

# Bull Run Mountain / Evergreen Water Supply Improvements

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Deputy Director of Operations & Maintenance  
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**Service Authority**  
Exceptional Water Service

# Project Team

- ◆ Prince William County Service Authority (SA):
  - ◆ Glenn Pearson, Deputy Director, O&M
- ◆ Consultants:
  - ◆ Dewberry Engineers, Inc.
  - ◆ Emery and Garrett Groundwater Investigations, a division of GZA (EGGI)
  - ◆ ERM & Associates, LLC

# Mission & Vision

## Mission

PWCSA is dedicated to excellence in providing safe, reliable water service to our customers and returning clean water to the environment.

## Vision

To be a nationally acclaimed leader in providing clean water and excellent customer service through sustainable, innovative business practices, community partnerships and environmental stewardship.

# Service Authority by the Numbers

- \$1.6 Billion in assets.
- 96,400 accounts.
- Serving about 370,000 people in Prince William County.



Percentages based on total value of assets.

# Project Needs

- ◆ Some SA wells are more than 40 years old.
- ◆ SA is experiencing diminishing yields from some wells, mainly due to age.
- ◆ SA is committed to **maintaining the level of service** and water quality our customers have enjoyed for decades.

# Project Impacts

- ◆ Maintain the level of service (*i.e.*, quality, reliability and redundancy) of water supply to customers in SA's current area of service:
  - ◆ The amount of water supplied is based on demand, not the number or size of wells.
  - ◆ We will supply the same amount of water before and after this project.
- ◆ Designed to **avoid or greatly mitigate impacts on other private wells.**
- ◆ SA is working with landowners to secure access and permanent easements.
- ◆ Above ground infrastructure will be low-key and in keeping with local architecture.

# Project Will NOT Impact...

- ◆ The SA's current service area.
- ◆ Our customers' current water rates.
- ◆ The County's Rural Crescent designation or land uses.
- ◆ Our existing water distribution system for Bull Run Mountain and Evergreen.
- ◆ Citizens' obligations to become an SA customer.

# Project Timeline

- ◆ **May 2019:** Conduct geophysical surveys
- ◆ **September 2019:** Develop test wells, conduct pumping and water quality tests
- ◆ **November 2019:** Convert test wells into production wells
- ◆ **2020 - 2022:** Design well houses and piped connections to existing distribution system
- ◆ **Early 2022:** Conduct Public Facility Review with the County Planning Commission
- ◆ **2022 - 2023:** Construct well houses and piping systems
- ◆ **2023:** System startup, check-out and full operation



# Easements

- ◆ Ingress/egress easement:
  - ◆ Temporary – expires when construction is completed.
  - ◆ Used mainly for vehicle access to work site.
- ◆ Temporary easement:
  - ◆ Temporary – expires when construction is completed.
  - ◆ Used mainly for storage of materials along/near permanent easement.
- ◆ Permanent easement:
  - ◆ Remains in place after construction.
  - ◆ Used for drive/road access, buried water mains and production well heads and housing.

# Production Wells

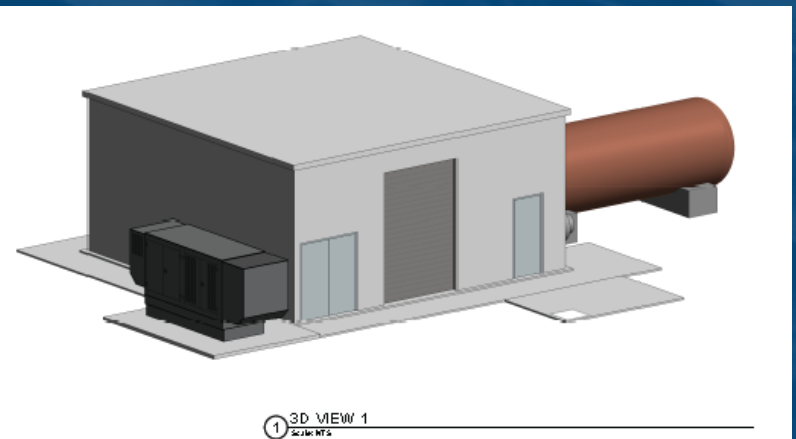
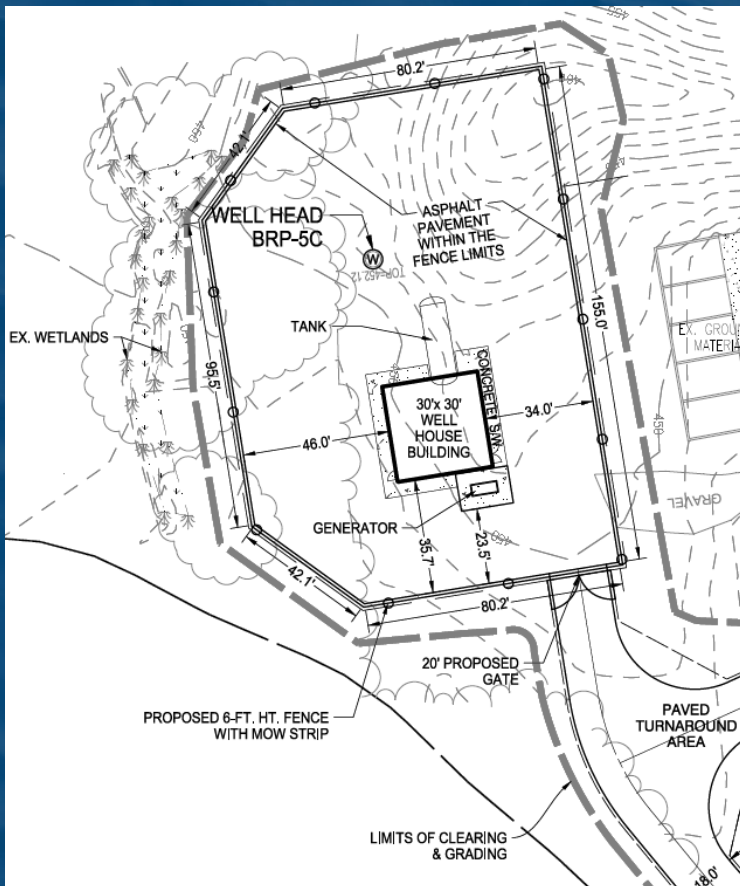
- Two production wells:
  - One well will be developed for this project.
    - 60 gpm maximum safe yield.
    - Well depth of 330 feet below existing ground elevation.
  - One well will be capped and closed unless/until needed.
    - 10 gpm maximum safe yield.
    - Well depth of 220 feet below existing ground elevation.
- Remaining test wells drilled in 2019 were capped and closed to prevent potential contamination from the surface.



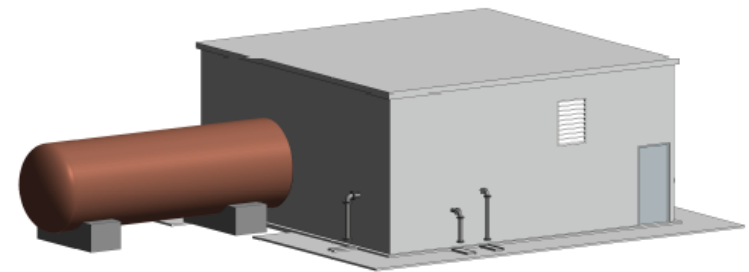
# Production Well Impact Testing

- 3-day pump testing applied “maximum stress” to the underlying aquifer.
- Water levels at surrounding monitoring locations were surveilled continuously:
  - Three days prior to testing,
  - During testing,
  - Throughout the six days after pumping test completion.
- **Water levels at all monitoring locations, except the well on the golf course, indicated no impacts.**

# Well House on Evergreen CC Property

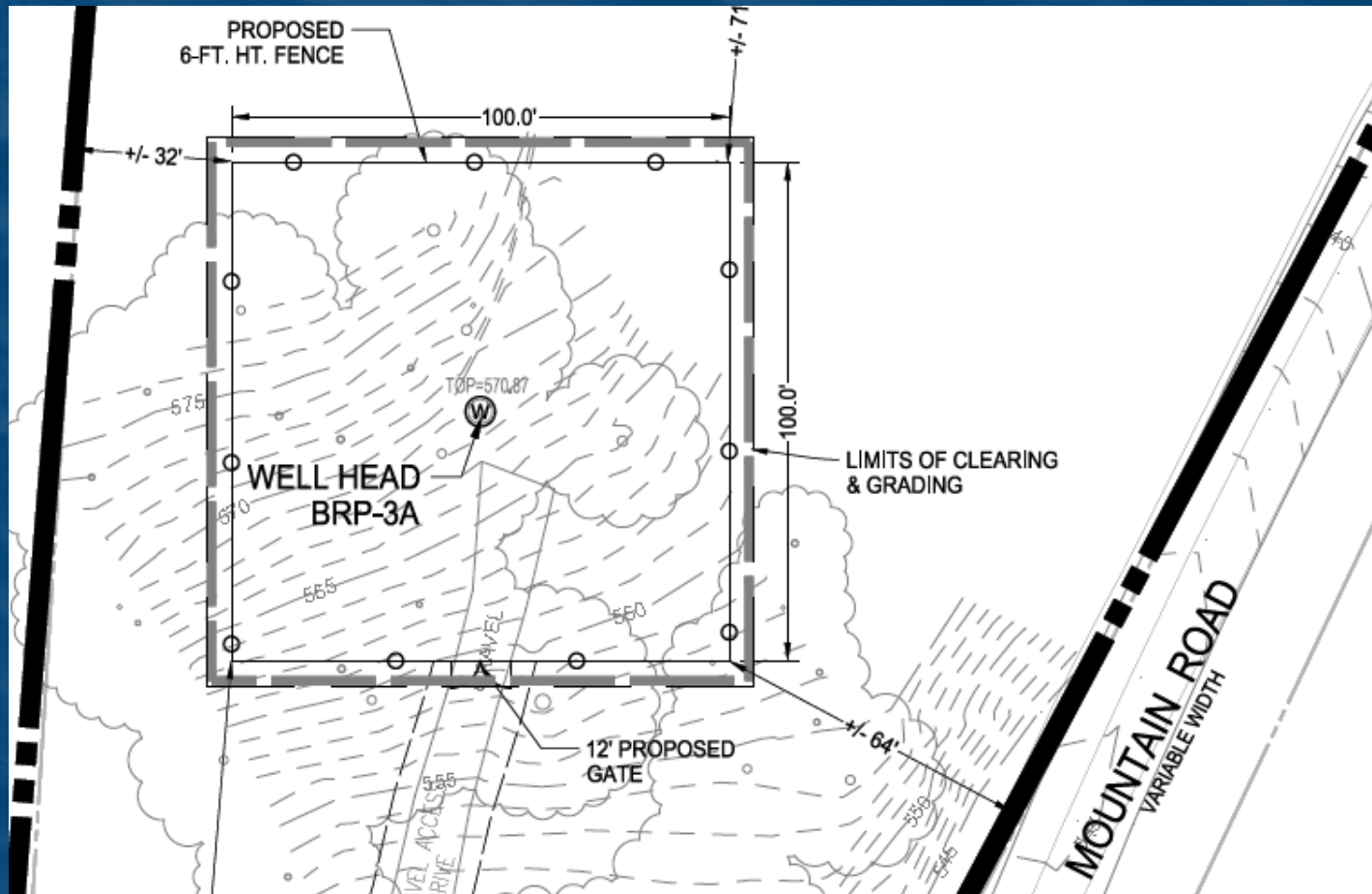


① 3D VIEW 1  
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② 3D VIEW 2  
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# Production Well to be Closed and Capped



# Questions?

Project website:

<https://www.pwcsa.org/brme-project>

Email: [BRMEWater@pwcsa.org](mailto:BRMEWater@pwcsa.org)



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