Columbia Basin Sustainable Water Coalition Stakeholder Meeting Notes
Thursday, January 19, 2023
10:30am-12:30pm
Moses Lake City Council Chambers and Zoom

The Columbia Basin Sustainable Water Coalition, a group of water purveyors and other municipal and small community water system stakeholders, was formed in 2018 to address Columbia Basin domestic groundwater supply issues and create locally-driven recommendations that influence water delivery methods and policy that will direct resources for long-term groundwater solutions

The Coalition's stakeholder meeting convened at 10:30am. Sara Higgins from the Columbia Basin Development League and contractor for the Coalition, facilitated the meeting.

Presentation: M&I water – process for access and use

Contacts mentioned during presentation:
Amy Rodman: Arodman@usbr.gov, work phone 509-754-0238
Joslin Kier: Jkier@usbr.gov, work phone 509-754-0221

Presenters were Clyde Lay, Deputy Field Office Manager for the Bureau of Reclamation and Nate Andreini, Assistant Manger for Technical Services at East Columbia Basin Irrigation District. Additionally, Andy Cervantes, Department of Health Regional Engineer was available to answer questions.

Clyde Lay presented first.

Ag water is water used for commercial ag, and livestock purposes. M&I water is everything else like watering golf courses, parks, pastures, effluent management for land application, food plots and ponds for wildlife.

The federal Columbia Basin Project has the authority to enter into municipal and industrial contracts for surface water delivered by the Columbia Basin Project, while the irrigation districts are responsible for actual water deliver. If water can be delivered, contracts can be developed. There are annual charges to be paid to Reclamation the District for the water and its delivery. This surface water is the topic of this presentation. Shallow aquifer water like that in the Quincy Basin is a separate water right requiring a permit from Ecology for ground water before engaging with Reclamation. While this presentation won't go into detail on the artificially stored ground water, Joslin Kier can provide more information about it.

Typically those wanting an M&I contract start working with a Reclamation representative and first need to pay a $500 admin fee. Then, Amy Rodman, M&I Program Manager will reach out to the respective irrigation district to learn if they have capacity to deliver water. If they can, an environmental and cultural review kicks off. Next a contract is drafted.

Reclamation's water right is not tied to a specific ditch or lateral. It is all dependent on demand and the capacity of the system. Water is limited in summer, and M&I contracts are the first contracts to be curtailed in high demand times.

Small contracts are handled at the field office and can go up to 500 acre feet. Between 500 and 1000AF is handled at the regional office. Anything above 1000AF needs higher approval from Washington DC.

Reclamation has the ability to write temporary contract for up to 10,000AF. Contracts are typically 10 years with three automatic renewals – 40 year contract life. There is the ability to sign shorter term, 5-year contracts while longer contracts are being developed.
As HOAs are set up, one point of contact is established for Reclamation, then only one person--not multiple homeowners—work with Reclamation. There was a question about the cost of water. Amy Rodman, can provide more specific info, but as an example, Quincy shared their water costs $48 per acre foot.

The ability to store water so it can be used in times of high demand when M&I contracts might compete with irrigators is important. ASR or pond storage is ideal.

Nate Andreini presented.

Irrigation districts deliver M&I water, but it's a very small fraction of their total water delivery. Their primary M&I contracts are with processors.

The Columbia Basin Project was intended to support the ag economy in the region, based on technology and priorities of the time. Irrigation district board members are elected from among farmers, and municipal systems are not represented on the board. Policy is focused on ag. District boards set rates every year to account for O&M. M&I rates are set so that they cost the same as highest quality of ag water. In that way, ag users aren't' subsidizing M&I.

In terms of technology—or infrastructure— and the ag focus, the system's canals start big then get small, veining out. The idea is that once water is taken out, the canals will have less water in them, so canals can be smaller. Water delivery is on a 24-hour schedule and based on the premise that first you order a certain amount of water, and when you receive it, you are responsible after that. Turning pumps on and off as is more commonly desired for domestic water uses can't be accommodated.

The first half of CBP was built, but the second half has not yet been build. With a canal system only half developed there are capacity constraints, and certain water contracts get curtailed depending on demand so as not to exceed capacity.

The Odessa Groundwater Replacement Program (OGWRP) is working to get irrigators off the Odessa Aquifer. As construction progresses, capacity for M&I contracts is temporarily increased until OGWRP deep well irrigators are fully transferred to surface water. However, once irrigators are transferred, that would diminish M&I water availability. The intent of OGWRP is to bring east low canal to capacity for ag uses.

Drains are an option that run water through the winter and that could deliver water, but a permit would be needed to access drains and drained water.. The ability to store water significantly increases options for when water can be used.

When irrigation district grants permit there is no guarantee of water quality. Reclamation also does not guarantee water quality, only quantity. Andy Cervantes confirmed that water would need to be treated to drinking water standards. DOH would determine the treatment needed. DOH would want to do a one year pilot and would need operator to meet reporting requirements. After one year pilot DOH would determine if treatment meets water quality needs. Then appropriate storage and whether storage type would require additional treatment or monitoring would need to be determined.

Andy noted significant differences between surface and groundwater sources. Surface water needs to monitor the same things as groundwater, as well as physical parameters testing prior to treatment, during treatment, and after. These are daily samples to evaluate performance of the plant and would require different levels of operators and more consistent monitoring.

Stakeholder Roundtable

Quincy

Bob Davis of Quincy shared a power point presentation. Their potable water system comes from 5 wells, with municipal treatment, industrial waste treatment, and a reuse system.

Last year 2billion gallons of water was used, at 93% capacity. They saved 270 million gallons because of the reuse system.

Water quality in Quincy is hard due to silica and nitrates. Nitrates are increasing over time. Their blending program maintains total water quality according to DOH standards.

They have a temporary contract for 880AF – used for makeup water into reuse system. Quincy has been curtailed 3 times, from 3 days to 2-3 weeks.

Quincy has a plan on how to use an alternate surface water source. They would supplement groundwater, dilute nitrates, silica, and hardness and use ASR for peak demands. They are considering asking water right holders if they'd like to sell water rights.

Keep in mind you have to manage residual when you treat water. The hard water or water taken out has to be disposed of according to DOH requirements. Evaporations ponds concentrate rejected water, then they take that concentrate out and take it to a specific disposal facility. Reuse has been operating a year and a half, but took many years to develop. Reuse is expensive. There will certainly be rate increases for all users. Just raised rates 5%. Had been about 5 years since last rate increase, and they are trying to do it incrementally.

The current best practice of treatment for nitrates is ion exchange. Quincy separates municipal and industrial waste. Industrial system is a biological treatment system, but municipal is not – if they were mixed it would require different regulatory standards.

East Columbia Basin Irrigation District

John Erickson of East District noted that districts are working with local elected officials to replace or take out bridges that are really constricting Odessa Ground Water Replacement Program water delivery. Patty Murray is working with county commissioners that are having a hard time to fund bridge replacement. This will impact M&I contracts.

Ecology—Office of Columbia River

Director Tom Tebb asked for support to get funding for ASR projects.

CBSWC Contract Updates

Ben Lee of Landau Associates reported that technical contractors are focused on two tasks – 1. establish groundwater monitoring network for the Coalition to build on data and fill gaps 2. Draft a watershed management plan (not the OGWRP NRCS plan) to addresses observed issues and identify solutions and recommendations for implementation.
Ben shared a map that showed existing monitoring efforts and prioritized new well sites based on prioritized wells. They started with a list of 26 potential sites with one or more multiple wells, developed a general ranking/prioritization scheme, and assessed location. Ben shared a list of municipalities and wells that was color coded per ranking. Wells were ranked based on historical data and if they fill a data gap. They are working to avoid starting from scratch and being redundant.

Going forward in stakeholder meetings, the Intent is to have a series of technical presentations to educate and share information that will relate back to this effort. The board is looking for suggestions on what stakeholder would like to learn about. The end goal might be a region wide planning effort looking at region wide solutions. The next stakeholder meeting will focus on ASR.

Elsa Bowen, Board Chair reported on the organizational development contract. She asked board members to stand and be recognized. She noted that the Board is developing organizational by-laws, and developing agendas for future meetings. Cari Cortez of Columbia Basin Conservation District noted that the Coalition is continuing work on Purveyor Profiles. The new goal is to have profiles completed by March. They will then be available to stakeholders and, specifically, policymakers to help communicate the issues and challenges needing to be addressed in a Coalition effort.

The meeting concluded at 12:35pm.

Next meeting is Thursday, March 16-10:30-12:30 in Moses Lake.

Notes submitted by Claire Miller and Sara Higgins.

Water Systems in Quincy

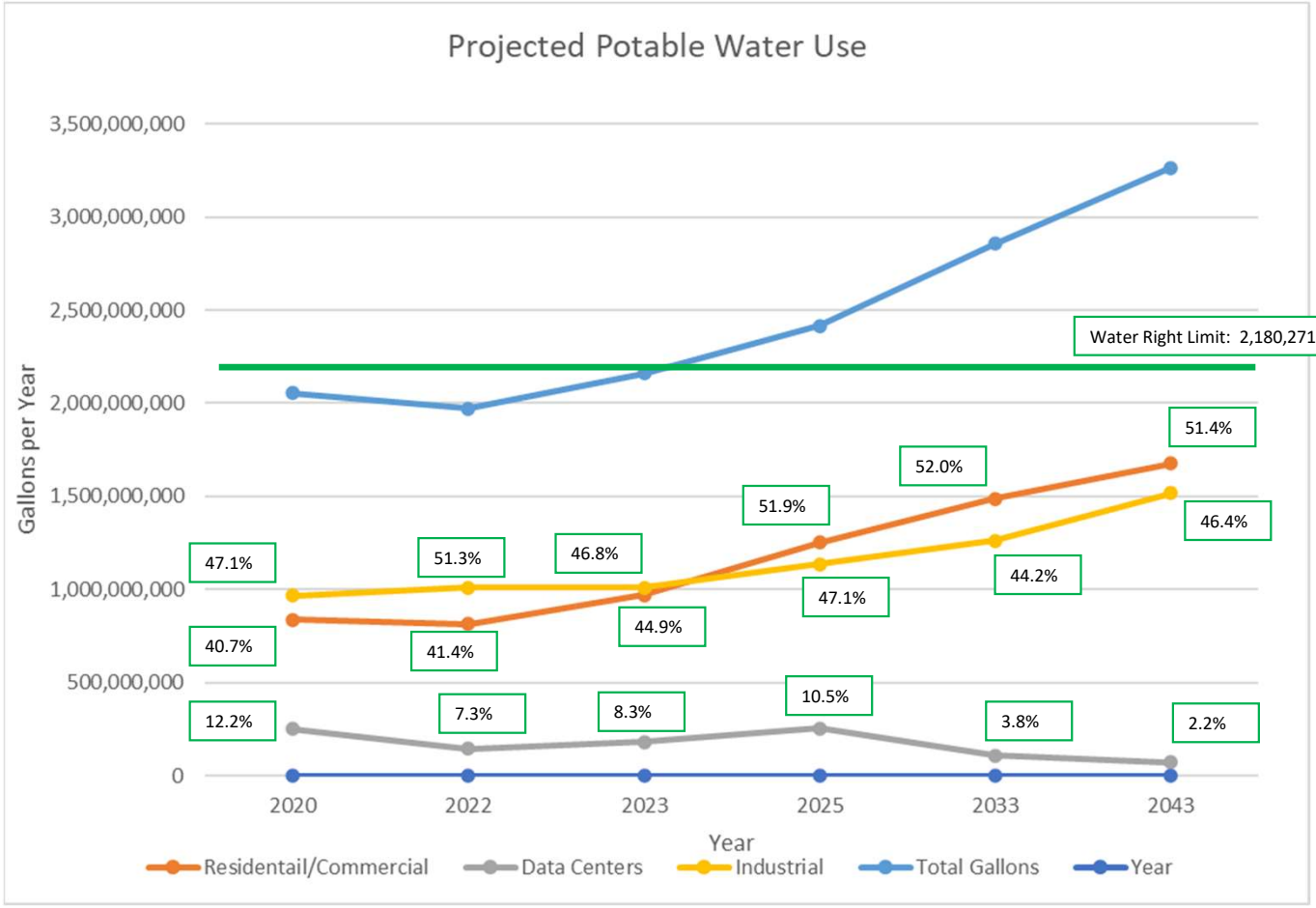
- **Potable Water Supply:** 5 groundwater wells provide all potable water to service industrial, commercial & residential needs including the food processors.

- **Municipal Wastewater Treatment System:** Treats the sanitary wastewater from industrial, commercial & residential sources. Called MWRF

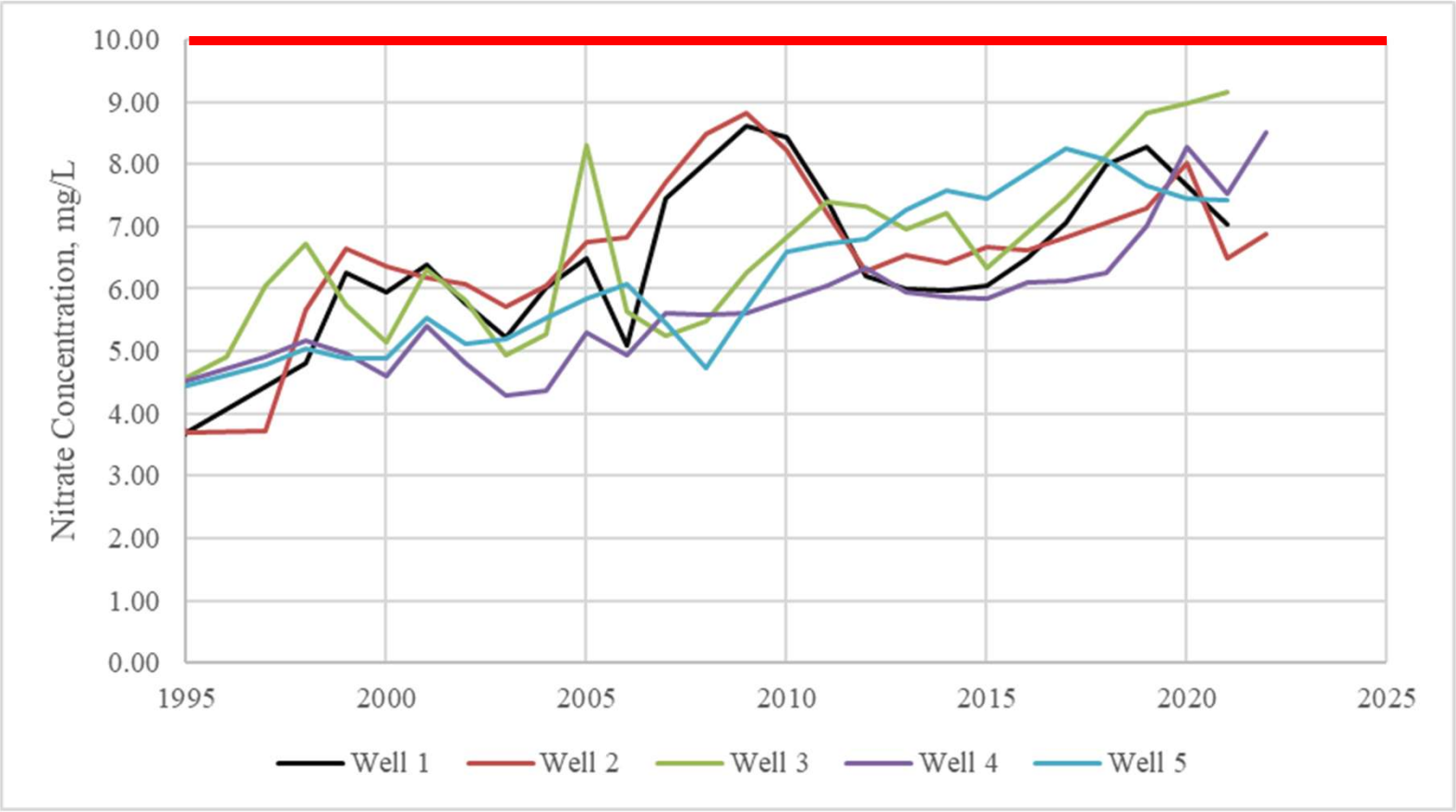
- **Industrial Wastewater Treatment System:** Treats the wastewater from the major food processing plants in Quincy (IUG). Called IWTP

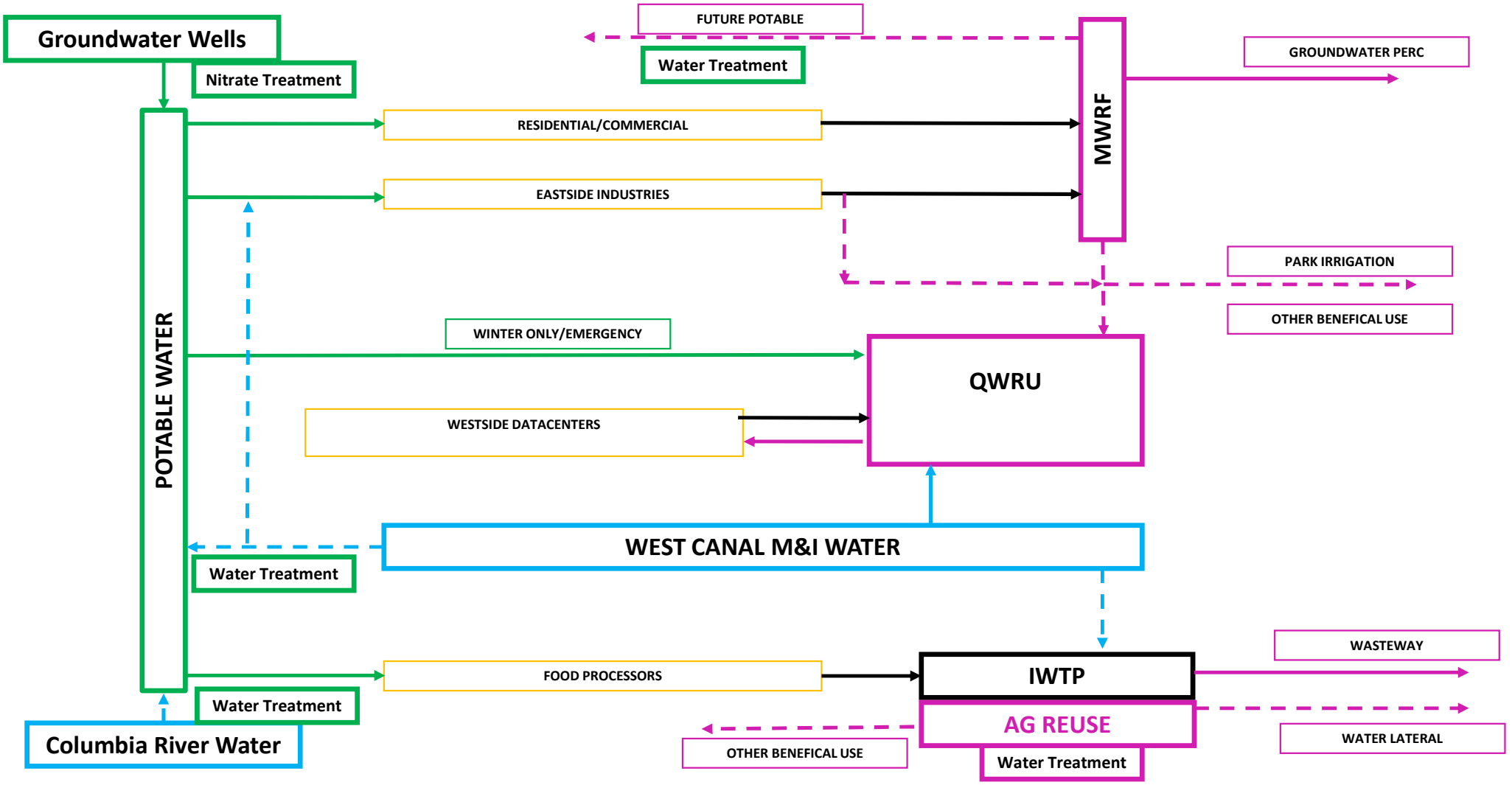
- **Quincy Water Reuse Utility:** Captures cooling water from the datacenters and treats that water for reuse by the datacenters. Called QWRU

Potable Water Demand Continues to Increase



Groundwater Nitrate Levels




Groundwater Wells
Nitrate Treatment
POTABLE WATER
Water Treatment
Columbia River Water
RESIDENTIAL/COMMERCIAL
EASTSIDE INDUSTRIES
WINTER ONLY/EMERGENCY
WESTSIDE DATACENTERS
FOOD PROCESSORS
FUTURE POTABLE
Water Treatment
MWRF
GROUNDWATER PERC
PARK IRRIGATION
OTHER BENEFICAL USE
QWRU
WEST CANAL M&I WATER
IWTP
WASTEWAY
AG REUSE
WATER LATERAL
OTHER BENEFICAL USE
Water Treatment

How Would Quincy Use Alternate Surface Water Source

- Surface Water Source Supplements Existing Groundwater
  - Increasing Supply of Surface Water from 2025 to 2050: Staged Increase up to 6,000 Ac-Ft (1,955,108,571 gallons/year)
- Blend surface water with existing groundwater for overall better potable water quality
  - Reduces level of Nitrates in potable water
  - Reduces Hardness of potable water
  - Reduces Silica in potable water
- Utilize ASR (Aquifer Storage & Recovery) for Peak Demands
  - Store Blended Water (emphasis on M&I Water during "shoulder season")
  - Retrieve Blended Water
  - ASR might not be needed with some water source(s)

Reuse/Reclamation/Conservation

- Municipal Water Reclamation Facility (MWRF):
  - Already Permitted a Class A Water
  - Permit Allows Class A Water for Lawn/Park Irrigation
  - Permit Amendment Required for QWRU Make-up Water
  - Underground Piping “Purple Pipe” Allows Lauzier Park and QWRU Make-up Now
  - Future underground piping (Purple Pipe) to parks in the east side of City
  - New UV Disinfection System Allows the Use of Reclaimed Water (plus chlorination)

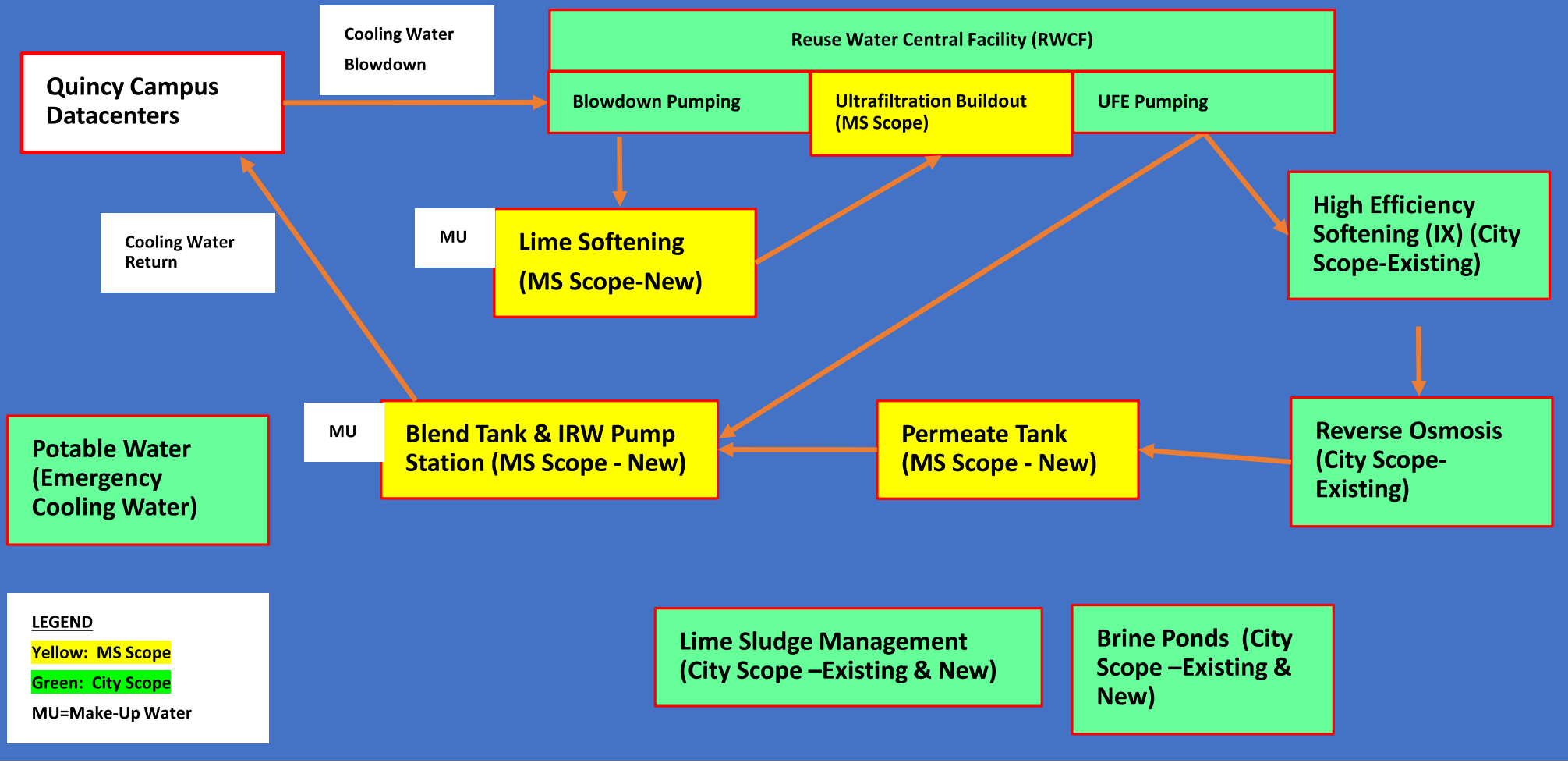
- Public Awareness & Workshops
  - For Reclaimed Water Use (from MWRF)
  - For Overall Water Conservation
  - Support of Ecology & DOH
  - Support of Grant County Conservation District

- Industrial Support
  - Water Conservation
  - Alternative Discharge of East Side Datacenters: Non-Contact Cooling Water Return to Beneficial Uses

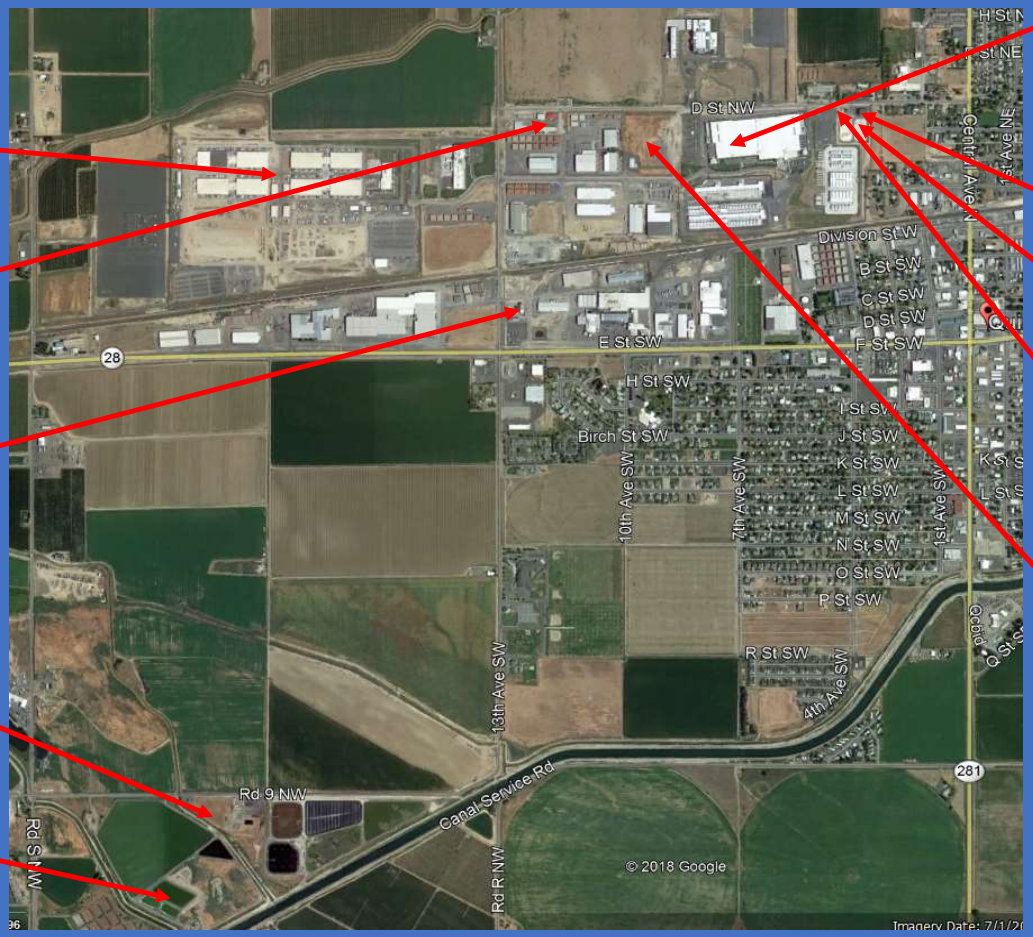
Stakeholders

- Agency Coordination:
  - US Bureau of Reclamation (USBR)
  - Quincy-Columbia Basin Irrigation District (QCBID)
  - Department of Health (DOH)
  - Department of Ecology (Ecology)
- Public Awareness & Workshops
  - Support of Ecology & DOH
  - Support of Grant County Conservation District
- Industrial Support
  - Conservation Efforts
- City of Quincy Internal Alignment

Quincy Water Reuse Projects/Block Flow



Quincy Water Reuse Project Sites



MWH Datacenter

High Efficiency Softening (IX)

RWW Pumping

Ultrafiltration

IFE/UFE Pumping

Lime Softening

Brine Ponds

Columbia Datacenter

Reverse Osmosis

Brine Ponds/CO RWW Pumping & Surge Basis

Permeate Tank

Blend Tank & IRW Pump Station

Underground Piping Tie-Ins

(Applies to all subprojects)