investigate opportunities for strategic infiltration of stormwater in areas where stormwater could replenish existing groundwater basins. This provides multiple benefits: a. Infiltration may be the most cost-effective manner to address more stringent bacteria TMDL's. b. Stormwater infiltration could increase the yield of existing groundwater basins and reduce salinity. c. Stormwater infiltration would benefit the environment by reducing run-off.		
RECOMMENDATION NO. WR2: Direct the Public Utilities Department to increase the focus on characterizing groundwater basins such as the San Pasqual Basin, San Diego Formation and San Diego River System that could be potential local water supplies.		
RECOMMENDATION NO. WR3: Direct the Transportation and Stormwater Department and the Public Utilities Department to cooperate in investigating potential grant funding for a feasibility and pilot study, such as a multi-beneficial joint project that can be included in the Integrated Regional Water Management Plan for possible Department of Water Resources funding.		
RECOMMENDATION NO. WR4: Explore opportunities to develop a low impact development (LID) "Demonstration Project" in an area with high public traffic and access, such as Balboa Park, that would reduce run-off and also serve to educate the public. Alternatively, consider pursuing a "green streets" project, like the one in Los Angeles which produces multiple benefits and serves as demonstration site as well.		
RECOMMENDATION NO. WR5: Direct the Transportation and Stormwater Department to develop a new program that		

achieves the following goals: a. Funding City-wide stormwater management programs to meet existing and new Regional Water Quality Control Board requirements through the use of a new fee-based program that can be directly correlated to Equivalent Stormwater Units assigned to each individual property. b. Providing incentives, such as a fee reduction, to property owners of new and existing development to maximize the use of low impact development methodologies such as pervious pavement, grass rooftops, rain gardens, and trees to minimize stormwater run-off.		
Non-Potable Reuse		
RECOMMENDATION NO. WR6: Encourage "cost-effective" expansion of non-potable reuse by in-fill within the backbone of the existing system only. ("Cost effective" meaning the City can recover the cost of service.)		
RECOMMENDATION NO. WR7: Since existing recycled water rates were set at a discounted rate in 2001 and no provision was made for increasing them, and no adjustment to the discounted rate has been made since 2001, revisit the rate structure for users of non-potable recycled water and adjust the rate to recover the cost of service or at least index rates to keep up with increases in other water rates.		
Potable Reuse		
RECOMMENDATION NO. WR8: Move forward with recommended next steps in the 2012 Recycled Water Study.		
RECOMMENDATION NO. WR9: Discuss with the County Water Authority its participation in Phase 2 and Phase 3 of the Water Purification Project as part of a potential future regional water supply, as the advanced treated water from the Water Purification Project will be stored in San Vicente Reservoir, which can serve the region.		
RECOMMENDATION NO. WR10: Support legislation to streamline the regulatory process for indirect and direct potable reuse.		
RECOMMENDATION NO. WR11: Become an active participant in the Coalition for Direct Potable Reuse.		

RECOMMENDATION NO. WR12: Offer the Water Purification Demonstration Plant as a site for testing technologies and methodologies to demonstrate the ability to provide real-time monitoring and implement fail-safe process methodology for treating wastewater to potable water quality.		
Graywater		
RECOMMENDATION NO. WR13: Maintain the current “no permit” policy for Closed Clothes Washer Systems.		
RECOMMENDATION NO. WR14: Expand the “no permit” requirement to systems used for landscape irrigation that discharge less than 250 gallons a day and consist primarily of systems taking discharge water from washing machines and wash basins and do not include a potable water connection, the use of a pump, or affect other plumbing, electrical, mechanical or building components. Emphasize the use of Best Management Practices to prevent runoff.		
RECOMMENDATION NO. WR15: Streamline the permitting process for “simple” and “complex systems” that take discharge water from other elements in a residence such as bathtubs and showers that would require more extensive in-house plumbing, electrical or mechanical modifications or use of a pump.		
RECOMMENDATION NO. WR16: Direct the Public Utilities Department, in consultation with the Development Services Department, to develop and include information on simple graywater systems in their public outreach materials and social media outreach, including emphasis on use of Best Management Practices to prevent runoff.		
RECOMMENDATION NO. WR17: Continue oversight of "complex systems" in the purview of the Development Services Department in order to ensure that Plumbing and Building Code requirements are met.		

RATE STRUCTURE		
RECOMMENDATION NO. RS1: To encourage conservation, retain a tiered rate structure, but with greater cost difference between tiers. For example, some water suppliers that use a three-tiered rate structure charge thirty percent (30%) more for Tier 2 than for Tier 1, and forty percent (40%) more for Tier 3 than for Tier 2.		
RECOMMENDATION NO. RS2: Use the Cost of Service Study being performed for the City by Black and Veatch, to determine how much the City should charge for each tier of water service. (Note: Black and Veatch cautions, however, that the difference between tiers should not be unduly punitive, such as tiers that are 10 or 15 times higher than the base rate.)		
RECOMMENDATION NO. RS3: Continue with studies of a water-based budget for the City's approximately 4,400 irrigation-only accounts. Depending on the results of those studies, include this concept when the City next moves forward with a Proposition 218 notice seeking to increase rates.		
INNOVATION & TECHNOLOGY		
Leak Detection & Technology		
ORIGINAL RECOMMENDATION NO. IT1: The working group recommends that a presentation report on the IBM/Brady pilot study be presented to the Task Force on completion.		

RECOMMENDATION NO. IT2: Improve the quality of the data used to establish water loss performance indicators, such as: a. Evaluating accuracy in the determination of the number of service connections and length of water mains. b. Evaluating the potential for errors associated with determination of water input volumes. c. Introducing a program to address unauthorized consumption. d. Introducing a methodology to determine the magnitude for meter under-registration. e. Maintaining separate statistics for leaks and for water used in fire suppression. f. Benchmarking real versus apparent losses. g. Calibrating the City's current model. h. Evaluating pressure reduction through rezoning.		
RECOMMENDATION NO. IT3: Conduct the City's own assessment of potential pressure reduction throughout each pressure zone, if the City has not already done so, by such means as: a. Desktop assessment of existing topographic and water supply conditions, including customer base requirements. b. Evaluation and validation of network performance through hydraulic modeling. c. Identification and investigation of potential rezoning opportunities to reduce energy requirements.		
Facilitating Technology Development in the San Diego Region		
RECOMMENDATION NO. IT4: Investigate the possibility of using the Water Purification Project demonstration site or providing services, as appropriate, for local water treatment technology manufacturers and/or Blue Tech industries that need (or desire) to do field testing of new products.		
Energy & Water		
RECOMMENDATION NO. IT5: Include in any planned optimization study not only pumped storage but also		

development of solar energy at City-owned sites and the use of in-line hydroelectric (micro turbines) in places of pressure reducing valves at appropriate locations in the distribution system, to reduce imported energy consumption by the City and create overall long term energy savings.		
RECOMMENDATION NO. IT6: As part of the City's Energy Optimization Study, evaluate the costs and benefits of dynamic optimization programs that provide water utilities an opportunity to use behind the meter dynamic real-time SMARTGrid technology to increase efficiency and flexibility to better manage their own energy use. Considering the complexity of the City's treatment and distribution system, at the minimum, the dynamic optimization programs evaluated should be able to handle several hundred pumps, control-valves, and demand zones and save energy costs, in at least five main ways, by: a. Time-of-use load shifting where the pumping operations are moved from daytime (high energy tariff) to night-time (low energy tariff); b. Peak charges avoidance where the software will naturally chose to avoid running pumps during high periods when peak charges occur; c. Selecting lowest cost sources of water where the software queries the lowest cost of production of water and adjusts the water source based on the information; d. Achievement of shortest path through the trunk distribution network by constantly reading and working to the lowest headloss; and e. Pump efficiency improvement because the software holds the actual pump operating curve which is calibrated from flow and pressure measurements read from telemetry, and from the monthly energy bill. The software selects the combination of pump settings which delivers the overall lowest operating cost and highest possible efficiency.		
RECOMMENDATION NO. IT7: Take the "embedded energy" of any water supply into account in any future City water supply decisions. Since water and energy are intrinsically linked, both limited resources must be managed efficiently.		
On-Site Waste Water Treatment		
RECOMMENDATION NO. IT8: Develop a set of guidelines for on-site wastewater treatment and reuse (including proposals for sewer mining operations) which detail the issues and criteria (including		

the financial viability of a proposed project) that proposals must meet or address in order for the City to participate in or cooperate with such projects.		
RECOMMENDATION NO. IT9: Consider the value of both wastewater (when providing water for potential sewer mining operations) and reclaimed water (when projects provide water to City owned properties) and increased costs or avoided costs that the City would incur or realize, and how the proposed project could impact the City's plans for potable reuse when setting a charge for wastewater supply and/or purchase price of recycled product water provided by the project. Establish standby fees and reserved capacity charges for such projects, so that developers can take such fees into account in determining whether a proposed project makes economic sense.		
Advanced Metering Infrastructure		
RECOMMENDATION NO. IT10: Pursue grant funding to offset some of the costs for an entire system Advanced Metering Infrastructure retrofit		
RECOMMENDATION NO. IT11: Retrofit all of the remaining 265,000 water meters with AMI technology within 10 years		
RECOMMENDATION NO. IT12: Consider cost sharing with single family customers who would like to retrofit their water meters with AMI technology on a more expeditious basis.		