



**DATE:** December 3, 2019

**TO:** Mayor and City Council

**FROM:** Director of Public Works

**SUBJECT:** Adopt a Resolution Authorizing the City Manager to Execute Three Agreements Related to the Bay Area Water Supply and Conservation Agency Pilot Water Transfer

### **RECOMMENDATION**

That Council adopts a resolution (Attachment II) authorizing the City Manager to execute three agreements related to the Bay Area Water Supply and Conservation Agency (BAWSCA) Pilot Water Transfer: 1) BAWSCA-Hayward Pilot Water Transfer Agreement; 2) Regional Intertie Side Agreement between City of Hayward, East Bay Municipal Utility District (EBMUD), and San Francisco Public Utilities Commission (SFPUC); and 3) Hayward-SFPUC Pilot Water Transfer Agreement.

### **SUMMARY**

The Bay Area Water Supply & Conservation Agency (BAWSCA) has proposed a one-time pilot water transfer under which BAWSCA would purchase up to 1,000 acre-feet of water from the Amador Water Agency (AWA) for delivery and use within the BAWSCA service area. Under the proposed project, the transfer water would be conveyed through the EBMUD water system and delivered to the City of Hayward (City), a BAWSCA member agency, through the Regional Intertie, which connects the EBMUD water system to the SFPUC Regional Water System through Hayward. During the pilot water transfer, the City would switch its water supply and receive water from EBMUD, instead of SFPUC, which requires the City to modify water system operations and pump water in the reverse direction for delivery to customers. Transfer water that is not used by the City would be pumped into the SFPUC Regional Water System.

Consistent with the requirements of the City's existing Regional Intertie agreements, the pilot water transfer is scheduled to occur during a planned critical maintenance shutdown of the SFPUC Hetch Hetchy system in January 2020. Existing agreements and approvals limit the allowable uses of the Regional Intertie to emergencies or planned critical maintenance work on EBMUD, SFPUC or City facilities. Over the past year, staff has worked closely with BAWSCA and other parties to prepare seven agreements under which the proposed water transfer could be implemented, of which the City would be a party to three.

The Council Sustainability Committee (CSC) received an update on the proposed pilot water transfer, impacts to the City, and key agreement terms and provisions at its October

30, 2019 meeting. Committee members provided staff with comments and direction, which are summarized in the Discussion section of this report and have been incorporated into the final negotiated agreements. Based on the input received from the CSC, staff is recommending Council authorize the City Manager to execute the three agreements related to the City's participation in the BAWSCA pilot water transfer.

## **BACKGROUND**

The purpose of the pilot water transfer is to (1) identify technical, financial, and institutional issues associated with a potential water transfer and (2) test the ability to implement a water transfer by securing approvals needed to deliver transfer water for a limited duration during emergencies and planned critical maintenance work. The pilot water transfer is not a commitment to future transfers. Hayward has been working cooperatively with BAWSCA, EBMUD, and SFPUC on this effort.

BAWSCA initially planned to purchase Sacramento Valley water that could be delivered to BAWSCA's service area by EBMUD using the Freeport Regional Water facilities, which included an intake located on the Sacramento River, pumping plants, pipelines, and the federally owned Folsom South Canal. As EBMUD is not planning to activate Freeport in the foreseeable future, BAWSCA has negotiated with the Amador Water Agency (AWA) to obtain a limited supply of Mokelumne River water in order to implement the pilot water transfer. The Mokelumne River is EBMUD's primary water supply source and transfer of Mokelumne River water would not require use of the Freeport Regional Water Project.

The transfer water would be conveyed through the EBMUD water system and the Regional Intertie for delivery and use by the City, a BAWSCA member agency, in lieu of supplies from SFPUC. The Regional Intertie is a collection of facilities that are jointly owned by EBMUD and SFPUC, located in and operated by the City. The First Amended Joint Exercise of Powers Agreement between City and County of San Francisco Public Utilities Commission, East Bay Municipal Utility District, and City of Hayward for Long-term Operation and Maintenance of the Emergency/Maintenance Water System Intertie Project dated July 10, 2007 ("Regional Intertie Operating Agreement") allows for the use of the Regional Intertie only during emergencies and planned critical maintenance work. The Regional Intertie was last operated in 2009-10 when the parties performed a full test of the facilities shortly after the project was constructed. For the proposed pilot water transfer, the parties would allow a one-time use of the Regional Intertie to implement the BAWSCA pilot water transfer, subject to mutually agreeable terms and conditions. Attachment II shows the path of the pilot water transfer and the facilities involved. As shown on the figure, operation of the Regional Intertie to deliver transfer water outside of the City requires using City-owned assets and infrastructure.

Under normal conditions, the City receives water from the SFPUC Regional Water System (RWS) at two turnouts in the southern part of the City, and the water is delivered largely by gravity to customers. The terms of the City's 1962 Water Sales Contract with SFPUC expressly state that Hayward shall not receive water from any other water supplier or delivery points, other than the two turnouts off of SFPUC's RWS. The City's water system is

designed and operated to take full advantage of receiving water from SFPUC's RWS, with approximately 85 percent of the City receiving water by gravity from the RWS, and only minimal pumping needed to distribute water to higher elevations in the hillside. Further, Hayward customers, including sensitive water users, are used to, paying for, and depend on a water supply that is of high quality in terms of taste, odor, and mineral content.

During the pilot, with SFPUC's agreement, the City's water system would be reoperated to receive water through the Regional Intertie in the northern part of the City, relying entirely on a single pump station to deliver water to the entire City. Based on hydraulic computer modeling conducted by the City, the change in operations would affect water pressures throughout the City's service area and require continuous monitoring of operations by Hayward staff throughout the pilot water transfer. The diverted SFPUC water supplies that would normally be delivered to Hayward would be conveyed to other BAWSCA customers.

### Previous Council and Committee Input

Staff first briefed Council on the concept of a proposed pilot water transfer on September 17, 2013. During this meeting, Council acknowledged the potential risks of receiving water from EBMUD through the Regional Intertie and acceptance of these risks during an emergency or planned critical maintenance work, when the alternative could be a disruption in the normal supply of water to the City. However, Council expressed concerns with the water quality and operational impacts of switching sources to implement the pilot water transfer. Staff directed staff to proceed with discussions with BAWSCA and other agencies regarding the pilot water transfer, as long as risks to the City could be mitigated.

In April 2017, the City and BAWSCA entered into a cooperative agreement as the framework for cooperating and negotiating agreements to implement the pilot water transfer. The CSC was updated on this project on January 8, 2018. The Committee generally expressed support for the pilot water transfer if it could be developed within the context of existing Intertie agreements. The Committee was not supportive of any efforts to expand the allowable uses of the Regional Intertie. Concerns were also expressed regarding potential water quality and operational impacts to the City. Staff was directed to ensure that these concerns are addressed, and that the City is adequately compensated for its role. Hayward is the sole BAWSCA agency that would need to modify operations to implement the pilot water transfer.

Based on direction from the CSC, staff prioritized the following principles during negotiations:

- The pilot water transfer would be scheduled to occur during a planned critical maintenance shutdown of SFPUC's Hetch Hetchy system when the City would otherwise be receiving local SFPUC water supplies, and differences in water quality to Hayward customers would be minimized

- City customers would bear none of the costs for the operation of the Regional Intertie
- City would retain complete operational control, including the ability to discontinue the pilot transfer to protect the health and safety of customers and the water distribution system
- The pilot water transfer would be a one-time occurrence and would in no way commit the City to future water transfers
- The City's participation in the pilot water transfer would in no way affect the City's rights under its 1962 Water Sales Contract with SFPUC

## **DISCUSSION**

### Key Aspects of the Proposed Transfer

Under the currently proposed plan, the pilot water transfer would convey about 1,000 acre-feet of water from AWA to EBMUD, of which 800 acre-feet, or 260 million gallons, would be delivered to the City. EBMUD would assess a 20 percent system loss through its raw water and treated water systems. The duration of the transfer would be about 17 days, with an average of 15 million gallons per day (MGD) delivered to Hayward. The City's water demands are typically low at this time of year, and the 15 MGD is expected to be sufficient. While the majority of transfer water would be used in the City, a small amount of surplus water would be pumped into the SFPUC Regional Water System.

The pilot is scheduled for mid-to-late January 2020 to coincide with SFPUC's temporary use of local water sources while the Hetch Hetchy conveyance system is shut down for critical maintenance. For the past several years, SFPUC has asked EBMUD and the City to ready the Regional Intertie during planned outages of the Hetch Hetchy system. During these maintenance activities, SFPUC relies entirely on local water supplies and treatment plants and would request activation of the Intertie only in the event that SFPUC is unable to meet customer demands. Implementation of the pilot transfer would allow the parties to exercise the Regional Intertie, which helps ensure staff are properly trained and prepared to operate the facilities during an emergency event.

### Reoperation of the Hayward Water System

The Hayward Water System normally receives water at the south end of Hayward. All of the base zone tanks, which serve the majority of customers, are filled by gravity, and the system has been engineered to ensure adequate water pressure based on gravity-fed distribution. As noted above, implementation of the pilot water transfer would require operation of the Hayward Water System such that water is delivered at the Regional Intertie, near the Hayward Executive Airport, with reliance on mechanical pumping to convey water to all customers, including a state university campus and a community college with a combined student body of over 25,000.

Risks to the City include changes to water pressure that could result in excessive water leaks and water loss, pipe breaks, or lower water pressure at certain locations. Staff would continually monitor water flow and water pressures, and take appropriate actions, where possible to minimize the potential for damage. To mitigate some of this risk, BAWSCA would be required to purchase a limited term insurance policy to cover potential damage up to \$10 million.

During the pilot water transfer, the City would receive a blend of EBMUD's local and Mokelumne water sources. The transfer water will meet all federal and state drinking water quality standards, but customers may detect a difference in the characteristics of the water. EBMUD would provide regular water quality updates and staff would perform separate water quality sampling, if needed. Staff maintains a list of sensitive customers and notifies them of any changes in water quality. The City also can alert the general population through the City's website and other outlets, if necessary.

Prior to the pilot water transfer, staff would take steps to prepare the water system. Key activities include flushing the water transmission lines to clear out debris and adjusting the Supervisory Control and Data Acquisition (SCADA) system, which monitors and adjusts water distribution throughout the system. Sufficient staff and resources would be assigned before and during the pilot transfer to minimize the potential for system damage and water quality issues.

### Cost Reimbursement

BAWSCA would reimburse the City a lump sum of \$60,000 towards the costs of preparing the system, including bi-directional flushing and SCADA programming, and for shutting down the Regional Intertie at the conclusion of the transfer. The City would also be reimbursed \$160 per acre-foot of water delivered towards the City's cost of operating the Regional Intertie, energy costs, and water quality monitoring. For this one-time transfer, the City would not charge BAWSCA for the use of the City's water transmission mains and the Hesperian Pump Station, required to pump transfer water into the SFPUC RWS.

BAWSCA has estimated the total costs for implementing the pilot transfer to be approximately \$1.2 million. In addition to the operating costs, water needs to be purchased from AWA and EBMUD compensated for conveying the water through its system. BAWSCA has proposed funding the pilot water transfer from the SFPUC Balancing Account. The primary purpose of the Balancing Account is to help smooth out wholesale rate adjustments. This fund is made up of excess revenues paid by all wholesale customers, including Hayward, to SFPUC over time for water purchases. This particular use of the Balancing Account would not have an appreciable impact on wholesale rates, or therefore the City's water rates. However, it is important to note that Hayward would be paying a portion of the implementation costs through the use of the Balancing Account. Also, given the short duration of the pilot, it was agreed that Hayward would pay the same wholesale rate for transfer water as other BAWSCA agencies pay for SFPUC water, while receiving a different water supply and through a system other than SFPUC's RWS.

## Pilot Water Transfer Agreements

A substantial amount of City staff time has been devoted to developing the necessary agreements among the various parties to implement the pilot water transfer. A total of seven draft agreements have been prepared, of which Hayward would be a party to three. The following are descriptions and key provisions of these three agreements:

1. **BAWSCA-Hayward Pilot Water Transfer Agreement:** This agreement specifies the terms and conditions for Hayward's role in implementing the one-time pilot water transfer, including cost reimbursement. Key provisions include:
  - Agreement between the parties that the pilot water transfer is a one-time exploratory project and in no way obligates the City to future water transfers
  - Ability for the City to suspend or cancel the pilot water transfer for any reason
  - Cost reimbursement of \$60,000 towards start-up and shutdown activities, and \$160 per acre foot of water delivered
  - Requirement for BAWSCA to purchase insurance to cover potential damage to the Hayward Water System up to \$10 million for the duration of the pilot transfer and for two weeks following the City's switch back to SFPUC supplies
  
2. **Regional Intertie Side Agreement:** This three-party agreement between the City, EBMUD, and SFPUC defines the terms for BAWSCA's one-time use of the Regional Intertie, under an exception to the limitations of the Regional Intertie Operating Agreement. Key provisions include:
  - Confirmation that use of the Regional Intertie for emergency purposes will take precedence over the pilot water transfer
  - Ability for any of the three parties to suspend or cancel the transfer
  - Water transferred to the City to meet all standards for drinking water without further treatment of any kind, including residual disinfection and fluoride throughout the Hayward service area
  
3. **Hayward-SFPUC Pilot Water Transfer Agreement:** This letter agreement stipulates that per the terms of the City's 1962 Water Sales Contract with SFPUC, the SFPUC would allow Hayward to receive delivery of water from EBMUD for a one-time transfer and that the City's participation in the pilot water transfer in no way affects the City's Water Sales Contract with SFPUC.

Four other separate agreements among other participating agencies have been developed, namely:

- BAWSCA-AWA Water Purchase Agreement for the purchase of water

- BAWSCA-EBMUD Wheeling Agreement for the wheeling of water through EBMUD's facilities to the Regional Intertie
- BAWSCA-SFPUC Agreement for the conveyance of transfer water through the San Francisco Regional System
- AWA-EBMUD Agreement related to Mokelumne water rights matters

Staff is requesting that Council authorize the City Manager to execute the three agreements to which the City would be a party.

### California Environmental Quality Act (CEQA) Compliance

Use of the Intertie during planned critical maintenance of the SFPUC RWS was reviewed in the *SFPUC-Hayward-EBMUD Water System Emergency Intertie Project – Initial Study, Mitigated Negative Declaration, and Mitigation Monitoring and Reporting Program*, dated February 2003. While the transfer has been timed to occur during the Hetch-Hetchy maintenance shutdown, it could be argued that the pilot water transfer would not ordinarily fall within the definition of the “planned critical work” envisioned by the Regional Intertie Operating Agreement because the planned work would not be “difficult to perform without an alternative water source.” Still, exercise of the Regional Intertie in this manner is within the scope and operational parameters of the original MND and is not expected to produce any new significant impacts on the environment not already evaluated in the original MND.

BAWSCA is the lead agency for the proposed transfer and has determined that the pilot water transfer is exempt from the California Environmental Quality Act (CEQA) under Guidelines sections 15301(b) and 15061. The pilot water transfer is a one-time program of limited duration. It would utilize existing agency facilities and is not anticipated to result in any expansion of use of the Intertie as discussed above. Following its approval of the project agreements, BAWSCA will be filing Notices of Exemption (NOE) in all affected counties. Since BAWSCA is the lead agency, Hayward is not legally required to file a NOE for this project.

### Council Sustainability Committee Comments

On October 30, 2019, the CSC received an update on this project. Committee members expressed continued support for the pilot water transfer as long as Hayward's interests are protected, and the City is compensated for its role. The Committee reiterated its position that the pilot water transfer is a one-time effort being implemented within the context and pursuant to the limitations of the existing Regional Intertie Operating Agreement and would not be a precedent for future transfers outside of those limitations. Committee members commented that use of the Regional Intertie should continue to be limited to emergency events and planned critical maintenance, stating that they would not support expanded use of the Intertie to bring supplemental water supplies into the BAWSCA service area during other times. The CSC further directed staff to properly notify customers of changes in water quality.

## **ECONOMIC IMPACT**

There would be no impact on Hayward ratepayers related to Hayward's work to prepare the water system or operate the Regional Intertie during the pilot water transfer.

## **FISCAL IMPACT**

BAWSCA's estimated cost to implement the pilot water transfer, including reimbursement to Hayward and costs to purchase and wheel transfer water, is estimated at \$1.2 million. BASWSCA proposes to fund the pilot water transfer via a transfer from the SFPUC Balancing Account, which allows for funds to be used for water supply projects administered by BAWSCA. Additional Hayward costs related to the pilot water transfer have been limited to staff and legal time needed to develop plans and agreements. All operational costs directly related to Hayward's efforts to implement the water transfer would be reimbursed by BAWSCA from funds to which the City has already contributed, with no impact on the Water Enterprise Fund. There would be no impact on Hayward's General Fund.

## **STRATEGIC INITIATIVES**

This agenda item does not directly relate to one of Council's Strategic Initiatives.

## **SUSTAINABILITY FEATURES**

The Regional Intertie is intended to increase water supply reliability during emergencies or planned critical maintenance work of EBMUD, SFPUC, and Hayward facilities. Implementation of the pilot water transfer would allow the parties to exercise the Regional Intertie, which helps ensure staff are properly trained and prepared to operate the facilities during an emergency event.

## **PUBLIC CONTACT**

The transfer water would meet all federal and state drinking water quality standards, but customers may detect a difference in the characteristics of the water. Consistent with CSC direction, staff would directly notify select sensitive customers, of which the City maintains a list, to alert them of any changes in water quality throughout the transfer. Staff would also communicate information to the general population through the City's website and other outlets, if necessary.

## **NEXT STEPS**

If Council concurs with staff's recommendation, staff would proceed with executing the three agreements to which Hayward is a party. If all necessary approvals are obtained and all seven agreements are executed, the pilot water transfer is scheduled to be implemented in mid-January 2020.



*Prepared by:* Jan Lee, Assistant Director of Public Works - Utilities

*Recommended by:* Alex Ameri, Director of Public Works

Approved by:

A handwritten signature in black ink, appearing to read 'K. McAdoo', written in a cursive style.

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Kelly McAdoo, City Manager