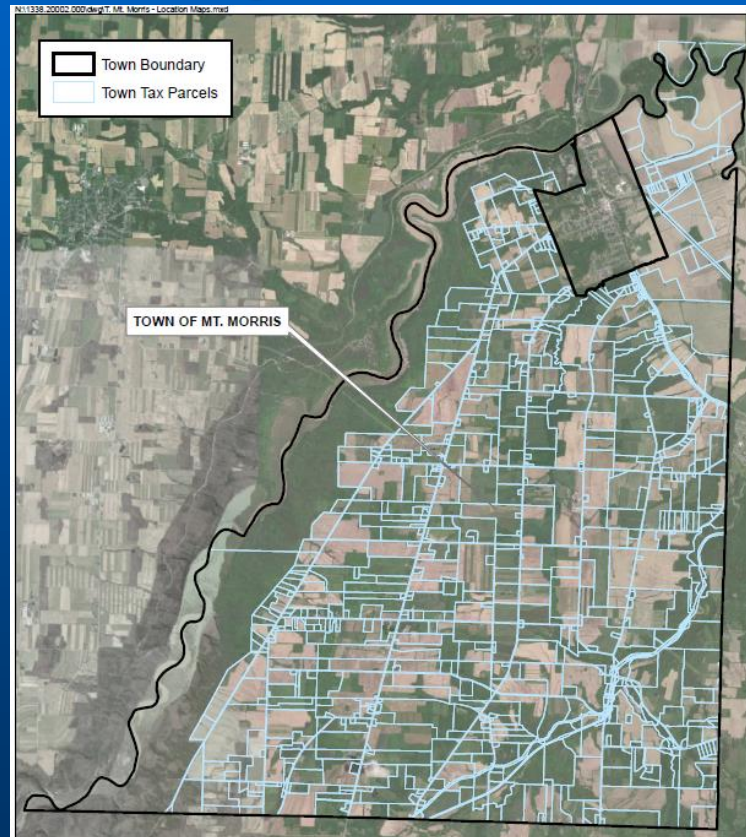


Town of Mount Morris Town Wide Water Study

August 12, 2021



John Paul Schepp, P.E.

MRBgroup

Scope of Presentation

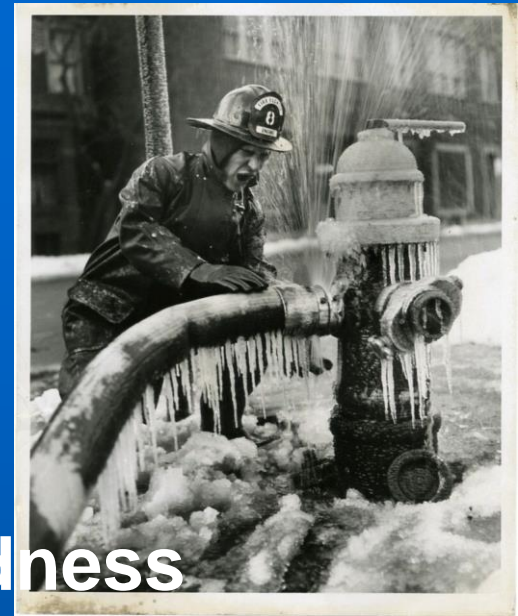
- **Background Information**
- **Problem Description**
- **Scope of Study**
- **Recommendations**
- **Costs**
- **Next Steps**
- **Questions**

Background

- **Several water extensions and studies have been completed over the years**
 - **None as comprehensive and large scale**
 - **Morris Ridge Solar Project will enter a Community Benefit Agreement**
 - **Town Board initiated this study as a potential use of benefit funds**
- MRB|group**

Problem Description

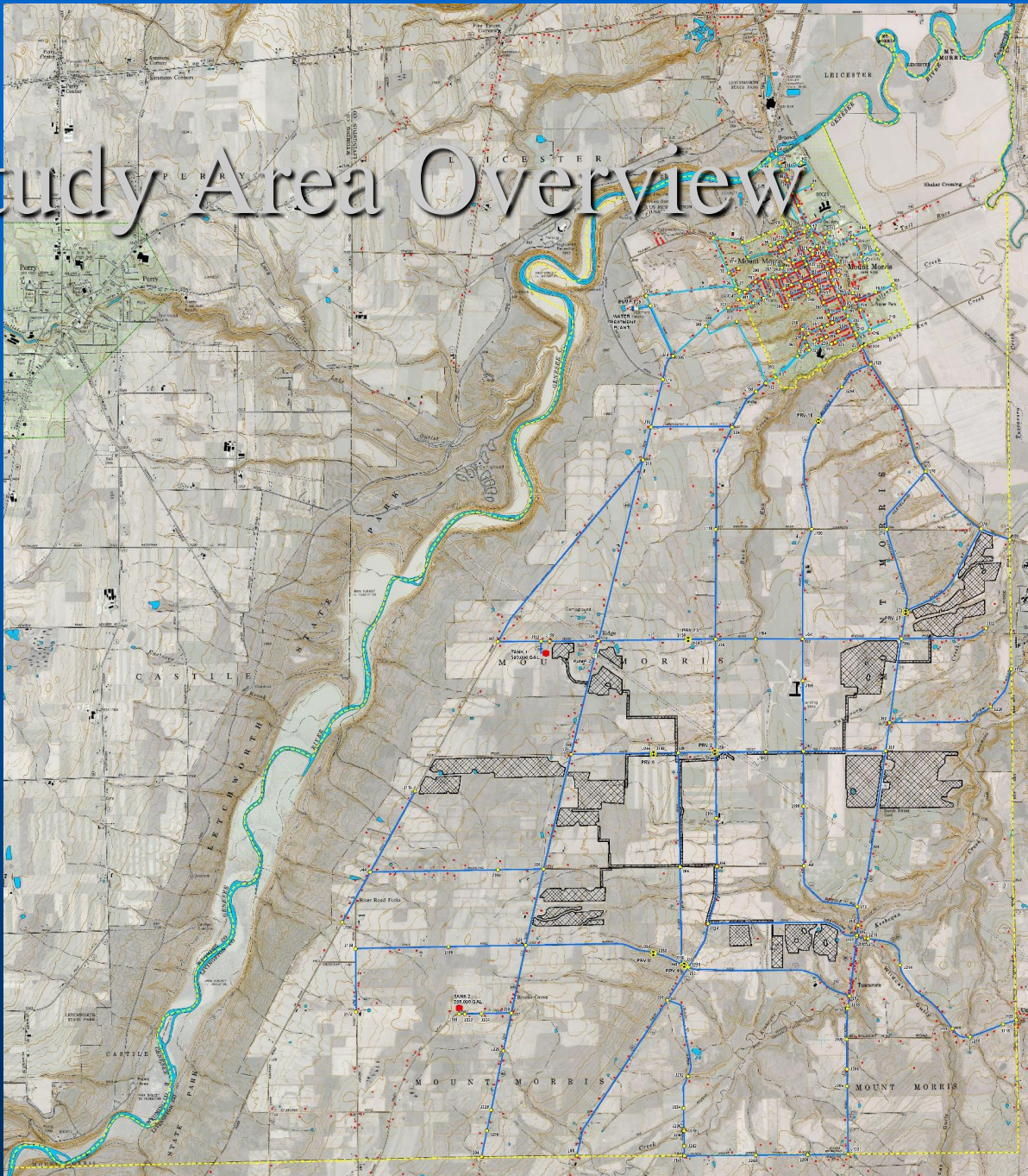
- **Poor Quality/Quantity Wells**
 - Sulfur, Iron, Manganese, Hardness
 - Surface contamination, bacteria, E.coli
 - Low yield capacity
 - Life of appliances, laundry, washing, etc.
 - Expensive treatment systems and Hauling Water
- **Limited fire protection**



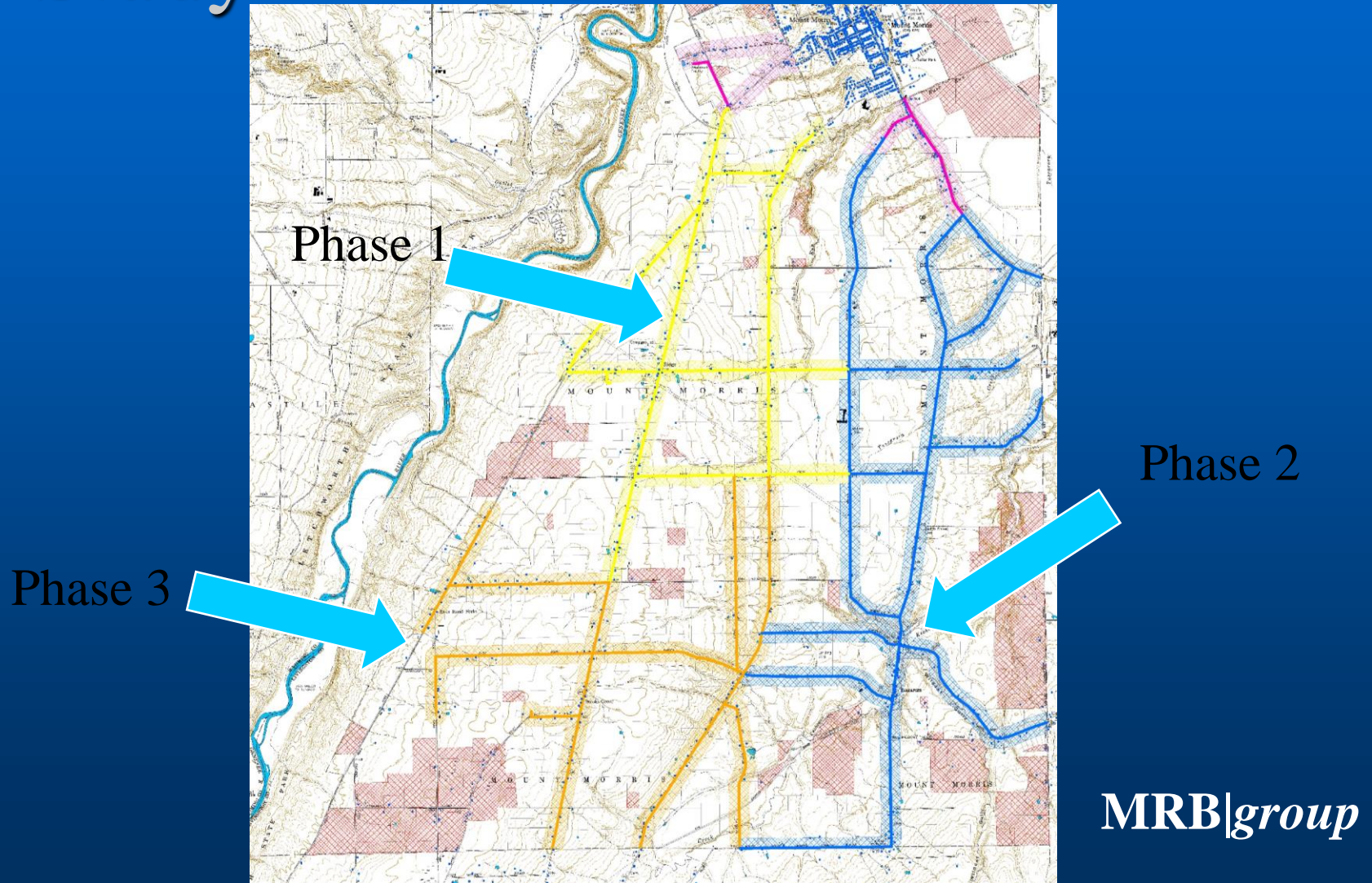
Scope of Study

- Reviewed all areas of the Town without water
- Hydraulic Model
- Costs
- Omitted a few areas due to:
 - Low Density, Costly, high elevations
 - Study phase will likely change additions/deletions based upon public input

Study Area Overview



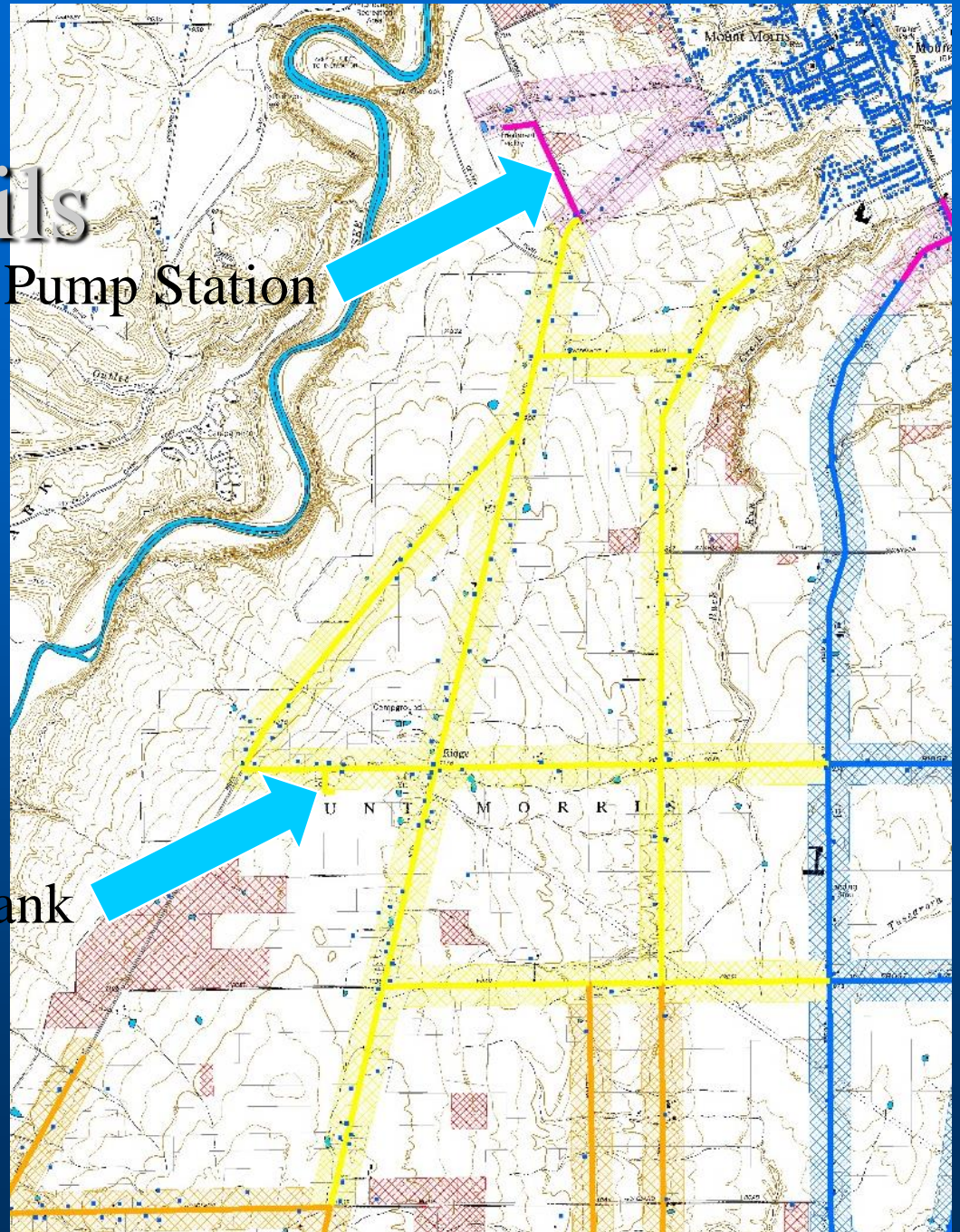
Study Area – 3 Phases



Phase 1 Details

Pump Station

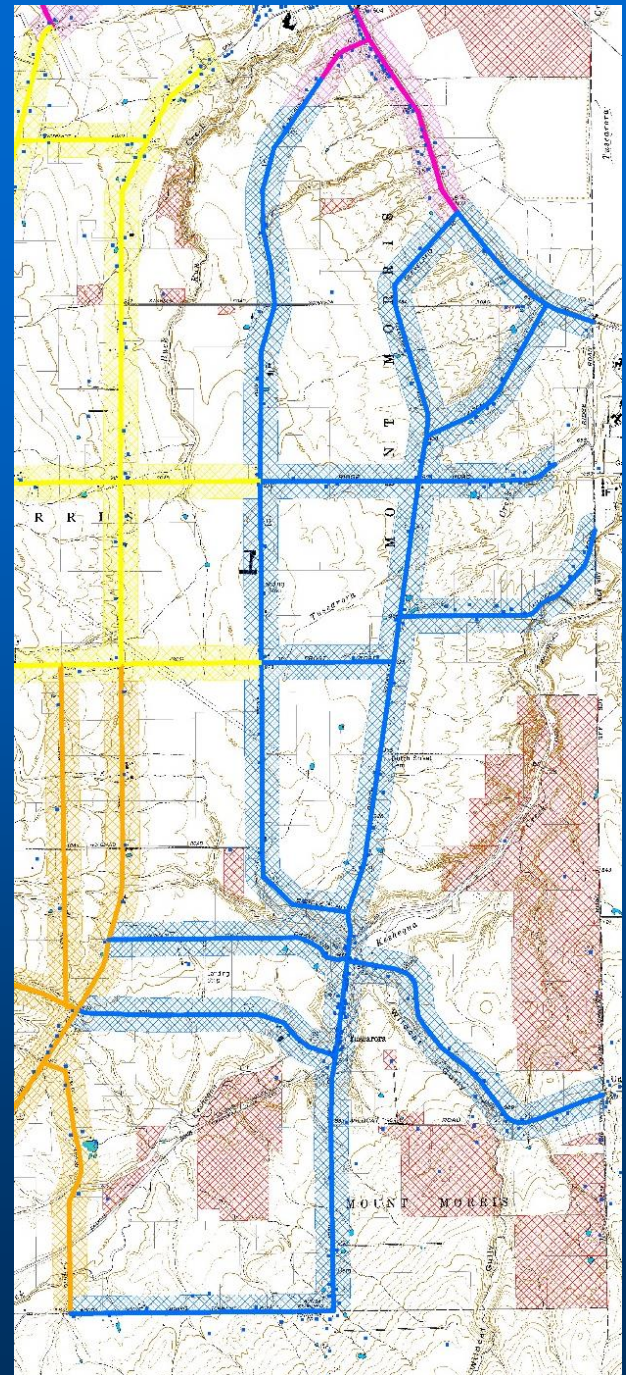
Storage Tank



Phase 1 Details

Phase 1 of 3									
Description	Limits	Quantity	Unit	Size	Construction	Contingency	Legal/Admin	Engineering	Total
Pump Station		1	EA		\$ 750,000	\$ 112,500	\$ 52,500	\$ 112,500	\$ 1,027,500
Storage Tank		1	EA		\$ 1,500,000	\$ 225,000	\$ 105,000	\$ 225,000	\$ 2,055,000
PRV Stations		3	EA		\$ 225,000	\$ 33,750	\$ 15,750	\$ 33,750	\$ 308,250
NYS Rout 408	Damsite Rd to Hoagland Rd	26,400	LF	12	\$ 1,716,000	\$ 257,400	\$ 120,120	\$ 257,400	\$ 2,350,920
River Road	Route 408 and Ridge	11,200	LF	8	\$ 616,000	\$ 92,400	\$ 43,120	\$ 92,400	\$ 843,920
Ridge Road	Rt. 408 to Tank	3,000	LF	12	\$ 195,000	\$ 29,250	\$ 13,650	\$ 29,250	\$ 267,150
Ridge Road	River Road to Begole Road	11,400	LF	8	\$ 627,000	\$ 94,050	\$ 43,890	\$ 94,050	\$ 858,990
Frost Road	Route 408 to Begole Road	10,800	LF	8	\$ 594,000	\$ 89,100	\$ 41,580	\$ 89,100	\$ 813,780
Creek Road	Case Street to Frost Road	18,400	LF	8	\$ 1,012,000	\$ 151,800	\$ 70,840	\$ 151,800	\$ 1,386,440
Hendershot Road	Route 408 to Creek Road	4,000	LF	8	\$ 220,000	\$ 33,000	\$ 15,400	\$ 33,000	\$ 301,400
TOTAL		85,200			\$ 7,455,000	\$ 1,118,250	\$ 521,850	\$ 1,118,250	\$ 10,213,350

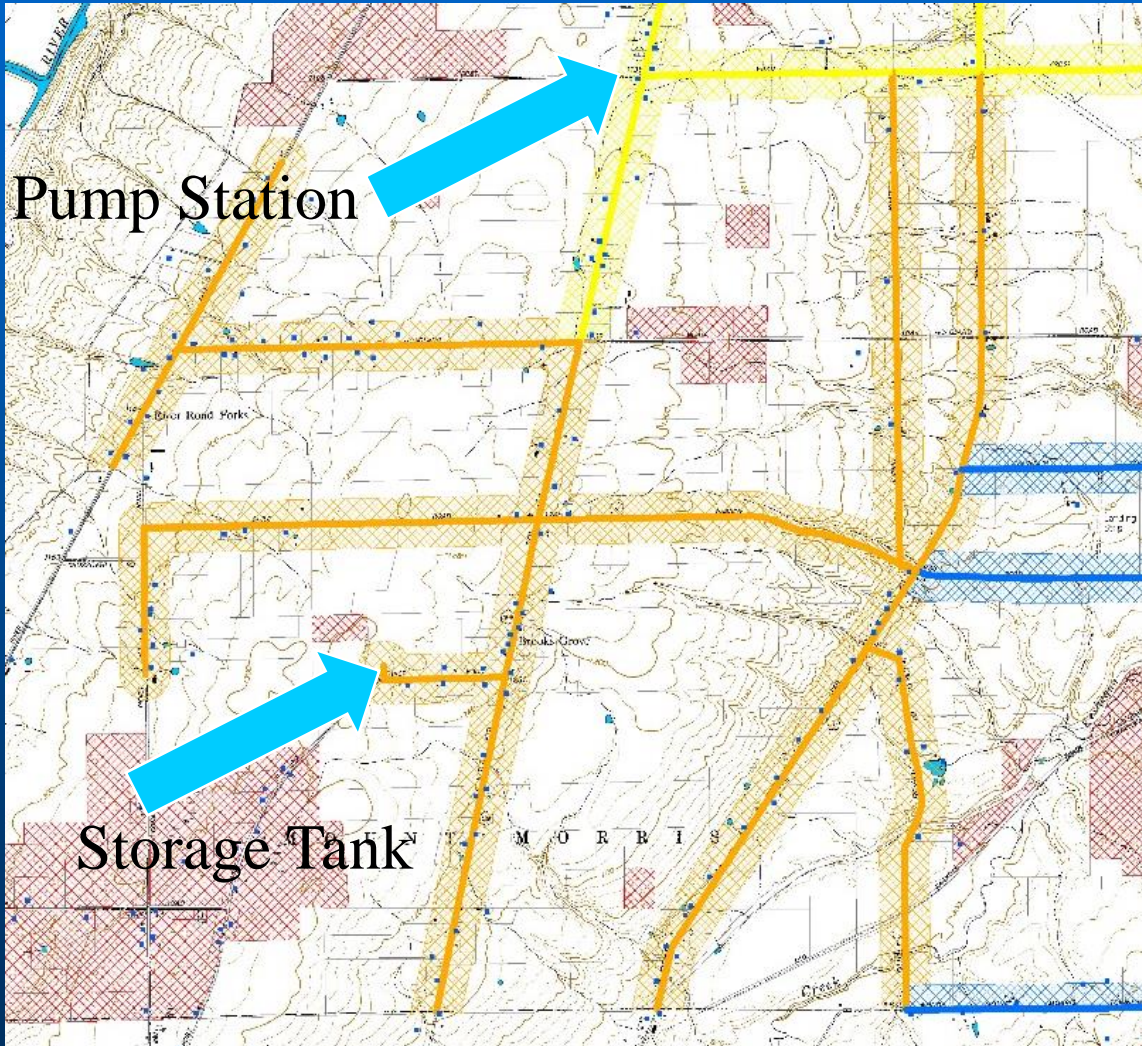
Phase 2 Details



Phase 2 Details

Phase 2 of 3									
Description	Limits	Quantity	Size (in	Construction	Contingency	Legal/Admin	Engineering	Total	
Pump Station		0	EA		\$ -	\$ -	\$ -	\$ -	\$ -
Storage Tank		0	EA		\$ -	\$ -	\$ -	\$ -	\$ -
PRV Stations		2	EA		\$ 150,000	\$ 22,500	\$ 10,500	\$ 22,500	\$ 205,500
Ridge Road	Begole Road to East TL	8,800	LF	8	\$ 484,000	\$ 72,600	\$ 33,880	\$ 72,600	\$ 663,080
Moyer Road	Cleveland Road to East TL	7,100	LF	8	\$ 390,500	\$ 58,575	\$ 27,335	\$ 58,575	\$ 534,985
Frost Road	Begole Road to Dutch Street	3,600	LF	8	\$ 198,000	\$ 29,700	\$ 13,860	\$ 29,700	\$ 271,260
Crev/Presbyterian Rd	Creek Road to East TL	16,800	LF	8	\$ 924,000	\$ 138,600	\$ 64,680	\$ 138,600	\$ 1,265,880
Barron Road	Creek Road to Scipio	8,500	LF	8	\$ 467,500	\$ 70,125	\$ 32,725	\$ 70,125	\$ 640,475
Nunda/MM TL Rd.	Dudley Road to Scipio Road	8,000	LF	8	\$ 440,000	\$ 66,000	\$ 30,800	\$ 66,000	\$ 602,800
Begole Road	Dutch Street to WD No. 1	26,000	LF	8	\$ 1,430,000	\$ 214,500	\$ 100,100	\$ 214,500	\$ 1,959,100
Cleveland Road	NYS Rt. 36 to Dutch Street	7,600	LF	8	\$ 418,000	\$ 62,700	\$ 29,260	\$ 62,700	\$ 572,660
Dutch Street	NYS Rt. 36 to Creveling Road	21,000	LF	8	\$ 1,155,000	\$ 173,250	\$ 80,850	\$ 173,250	\$ 1,582,350
Scipio Road	Creek Road to Town Line	10,400	LF	8	\$ 572,000	\$ 85,800	\$ 40,040	\$ 85,800	\$ 783,640
NYS Route 36	Cleveland Road to TL	4,800	LF	8	\$ 264,000	\$ 39,600	\$ 18,480	\$ 39,600	\$ 361,680
TOTAL		122,600			\$ 6,893,000	\$ 1,033,950	\$ 482,510	\$ 1,033,950	\$ 9,443,410

Phase 3 Details



Phase 3 Details

Phase 3 of 3									
Description	Limits	Quantity	Size (in		Construction	Conting.	Legal/Admin	Engineering	Total
Pump Station		1	EA		\$ 750,000	\$ 112,500	\$ 52,500	\$ 112,500	\$ 1,027,500
Storage Tank		1	EA		\$ 1,500,000	\$ 225,000	\$ 105,000	\$ 225,000	\$ 2,055,000
PRV Stations		1	EA		\$ 75,000	\$ 11,250	\$ 5,250	\$ 11,250	\$ 102,750
NYS Route 408	Hoagland Road to Short Tract Road	6,900	LF	12	\$ 448,500	\$ 67,275	\$ 31,395	\$ 67,275	\$ 614,445
NYS Route 408	Short Tract Road to Nunda Town Line	7,000	LF	8	\$ 385,000	\$ 57,750	\$ 26,950	\$ 57,750	\$ 527,450
Alvord Road	Frost Road to Barron Road	10,000	LF	8	\$ 550,000	\$ 82,500	\$ 38,500	\$ 82,500	\$ 753,500
Creek Road	Frost Road to Nunda Town Line	20,500	LF	8	\$ 1,127,500	\$ 169,125	\$ 78,925	\$ 169,125	\$ 1,544,675
River Road	Hoagland Road North & South	8,000	LF	8	\$ 440,000	\$ 66,000	\$ 30,800	\$ 66,000	\$ 602,800
Hoagland Road	River Road to NYS Route 408	8,000	LF	8	\$ 440,000	\$ 66,000	\$ 30,800	\$ 66,000	\$ 602,800
Picket Line Road	Guile Road South	3,000	LF	8	\$ 165,000	\$ 24,750	\$ 11,550	\$ 24,750	\$ 226,050
Guile Road	Picket Line Road to NYS Route 408	8,000	LF	8	\$ 440,000	\$ 66,000	\$ 30,800	\$ 66,000	\$ 602,800
Barron Road	NYS Route 408 to Creek Road	8,000	LF	8	\$ 440,000	\$ 66,000	\$ 30,800	\$ 66,000	\$ 602,800
Dudley Road	Creveling Road to Town Line	8,000	LF	8	\$ 440,000	\$ 66,000	\$ 30,800	\$ 66,000	\$ 602,800
Short Tract	NYS Route 408 to Tank	2,800	LF	12	\$ 182,000	\$ 27,300	\$ 12,740	\$ 27,300	\$ 249,340
TOTAL		90,200			\$ 7,383,000	\$ 1,107,450	\$ 516,810	\$ 1,107,450	\$ 10,114,710

Study Area Details

● Farms	136
● Live stock, Dairy, etc	7
● Residential	316
● Residential (Vacant)	102
● Campground	1
● School	1
● Cemetery	1
● Utility/Electric	1
● State Lands	6
● Commercial	4
● Church	1
<hr/>	
Total	581 Parcels

Equivalent Dwelling Units

- **Residential Properties:**
 - 1 family home = 1 EDU*
 - 2 family home = 1.5 EDU; etc.*
- **Commercial Properties: 1 EDU minimum;**
Additional EDU's based upon water usage.
- **Vacant Lots: Charge 0.25 EDU per vacant buildable lot.**
- **Farms (Agricultural Exempt) Charge 0 EDU**

Rules for Ag Parcels

- ***Parcels in agricultural production in an Ag District are totally exempt from special assessments for water EXCEPT:***
 - *for a house and 1 acre, and*
 - *any farm buildings that connect to the public water.*

Costs

● Water System Construction	\$21,731,000
● Village Treatment Improvements	\$750,000
● Construction Contingencies (15%)	\$3,259,650
● Legal, and Administration (7%)	\$1,521,170
● Engineering (15%)	<u>\$3,259,650</u>
● TOTAL PROJECT COST.....	\$30,521,470

Construction Costs Include

- Pump Stations
- Storage Tanks
- Pressure Reducing Valves (on water mains)
- Water Mains
- Fire Hydrants
- Valves
- Tap and service line to each customer (to the road right of way)
- Restoration of lawns, driveways, road, etc.

Cost Per EDU

● Total Project Costs	\$30,521,470
● USDA Grant (45% Max intermediate MHI)	<u>-\$13,734,662</u>
● Net Project Costs	\$16,786,809
● Annual Payment (1.75%, 38 yr)	\$608,520
● Less Annual Solar CBA amount	<u>-\$175,000</u>
● Net Annual Payment	\$433,520

Cost Per EDU

- Net Annual Payment \$433,520
- Number of EDU's 357.5

- Cost Per EDU \$1,212.64/year
- Estimated Annual Cost of Water \$356/year
- Total for Average Residential \$1,569/year

First Year Estimated Costs

Water Service (100 lf x \$12/lf)	\$1,200.00
Internal Plumbing Changes	\$ 200.00
Meter and Initial Account Fee	\$ <u>200.00</u>
Estimated Homeowner Costs	\$ 1,600.00

These can vary significantly depending on site specific conditions, length, complexity of plumbing, etc.

Homeowner Responsibilities

- **Install Water Service from ROW to house.**
- **Abandon wells or separate from well supply and Internal Plumbing Changes.**
- **Meter & Initial Account Fee (\$200 One time only).**
- **Homes > 500' from road will require meter pit at the road.**
- **Purchase Water and comply with water Requirements.**
- **Annual Debt Service**

Common Questions

- **Can I keep my private well?**
 - **Option 1 Well Abandonment:** Homeowner is responsible for the cost associated with well abandonment. (This is the preferred Option).
 - **Option 2 Well Separation:** One-time Verification Inspection approximately \$100 + \$80 Inspection Fee every 5 years.
 - **Option 3 Backflow Prevention Device:** Must be designed by a NYS Licensed Professional Engineer and must be tested annually. This option is the most costly.

Common Questions

- **If I don't want water, will I have to pay for it?**
 - *You'll have to pay for the water district debt, but if you don't hook-up, you don't pay for water use.*
- **Will the project raise my assessment?**
 - *No, your assessment does not change, your tax bill will include a separate water district tax. Re-assessments DO NOT take place because of a Water District being created.*
- **If I don't sign up immediately, can I hook-up later?**
 - *Yes, but you will have to pay a tap-in fee at a later date.*

Next Steps

- **Determine Public Interest**
- **Modify Scope/Service areas based upon Public Comments**
- **Meet Again for Informational Meeting**
- **District Formation**
- **Engineering**
- **Legal & Administration**
- **Approvals & Permits**
- **Easements**
- **Construction**

District Formation

- Define final scope & Boundaries
- Final Engineering Report
- Formation by Petition
 - Formal Petition includes max. costs
 - Majority of signatures required
- Formation by Town Board
 - Subject to permissive referendum (vote)
- Public Hearing
- If project costs are exceeded re-approval is required

Questions and Comments



Thank you!

MRB|group