



# State of the Water and Sewer Systems

## Town of Fallsburg, New York

May 9, 2022

Presented to  
Town of Fallsburg Town Board, Planning Board and Zoning Board

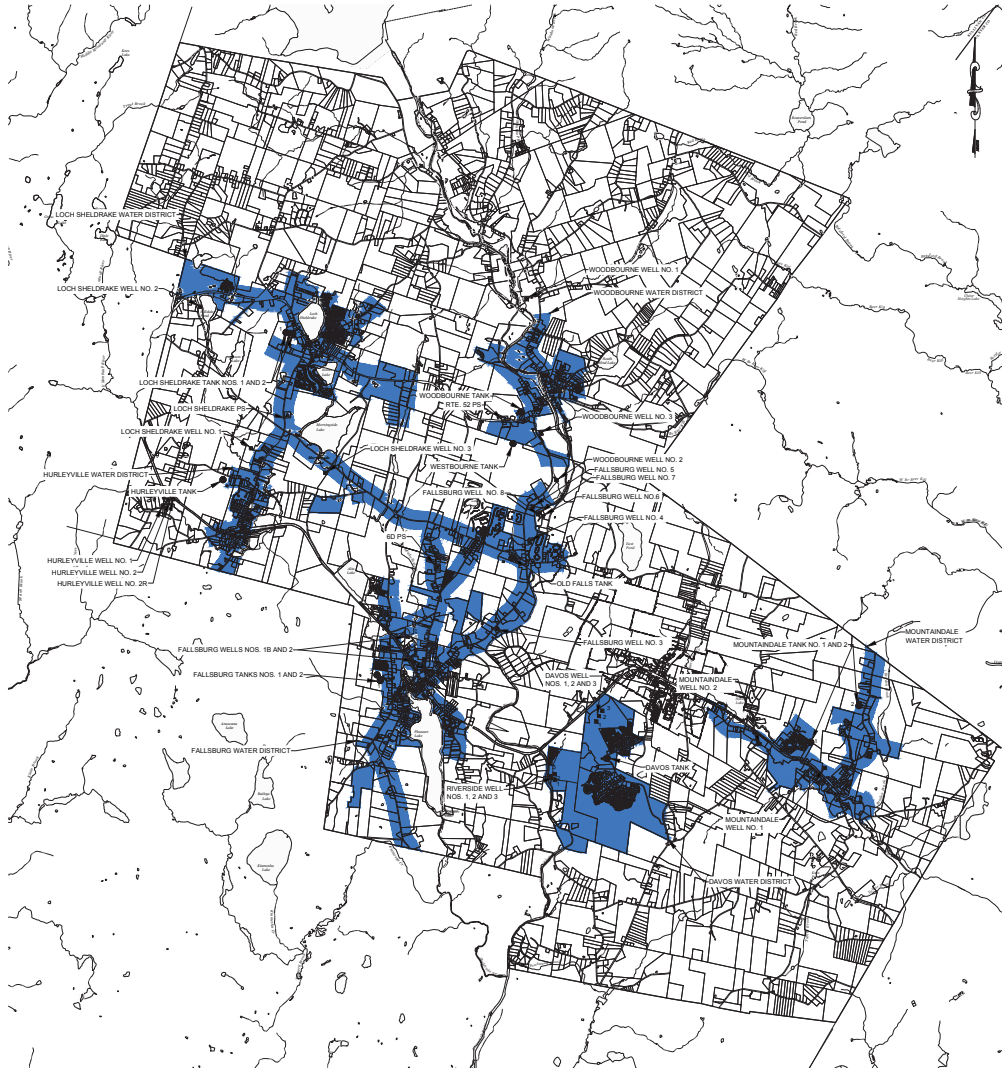
Presented by  
Kenneth D. Ellsworth, P.E., Town Engineer







# Water System

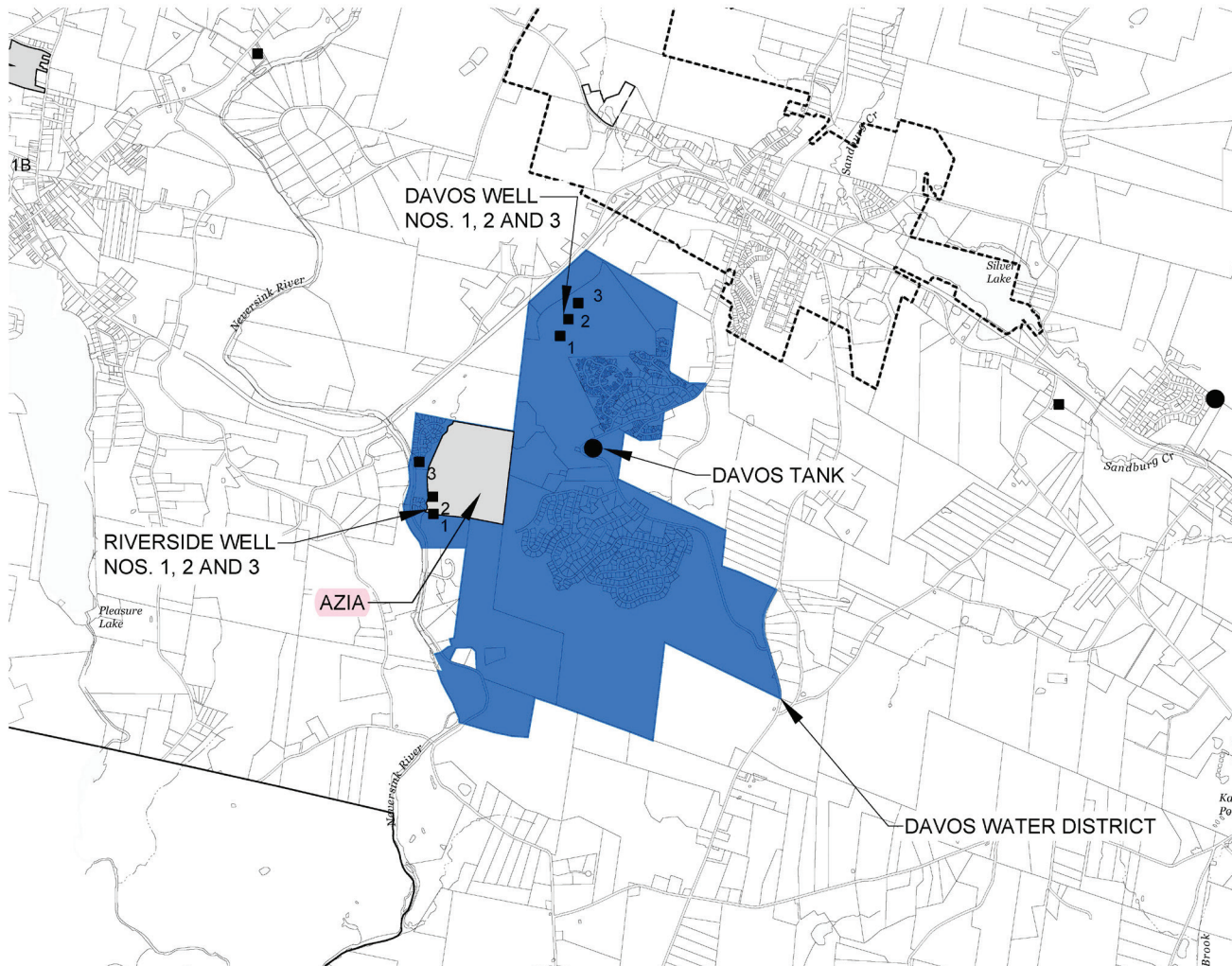


## FACTS

- ❑ 6 Water Systems
- ❑ 24 Wells
- ❑ 11 Tanks
- ❑ 60 Miles of Pipe
- ❑ Constructed in 1940



# Davos Water System

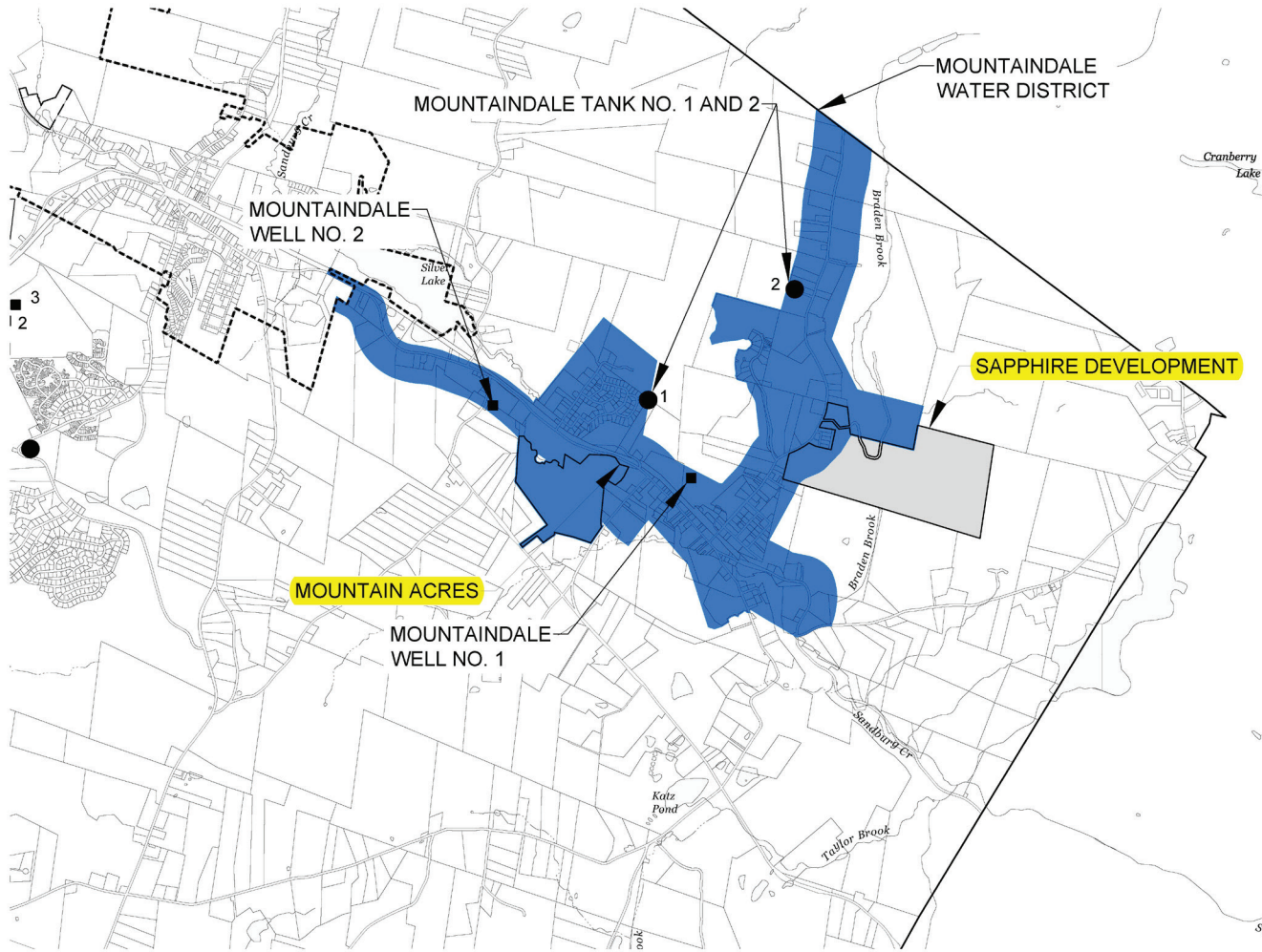


## FACTS

- ❑ Isolated System
- ❑ 6 Wells
  - Davos 1, 2 and 3
  - Riverside 1, 2 and 3
- ❑ 1 Tank
  - Davos, 350,000 gal.,  
Constructed 1989
- ❑ 4.4 miles of Pipe
- ❑ 1 Booster Station
- ❑ Constructed in 1960's



# Mountaindale Water System



## FACTS

- ❑ Isolated System
- ❑ 2 Wells  
Mountaintdale 1 & 2
- ❑ 2 Tanks  
Mountaintdale 1,  
200,000 gal.,  
Construction  
Unknown  
Mountaintdale 2,  
200,000 gal.,  
Construction  
Unknown
- ❑ 6.8 Miles of Pipe
- ❑ Constructed in 1980's





# Fallsburg Water System

## FACTS

### 4 Systems Combined

- ❑ Fallsburg Woodbourne
- ❑ Loch Sheldrake and Hurleyville

### 16 Wells

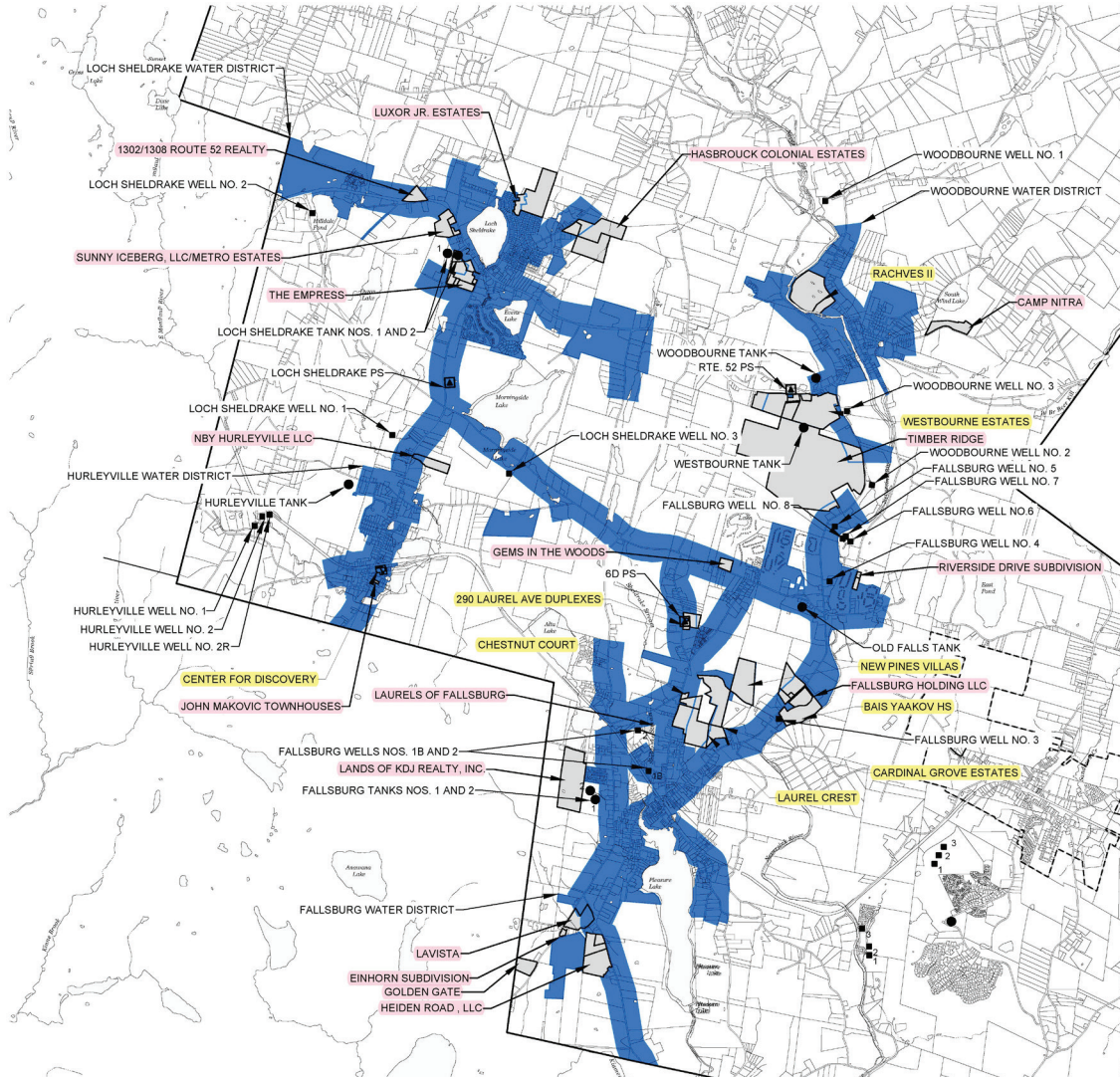
- ❑ Fallsburg 1B, 2, 3, 4, 5, 6, 7 and 8
- ❑ Woodbourne 1, 2 and 3
- ❑ Loch Sheldrake 1, 2 and 3
- ❑ Hurleyville 1, 2, and 2R

### 8 Tanks

- ❑ Fallsburg 1 - 985,000 gal.  
Construction Unknown
- ❑ Fallsburg 2 - 350,000 gal.  
Construction 1939
- ❑ Old Falls - 350,000 gal.  
Construction Unknown
- ❑ Woodbourne - 350,000 gal.  
Construction Unknown
- ❑ Loch Sheldrake 1 - 1,000,000 gal.  
Construction Unknown
- ❑ Loch Sheldrake 2 - 500,000 gal.  
Construction 1985
- ❑ Hurleyville - 350,000 gal.  
Construction 1980

### Miles of Pipe

- |                  |             |
|------------------|-------------|
| ❑ Fallsburg      | 24.4        |
| ❑ Woodbourne     | 7.0         |
| ❑ Loch Sheldrake | 10.8        |
| ❑ Hurleyville    | 6.3         |
| <b>Total:</b>    | <b>48.5</b> |





## Well Characteristics:

SYSTEM	WELL NO.	YEAR DRILLED		PUMP CAPACITY (gpm)	PUMPING RATE (gpm)	NOTES
Davos	1	1966		75	0	Offline
	2	1966		75	0	Offline
	3	1987		100	100	Pump 4 days/week
Riverside	1	1970		40	0	Offline
	2	1970		50	0	Offline
	3	1970		230	0	Emergency
DAVOS TOTAL				570	100	

Mountaindale	1	1980		150	100	
	2	1980		100	75	
MOUNTAINDALE TOTAL				250	175	

Fallsburg	1B	2015		160	90	
	2	1940		50	50	
	3	1946		405	400	
	4	1948		150	0	Offline
	5	1949		150	0	Emergency Use Only
	6	1954		150	100	Summer Operation
	7	1963		700	700	
	8	2020		341	250	
Woodbourne	1	1956		150	125	Primary Well
	2	1957		150	140	Summer Operation
	3	1990		405	400	
Loch Sheldrake	1	1962		50	50	Summer
	2	2003		100	0	Offline
	3	2007		200	100	Primary Well
Hurleyville	1	1959		150	0	Offline
	2	1959		150	115	
	2R	2020		85	85	
FALLSBURG TOTAL				3,546	2,605	





# Davos Water System

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		APPROXIMATE PERCENTAGE OF PUMPING RATE			
		Current	PUC	PIP	TOTAL
Total Pumped (gpy)	23,347,000				
Average Day (gpd)	63,964	44	--	115	159
Maximum Day (gpd)	126,000	88	--	226	314
Pumping Rate (gpd)	144,000				
Demand from Projects Under Construction (PUC)	N/A				
Demand from Projects in Planning (PIP)	Average Day: 165,000 Maximum Day: 325,027				



# Mountaindale Water System

		APPROXIMATE PERCENTAGE OF PUMPING RATE			
		Current	PUC	PIP	TOTAL
Total Pumped (gpy)	21,050,000				
Average Day (gpd)	57,671	23	55	--	78
Maximum Day (gpd)	149,000	59	142	--	201
Pumping Rate (gpd)	252,000				
Demand from Projects Under Construction (PUC)	Average Day: 138,600 Maximum Day: 358,090				
Demand from Projects in Planning (PIP)	N/A				





# Fallsburg Water System

		APPROXIMATE PERCENTAGE OF PUMPING RATE			
		Current	PUC	PIP	TOTAL
Total Pumped (gpy)	527,928,000				
Average Day (gpd)	1,446,379	39	10	11	60
Maximum Day (gpd)	3,483,000	93	23	27	143
Pumping Rate (gpd)	3,751,200				
Demand from Projects Under Construction (PUC)	Average Day:				
	357,940				
	Maximum Day:				
	861,949				
Demand from Projects in Planning (PIP)	Average Day:				
	415,532				
	Maximum Day:				
	1,001,432				



# Water System Improvements

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1. Preliminary Study New Tank on Whitaker Road.
2. Altitude Valve Replacement.
3. Loch Sheldrake Well No. 2 / Formaggio Cheese.
4. Fallsburg Well No. 7 VFD Replacement.
5. Hurleyville Well No. 2 Replacement (2R).
6. Fallsburg Well No. 8.
7. Preliminary Design of Replacement of Water Main on Rt. 42.
8. Preliminary Design of New Pipes Crossing the Neversink River.
9. Water Tank Assessment Report.
10. Westbourne Tank.
11. Yearly Well Maintenance.
12. Rebuilt 6D Pump Station to Increase Flow.
13. Maplewood Avenue Connection.
14. Hydrant Replacement Program.
15. Master Meter Pits on New Developments.





# Water System Summary

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1. Continue to search for new water sources.
2. Increase storage tank capacity.
3. Replace aging lines and increase size if warranted.
4. Add additional piping to create loops for improved flow and quality.
5. Monitor for leaks in the system and in private developments.
6. Impact fee study.



# Sewer System

## FACTS

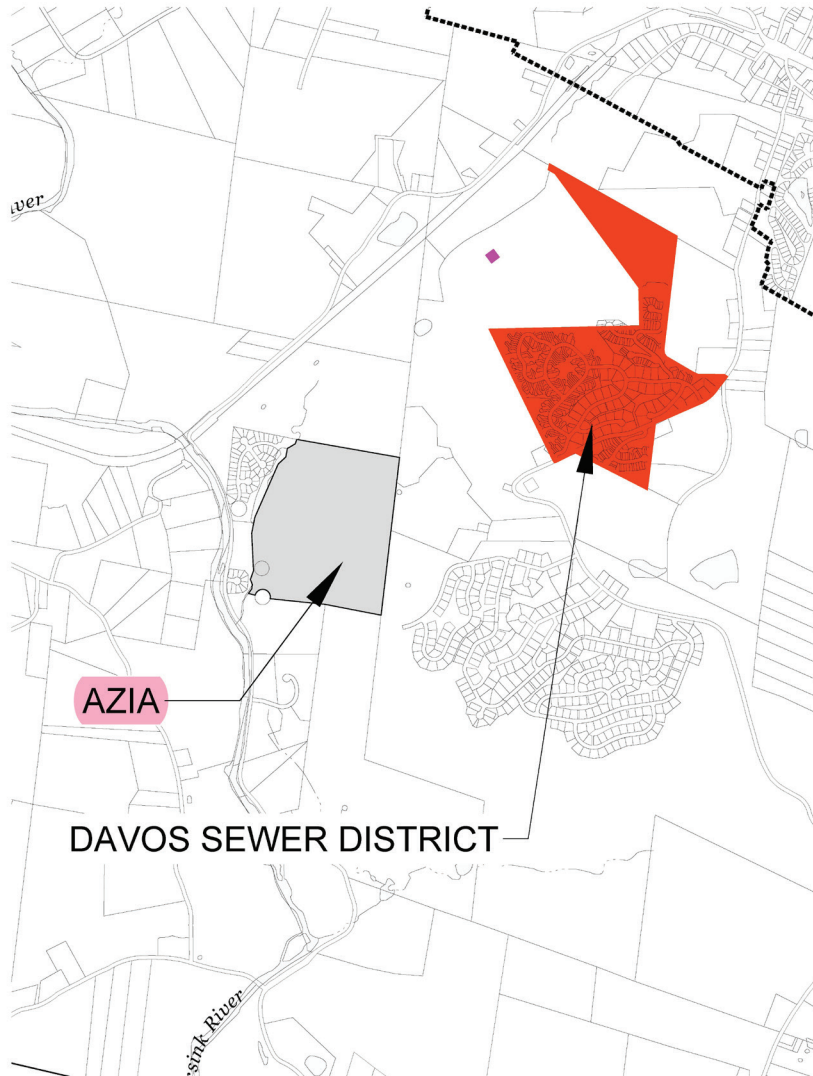
- ❑ 37 Miles of Pipe
- ❑ 23 Pump Stations
- ❑ Constructed in the 1930's, 1950-1980







# Davos Sewer System



## FACTS

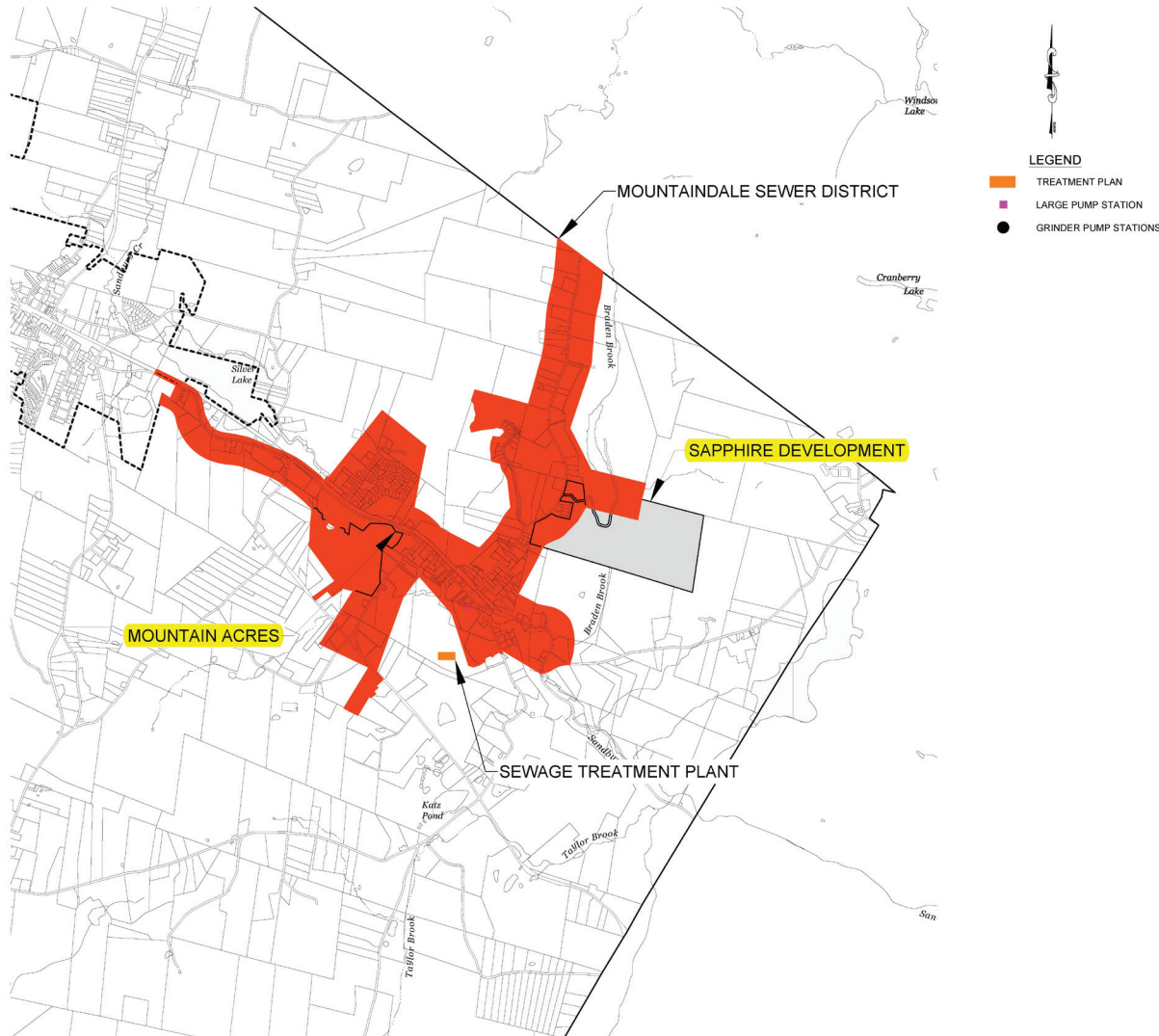
- 1.7 Miles of Pipe
- 1 Pump Station
- Effluent Treated at Village of Woodridge Wastewater Treatment Plant



# Mountaindale Sewer System

## FACTS

- 3 Miles of Pipe
- 1 Pump Station
- Effluent Treated at Mountaindale Wastewater Treatment Plant





# Loch Sheldrake Sewer System



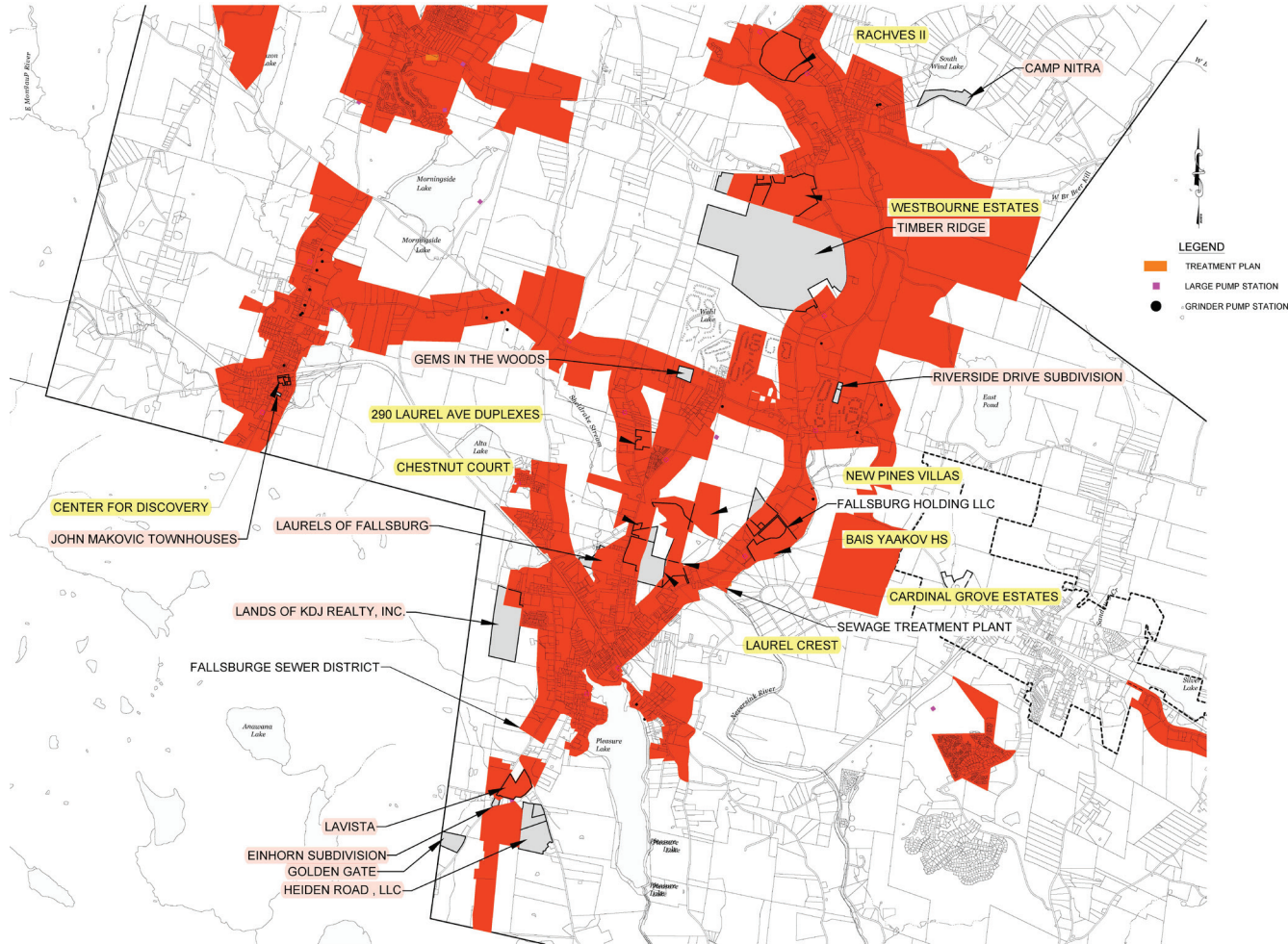
## FACTS

- ❑ 6 Miles of Pipe
- ❑ 6 Pump Stations
- ❑ Effluent Treated at Loch Sheldrake Wastewater Treatment Plant





# Fallsburg Sewer System



## FACTS

- 26 Miles of Pipe
- 15 Pump Stations
- Effluent Treated at South Fallsburg Wastewater Treatment Plant



# Mountaindale Wastewater Treatment Plant

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Permitted Capacity .....	180,000 gpd
Largest Monthly Average for 2021 (July).....	131,000 gpd
Remaining Capacity .....	49,000 gpd
Design Effluent From Projects Under Construction .....	138,600 gpd
Remaining Capacity .....	(89,600) gpd
Design Effluent From Projects in Planning .....	—
Remaining Capacity .....	—



# Loch Sheldrake Wastewater Treatment Plant

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Permitted Capacity ..... 1.0 MGD

Largest Monthly Average for 2021 (July) ..... 0.602 MGD

Remaining Capacity ..... 0.398 MGD  
398,000 gpd

Design Effluent From Projects Under Construction ..... —

Remaining Capacity ..... —

Design Effluent From Projects in Planning ..... 223,604 gpd

Remaining Capacity ..... 174,396 gpd





# South Fallsburg Wastewater Treatment Plant

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Permitted Capacity ..... 3.26 MGD

Largest Monthly Average for 2021 (July) ..... 3.23 MGD

Remaining Capacity ..... 0.03 MGD  
30,000 gpd

Design Effluent From Projects Under Construction ..... 357,940 gpd  
Remaining Capacity ..... (327,940) gpd

Design Effluent From Projects in Planning ..... 234,696 gpd  
Remaining Capacity ..... (562,636 gpd)



# Sewer System Improvements

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1. South Fallsburg Wastewater Treatment Plant.
  - a. Headwork Improvements.
  - b. Design Study for Expansion and Improvements.
2. Davos I/I Study.
3. Laurel Avenue I/I Study.
4. Mountaindale WWTP Review.
5. Mountaindale Pump Station Design.





# Sewer System Summary

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1. Current project to increase South Fallsburg Wastewater Treatment Plant capacity and effluent quality.
2. Initiation of study for Mountaindale Wastewater Treatment Plant to increase capacity and effluent quality.
3. Complete I/I studies.
4. Replace aging lines and repair breaks.
5. Discussion on monitoring flows from private developments to determine I/I issues.