AGENDA REPORT

Meeting Date: May 5, 2015

Item Number: F-4

To: Honorable Mayor & City Council

From: Trish Rhay, Assistant Director of Public Works Services – Infrastructure & Field Operations

Michelle Tse, Senior Management Analyst MST.

Subject: WATER ENTERPRISE PLAN RECOMMENDATION

Attachments:

1. Psomas Memo 1 - Water Supply Alternatives & Recommendations for Proceeding with Further Detailed Analysis
2. Psomas Memo 4 - Ten-Year Estimated Costs for Nine Shortlisted Alternatives Including a Summary of Proposed Portfolio Scenario Costs
3. Psomas Memo 3 – Staff Augmentation Required to Address Water Enterprise Plan Recommendations
4. Psomas Memo 4a – Comparison of Ten-Year Estimated Costs for Nine Alternatives with MWD Purchases in Lieu of Implementing those Alternatives
5. January 13, 2015 Formal Session Agenda Report
6. Recommended 10 Year Financial Scenario – Financial Analysis

RECOMMENDATION

Staff seeks authorization from the City Council to finalize the Water Enterprise Plan as recommended by the Public Works Commission.

INTRODUCTION

At the May 20, 2014 Formal meeting, the City Council approved an agreement to retain PSOMAS to work with the Public Works Commission ("Commission") and Public Work Services to develop a 10 year Water Enterprise Plan ("Plan"). There were two distinct goals to be achieved through the development of this plan.

1. Define the long term strategy for the City of Beverly Hills related to the City's water supply; and
2. Identify the portfolio of actions/projects needed to meet this long term goal.

This report transmits the proposed Water Enterprise Plan framework and financial analysis that has been reviewed by the Public Works Commission and is being brought forward to the City Council for approval to finalize the Plan.

The City was one of the founding members of Metropolitan Water District ("MWD") in 1928. The City began purchasing water from MWD in 1941, a practice that has continued for the past 74 years. At the time, MWD offered a much more plentiful, cost effective and reliable option for potable drinking water. Subsequently, the City moved forward with discontinuing all local well production and became 100% reliant on MWD for its drinking water supply. This water supply strategy served the City well for over four decades.

However, in the early 2000's, it became apparent on a regional level that this strategy may not be as sustainable as once thought. As a result, the City once again looked to develop its local supply to supplement MWD. In 2006, Beverly Hill re-established four production wells and constructed a Reverse Osmosis Water Treatment Plant to begin reducing the City's reliance on MWD.

In recent years, the State wide water outlook continues to put increasing pressure on the regional water supply system. This pressure has inspired local agencies to begin evaluating local options for water supply and creating a diverse water supply portfolio.

It is now the ideal time for Beverly Hills to re-evaluate its long term strategy for water supply. The recommended approach below outlines what the Public Works Commission and Public Works staff believe is the optimal long term (10 Year) water supply strategy and the corresponding portfolio of projects and program.

DISCUSSION

Over the last 10 months, the Commission worked with PSOMAS and staff to complete an iterative review process. Strategy approaches such as water supply independence (100% local supply) versus water supply reliability (water supply flexibility) were discussed and weighed through triple bottom line analysis. Local and regional water supply sources were evaluated for cost, technical feasibility, and social impacts.

As a result, the Commission and staff determined water supply reliability to be the appropriate long term strategy. A reliability strategy would lead to a portfolio that achieves flexibility in water management for any given supply condition while leveraging the city's member agency relationship with MWD. It was determined that water supply independence was costly and did not provide adequate benefits to justify the high cost. The triple bottom line analysis guided the determination of the appropriate level of reliability.

During that process, various water source alternatives were evaluated by the Commission and staff based on numerous considerations such as cost, reliability, implementation, local control, legal/institutional regulations, environmental factors and operational complexity. As a result of this process, the Commission felt that greater consideration should be given towards improving the City's water system reliability. The City currently receives 90% of its water supply from one source (i.e. Metropolitan Water

District). As such, the Commission felt that it was important to diversify its water supply portfolio as a way to increase the City's water source reliability. As part of the pre-analysis completed by PSOMAS and staff, the Commission agreed to reduce the City's reliance on MWD to 75% and increase the City's water supply reliability by looking at alternative water sources. Furthermore, the Commission agreed that the reliable water supply alternatives be further evaluated based on affordability.

Nineteen (19) potential alternatives were initially identified through a collaborative workshop process with the Commission and City staff. A list of the 19 alternatives and the analysis is included in this report as Attachment 1. Based on the reliability factor, evaluation of those 19 alternatives resulted in a recommendation to focus efforts and proceed with a more detailed study for nine (9) alternatives; these 9 alternatives and related staffing needs are included in this report as Attachments 2 and 3, respectively.

Staff subsequently provided an update on the Commission's analysis on these 9 alternatives during the January 13, 2015 Formal Session. A copy of the January 13, 2015 agenda report is included as Attachment 5 for reference. At this meeting, staff reviewed the 9 alternatives being considered and the preliminary cost estimates associated with each of these alternatives. The City Council was very supportive with the Plan's progress and directed staff to return with a final Plan recommendation for the City Council's consideration in April 2015.

Based on the goal of a 25% non-MWD sourced supply reliability target (i.e. 2,828 AFY), the following is a summary of the strategies that the Commission is recommending to be included as part of the Plan's framework. The 2,828 AFY is based on projections that the City would need 11,313 AFY in Year 2025, assuming the City complies with conservation requirements. The following sections highlight the estimated costs (which includes capital, staffing and operational/maintenance costs), and the amount of additional water produced from each project. The water supply alternatives are listed in no particular order.

1. Optimize Current Hollywood Basin Production – Improve the existing Reverse Osmosis plant production to match the current Hollywood Basin well production potential of 1,120 acre feet per year ("AFY"); this should be achievable pending corrective actions at the plant and shallow groundwater development now being studied by other consultants under City staff direction. This action is achievable within a two year time frame. There is currently $2 million in the budget to develop the shallow ground water well at 342 Foothill Road. Staff anticipates the project cost would cost approximately $2 million. This project is considered an early action item and is not addressed in the 10 year plan.

2. Develop New Central Basin Wells – Develop approximately 1,700 AFY of new groundwater in the unadjudicated portion of the Central Basin near Interstate 10, approximately four miles from Beverly Hills. Developing new wells in this area will be considerably more economical than developing new wells in the Hollywood Basin due primarily to anticipated low production rates in the Hollywood Basin (approximately 200-300 gallons per minute (gpm) per well vs. about 800 gpm in the Central Basin). Developing three new Central Basin wells will take approximately seven to eight years with an estimated cost ranging from $26.5 million to $56.9 million (in 2015 dollars).

   Significant aspects of this project include the following:

- Retaining a design consultant
- Acquiring land for an initial site
- Drilling a pilot test hole that will be converted to a production well
- Addressing California Environmental Quality Act ("CEQA") requirements
- Acquiring land for designing, drilling, and equipping two additional production wells
- Designing expanded treatment facilities and 24,000 feet of transmission pipelines
- Constructing all of the above facilities
- Testing and permitting all three wells and treatment facilities

3. Increase Water Conservation – Meet the conservation goals as outlined in SBx7-7, which is to reduce the per capita urban water use by 20% by December 2020, and strive to achieve additional conservation beyond mandated goals. By implementing a multi-pronged strategy including public/quasi-public analytic engagement programs (for parks, schools, civic center, greenbelts, hotels, etc.), residential analytic engagement programs, system loss reduction and operations programs, and enhanced rebate programs, the City should be able to realize nearly 1,200 AF in additional conservation over the next five years. All of the aforementioned conservation programs can be commenced over a six to twelve month period. Estimated costs range from $1.5 million to $3.2 million (in 2015 dollars).

   Please note a separate agenda is included on the April 21, 2015 Study Session, which provides an update to the City Council about water conservation in light of the mandatory state-wide conservation regulations released earlier this month.

4. Water Banking – Invest in a groundwater storage bank such as Willow Creek Bank, located in Antelope Valley, to address a potential two year shortage of 3,400 AF. This would provide the City with reserves in the event MWD supplies are severely impacted by a lengthy drought. Subject to the availability of purchased water (to place into the bank), this program can be set up within two years. Preliminary cost estimates for this approach is approximately $5.4 million to $11.6 million (in 2015 dollars). The variance in cost range is due to the varying nature in how water banking operations are set up so costs will vary.

5. MWD – Continue to rely on MWD for purchase of 75% (approximately 8,485 AFY) of City supplies. The estimated cost for this supply will be approximately $11 million annually.

6. Water Resource Manager – Although not a water supply alternative, the Public Works Commission has expressed a critical need for this full-time position to oversee, manage, and successfully execute the various strategies outlined in the Water Enterprise Plan.

In the event the above program does not result in Beverly Hills meeting its supply demands during a severe drought, the City could still purchase additional MWD water at penalty rates (approximately 2.5 times the current rate). While this water would be fairly expensive, it would nevertheless be less expensive than developing water under other short-term options.

Based on the recommended framework, PSOMAS forecasts that the City has the potential to decrease its MWD purchase from the current 12,495 AFY to 8,485 AFY by FY 2024/25.

In addition to the water supply alternatives outlined above, the Commission is also recommending that the City incorporate projects such as the reclaimed water (purple pipe) system as part of the Santa Monica Blvd. street rehabilitation. The intent is to build the infrastructure that will further support the City's conservation efforts when future reclaimed water infrastructure becomes available. Additionally, the City should continue to monitor and evaluate its water will-serve[i] policy on a regular basis.

FISCAL IMPACT

As part of the financial analysis, the following approach was used:

- Forecast the spending pattern of any given water source alternative over the next 10 years;
- Evaluate how water rates will be impacted; and
- Explore financing options, such as revenue offsets including capacity fees and grant funding opportunities

Certain base assumptions were used as part of the financial analysis. Staff will review these base assumptions in greater detail during the April 21, 2015 presentation to the City Council.

To provide an overview, Attachment 6 is the recommended financial portfolio to fund the Plan. The analysis includes the following base assumptions as part of the 10-year revenue (cash flow) analysis if the Plan were to be implemented.

Revenue Assumptions

- The base value of revenues used for this review assumed that revenues would decline from the current level as a result of reduced consumption (i.e. 50% of customers would reduce 10%. 25% of customers would maintain their current usage and 25% of customers would increase their consumption by 5%).

    - Misc. Revenue increase 2%/year through FY19/20, 1%/year from FY20/21 through FY24/25
    - Lease of property increase at 3%/year through FY19/20, 1%/year from FY20/21 through FY24/25
    - Estimated capacity fee revenues of $500,000 per year through FY 24/25
    - Grant funding of $2 million in Year 2019/20
    - Metropolitan Water District subsidy of $344 per acre ft. produced by the new wells (beginning in FY22/23)

Expense Assumptions

- Personnel Services – increase 2%/year through FY19/20, 3%/year from FY20/21 through FY24/25
    - Additional personnel increases based on PSOMAS estimates

- FY15/16 to FY24/25 = $12,909,850 (Details are outlined in Attachment 2)

- Materials/supplies increase of 4% in FY15/16, 3%/year from FY16/17 through FY24/25
- Purchase water increase of 5%/year through FY19/20, 3%/year from FY20/21 through FY24/25
  - Reduced expenditures for Metropolitan water that is proportional to increased water production from new wells (beginning FY22/23)
- Contractual services increase 4% in FY15/16, 3%/year from FY16/17 through FY24/25
- Internal Service Fund charges increase 6.2% in FY15/16, average increase of 3.1%/year from FY16/17 through FY19/20, 3%/year from FY20/21 through FY24/25
- Other Miscellaneous increase of 4%/year through FY19/20, 3%/year from FY 20/21 through FY24/25
- Central Basin total expenses increased by 25% to $47M per the Commission's recommendation

- CIP projects with increases based on PSOMAS estimates (as outlined in Attachment 2; please note costs below may vary slightly due to the cost range related to water banking)
  - FY15/16 = $ 749,500
  - FY16/17 = $ 3,520,228
  - FY17/18 = $ 3,913,651
  - FY18/19 = $ 5,163,295
  - FY19/20 = $12,608,885
  - FY20/21 = $12,117,452
  - FY 21/22 = $ 4,046,350
  - FY 22/23 = $ 4,908,075
  - FY 23/24 = $ 5,055,342
  - FY 24/25 = $ 4,095,140

- Debt Service of $20M issued in FY16/17, $20M issued in FY19/20 and $20M in FY22/23 for an amount totaling $60M
  - Debt service payments (principal and interest beginning in FY16/17 and increasing with each additional issuance)
  - Interest rate is 4%

As part of the financial analysis, the Commission's proposal includes projected revenue offsets such as grant funding, capacity fees, and debt financing. Under this scenario, the additional revenue needed would be 5% in FY 16/17 through FY 18/19, 4% in FY 19/20 and 1% in FY 20/21 through FY 24/25.

Other revenues such as including two additional commercial tiers was discussed by the Commission as a way to address the equity in water rates paid by residential versus

commercial water customers. Currently, there is a 4-tier residential water rate structure but only a single tier water rate for commercial customers. If this approach is to be considered, staff will work with the Commission to first complete an engineering study to evaluate the City's operating costs before a proposed rate structure can be presented.

It is important to note that under the proposed framework, no additional revenue is needed in FY 15/16.

Don Rhoads	George Chavez
Finance Approval	Approved By

[i] A Will Serve letter is an agreement between a water supplier and property owner to provide water service. The water provider makes a determination if its system can provide water for the project development.