

Old Oaks Neighborhood Crozier, Goochland County

June 13, 2017

Agenda

- ▶ Introductions
 - ▶ Process / Background
 - ▶ DEQ Presentation
 - ▶ Questions
- 

Introductions

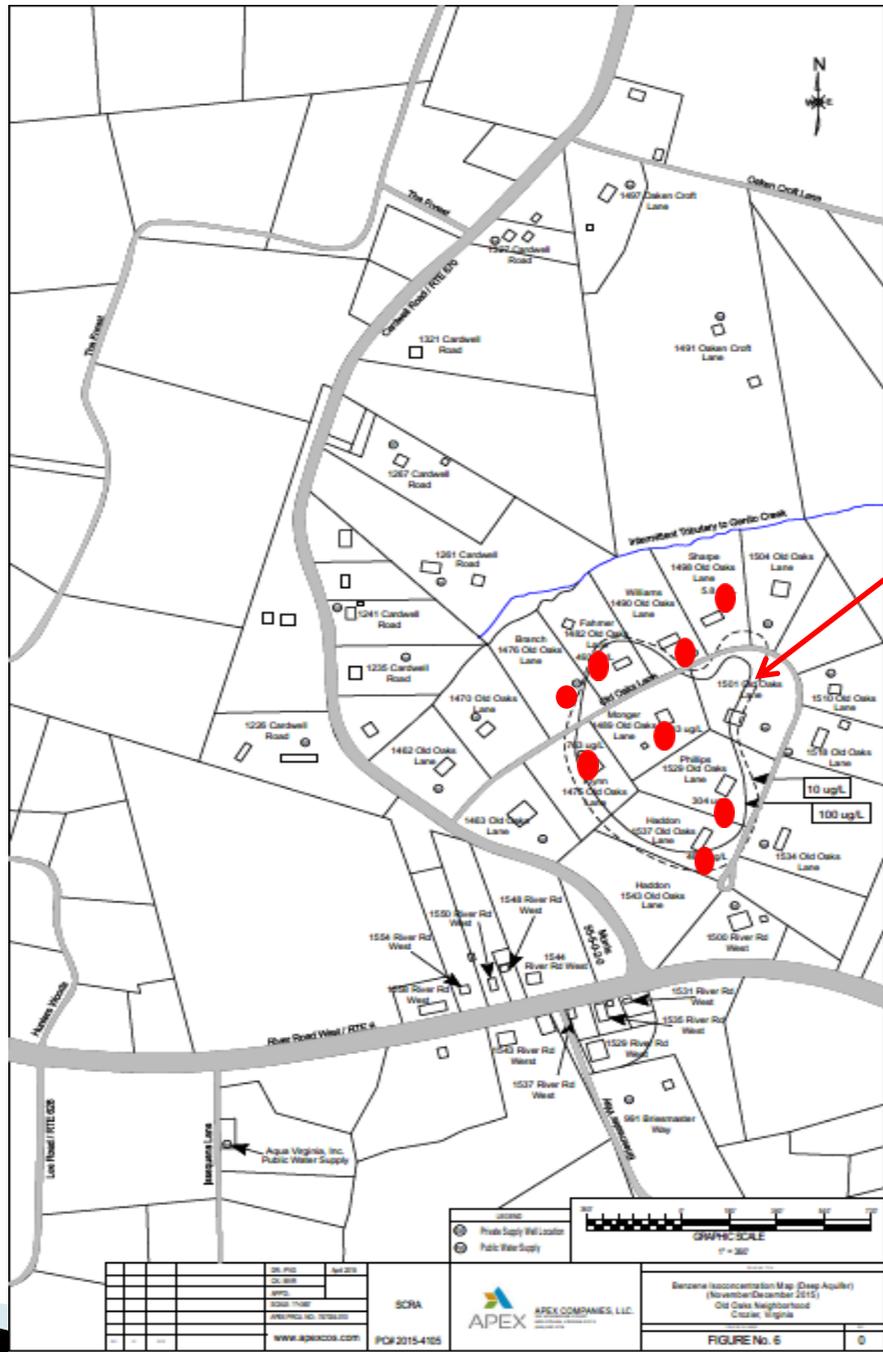
- ▶ DEQ Staff
 - ▶ Aqua Virginia Staff
 - ▶ Goochland County Staff/Others
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Process / Background

- ▶ DEQ Procurement w/ Aqua Virginia
 - ▶ Goochland Contact
 - ▶ MOU with Aqua and Proposal with DEQ
 - ▶ Community Meeting
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Contaminated in Drinking Water Old Oaks Neighborhood, Crozier Goochland County

- ▶ In 2014, a homeowner in the Old Oaks subdivision reported gasoline in their drinking water
 - ▶ VDEQ sampled the remaining drinking wells in the neighborhood and surrounding area
 - ▶ Seven drinking wells in the Old Oaks neighborhood tested positive for gasoline
 - ▶ VDEQ immediately outfitted the impacted drinking wells with Carbon Filtration Units and continues to maintain these filters.
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Impacted
Drinking Wells in
Old Oaks

Investigation/Remediation of Unknown Source

- ▶ Possible sources in area investigated by VDEQ contractor
 - ▶ Known owners of tanks were directed to investigate their sites
 - ▶ Probable source is a previously uninvestigated site along Rt. 6
 - ▶ On-going clean up on source site being conducted by VDEQ contractor using various methods
 - ▶ Site conditions make clean up difficult
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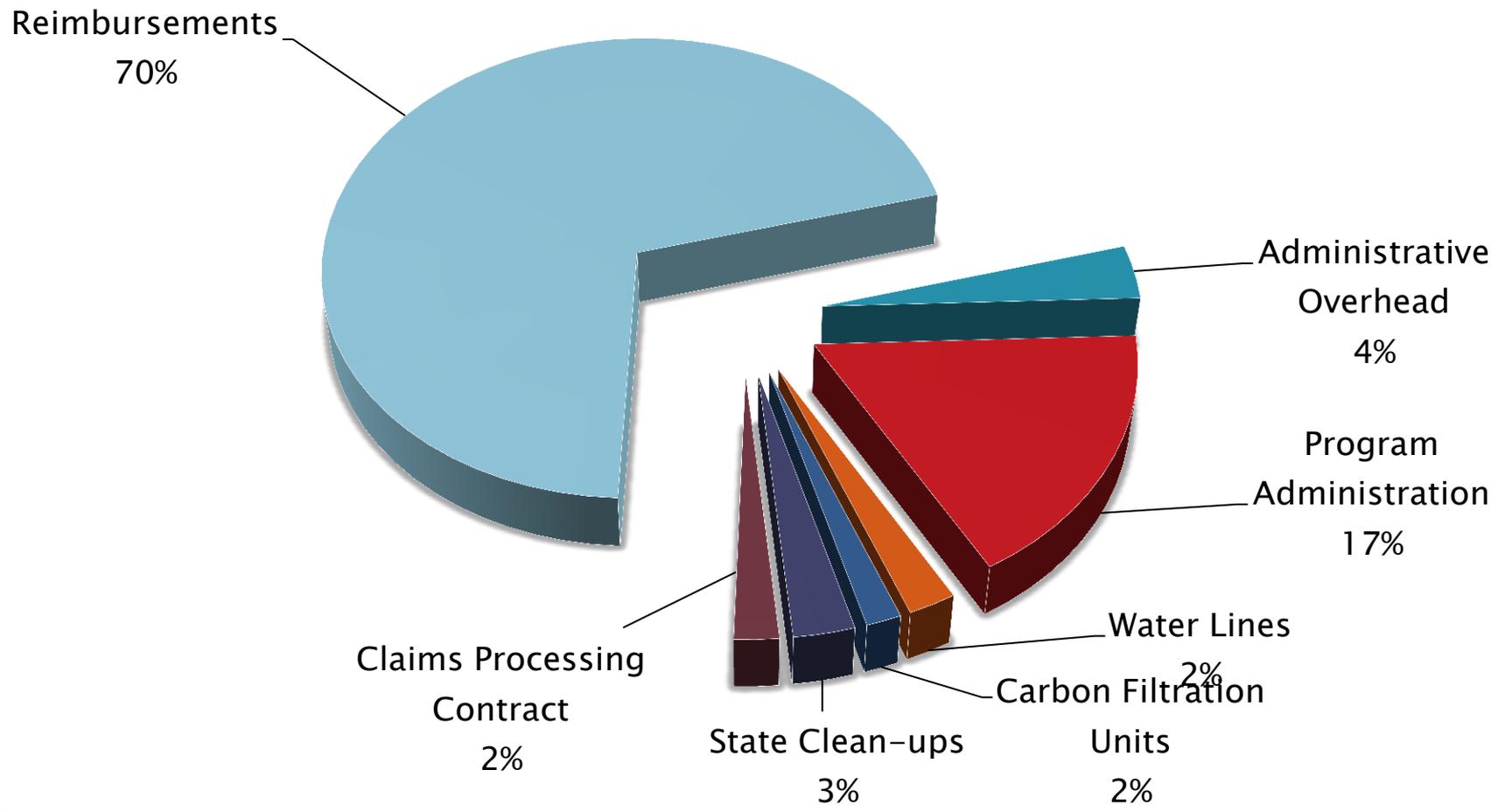
Long Term Outlook

- ▶ Current focus installation and connection to waterline
 - ▶ No new drinking well impacts since December 2015
 - ▶ Clean water source moving into the septic drain fields in Old Oaks should flush/dilute the impacted groundwater
 - ▶ Dilution will assist in preventing further migration of gasoline contamination in the existing pathway
 - ▶ Continued monitoring of remaining non-impacted drinking wells not connected to water line
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Virginia Petroleum Storage Tank Fund

- ▶ Established in the Va Code 62.144.34.11
- ▶ Fee of \$0.006 (3/5th of one cent) per gallon of petroleum
 - Gasoline
 - Heating oil
 - Diesel
 - Kerosene
- ▶ Generates ~\$34 MM per year
- ▶ Can only be used to mitigate of clean up releases of petroleum
 - Example uses
 - Home heating oil tank Clean up
 - Underground Tank releases
 - Alternate Water Supplies

VPSTF Detailed Expenditures



Alternate Water Supply

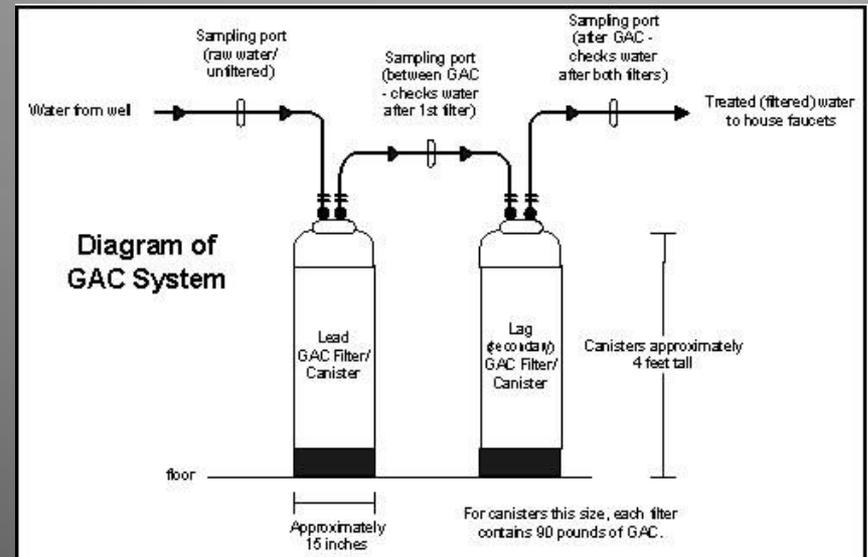
Provide source of clean drinking water

- Temporary
 - Bottled water
 - CFU
- Permanent
 - Replacement wells
 - Connection to existing public waterline
 - Extension of existing public waterline

Cozier Waterline

- ▶ Carbon Filtration Units
 - 8 impacted wells in Old Oaks
 - All impacted wells have been equipped with CFU
 - Equipment
 - ~ \$2000 new
 - ~\$3100 yearly operation cost

Carbon Filtration Units

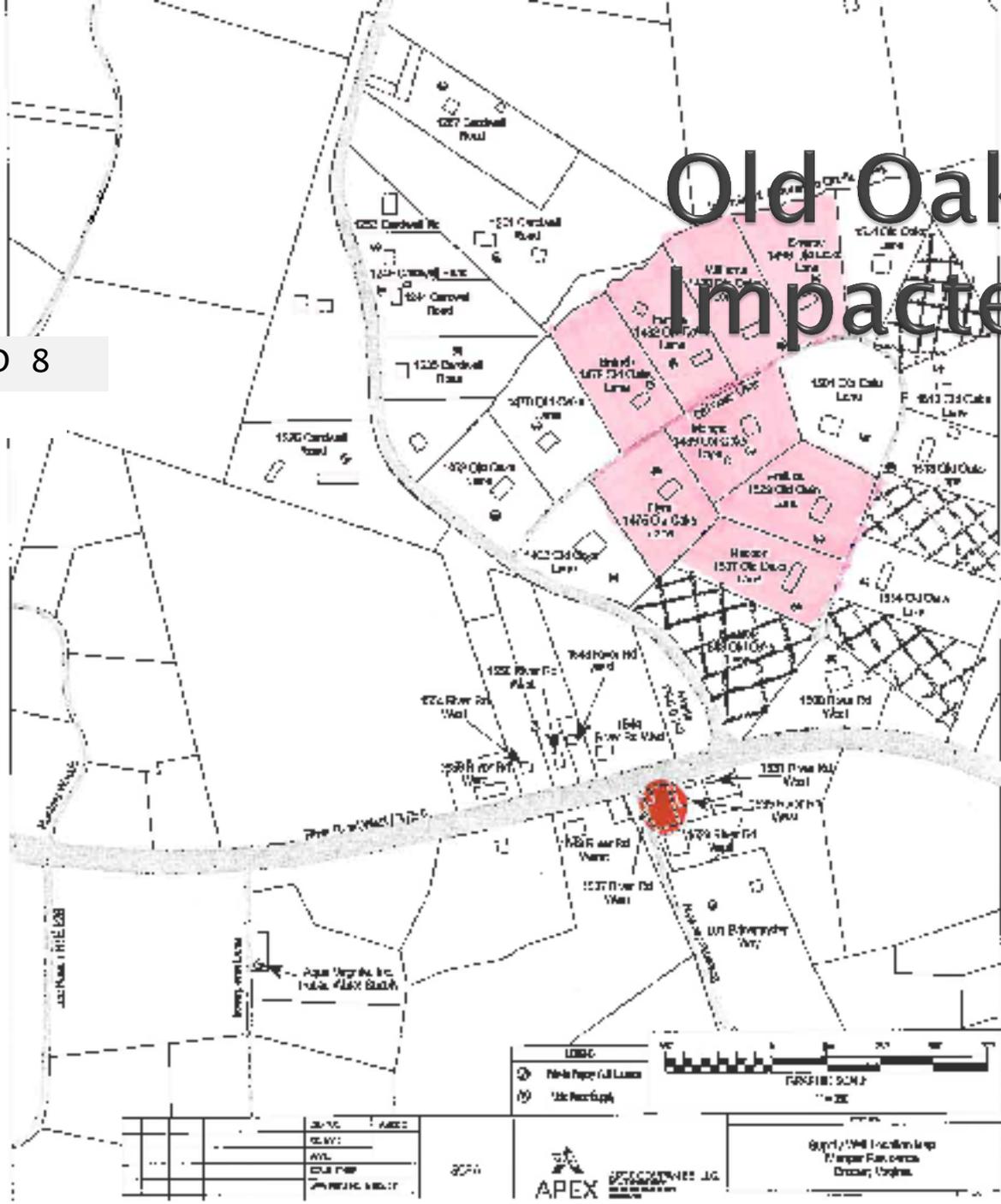


Crozier Waterline

- ▶ VDEQ is considering
 - Funding a Waterline upgrade and extension into Old Oaks community
 - Current Crozier waterworks services 24 connection along Route 6.
 - Expanding the system up to 49 connection
 - Connecting all 17 existing homes in Old Oaks and
 - 3 properties along Cardwell Road
 - 1 property on Briesmaster Way
 - Vacant lots (TBD)

Old Oaks Impacted Wells

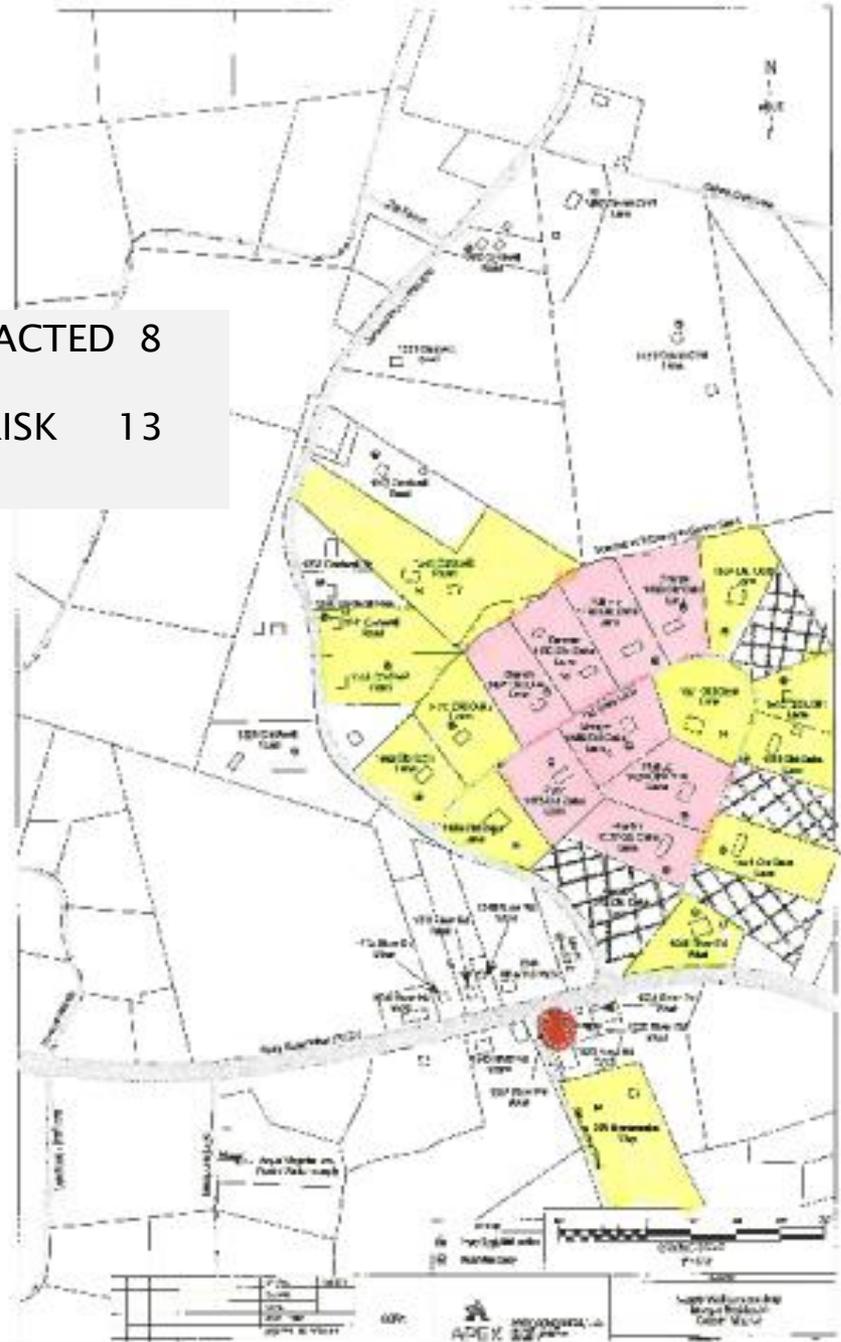
IMPACTED 8



Impacted and At Risk wells

IMPACTED 8

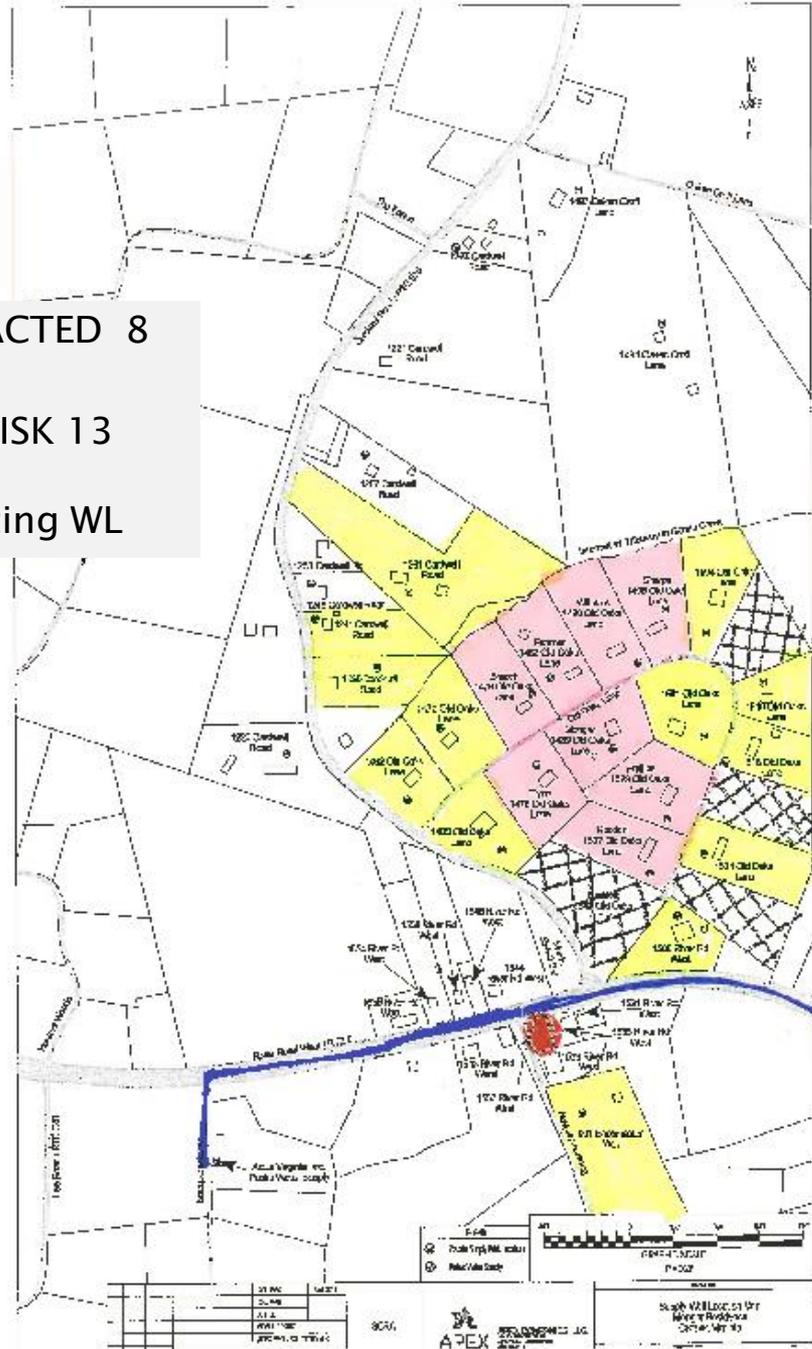
At RISK 13



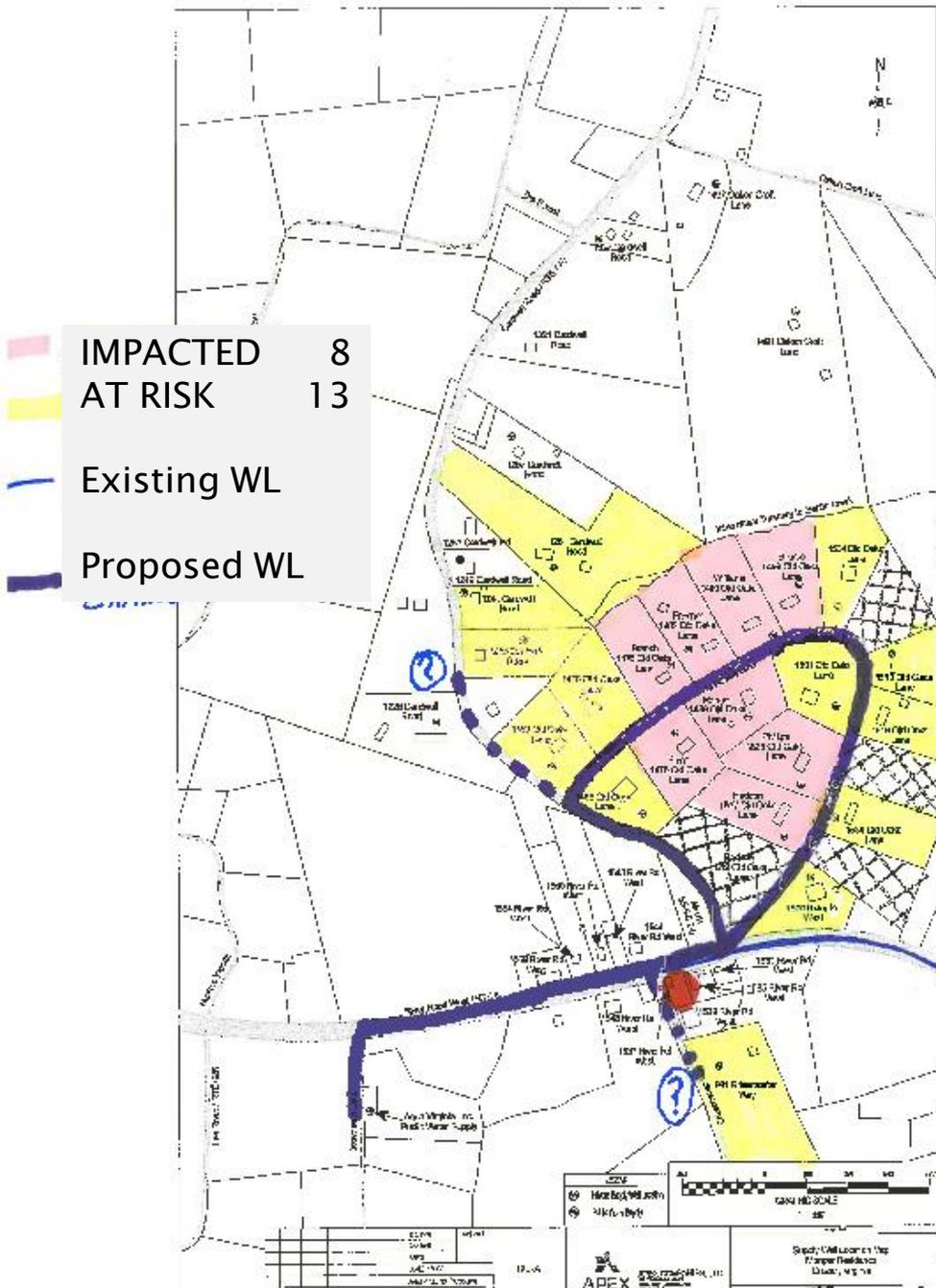
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Crozier Existing Waterline

- IMPACTED 8
- AT RISK 13
- Existing WL



Proposed Waterline Expansion





Crozier Waterline

Next Steps

- ▶ Finalize agreements (DEQ, Goochland Co., Aqua)
 - Who pays for what
 - Who does what
 - ▶ Hire Design Engineer (Goochland Co.)
 - Route survey
 - System design
 - Evaluate existing system (Aqua, Goochland)
 - ▶ Develop Waterworks Connection Agreement (DEQ)
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Waterworks connection

- ▶ If you choose to connect, DEQ will pay
 - All plumbing from house to meter box
 - Close the well (if impacted)
 - Remove the CFU
 - Homeowner will become customer of AQUA
- ▶ If you chose not to connect
 - Future operation of CFU is homeowner's expense
 - DEQ will discontinue testing of well
 - Future waterworks connection subject to Aqua's terms

Questions?