DJS 2-14 CLASS II INJECTION WELL

REVIEW AND DISCUSSION

5/21/2021

AGENDA:

- Introductions
- Timeline
- Regulatory Refresher
- Project Overview
- EPA's latest action, "next steps"
- Discussion and Q&A

REGULATORY REFRESHER

- *Underground Source of Drinking Water*: means an aquifer or its portion:

  (a) (1) Which supplies any public water system; or

  (2) Which contains a sufficient quantity of ground water to supply a public water system; and

  (i) Currently supplies drinking water for human consumption; or

  (ii) Contains fewer than 10,000 mg/l total dissolved solids; and

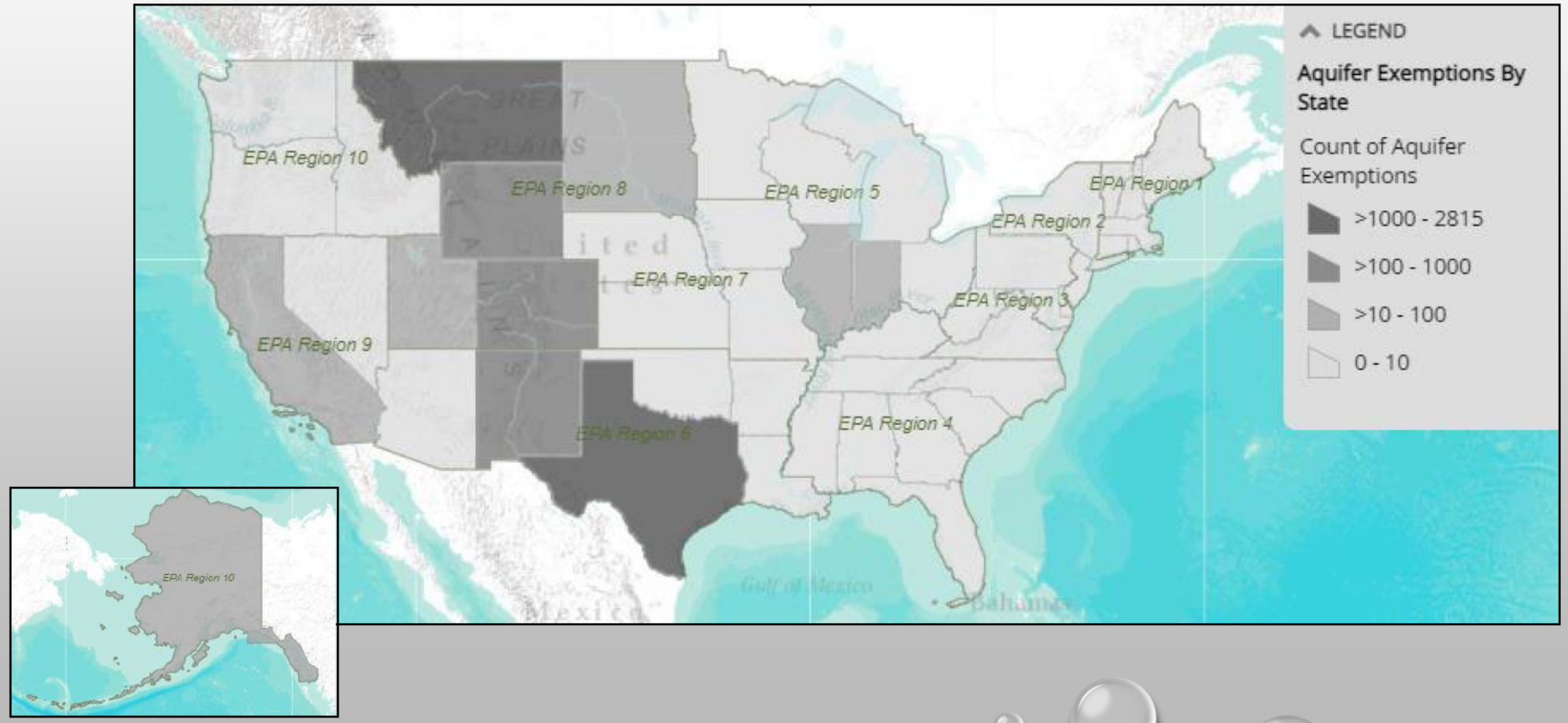
  (b) Which is not an exempted aquifer.

- *Aquifer Exemption:* an "aquifer" or its portion that meets the criteria in the definition of "underground source of drinking water" but which has been exempted (144.3)…The Director may identify…in… terms which are clear and definite, all aquifers or parts thereof…to designate as exempted aquifers (144.7(b)(1)).

- *Class II Disposal Well*: Inject fluid brought to the surface in connection with hydrocarbon production; may be comingled with wastes from gas plants integral to production operations.

  **Injection pressure cannot cause the movement of injection or formation fluids into an underground source of drinking water (146.23)*

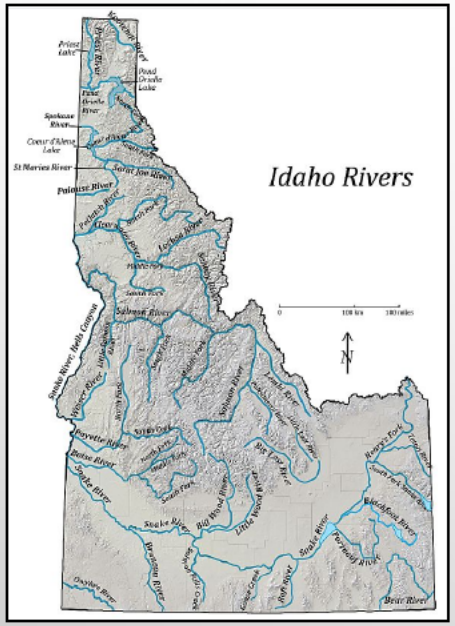
AQUIFER EXEMPTIONS

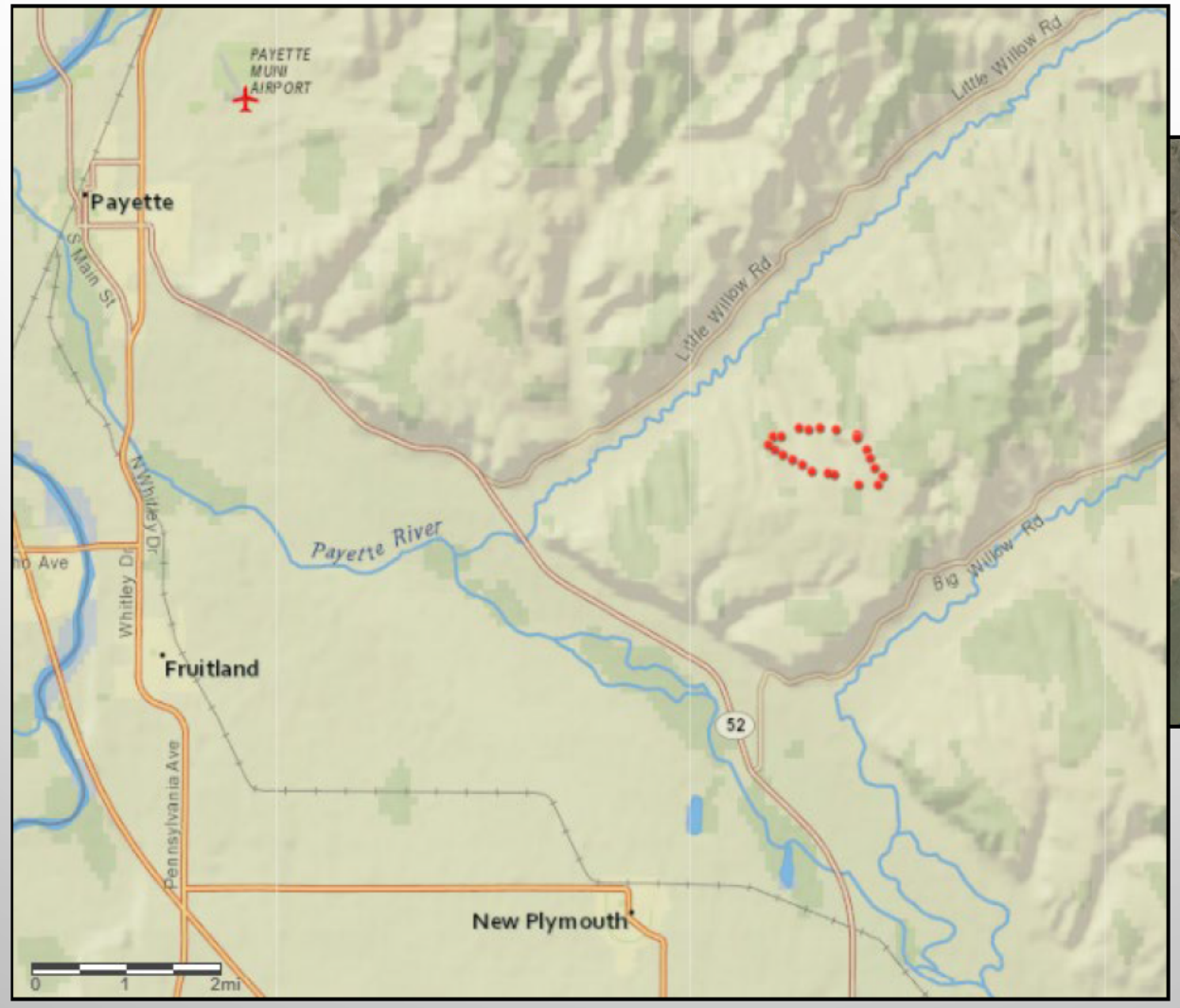


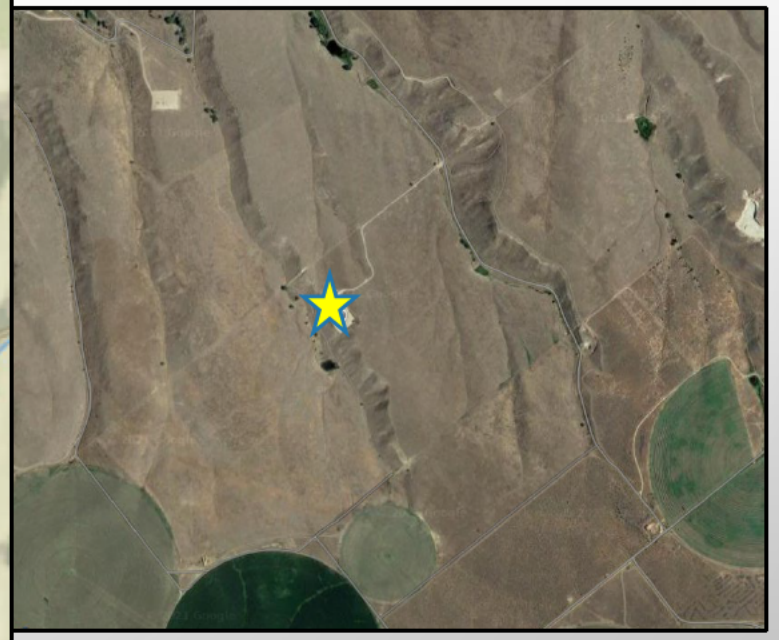
PROJECT OVERVIEW

- Purpose: alternative disposal option for water produced at Willow Field
- Conversion of a previously-drilled well (DJS 2-14) into a Class II Disposal Well
- Produced water would be pumped from Little Willow Facility to the DJS 2-14 well pad
- Est. injection of 1,000 barrels per day (BPD) (2,600 BPD max.)
- Operation at a pressure below formation parting pressure
- Maximum injection limit based on storage capacity: est. 7.4 million barrels
- Storage capacity based on reservoir pressurization model (confined block)

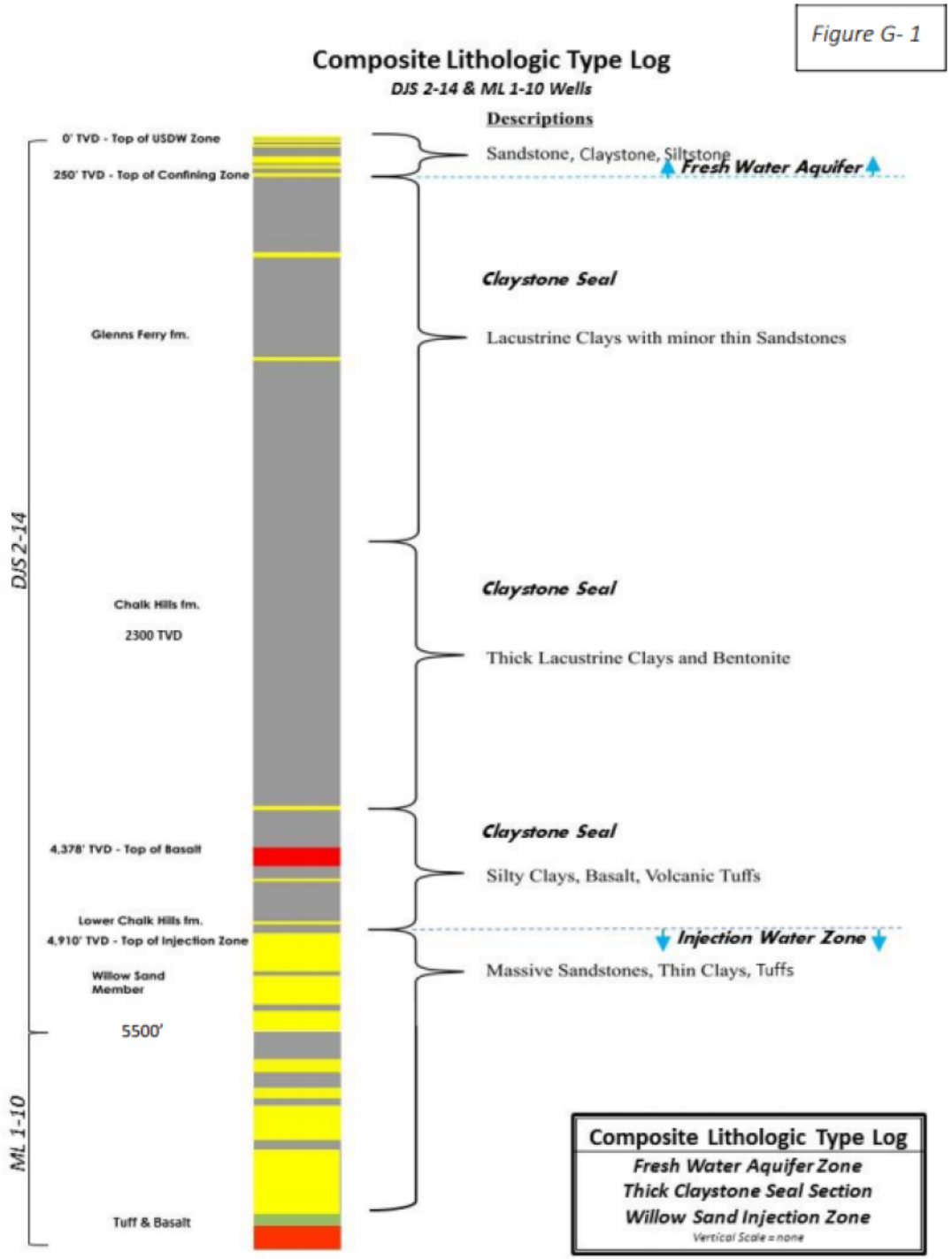
PROJECT OVERVIEW: LOCATION



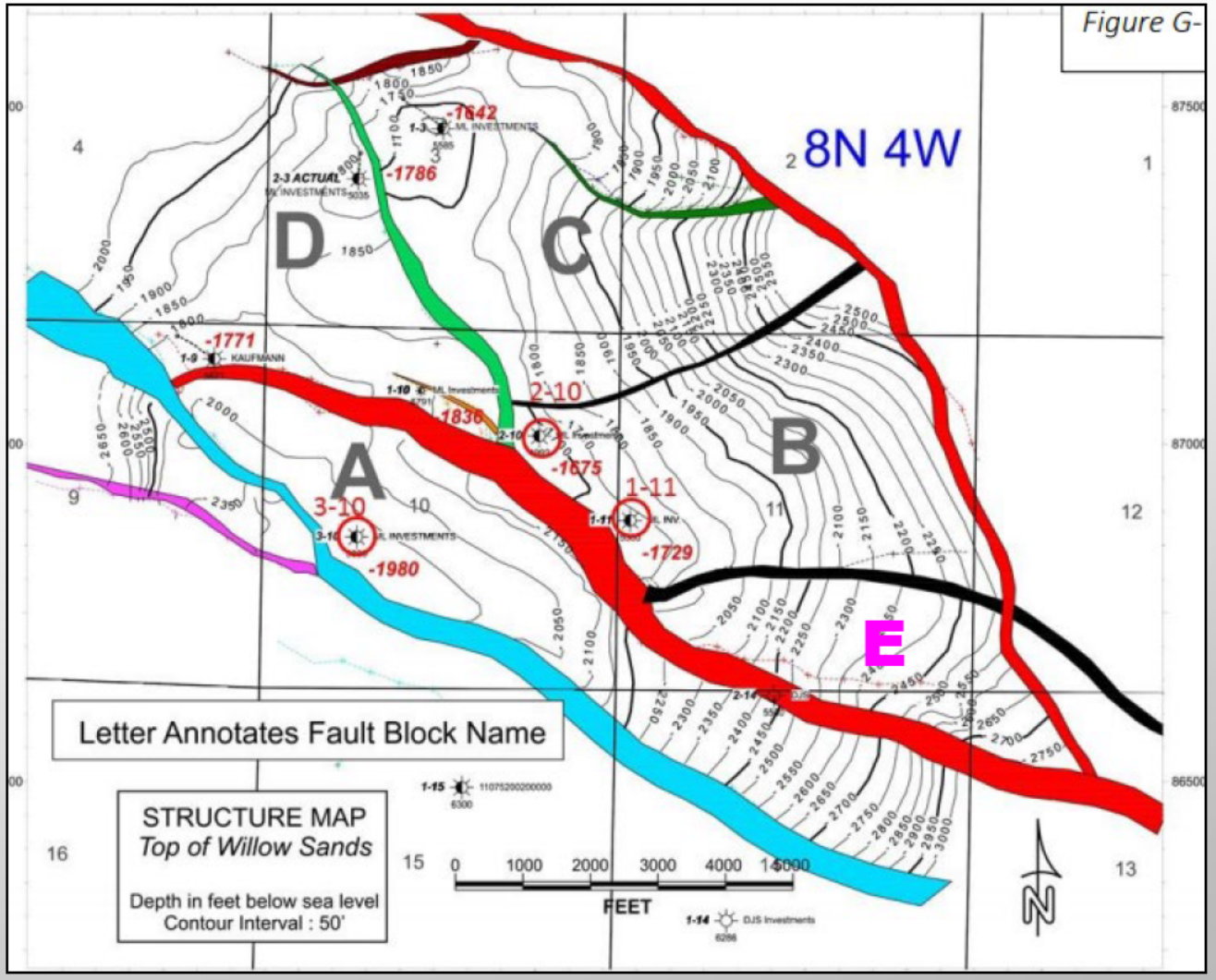




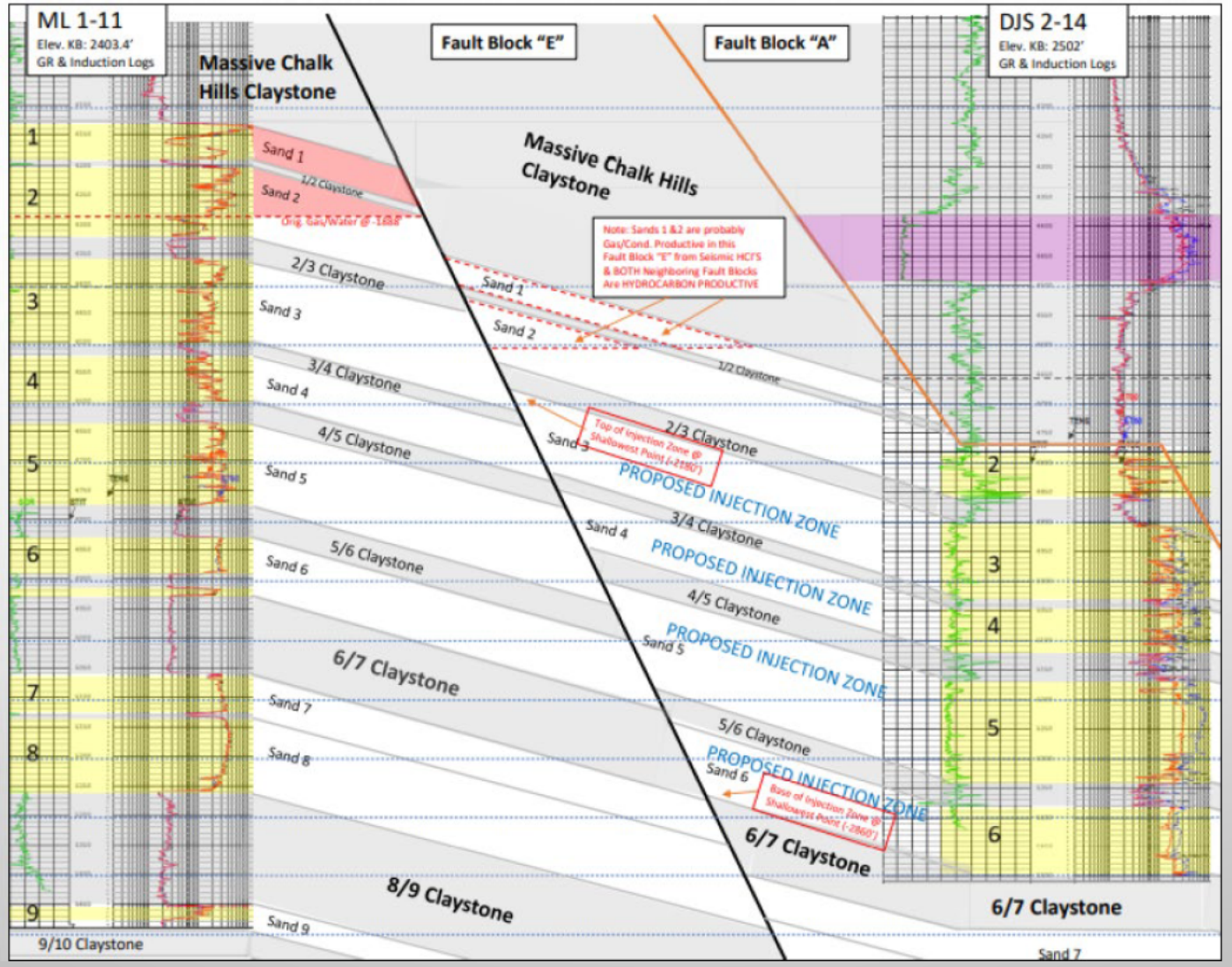
PROJECT OVERVIEW: LITHOLOGY



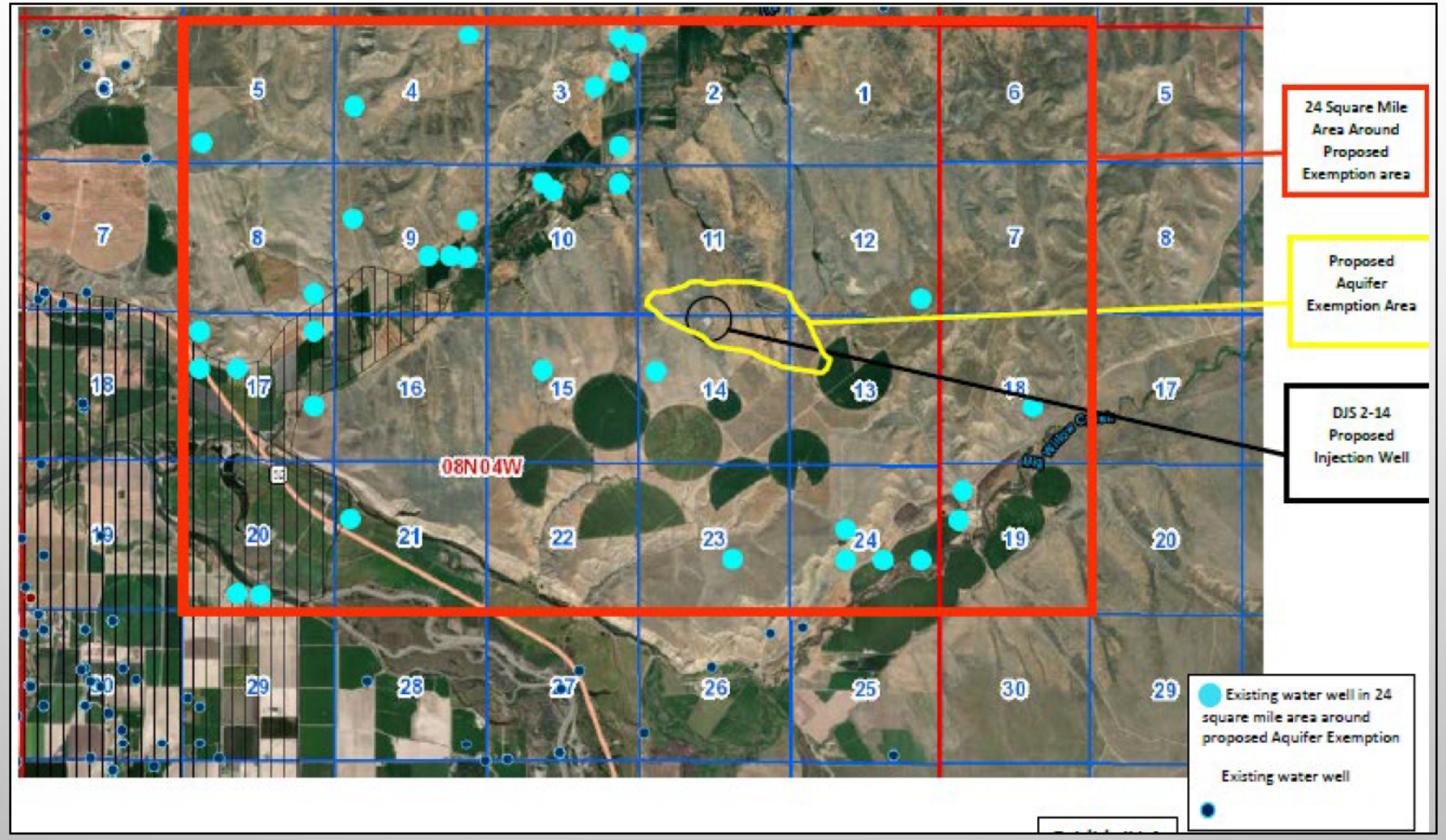
PROJECT OVERVIEW: STRUCTURE



PROJECT OVERVIEW: CONFINEMENT



PROJECT OVERVIEW: AQUIFER EXEMPTION



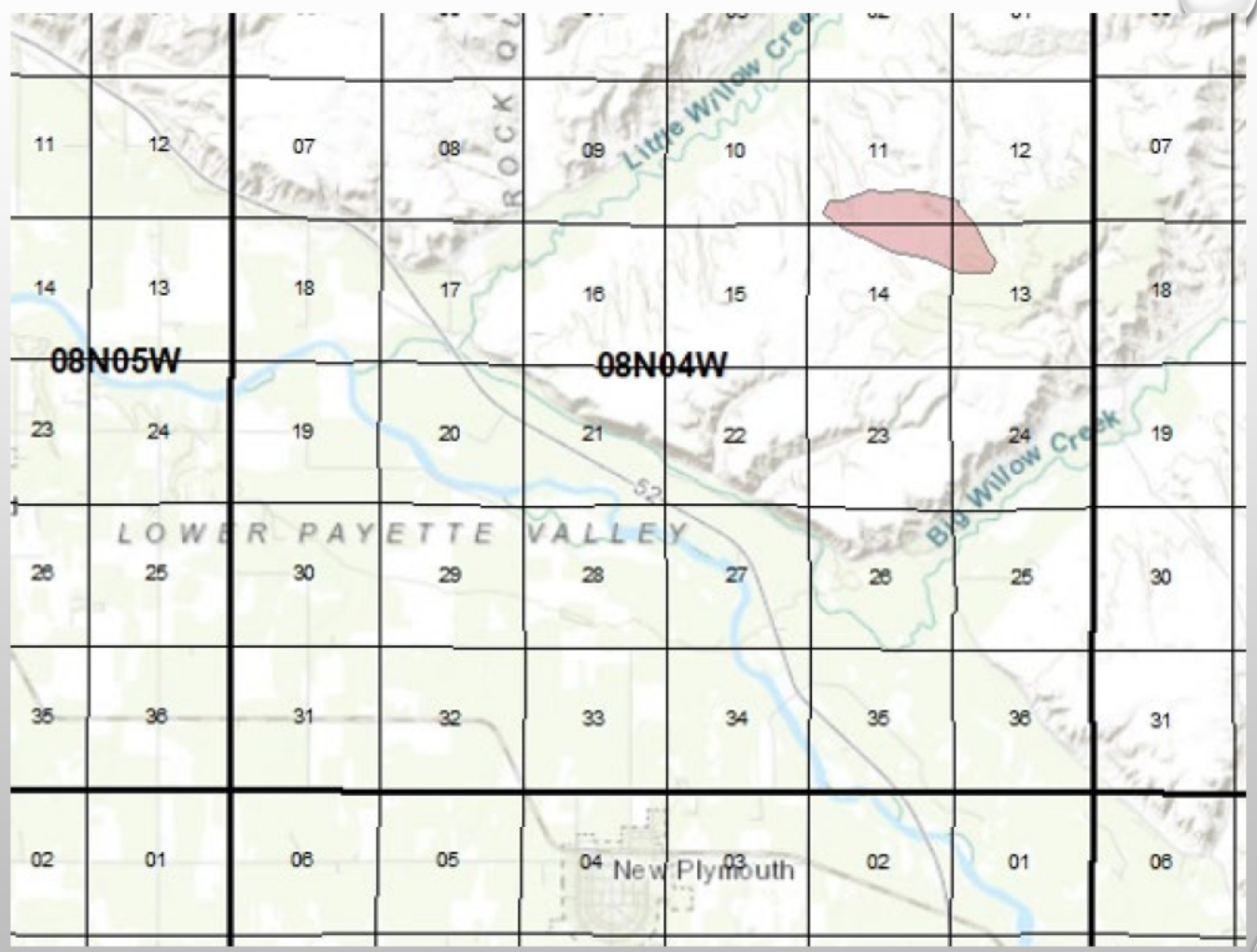
PROJECT OVERVIEW: AQUIFER EXEMPTION

"[a USDW] may be determined under §144.7 of this chapter to be an "exempted aquifer" for Class I-V wells if it…

(a) It does not currently serve as a source of drinking water; and

(b) It cannot now and will not in the future serve as a source of drinking water because:

> (2) It is situated at a depth or location which makes recovery of water for drinking water purposes economically or technologically impractical;



EPA's latest action…

- EPA requested an updated monitoring plan on April 5, 2021:

- Currently evaluating a response submitted by SROG.

… and “next steps”

- Public comment for draft decision (issuance or denial)
  - Minimum 30-day comment period
  - Noticed in local newspapers, EPA website
  - Stakeholder notification
  - Public hearing (if requested)
- Response to comments
- Final decision, revisions based on comment(s)

Questions?