

Groundwater Transfer Review Summary Form

Transfer/PA # T- 14600

GW Reviewer Joe Kemper Date Review Completed: 2/24/2025

Summary of Same Source Review:

☒ The proposed change in point of appropriation is not within the same aquifer as per OAR 690-380-2110(2).

Summary of Water Level Decline Condition Review:

☐ Water levels at the original point(s) of appropriation have exceeded the allowed decline threshold defined by conditions in the originating water right.

Summary of Injury Review:

☐ The proposed transfer will result in another, existing water right not receiving previously available water to which it is legally entitled or result in significant interference with a surface water source as per 690-380-0100(3).

Summary of GW-SW Transfer Similarity Review:

☐ The proposed SW-GW transfer doesn't meet the definition of "similarly" as per OAR 690-380-2130.

This is only a summary. Documentation is attached and should be read thoroughly to understand the basis for determinations.



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Ground Water Review Form:

- ☐ Water Right Transfer
☐ Permit Amendment
☐ GR Modification
☒ Other (Temporary Transfer)

Application: T-14600

Applicant Name: Joe Kemper

Proposed Changes: ☒ POA ☐ APOA ☐ SW→GW ☐ RA
☐ USE ☒ POU ☐ OTHER

Reviewer(s): Joe Kemper

Date of Review: 2/24/2025

Date Reviewed by GW Mgr. and Returned to WRSD: 2/25/2025

The information provided in the application is insufficient to evaluate whether the proposed transfer may be approved because:

- ☐ The water well reports provided with the application do not correspond to the water rights affected by the transfer.
- ☐ The application does not include water well reports or a description of the well construction details sufficient to establish the ground water body developed or proposed to be developed.
- ☐ Other _____

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1. Basic description of the changes proposed in this transfer: Certificate 94893 authorizes pumping 1.42 cfs of groundwater from two wells (CROO 1999 and CROO 54411) for irrigation of 113.8 acres. This temporary transfer (2025 through 2029) proposes to change the place of use for 100 acres of irrigation and move 1.25 cfs from CROO 1999 & CROO 54411 to JEFF 51763.
 2. Will the proposed POA develop the same aquifer (source) as the existing authorized POA?
☐ Yes ☒ No Comments: "From" wells CROO 54411 and CROO 1999 access an aquifer hosted within the low-yielding silicic bedrock of Powell Buttes (considered part of the John Day Formation). These aquifers are recharged from precipitation falling directly onto Powell Buttes (Gannett, 1987). Groundwater levels in CROO 1999 and CROO 54411 are ~3700 feet amsl and 3300 feet amsl respectively. This is several hundred feet higher than the regional groundwater system hosted in the Deschutes Formation, which sits at approximately 2700 feet AMSL adjacent to Powell Buttes (see CROO 24). In summary, the "from" wells produce from an aquifer system hosted in geological material that is distinct from the Deschutes Formation, receives local recharge from Powell Buttes, and has higher groundwater levels than the regional groundwater system hosted in the Deschutes Formation.

The "To" well JEFF 51763 is located 24 miles to the NW of the "From" wells. It accesses the Deschutes regional aquifer hosted in the Deschutes Formation adjacent to where this aquifer discharges to the Deschutes and Crooked rivers in the "confluence area". Water level elevation in this well is approximately 2075 ft amsl, which is commensurate with the wells drilled adjacent to Opal Springs (JEFF 50418, JEFF 50654, and JEFF 50263). The ultimate source of this aquifer is precipitation in the Cascades to the southwest. **The "From" wells and the "to" wells access distinct aquifers with different recharge sources, so they are considered not the same source.**

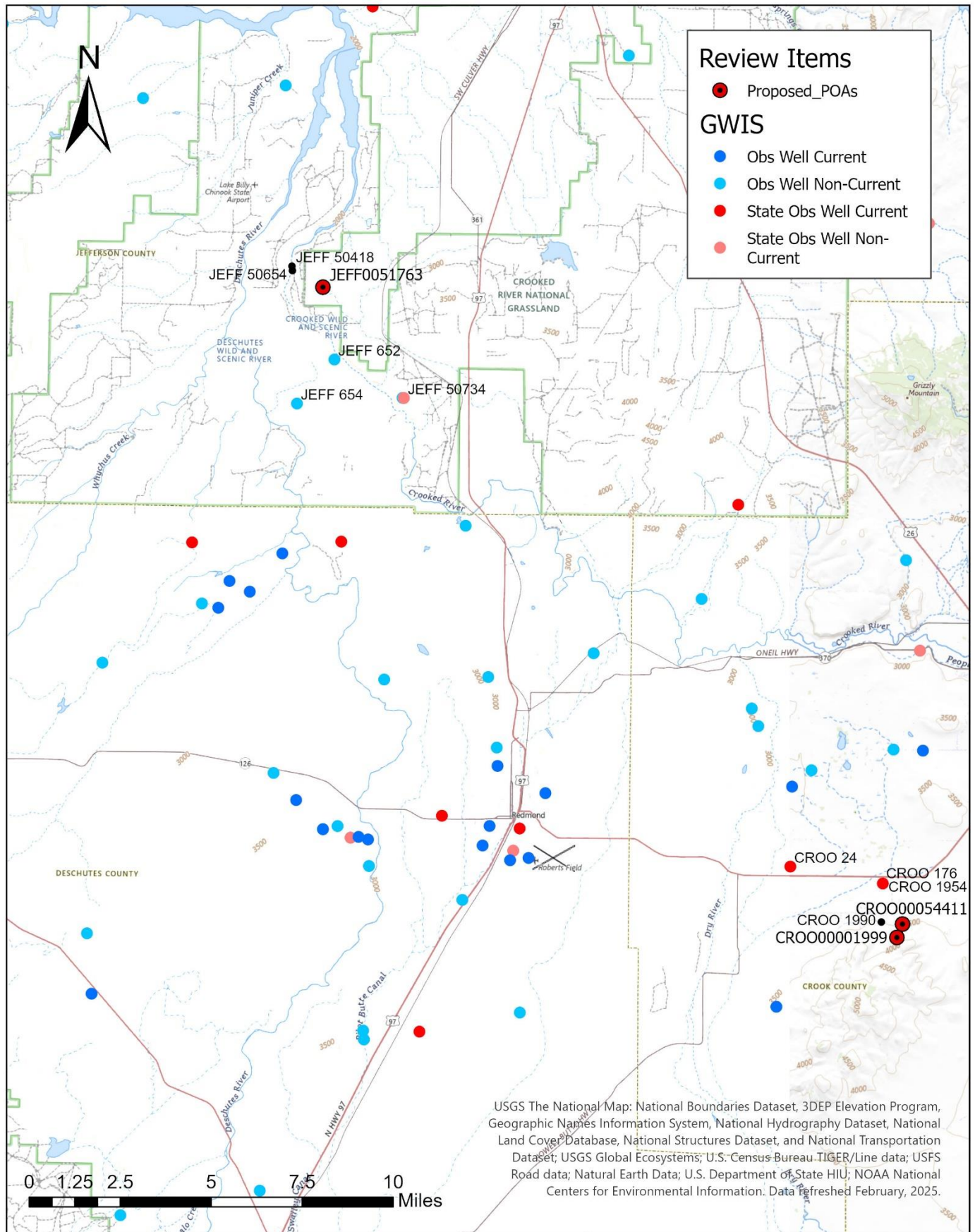
3. a) Is the existing authorized POA subject to a water level decline condition?
☐ Yes ☒ No Comments: _____
- b) If yes, for each POA identify the reference level, most recent spring-high water level, and whether an applicable permit decline condition has been exceeded: _____
4. a) Is there more than one source developed under the right (e.g., basalt and alluvium)?
☐ Yes ☒ No Comments: The "From" wells access only one distinct groundwater source.
- b) If yes, estimate the portion of the right supplied by each of the sources and describe any limitations that will need to be placed on the proposed change (rate, duty, etc.): _____
5. a) Will this proposed change, at its maximum allowed rate of use, likely result in an increase in interference with **another ground water right**?
☒ Yes ☐ No Comments: The proposed change would result in more pumpage from JEFF 51763 and thus would increase any interference with wells in the area.
- b) If yes, would this proposed change, at its maximum allowed rate of use, likely result in another groundwater right not receiving the water to which it is legally entitled?
☐ Yes ☒ No If yes, explain: There is limited domestic well development in this area. The target aquifer is several hundred feet thick in this area, has a small degree of seasonal variation, and is highly permeable. It is unlikely that any well-to-well interference caused by JEFF 51763 would be large enough in magnitude to meet the standard of injury.
6. a) Will this proposed change, at its maximum allowed rate of use, likely result in an increase in interference with **another surface water source**?
☒ Yes ☐ No Comments: The "To" well is located approximately 1 mile from Opal Springs and three wells that pump from Deschutes regional aquifer adjacent to Opal Springs. Water levels in these wells are very similar, suggesting a high degree of hydraulic connection. Water pumped at the "to" well would come almost entirely from stream depletion of the Crooked River and its groundwater inflow.
- b) If yes, at its maximum allowed rate of use, what is the expected change in degree of interference with any **surface water sources** resulting from the proposed change?
Stream: Crooked River ☒ Minimal ☐ Significant
Stream: _____ ☐ Minimal ☐ Significant
Provide context for minimal/significant impact: The interference from JEFF 51763 would be concentrated on the adjacent reaches of the Crooked River where more than 1000 cfs of groundwater flows into the Crooked. This groundwater inflow far exceeds the instream flow requirements in the Crooked. Interference with that groundwater inflow would not cause injury to instream or out of stream water rights there.

7. For SW-GW transfers, will the proposed change in point of diversion affect the surface water source similarly (as per OAR 690-380-2130) to the authorized point of diversion specified in the water use subject to transfer?
☐ Yes ☐ No Comments: NA
8. What conditions or other changes in the application are necessary to address any potential issues identified above: _____
9. Any additional comments: The figure of summary statistics of well logs near the 'From' wells indicates a median yield of 7 gpm and a max yield of 60 gpm. CROO 54411 indicates a yield of 34 gpm. CROO 1999 indicates a yield of 50 gpm. These well log statistics, the 45-gpm rate in the pump test for permit G-18016, and the low-transmissivity, low storage fractured rock hydrogeologic setting are notable in comparison to the maximum certificated rates of 0.83 cfs (372 gpm) and 0.66 cfs (296 gpm) claimed on the water right. This parallels the comments in the Watermaster Review for this transfer.

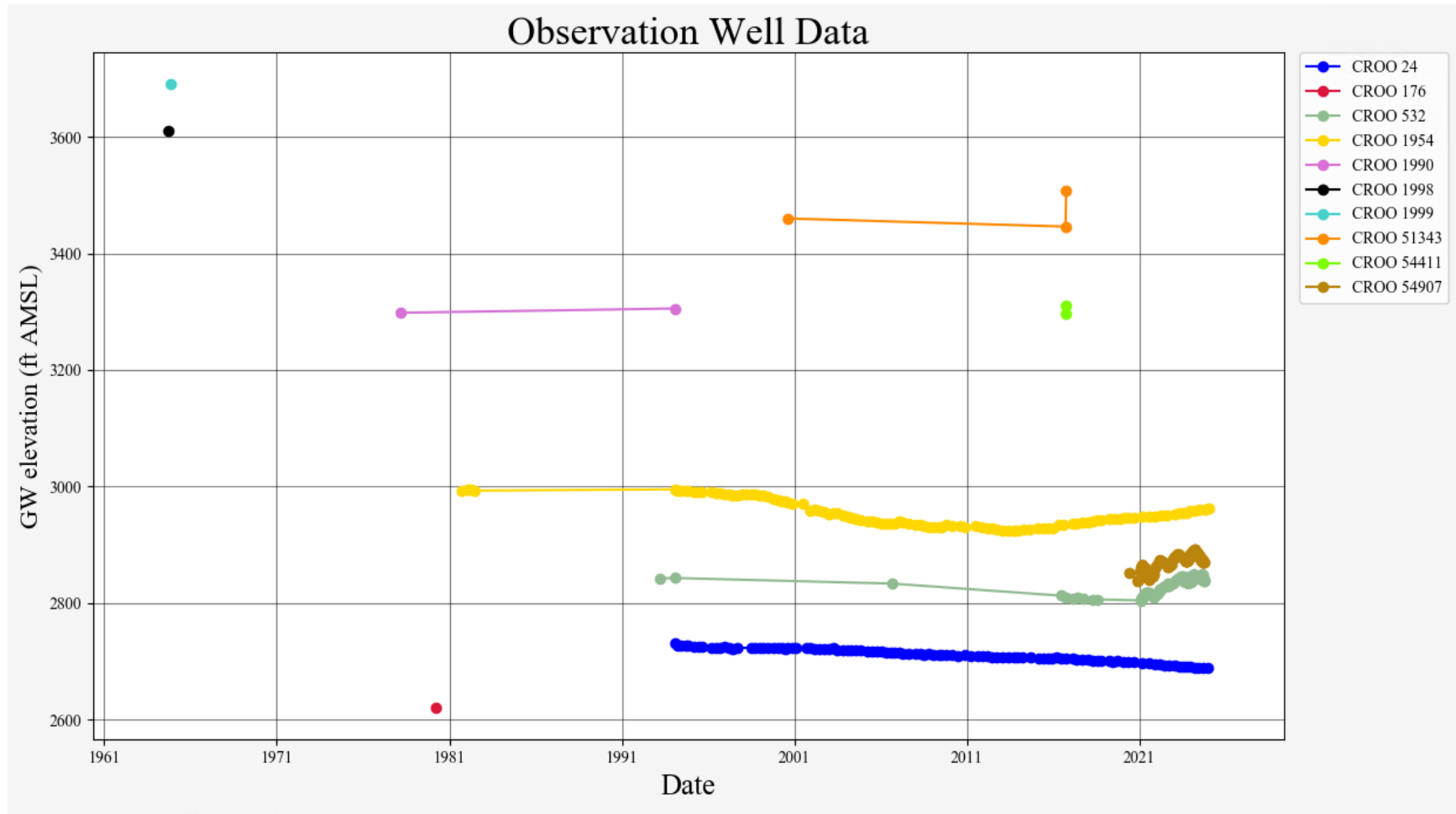
POA Summary Table

POA #	POA Name	POA Status	OWRD LOGID	TRS	Legal Location	Permitted Rate (cfs)
1	From Well #2	Authorized	CROO 1999	15S/15E-S32 NW-SW	1750' N, 2050' E of SW cor Sec 32	0.83
2	From Well #4	Authorized	CROO 54411	15S/15E-S32 SW-NE	3690' N, 2870' E of SW cor Sec 32	0.66
3	To Well #1	Proposed	JEFF 51763	12S/12E-S34 SE-SW	170' N, 2550' E of SW cor Sec 34	1.25

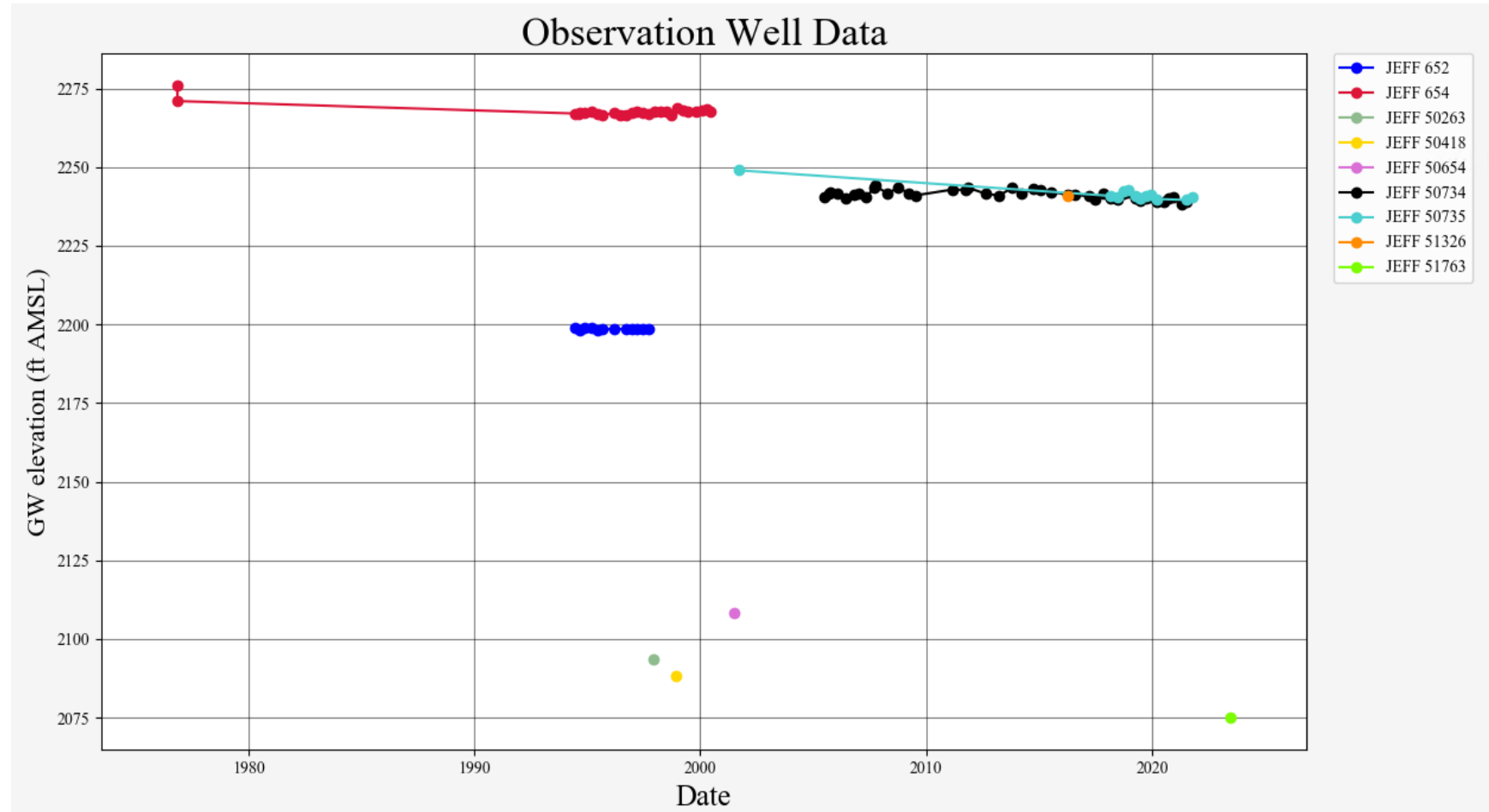
Transfer Map



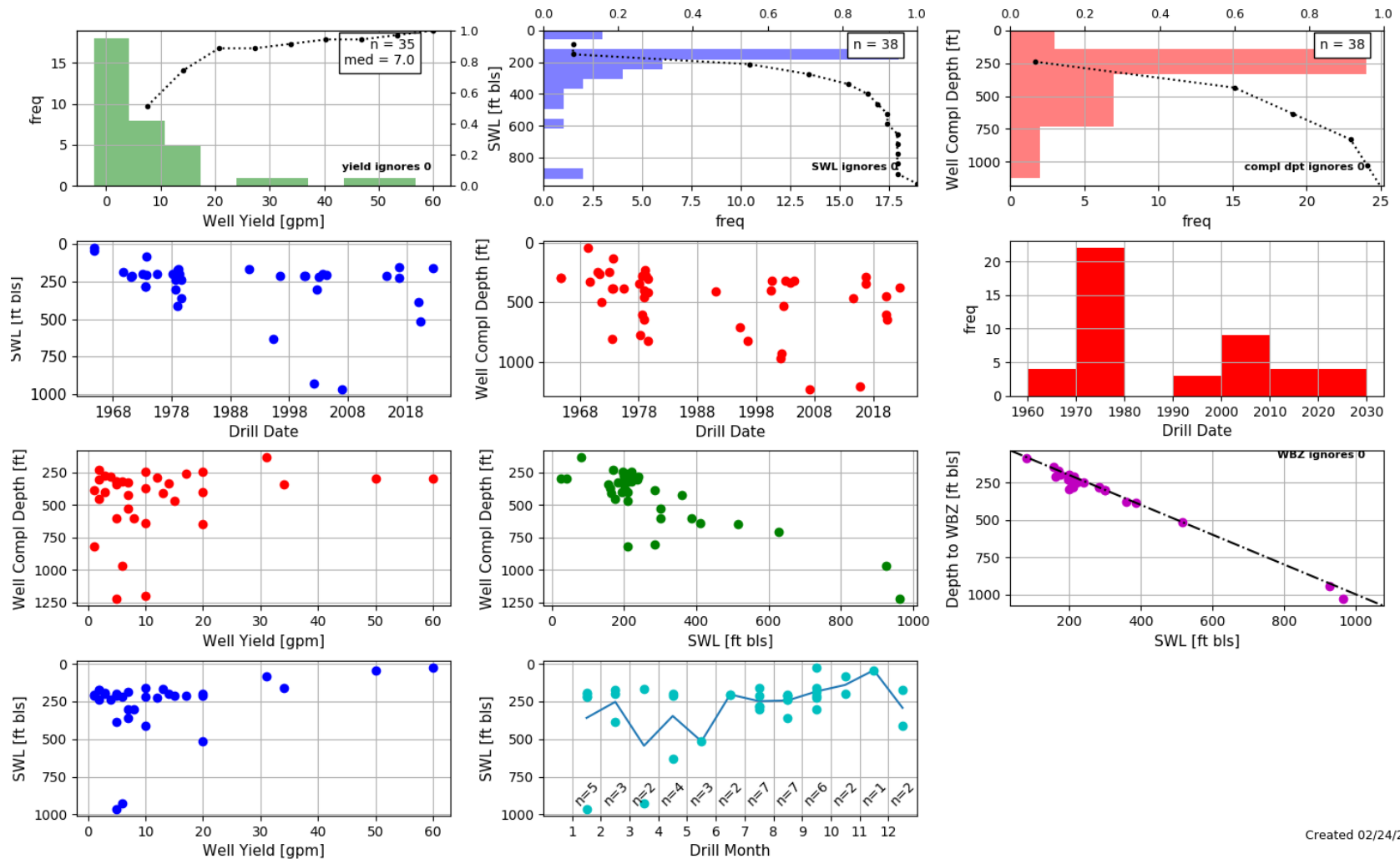
Hydrograph 1: CROO 1954 is an OWRD observation well drilled into the fractured rock aquifer of Powell Buttes. CROO 24 accesses the Deschutes regional aquifer 3.5 miles SW of the “From” Wells. CROO 532 and CROO 54907 show the impacts of the Prineville ASR program in a distal portion of the Deschutes Formation. The “From” wells have a much higher head and likely a different trend than the adjacent Deschutes regional aquifer.



Hydrograph 2: Water level elevations in the Deschutes regional aquifer near the confluence area. The “To” well has a very similar water level elevation to the wells at Opal Springs (JEFF 50263, 50418, & 50654)



Well Log Summary Statistics for TRS 15S/15E- sections 31 and 32



Created 02/24/2025