

# Grain Handling Facility at Freeman Site July 2024 Interim Action Update

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Toxics Cleanup Program  
Eastern Region



# Brief Background

- Historic operations at the grain handling facility released carbon tetrachloride
- Those releases contaminated the groundwater
- Well water at the Freeman School District and some residences is contaminated and being treated
  - Treated drinking water is safe and sampled routinely

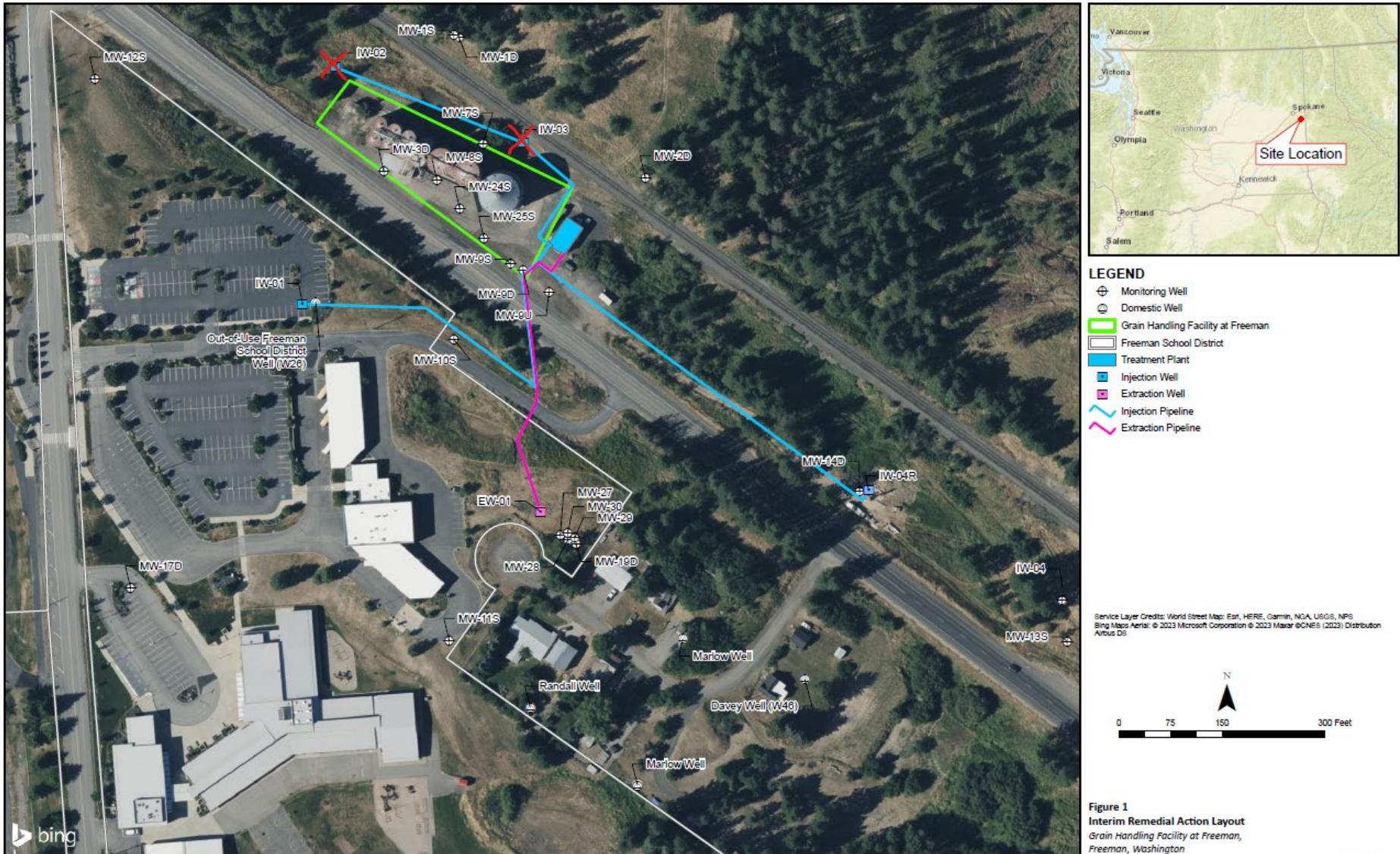


# Interim Action

- Pump contaminated groundwater from the center of the plume to a treatment building at the grain handling facility
  - One extraction well east of bus barn
- Use carbon filters to remove contaminants
- Return treated clean water into the aquifer
  - Two infiltration wells; one in parking lot west of bus barn, one south on SR27



# Interim Action System



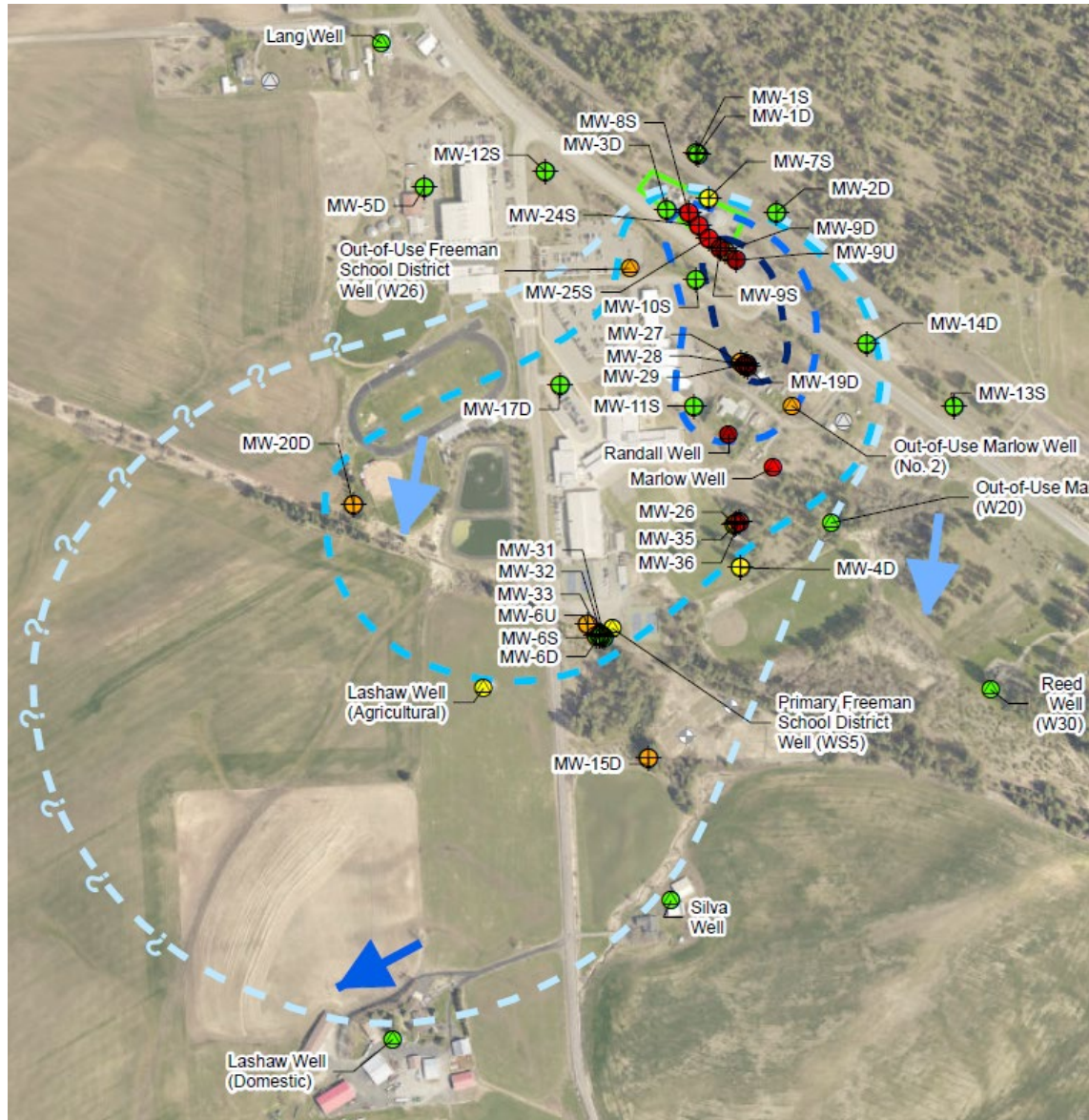
# System Performance

- System operational July 2021
- 13 kilograms (2.2 gallons) of carbon tetrachloride removed – enough to contaminate almost 5.5 billion gallons of water (over 8,000 Olympic pools)
  - 0.79 kg chloroform
  - 0.01 kg carbon disulfide
- Reductions in groundwater concentrations
- No adverse impacts to aquifer/water supply

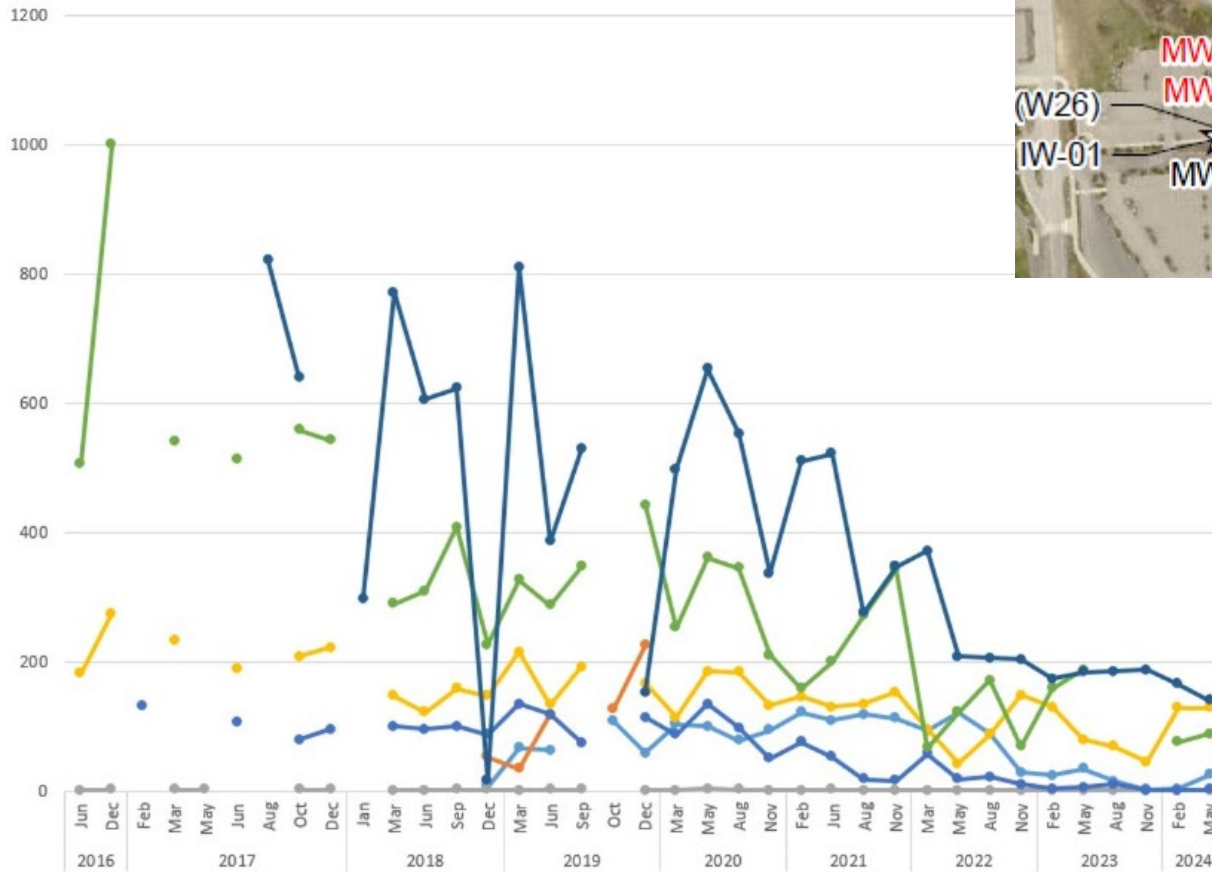




# Groundwater Plume before interim action



# Wells Near Release

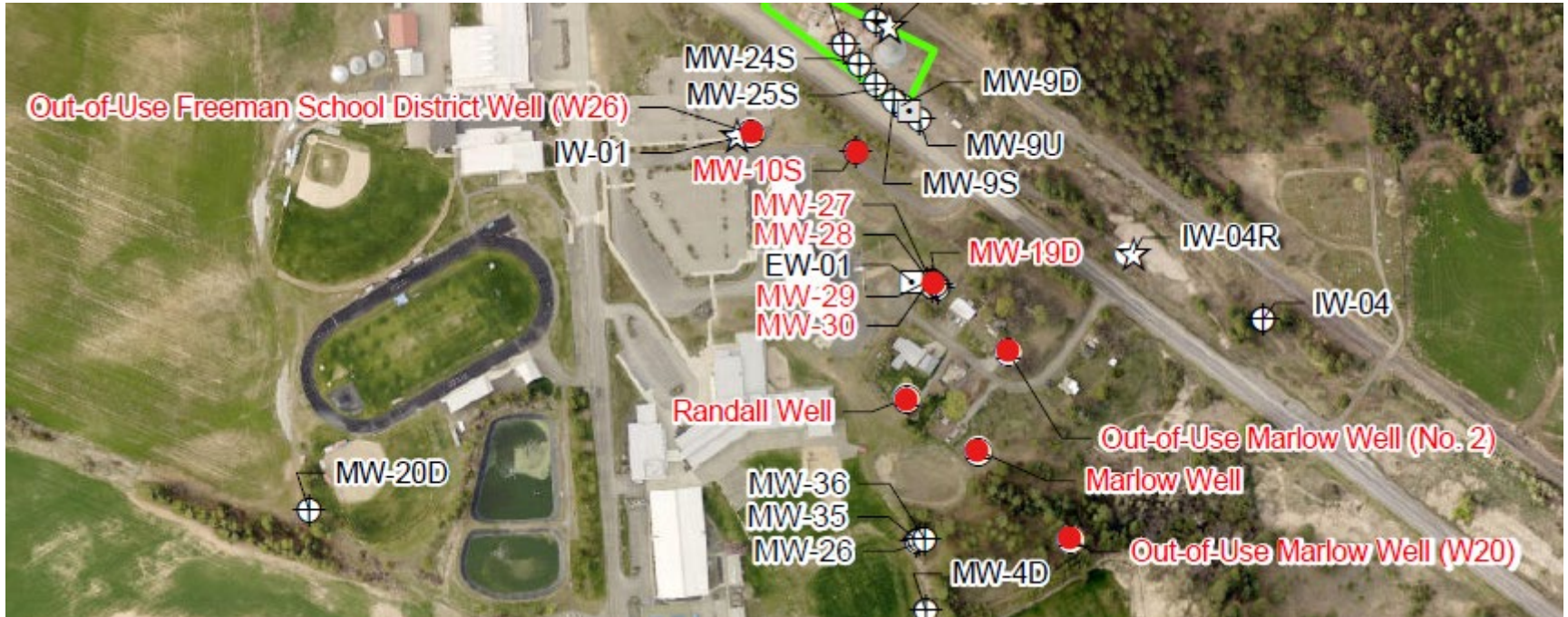


- Location
- MW-24S
  - MW-25S
  - MW-7S
  - MW-8S
  - MW-9D
  - MW-9S
  - MW-9U



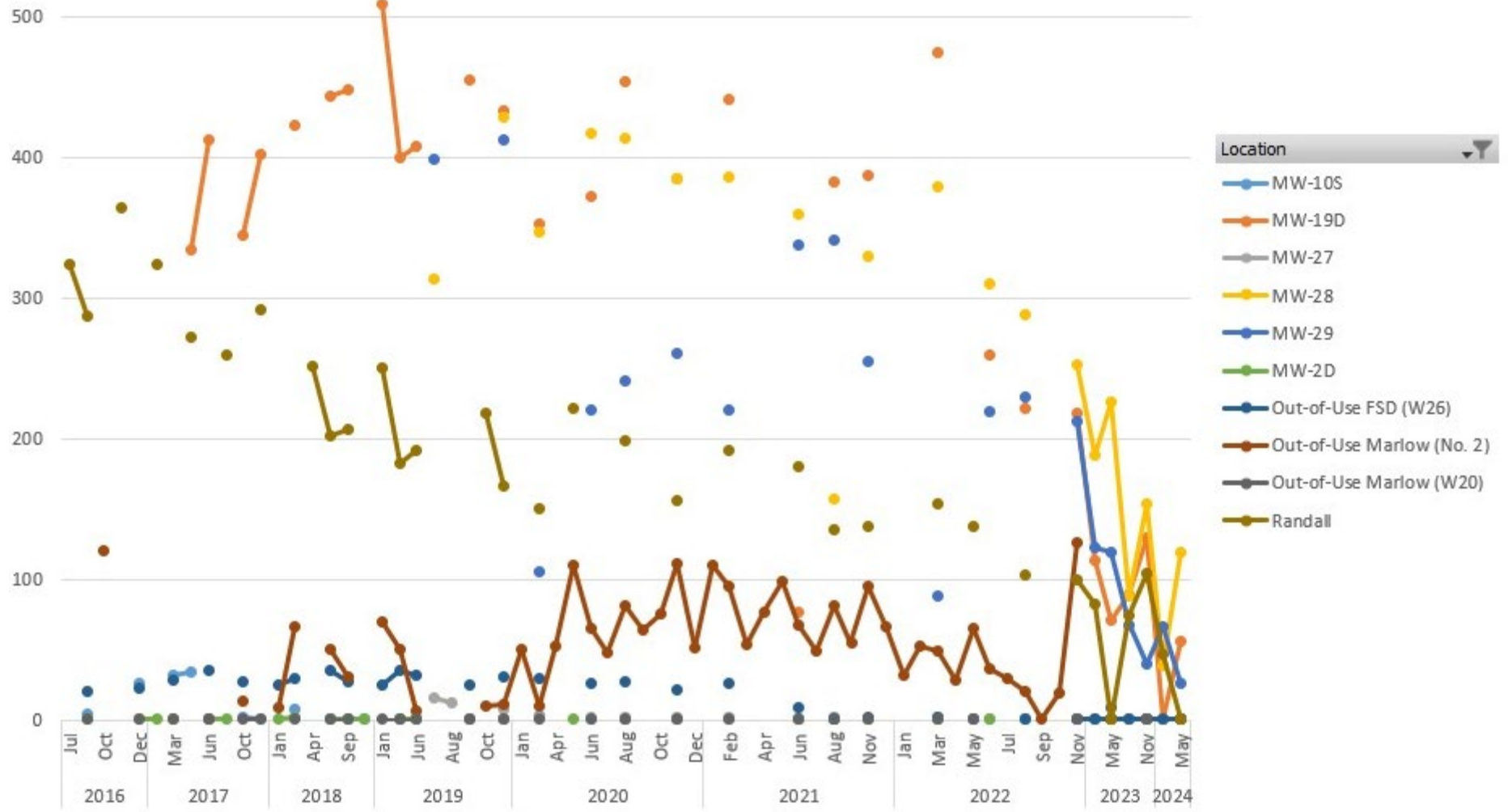


# Wells Mid-Plume





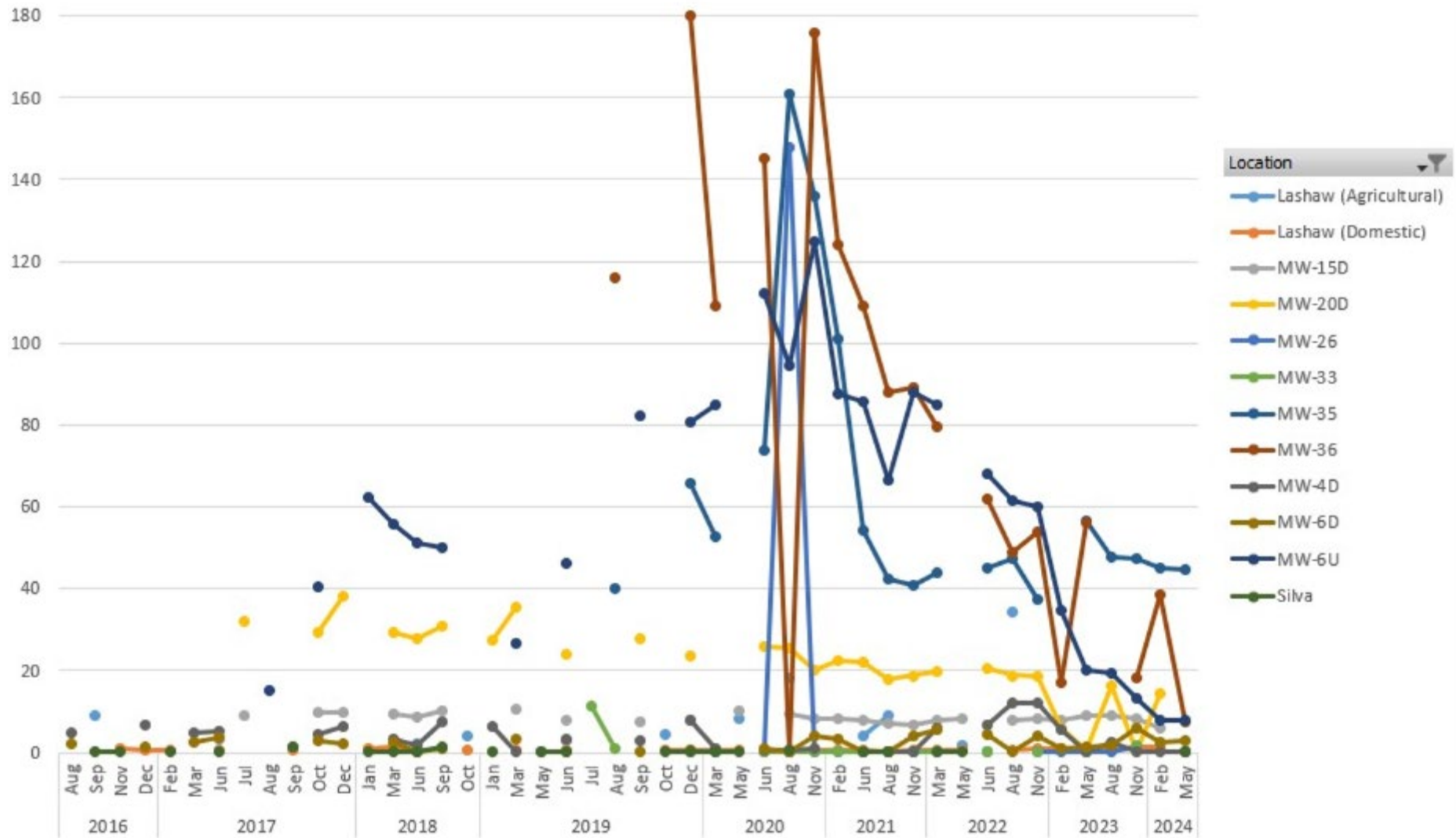
# Wells Mid-Plume



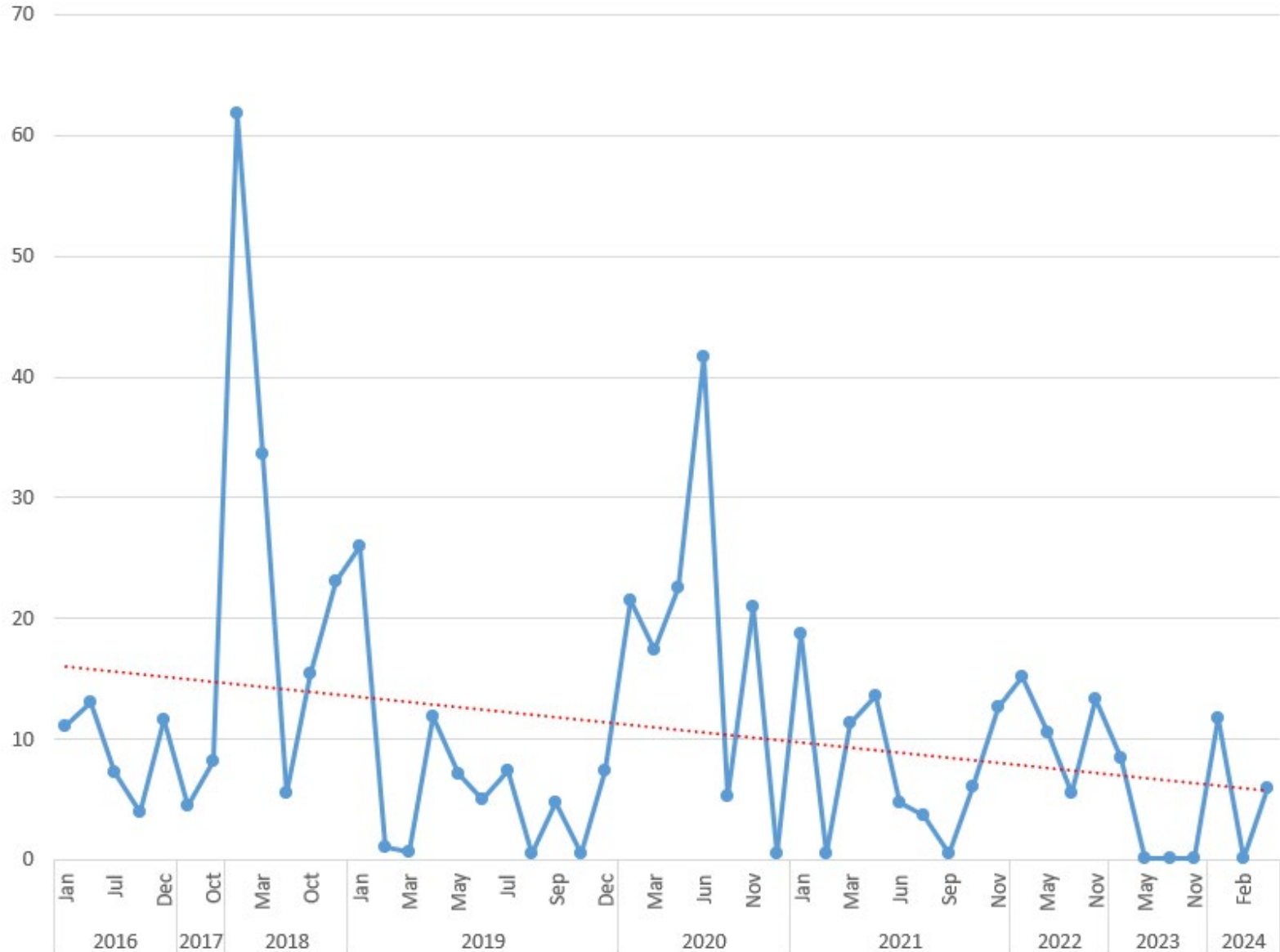
# Wells Far-Plume



# Wells Far-Plume

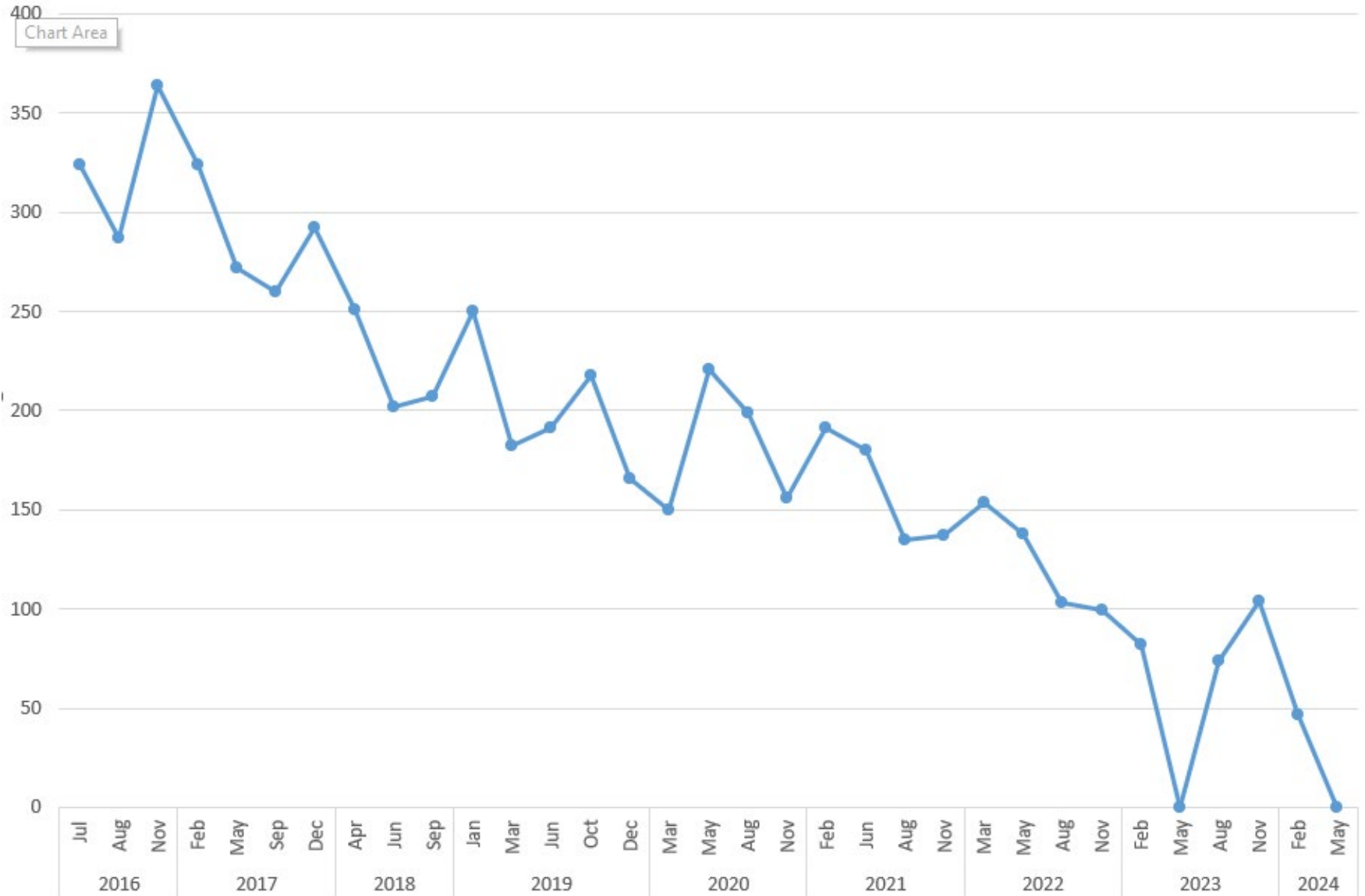


# Freeman School Dist. Well





# Residential Well



# System Evaluation

- Purpose of using an interim action is to evaluate performance:
  - Optimal pumping rates
  - Performance and location of extraction well
  - Performance and location of infiltration wells
  - Impacts to concentrations/plume
  - System tweaks – well fouling, vault flooding, flow limit valves
  - Impacts to water supply



# Schedule Change

- Previously had planned to complete the Cleanup Action Plan (Ecology decision document) this year
- That will be delayed to give us more time to optimize the system
- Provides better flexibility to make system modifications and ensure no adverse impacts
- Committed to public outreach during this period



# Next Steps

- Continue to operate interim action, with continual reevaluation of performance
- System may be adjusted as needed to determine best operational parameters
- Cleanup Action Plan will be delayed to allow for maximum flexibility
- Regular updates to the community
- Expected at least another 2–3 years of interim action





# Thank you!

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