

Pawling Water Supply Update to Village Board

May 17, 2021

- How did we get to where we are?
- What do we have now, what do we need and how do we get there?

Tonight's discussions:

- Abbreviated Chronology for Umscheid
- Source Status
- Umscheid Review
- Baxter the Lower Review
- Other Challenges

Please ask any questions as they arise and Jeff and I will attempt to answer them.

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Abbreviated Chronology for Umscheid

Task	Timeline
Identified potential and proved source	Fall '18 – May '19
SEQR	May '19 – Aug '19
Permit discussions and application	Aug '19 – Present
Sources didn't keep up	Aug '20 – Nov '20
Emergency declared	Oct '20
Consent Order issued	Oct '20
Umscheid 2 came on-line	Nov '20
NYSDEC Applications Complete	Dec '20
Meeting set to discuss permit conditions	May 19, 2021

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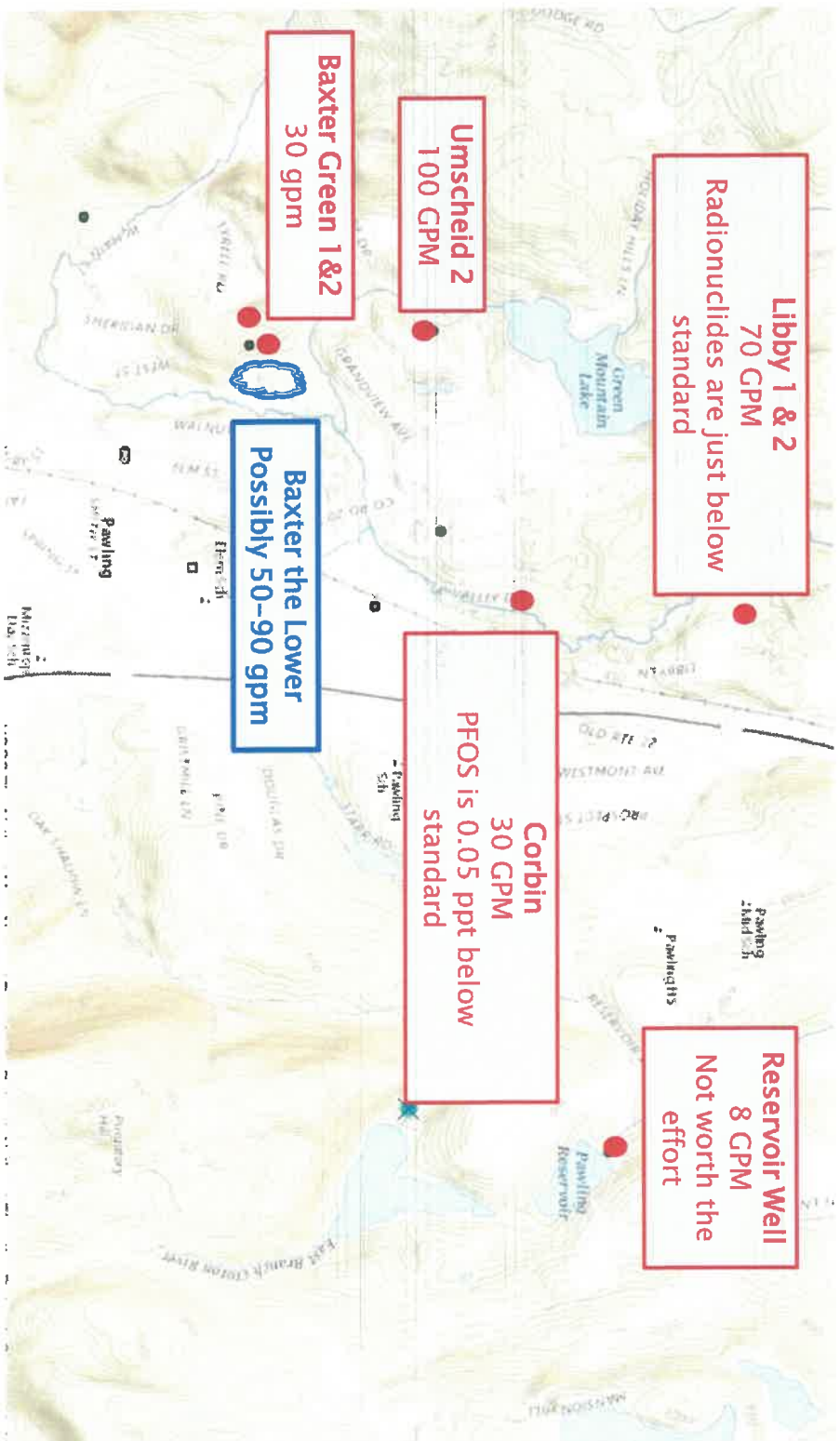
Critical Future Dates

Purchase option end date	October 1, 2021
Consent Order deadline	October 23, 2021
Financing deadline	July 2023

Must have permit by October 1, 2021

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Source Status



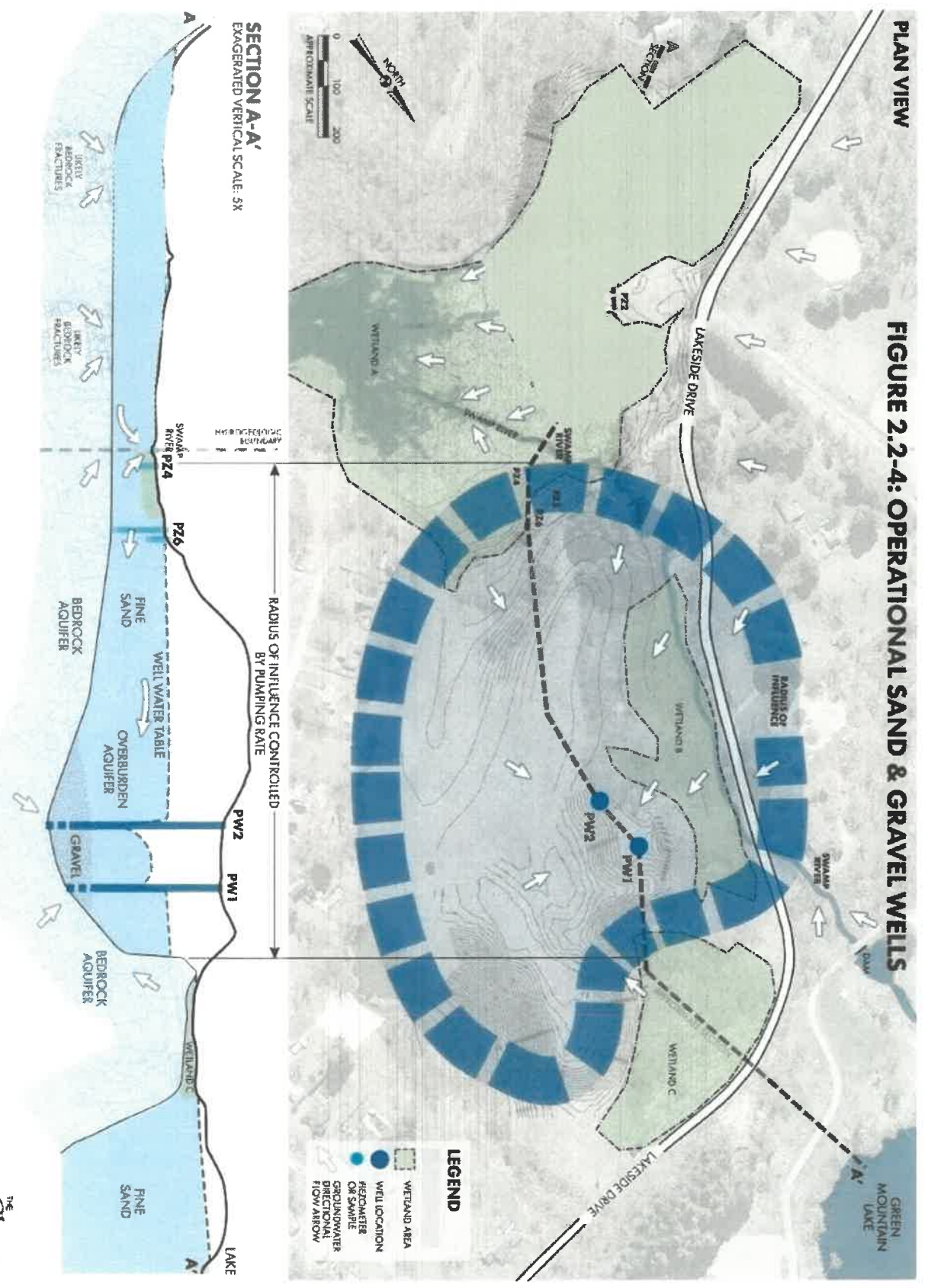
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Sources - What do we Need?	Low (gpd)	High (gpd)	Max (gpd)
2020 Production	150,000	200,000	-
20% bump w/o restrictions	180,000	240,000	-
Future demand (estimate)		60,000	
Total Future		300,000	
If Max=1.2			348,000
If Max=1.5			420,000
Max rate with largest well out of service			292 gpm

Consequences: No CO's for increased demand until 10NYCRR5-1
conformance is achieved.

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Source	Now		Future		Future Max	
	Daily	Max	Daily	Or Daily	Max	Or Max
Umscheid 2	100	100	100	100	-	-
Umscheid 1	N/A	N/A	100	100	100	100
BC 1	10	10	-	-	35	35
BC 2	20	20	-	-	80	80
Libby 1	Last on	30	Aband	Aband	Aband	Aband
Libby 2	Last on	40	Aband	Aband	Aband	Aband
Corbin	30	30	Aband	Aband	Aband	Aband
Reservoir	8	8	Aband	Aband	Aband	Aband
Baxter the Lower (Future)						
	N/A	N/A	50	90	50	90
CPM, provided	170	240	250	290	265	305
GPD	245k	345k	360k	418k	382k	439k



PLAN VIEW

FIGURE 2.2-4: OPERATIONAL SAND & GRAVEL WELLS

SECTION A-A'
EXAGGERATED VERTICAL SCALE: 5X

FIGURE 2.2-4: OPERATIONAL SAND & GRAVEL WELLS
UMSCHEID PROPERTY - VILLAGE OF PAWLING WATER SUPPLY PROJECT SITE

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Umscheid Review

- PW2 has continuously produced 100 gpm since Nov. 6, 2020
- Continuous measurements show no impacts to species or habitat
- Some hydrologic effect to northerly fringe of DP-22
- March 5, 2021 NYSDEC Comment Letter received without scientific merit
 - 2 year permit
 - 100 gpm limit
- Village Position on NYSDEC Comments
 - Proposed Variable Rate Permit
 - Preserves divide at Swamp River and gives Village water in excess of species' needs

NYSDEC requested a meeting on May 19th to discuss permit conditions.

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So,

What is Baxter the Lower?

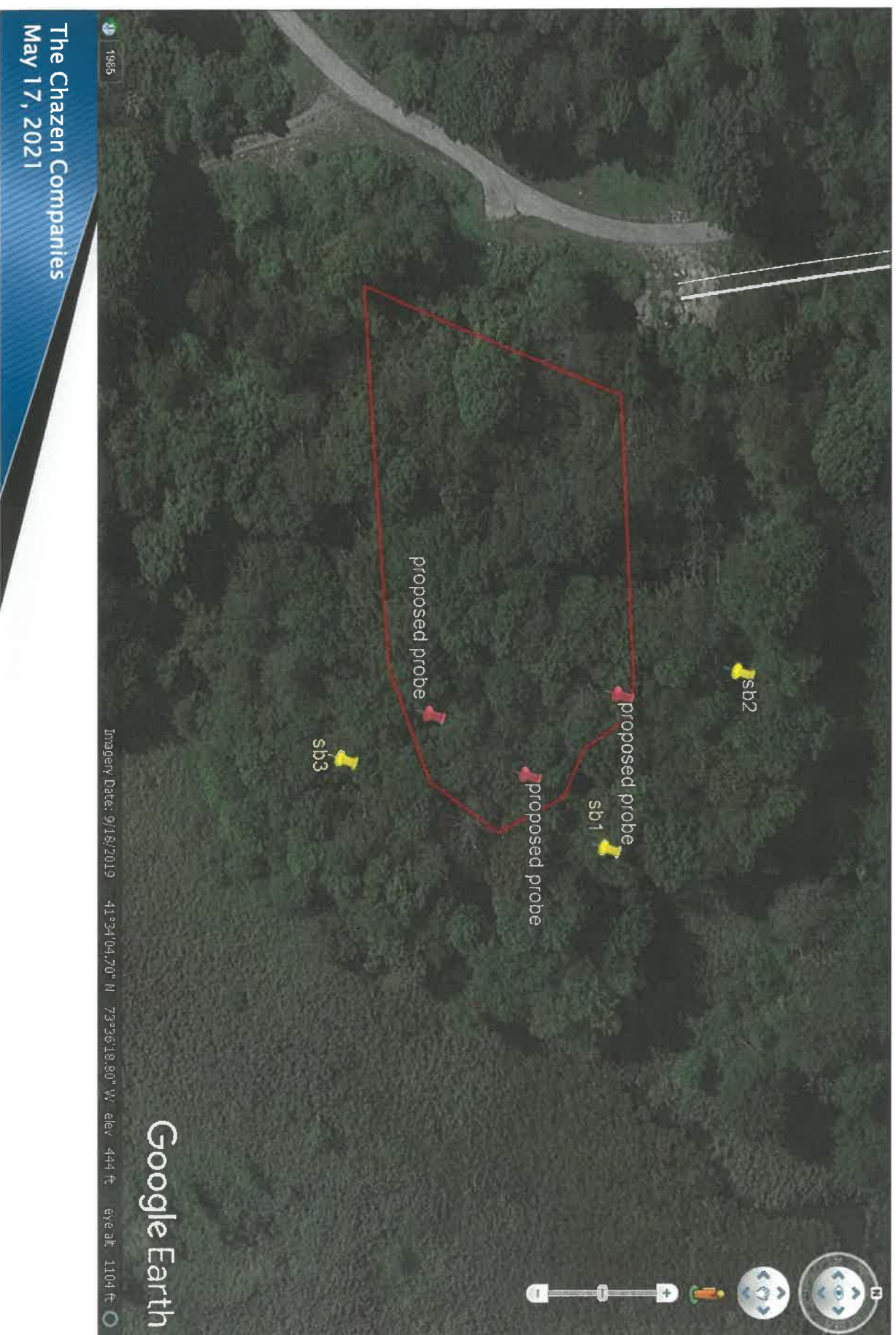
- A valley wall outwash plain on Village property now used for the Baxter Green Water Supply
- We know soils look good and are saturated
- Potential wells would be 20-27 feet deep
- Test wells and pumping is planned for May through June 2021.
- If yields \geq 50 gpm:
 - Commence design discussions with DCDBCH and NYSDOH
 - Commence permitting discussions with NYSDEC
 - SEQR
- A Draft Planning Bond Resolution is before you for your consideration
- If adopted, it will allow the Village to temporarily move surplus funds into the Water Budget which will later be refunded from a future bond issuance.

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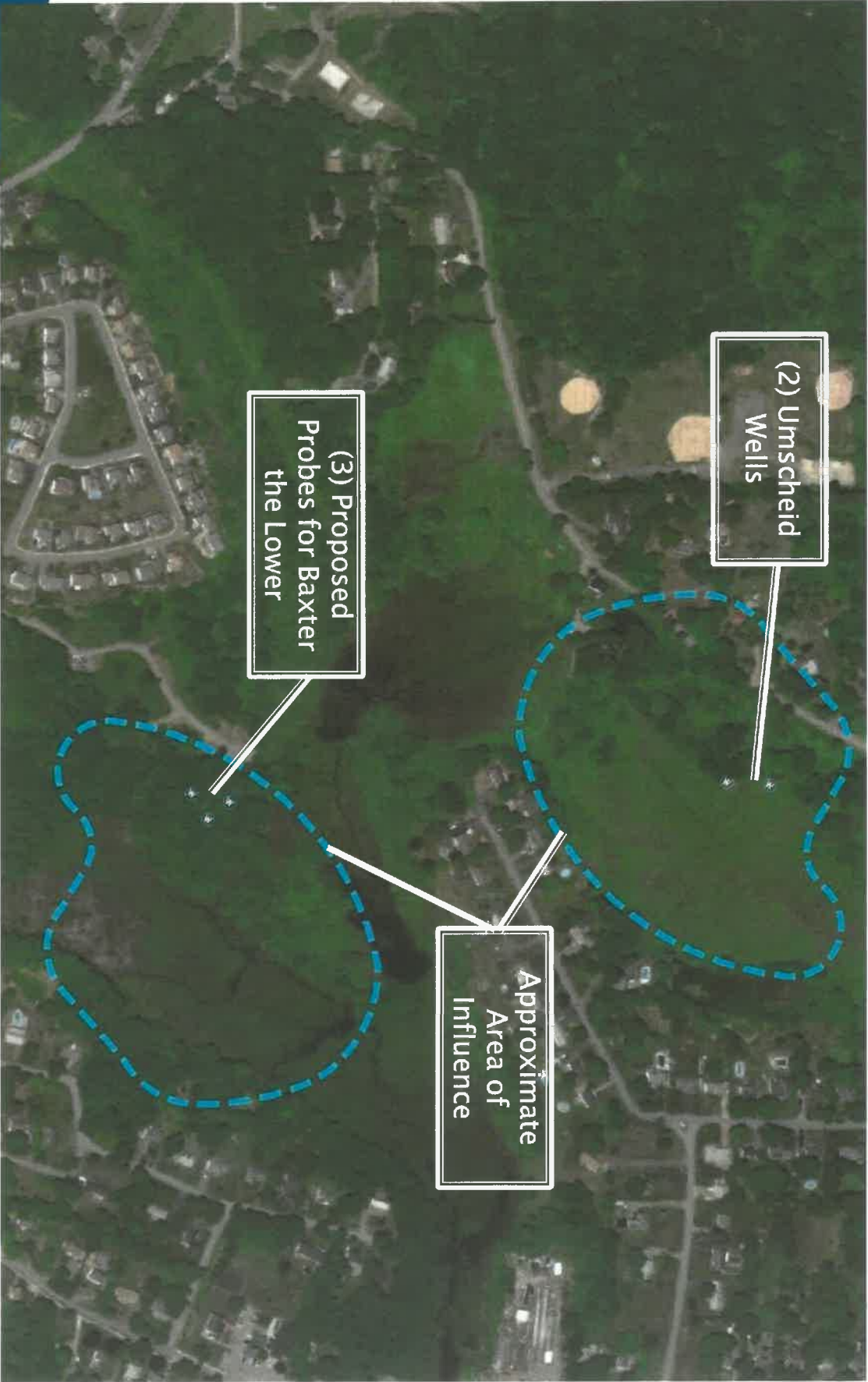


The Chazen Companies
May 17, 2021

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Other Challenges

- Distribution System Repairs
 - Working Valves
 - Flushing
 - Good inventory

Event	Avg Source Production 10 days prior to	Avg Source Production 10 days prior to	Avg Source Production 10 days prior to	Avg Source Production 5 days after
Charles Coleman Leak	Elm St Leak	E. Main Leak	E. Main Repair	
Production	238k gal	250k gal	225k gal	152k gal

Frozen ground and snow hampered quick identification.
1st Q billing at 149K gal

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Scope, Schedule and Cost

Project	Grant (mm)	Loan (mm)	Current (mm)	Likely Final Cost (mm)	Schedule	Cost per Gallon
Reservoir with filtration @ 50k gpd	\$1.7	Remainder	\$3.7	\$7	Never	\$140
Reservoir with filtration @ 200k gpd	\$1.7	Remainder	\$3.7	\$10	Never	\$50
Umscheid 288k gpd	\$1.7	Remainder	\$3.7	\$4.5	2022	\$16
Baxter the Lower @ 72k gpd	none	\$1.1	\$1.1	\$1.1	2022	\$15
Baxter the Lower @ 130k gpd	none	\$1.1	\$1.1	\$1.1	2022	\$8.5

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Any Other Questions?

The Chazen Companies
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