ORIGINATING SECTION: Integrated Planning
CONTACT: Amparo Flores

AGENDA DATE: July 15, 2020

SUBJECT: State Water Project – 2020 Water Exchange with Napa County

SUMMARY:

• In order to support the Mission Statement to deliver safe, reliable, efficient and sustainable water services, Zone 7 Water Agency (Zone 7) has been evaluating water transfer/exchange options. This effort is consistent with Strategic Initiatives #1 and #2, respectively: establish a diversified water supply plan and evaluate and develop appropriate new water supply and reliability opportunities.
• The 2019 Water Supply Evaluation Update (2019 WSE Update) completed in April 2019 assessed Zone 7’s long-term water supply conditions and made recommendations for meeting Zone 7’s Water Supply Reliability Policy goals (Resolution No. 13-4230).
• With increases in demand and decreases in State Water Project supply reliability, and without new water supply projects, reliability falls below policy goals starting in the early 2020s. Not enough supplies are coming in to cover demands and Zone 7 is utilizing its reserves.
• Zone 7 is therefore pursuing a number of long-term water supply projects, but the earliest any would be online is in around 7-8 years. A water transfer/exchange could address shortage risks in the interim period.
• After a review of various water transfer/exchange options, an exchange with another State Water Project contractor appears most favorable. Staff is presenting a potential exchange with Napa County for consideration.
• The exchange would cost $230/AF for 5,000 AF of water in 2020 at a total cost of $1,150,000. The exchange amount is consistent with the Water Supply Operations Plan Update presented in June 2020, and an estimated budget of $1,100,000 was included in the FY 2020-21 Budget.
• Zone 7 would ultimately keep 3,750 AF of that water, and then return 1,250 AF by 2030.
• Given the low 2020 SWP Table A allocation (20%), this is a good year to pursue an exchange both to supplement Table A supplies and test possible terms for a longer-term transfer/exchange agreement to maintain the reliability of Zone 7’s water supply system.
• Staff recommends that the Board direct the General Manager to negotiate and execute a water exchange agreement with Napa County for 5,000 AF of water at a not-to-exceed purchase cost of $1,150,000 to be paid from Fund 100.
Need for Water Transfers

The 2019 WSE Update completed in April 2019 assessed Zone 7’s near- and long-term water supply conditions and made recommendations for meeting Zone 7’s Water Supply Reliability Policy goals (Resolution No. 13-4230). The evaluation focused on the water supply goals of 1) meeting at least 85% of Municipal and Industrial (M&I) or treated water demands 99% of the time and 2) meeting 100% of M&I water demands 90% of the time.

One of the 2019 WSE Update recommendations is to pursue water transfers of at least 5,000 acre-feet per year (AFY) through 2030. A related concept is a water exchange, which requires the return of all or a portion of the transferred water back to the seller by a certain time. With increases in demand and decreases in State Water Project supply reliability, and without new water supply projects, reliability falls below policy goals starting in the early 2020s because not enough supplies are coming in to cover demands and Zone 7 is utilizing its reserves, as demonstrated in the figures below.

**With no new water supply projects, declining reserves lead to water shortage risks.** The upper figures show projected Total Operational Storage (i.e., all of Zone 7’s operational storage reserves, left) and projected Kern County Groundwater Banks Storage Balance (Semitropic Water Storage District and Cawelo Water District, right) over the next ten years with no new water supplies. Zone 7 is projected to withdraw from reserves (indicated by negative annual changes in storage), resulting in decreasing storage balances. Around 2030, there’s a 5% chance that only 40,000 AF in operational storage would be available, in addition to emergency storage in the Main Basin. Of the 40,000 AF, about half (20,000 AF) would be the remaining storage in Kern County.
Previous modeling results indicate that water transfers of 5,000 acre-feet per year on average would help meet 100% of demands 90% of the time, while 10,000 AFY of transfers would help achieve the stricter goal of meeting at least 85% of demands 99% of the time. The amount transferred each year could be adjusted to take advantage of years with low cost and greater water availability.

Water Transfer Options

Following up on the recommendation from the 2019 WSE Update, staff have contracted with Provost and Pritchard Consulting Group (Provost and Pritchard) to evaluate Zone 7’s water transfer needs, identify compatible water transfer opportunities, and assist with developing and negotiating water transfer agreements should Zone 7 decide to pursue them. Provost and Pritchard has extensive experience in water transfers, groundwater banking, State Water Project (SWP) contracts and administration, and general water management.

At the Water Resources Committee meeting on April 20, 2020, staff and Provost and Pritchard provided an overview of the findings from the 2019 WSE Update and an overview of water transfers and exchanges. Four main types of water transfers were presented:

- State Water Project (SWP) Transfers/Exchanges
- Sacramento Valley/San Joaquin Water Transfers
- Central Valley Project (CVP) Transfers
- North of Delta Transfers

Provost and Pritchard recommended pursuit of a SWP transfer/exchange given the following benefits:

- minimal water rights considerations (no need for State Water Resources Control Board approval, as it is already covered under DWR’s water rights)
- for Zone 7, it uses existing conveyance facilities (South Bay Aqueduct) and storage facilities (San Luis Reservoir/Lake Del Valle) already paid for
- conveyance across the Delta is not limited by the capacity of the SWP system to move the water
- no 20-35% “carriage loss”, which covers Delta environmental water requirements and essentially reduces the net water available to the buyer
- straightforward administration of certain types of SWP transfers (i.e., exchanges are generally supported but one-way water transfers are more difficult to get approved), and
- straightforward California Environmental Quality Act (CEQA) requirements

Given the low SWP Table A allocation (20%) for calendar year 2020, this is a good year to pursue an exchange both to supplement Table A supplies and test possible terms for a longer-term transfer agreement that could extend over the next ten years or so.

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1 A copy of the presentation can be found here (or look under April 20, 2020 Water Resources Committee meeting supplemental materials) [https://zone7.docsonthecloud.com/WebLink/DocView.aspx?id=20825&dbid=0&repo=Zone7](https://zone7.docsonthecloud.com/WebLink/DocView.aspx?id=20825&dbid=0&repo=Zone7).
Potential Exchange with Napa County

A water exchange with Napa County appears to be a good opportunity for Zone 7. At this time, Napa is willing to offer 5,000 AF to be delivered in 2020 at a cost of $230/AF. Under current Department of Water Resources policy, water exchange ratios of 1:1 to 4:1 are acceptable over a ten-year term; this means that at least 25% of the water transferred to Zone 7 would have to be returned to Napa County within ten years (i.e., a one-way water transfer is not generally supported at this time). Napa has agreed to a 4:1 exchange ratio, allowing Zone 7 to keep 75% of the water permanently, and resulting in a net cost of about $307/AF based on the water that Zone 7 ultimately retains. Napa County has also agreed that Zone 7 can return this water when the Table A allocation is 55% or lower. Zone 7 would generally opt to return the water when the allocation is high; at 55%, there should be sufficient operational supplies to meet Zone 7’s demands using Table A and other sources (e.g., carryover, local water, groundwater) and allow for return of water. The terms under discussion are important considerations for a potential long-term transfer/exchange agreement.

Other 2020 water transfers/exchanges were reviewed for comparison with the Napa County option. Based on the 2020 market cost range of $330-$550, the Napa County offer is a favorable deal for Zone 7. Furthermore, a Zone 7 exchange with another Bay Area water agency supports regional reliability.

FUNDING:

The exchange would cost $230/AF for 5,000 AF of water in 2020 at a total cost of $1,150,000. The exchange amount is consistent with the Water Supply Operations Plan Update presented in June 2020, and an estimated budget of $1,100,000 was included in the FY 2020-21 Budget.

RECOMMENDED ACTION:

Adopt the attached Resolution

ATTACHMENT:

Resolution
State Water Project – 2020 Water Exchange with Napa County

WHEREAS, Zone 7 Water Agency’s Mission is to deliver safe, reliable, efficient and sustainable water and flood protection services; and

WHEREAS, findings from the 2019 Water Supply Evaluation Update indicate that water transfers would significantly improve the reliability of Zone 7’s water supply system before new water supply projects are implemented; and

WHEREAS, given the low SWP Table A allocation (20%) for calendar year 2020, this is a good year to pursue an exchange both to supplement Table A supplies and test possible terms for a longer-term transfer/exchange agreement.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District directs the General Manager to negotiate and execute a water exchange agreement with Napa County for 5,000 AF of water at a not-to-exceed purchase cost of $1,150,000 to be paid from Fund 100.

BE IT FURTHER RESOLVED that the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District authorizes the General Manager to negotiate and execute future term extensions involving no additional cash contributions.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

ABSTAIN:

I certify that the foregoing is a correct copy of a Resolution adopted by the Board of Directors of Zone 7 of the Alameda County Flood Control and Water Conservation District on July 15, 2020.

By: ________________________________
President, Board of Directors