
Remington Water District

Public Information Meeting

February 19, 2020

Please Note:
Third-Party Lease Option
Eliminated by DEQ during
meeting

Introductions

- District
 - Shawn Mosqueda, Chairman
 - Charlie Richmond
 - Jess Mosqueda
 - Bill Hennig
 - Robin Pugh
- District Staff
 - John Austin and Jessie Roe, Accountants
 - Bob Kuchenski and Ian Kuchenski, Operators
- Welch Comer Engineers
 - Ashley Williams, PE, Project Engineer
 - Necia Maiani, PE, Principal
- Idaho Dept. of Environmental Quality
 - Katy Baker-Casile, PE
- Water Rights
 - Bob Haynes
- Consultant
 - Mike Galante

District History and Why are we Here?

- Formed in 1999 as a Recreational Water and Sewer District
 - 1 large well and 2 small wells (1 small well was abandoned later)
 - Funds saved: \$30,000
- System was designed (originally) to support 467 connections, currently the system has 387 approved connections
 - Current Idaho Rules (IDAPA 58.01.08) require redundancy and fire flow capacity; therefore, the system can currently only support 115 connections
- Set aside money for over 20 years to improve system
 - Backup generators: to supply water for 1 week max usage during power outage
 - Saving to add third large well
 - Funds saved: \$700,000



Current Water Consumption Rates

- Current Rate Schedule

	Monthly Base Rate	Gallons Included in Base Rate	25k-100k Gallons (per 1000 Gallons)	Over 100k Gallons (per 1000 Gallons)
Active Connection	\$35	25,000	\$0.80	\$0.60

- Price Comparison

Water System	25,000 gal	50,000 gal	150,000 gal	350,000 gal
Remington	\$35.00	\$55.00	\$125.00	\$245.00
North Kootenai	\$64.60	\$119.10	\$380.60	\$910.60
City of CDA	\$33.43	\$65.58	\$251.58	\$623.58
City of Post Falls	\$42.62	\$73.87	\$252.87	\$610.87



Objective

- Understand the ability of the Remington system to meet regulatory requirements from a capacity standpoint
- Review current connection capacity and future growth (how does growth impact the system?)
- Review deficiencies and potential improvements and obtain customer feedback

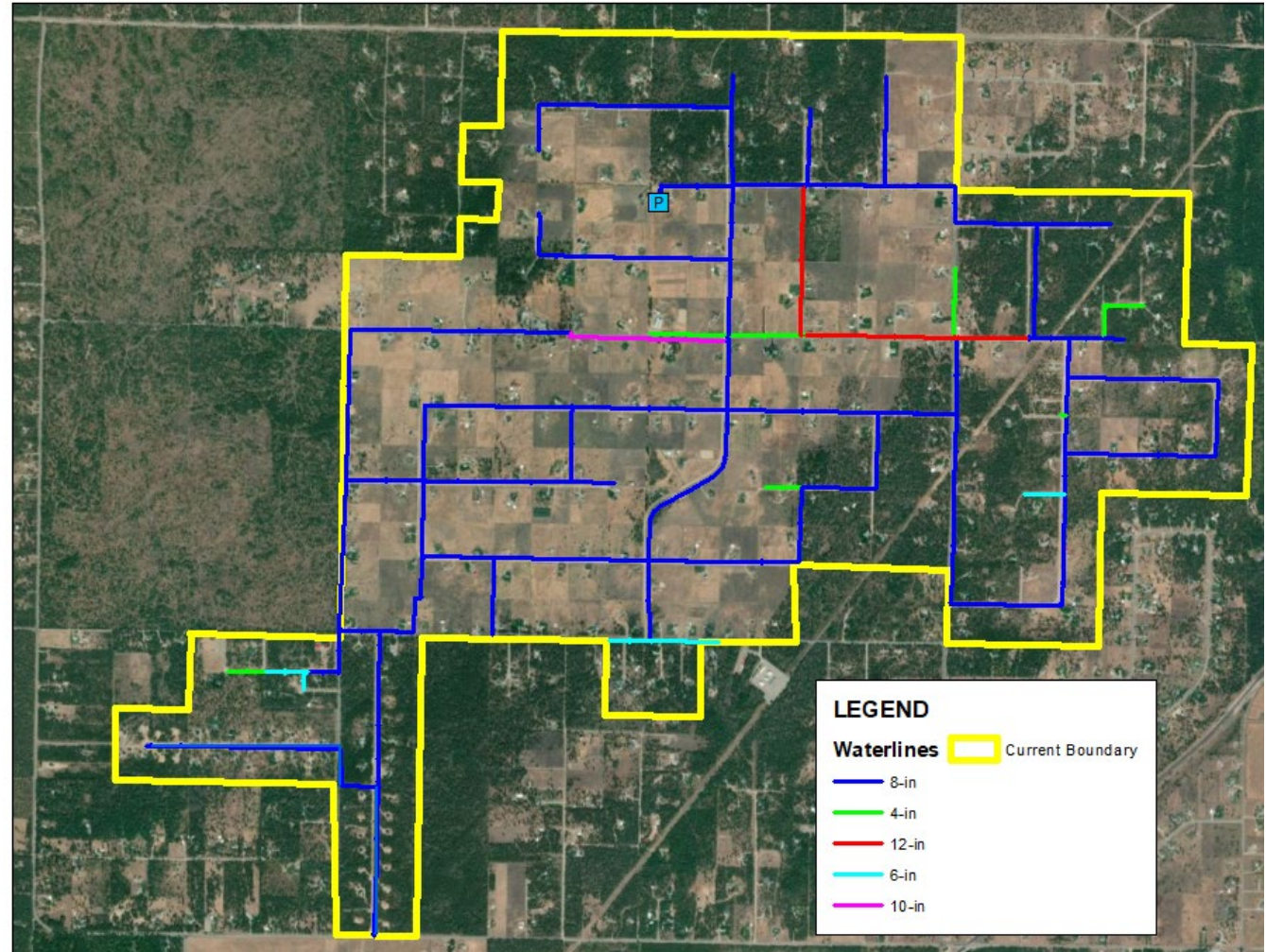
Agenda

- Define Idaho DEQ Public Water System Requirements
- Discuss Current Water System Capacity
- Discuss Potential System Improvements
- Financing Options
- Next Steps
- Customer Feedback



Existing System Overview

- Connections: 375 active, 387 total
- System Information
 - Original System – 1970's
 - System Components
 - 2 groundwater wells (draw from Rathdrum Prairie Aquifer)
 - 4 booster pumps
 - 100,000-gallon storage
 - Approximately 24 miles of water main: PVC, Steel



Recent Sanitary Survey by IDEQ

- Idaho public water systems are evaluated periodically (~3 years) by IDEQ with respect to IDAPA 58.01.08
- Completed in April 2017
 - Remington Water District was found to be in substantial compliance with IDAPA relative to system condition and ability to provide safe, clean drinking water
 - No significant deficiencies were identified
 - Modifications (including system capacity upgrades) to the system require Facility Plan and Preliminary Engineering Report



Definitions

- Demand
 - Average Day Production (ADP): average volume of water calculated over the year
 - Maximum Day Production (MDP): maximum gallons of water used in one day (reviewing one year of data)
 - Peak Hourly Production (PHP): maximum gallons of water used in one hour (reviewing one year of data)
 - System Loss: Difference between well production and customer metered usage
- Fire Flow
 - Set by the Timberlake Fire Protection District as the minimum recommended available water flow to fight a structure fire
 - 1,000 gpm for 2 hours
- Equivalent Dwelling Unit
 - EDU is a unit of measure that standardizes all land use types (housing, retail, office, etc.) to a level of demand created by a single-family detached housing unit within a water system



Overview of Pertinent Rules

IDAPA 58.01.08



Source

Supply PHP with largest source offline or MDP plus equalization storage with largest source offline

Booster Facilities

- Supply MDP plus Fire Flow (if pumped) with any pump out of service
- Supply PHP with any pump out of service

Storage

- Operational Storage: volume allocated to pump control
- Equalization Storage: volume to supply PHP over 150 min.
- Standby Storage: volume to supply 8 hours of average day demand (not required with generators)
- Fire Suppression: volume specified by local fire authority
 - 1,000 gpm for 2 hours (120,000 gallons)

Distribution

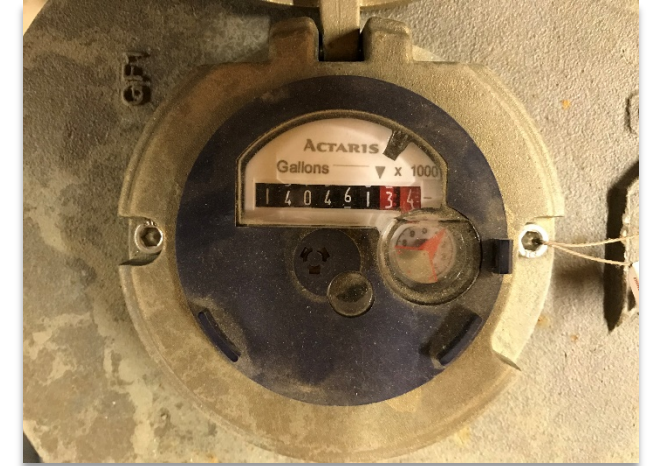
- Water mains with Fire Hydrants shall not be less than 6-inch diameter
- Water mains without Fire Hydrants shall not be less than 3-inch diameter
- Maintain 40 psi minimum pressure throughout system during PHP
- Maintain 20 psi minimum pressure throughout system during MDP plus Fire Flow

System Demand

- Current Connections: 387
- Current System Demand
 - Current Total ADP: 794 gpd/EDU
 - Current Total MDP: 2,629 gpd/EDU

	Demand
Average Daily Production	213 gpm
Max Daily Production	707 gpm
Peak Hour Production	1,518 gpm

Based on user data from July 16, 2018 to July 15, 2019 plus system loss (15%)



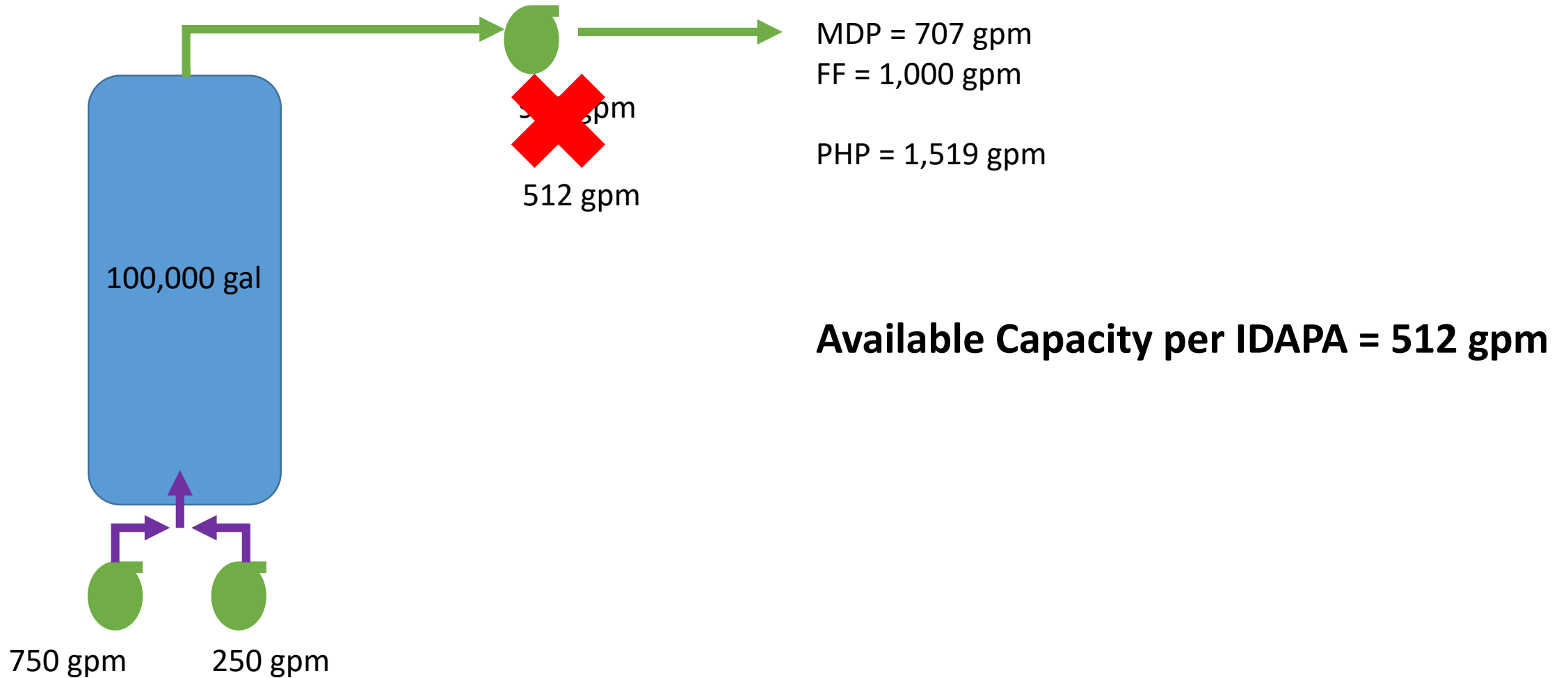
Current Water System Capacity

- System is deficient in all IDAPA capacity categories
- IDEQ will not approve additional connections until system is fully compliant (this includes individual lot splits)

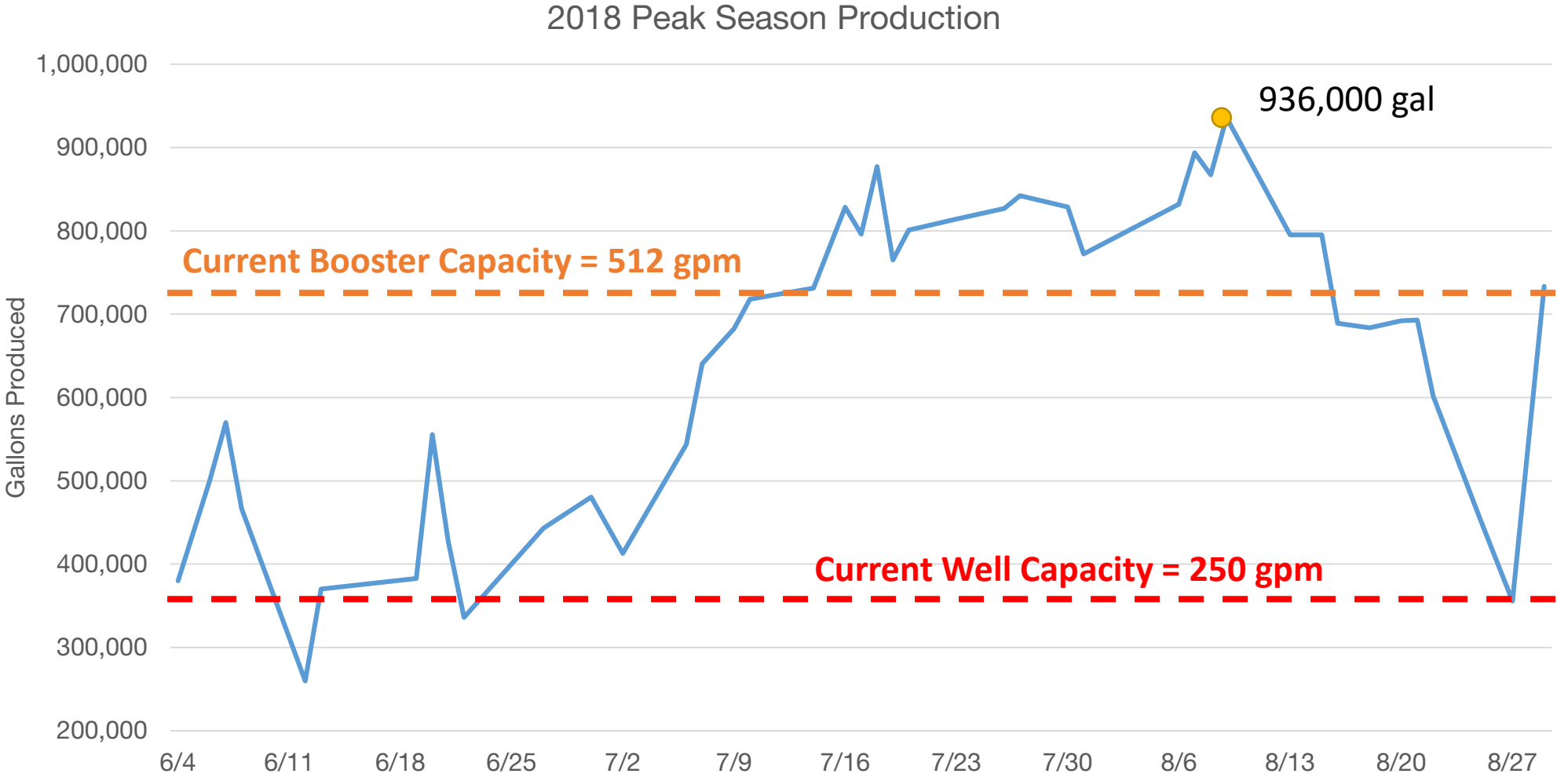
	Current Capacity (w/ Largest Pump Down)	Current IDAPA Capacity Requirement	Current Deficit with regard to IDAPA Requirements
Source	250 gpm	839 gpm	-589 gpm
Booster	512 gpm	1,707 gpm	-1,195 gpm
Storage	100,000 gal	350,217 gal	-250,217 gal

Note: Source deficit is with regard to serving MDP plus equalization storage with largest pump offline
 Booster deficit is with regard to meeting MDP plus Fire Flow with the largest pump offline

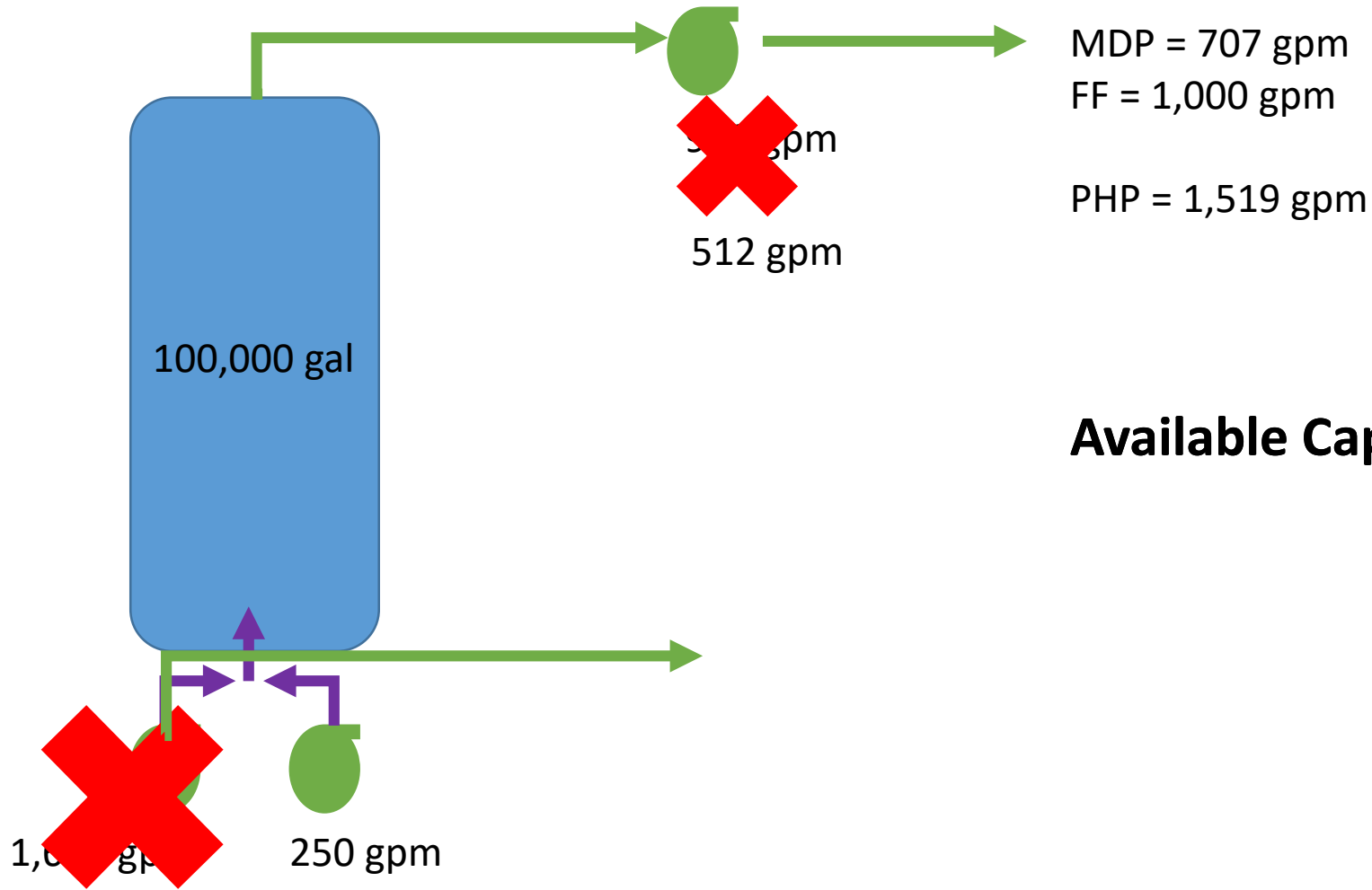
Current System Capacity Overview



Peak Season Production

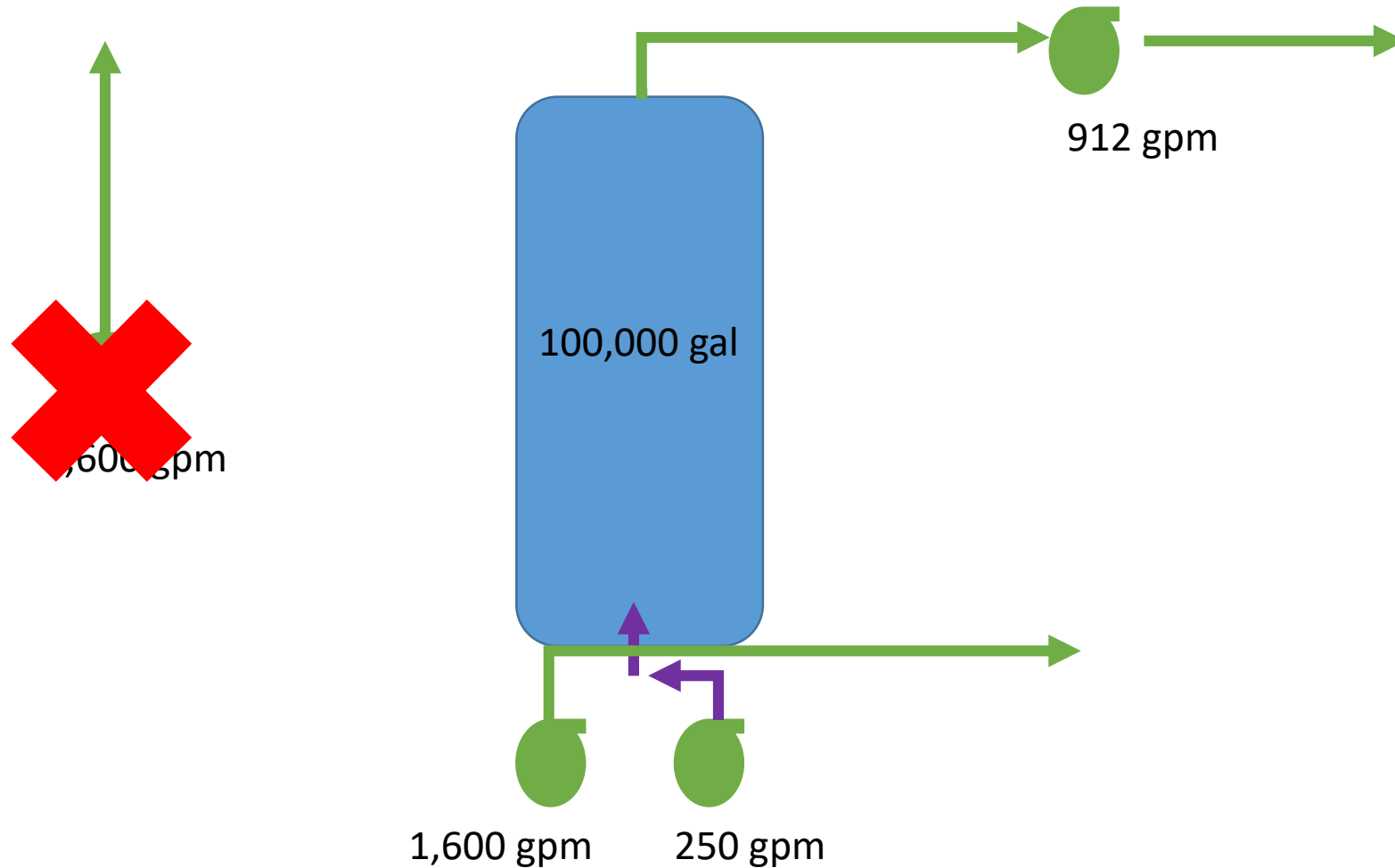


System Capacity Overview – Upsize Well 1



Available Capacity per IDAPA = 912 gpm

System Capacity Overview – Add Source



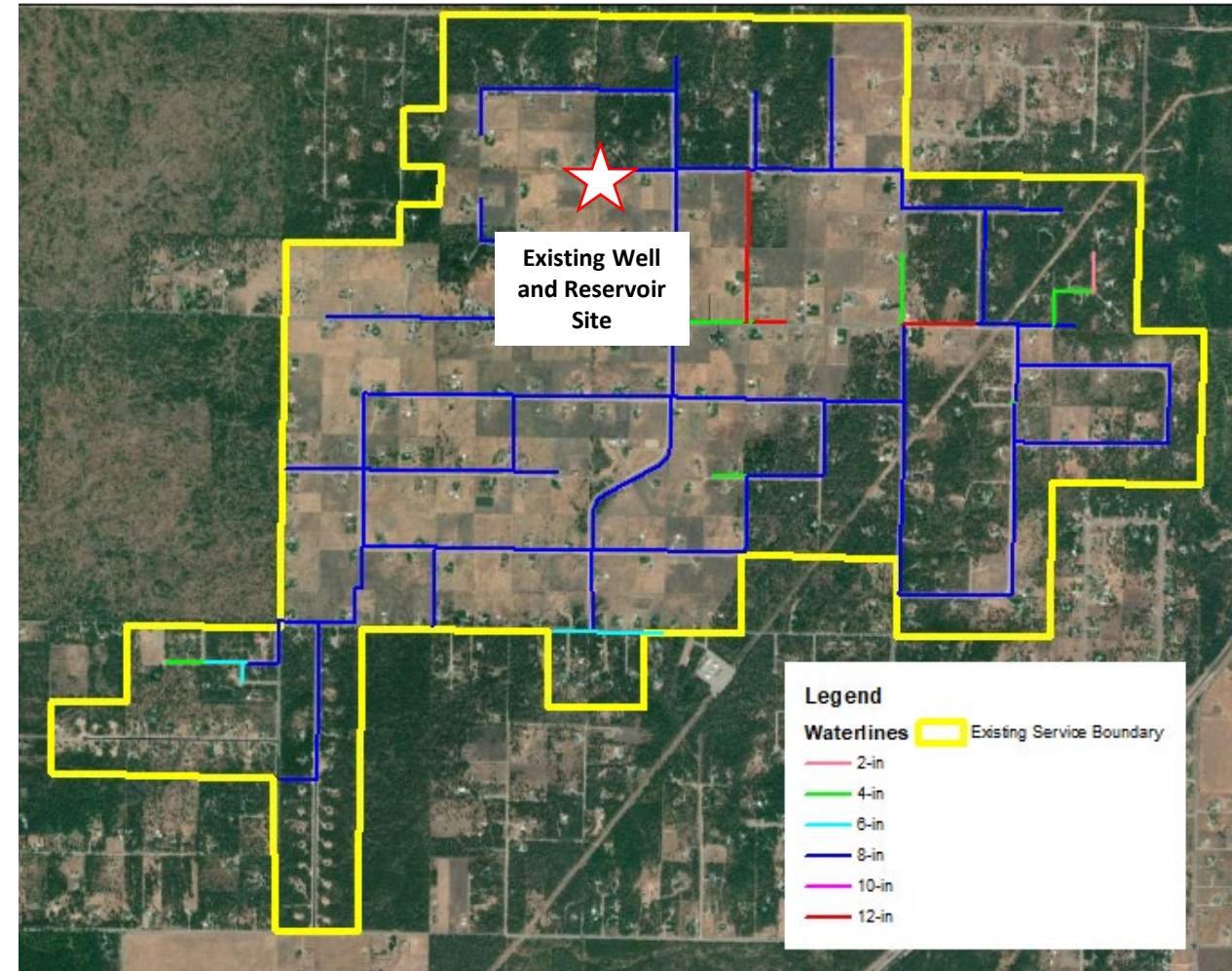
MDP = 707 gpm
FF = 1,000 gpm

PHP = 1,519 gpm

**Available Capacity per
IDAPA = 2,512 gpm**

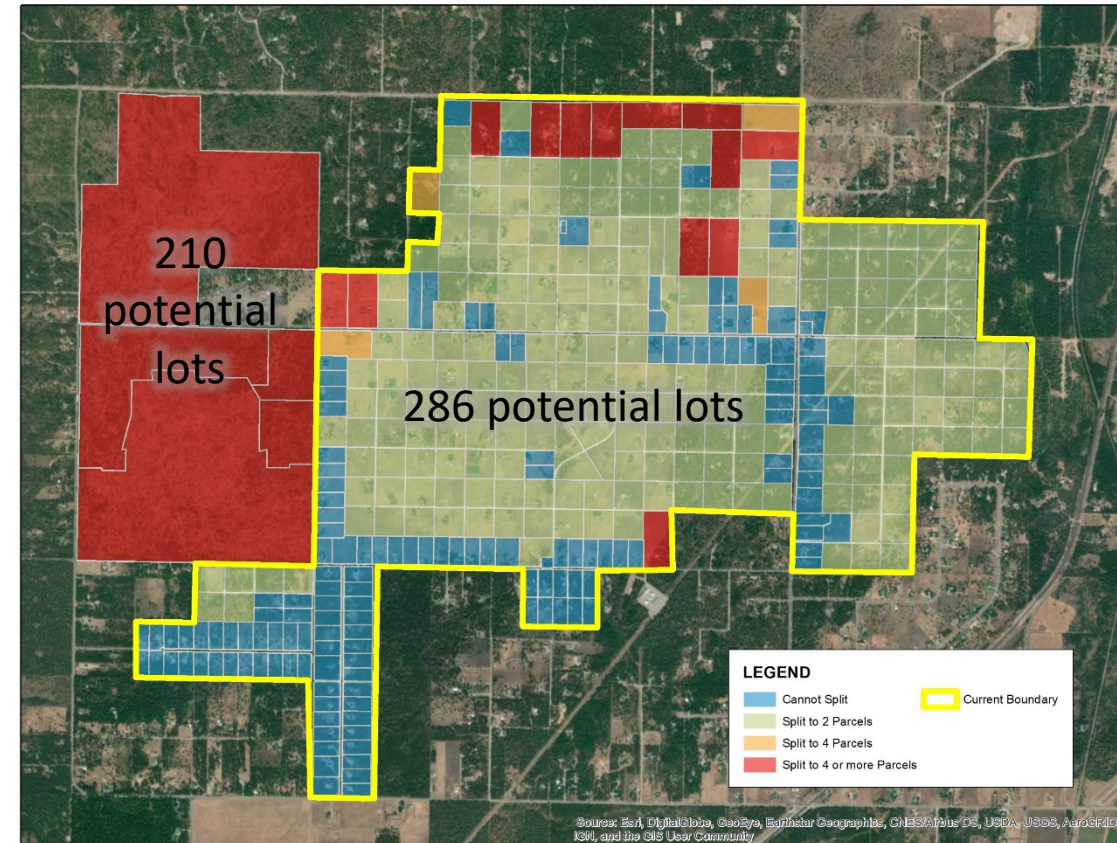
Minimum System Improvements

- Add two 800 gpm sources pumping directly to distribution
 - Includes one new well and upsize/reconfiguration of existing 750 gpm well
- Estimated project cost: \$1.37 million
- Eliminates all current deficits (source, storage and booster)
- No capacity for new connections created



Projected Growth

- Buildout of Existing System Boundary:
 - 286 potential connections (assumes all internal lots split into 5 acres parcels)
- Potential Annexations:
 - 210 additional connections (buildout of red property west of existing system boundary)
 - Could provide significant financial contributions to system improvements
- Assumed Growth: 320 connections within next 20 years

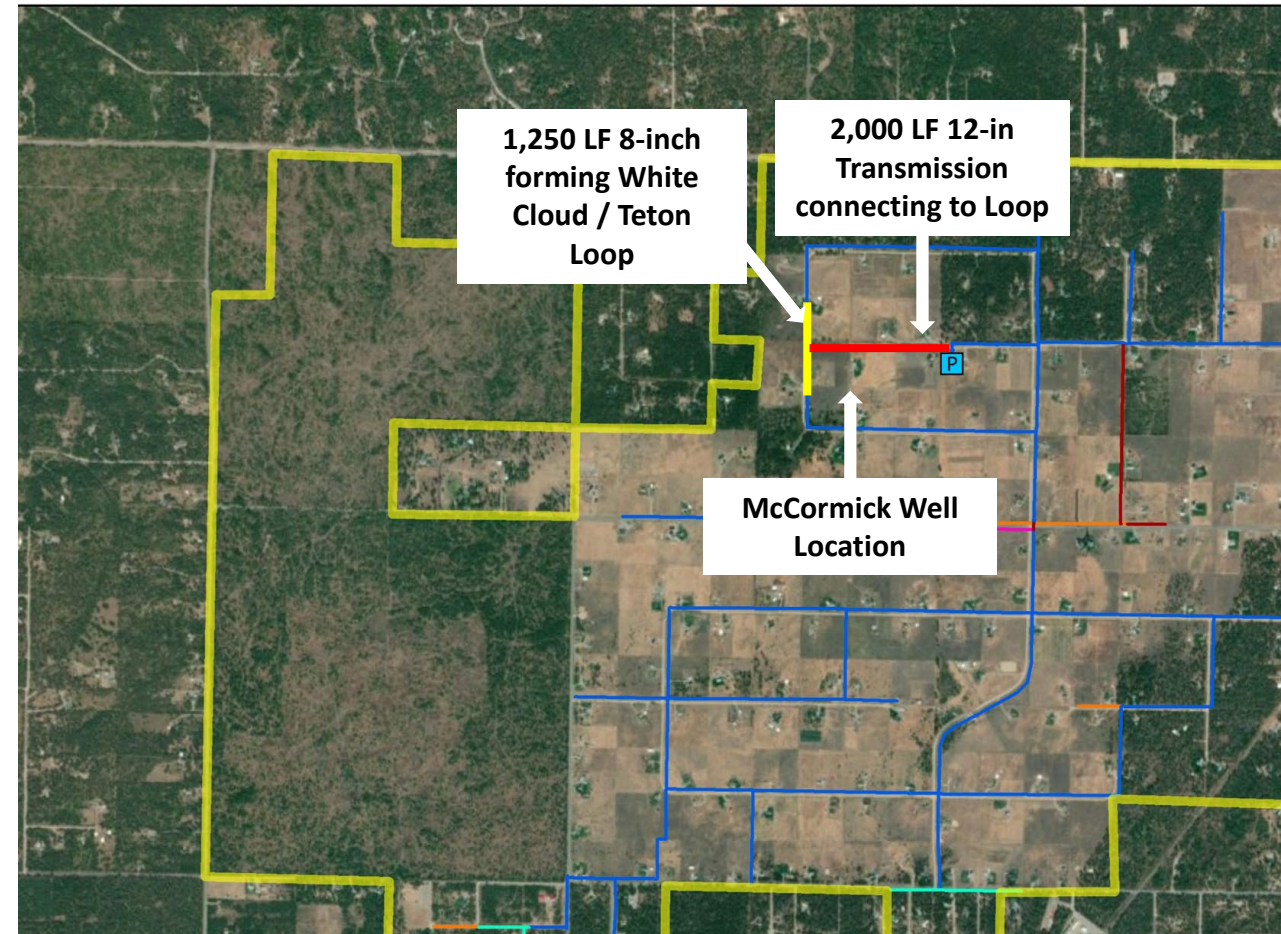


Potential Growth Improvement Options

Improvement Option	Improvement
<u>Option 1:</u>	<ul style="list-style-type: none">• Two 1,600 gpm wells• Add approximately 3,250 LF of new transmission
<u>Option 2:</u>	<ul style="list-style-type: none">• One 1,600 gpm well• 525,000-gallon standpipe reservoir• Add approximately 3,250 LF of new transmission• One additional 1,600 gpm well after approx. 7 years
<u>Option 3:</u>	<ul style="list-style-type: none">• One 1,600 gpm well• Add 1,000 gpm booster pump capacity• 250,000-gallon storage reservoir• Add approximately 3,250 LF of new transmission• One additional 1,600 gpm well after approx. 7 years

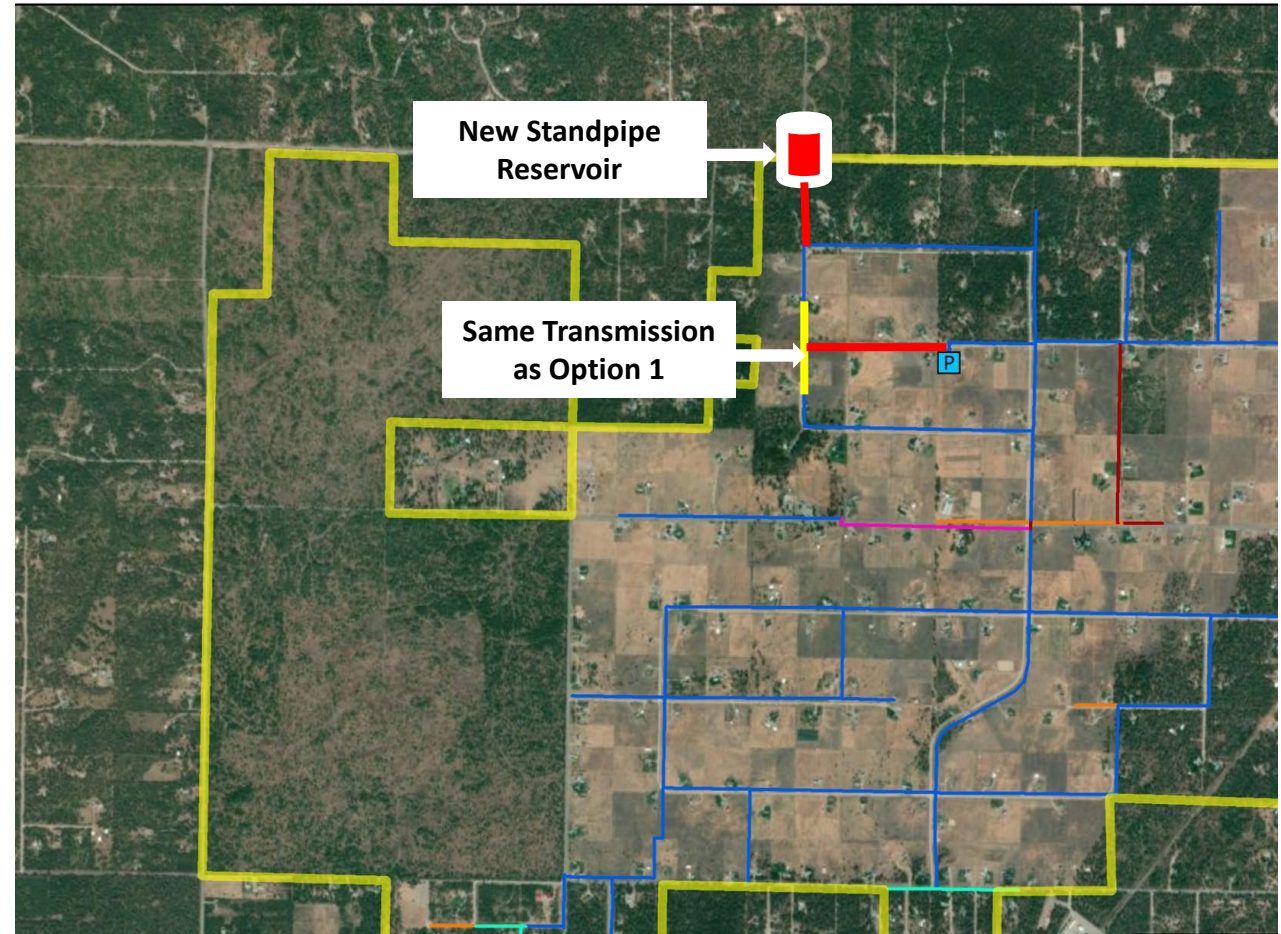
Potential Improvements: Option 1

- Two new 1,600 gpm wells
- Three potential iterations
 - Option 1: Develop McCormick Well and upsize existing 750 gpm well
 - Option 1A: Develop new well and upsize existing 750 gpm well
 - Option 1B: Develop two new wells
- Decision depends on condition of existing well shafts
- Install approximately 3,250 LF of transmission
- Eliminates all existing deficits
- Adds capacity for 320 new connections
- Estimated Project Cost: \$2.5-3.4 million



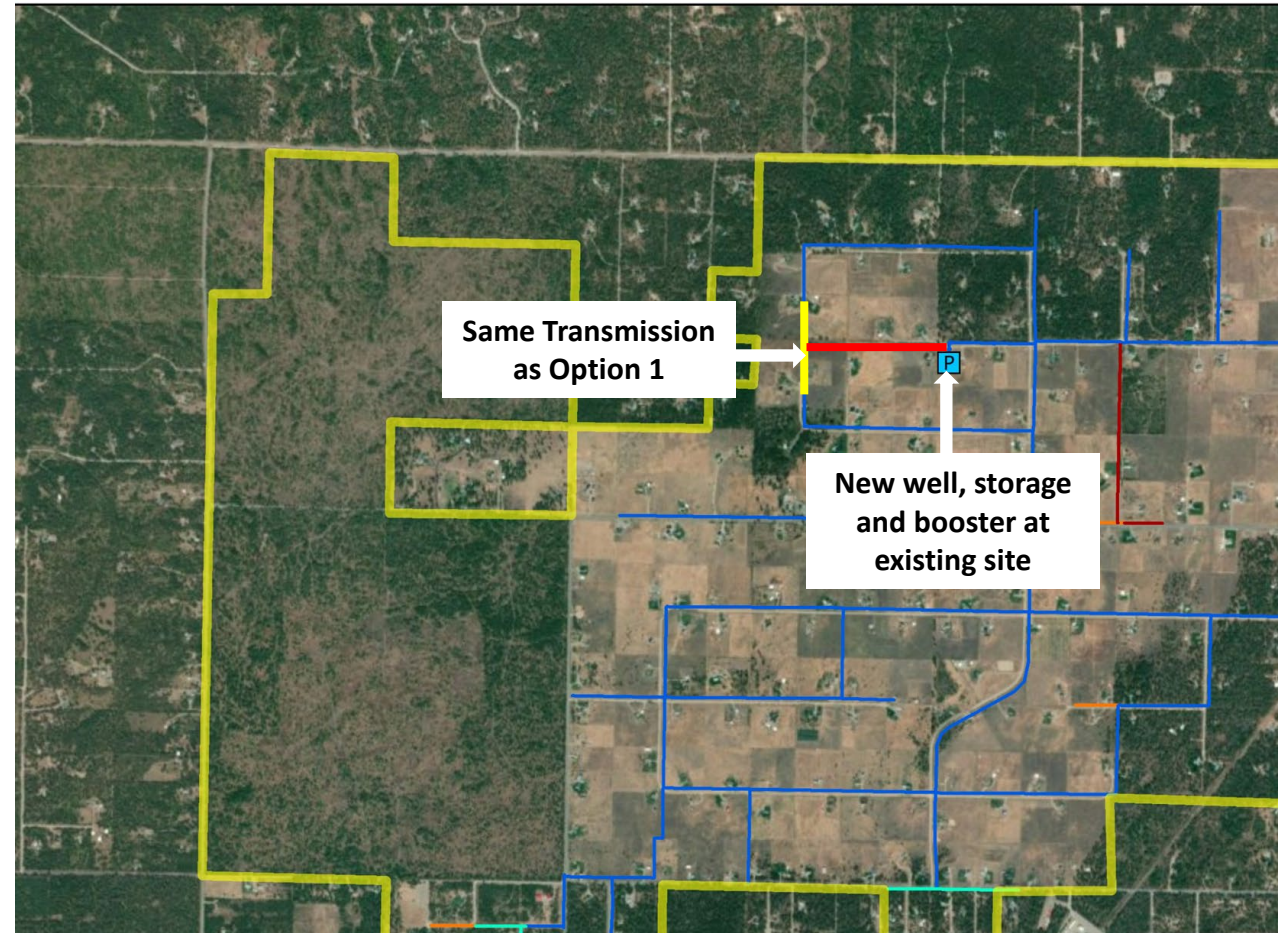
Potential Improvements: Option 2

- One new 1,600 gpm well
- 525,000-gallon Standpipe Reservoir
- Install approximately 3,250 LF of transmission
- Improves system reliability
- Adds capacity for 140 new connections
- New well required after 140 added connections
- Estimated Current Project Cost: \$3.4 million
- Estimated Future Project Cost: \$1.7 million



Potential Improvements: Option 3

- One new 1,600 gpm well
- 250,000-gallon reservoir expansion
- Upsize existing booster station by 1,000 gpm
- Install approximately 3,250 LF of transmission
- Adds capacity for 140 new connections
- New well required after 140 added connections
- Estimated Current Project Cost: \$2.6 million
- Estimated Future Project Cost: \$1.7 million



Comparison of Options

Improvement	Option 1	Option 2	Option 3
New Source 1	X	X	X
New Source 2	X	X ¹	X ¹
New Transmission	X	X	X
Add Booster Capacity			X
Add Standpipe		X	
Add Underground Storage			X
Current Estimated Project Cost	\$2.5 to \$3.4 million	\$3.4 million	\$2.6 million
Future Estimated Project Cost²	\$0	\$1.7 million	\$1.7 million
Total Estimated Project Cost	\$2.5 to \$3.4 million	\$5.1 million	\$4.3 million

1. Second new source needed after 7 years of projected growth
2. Future Cost does not include inflation

Preferred Improvement Option

- Option 1 as preferred improvement option
- Benefits
 - Eliminates all current deficits
 - Improves system reliability
 - Adds capacity for 320 new connections
 - Cheapest option in long-term
- Next Steps
 - Continue alignment testing on McCormick Well and existing 750 gpm well
 - Evaluate each shaft to determine suitability for development/upsized
 - Make final decision on combination of wells to be developed



Financing Options

- Pay as you Go
 - District Funds: Raise Rates to Fund Improvements
 - Downside: Improvements needed now cannot be completed until funds are raised
- Grants and Loans:
 - IDEQ: Low interest (2-3%) over 20-30 years; principal forgiveness or lower interest available
 - LOI in January, Fundable List in March, Funds available July
 - USDA: Low interest (3-4%) over 20-40 years; may not be grant eligible; interim financing required for projects over \$500,000
 - Open Application period
 - Bank Loan: Low interest (2.5-3%) over 20 years; less “red tape”
 - Third-Party Lease: Low Interest (3.8%) over 20 years; less “red tape”;

Financing Authorization

- **Third-Party Lease** Please Note: Third-Party Lease Option was eliminated by DEQ during meeting
 - Annual lease, renewed each year by District for term of lease (e.g. 20 years)
 - Authorized by Rate Increase Hearing to fund yearly lease
 - Example Third-Party Lease: Low Interest (3.8%) over 20 years; less “red tape”;
- **Local Improvement District**
 - State Statute process where District customers can provide protest
 - If more than 60% protest received, decision to form LID goes to County Commissioners
 - Decision to form LID is made by District Board after receiving comments and reviewing protests from hearing
 - LID is assessment can be paid up-front or in annual installments (lien on property)
- **Revenue Bond**
 - Election in May, voted by District customers and approved by majority
 - Bond would be repaid by monthly rates

Financing Options - Comparison

	Authorization	Payment Method	Amount Borrowed	Preliminary Estimated Project Costs	Estimated Total Water Rate Post Project	Terms
Third-Party Lease	Rate Increase Hearing to fund Lease	Rate Increase	\$1.67 million	Lease-purchase for Well 3: \$24/month (\$21/month for smaller well)	\$59/month (\$56/month for smaller well)	3.8% for 20 years
			\$1.16 million	Other Improvements: District Cash + Developer Funding	N/A	N/A
This option was eliminated by DEQ during meeting						
LID	LID Formation through Hearing and Board Action	Pay Upfront or Yearly Payments (lien on property)	\$1.37 million	Existing Customers: \$14-\$21/month	\$49-\$56/month	2.5% for 20 years
			\$1.47 million	Growth Customers: \$27/month (depending on participation)	\$62/month	
Revenue Bond + LID	Vote Revenue Bond and LID Formation through Hearing and Board Action	Rate Increase for Existing Customers; LID (Pay Up-front or Yearly Payments) for Growth	\$1.37 million	Existing Customers: \$14-\$21/month	\$49-\$56/month	2.5% for 20 years
			\$1.47 million	Growth Customers: \$27/month (depending on participation)	\$62/month	
Revenue Bond	Vote Revenue Bond	Rate Increase	\$2.8 million	\$29-\$35/month depending on Developer agreements	\$64-\$70/month	2.5% for 20 years

Financing Options – Comparison Notes

- Intent: Existing customers pay for improvements to eliminate IDAPA deficiency; growth pays for upsized facilities to meet growth needs
- Assumes Option 1A - \$2.8 million
- Third-Party Lease: currently being reviewed by IDEQ and will need to be approved by the third-party
- Estimated costs are preliminary and subject to change
- Current base water rate is \$35 per month
- Terms are based on preliminary discussions with local, state and federal funding agencies
- District cash available to assist with funding: \$500,000; potentially up to \$665,000 contributed by developer



Next Steps

- District Board and Staff review comments received on preferred funding method
- Next District Board Meeting: March 18th
 - Preliminarily select funding mechanism
- Check out our website for more information:
<https://rwdonline.org/>

Thank you

Questions and Comments?