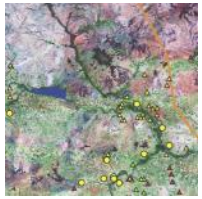

Water and Wastewater Capacity in Huntington's Villages

Lower Huntington Village, Huntington Center, and Hanksville

Amy Macrellis, Alan Huizenga, Brad Washburn, & the Water & Wastewater Working Group

Huntington Public Library

June 14, 2012

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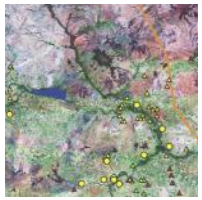
Introductions and Acknowledgements

The Huntington River, summer 2011.

- Water & Wastewater Working Group Members
- Consultant Team Members
- Project funding partner from Vermont DEC

Meeting Agenda



1 Project Purpose / Goals

2 Overview of Water and Wastewater Issues

3 Overview of Shared Water/WW Sites

4 Build-out Scenarios

5 Options and Costs for Increasing Capacity

6 Next Steps

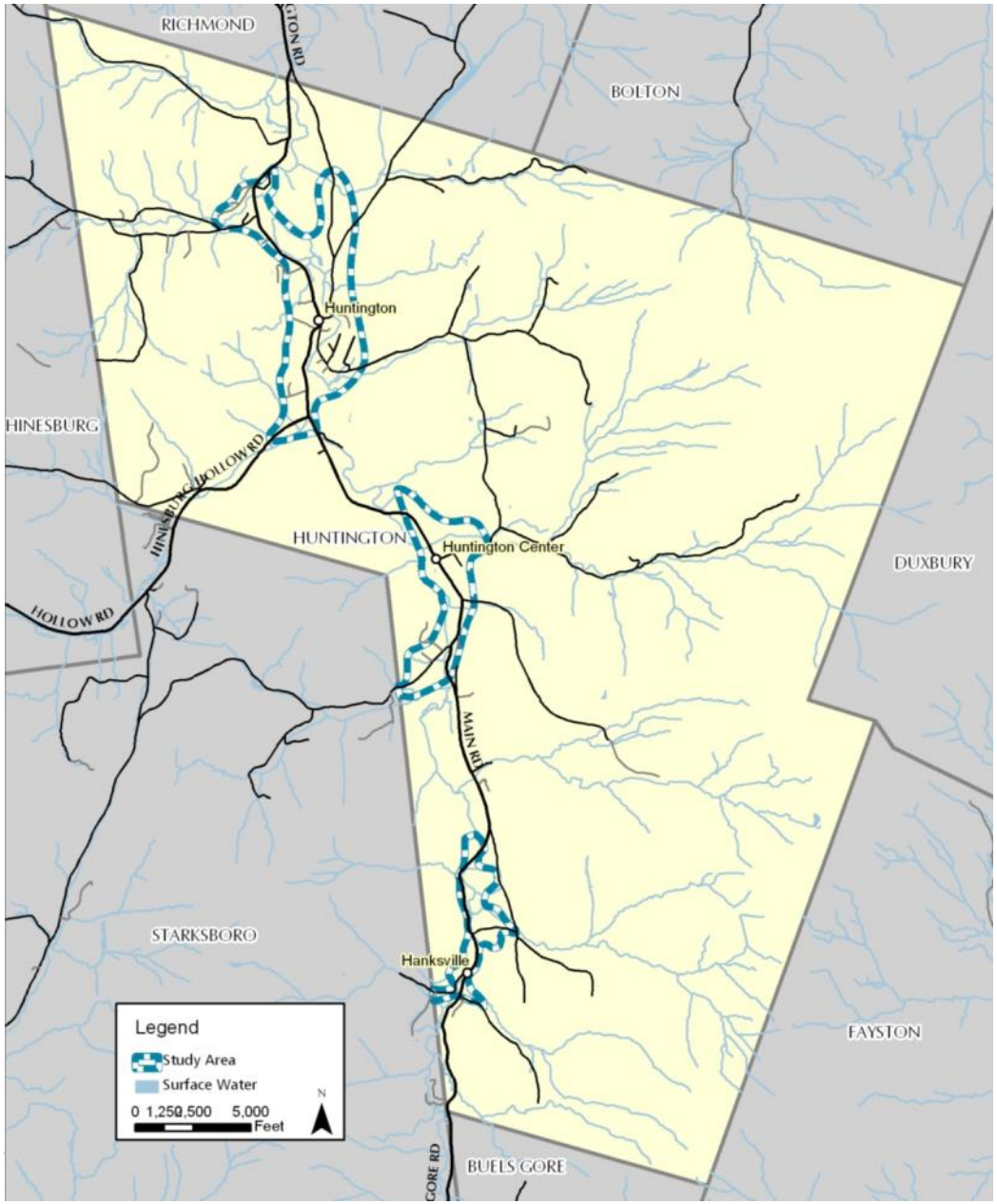
7 Questions and Answers / Discussion

Project Goals

Brewster Pierce Memorial School grounds and garden, Huntington Center, Fall 2011.

- Identify current water and wastewater issues and needs in villages
- At village level, identify potential available capacity
- Assess options (and costs) for “do nothing” and for expanding water and wastewater capacity under different future “build-out” scenarios

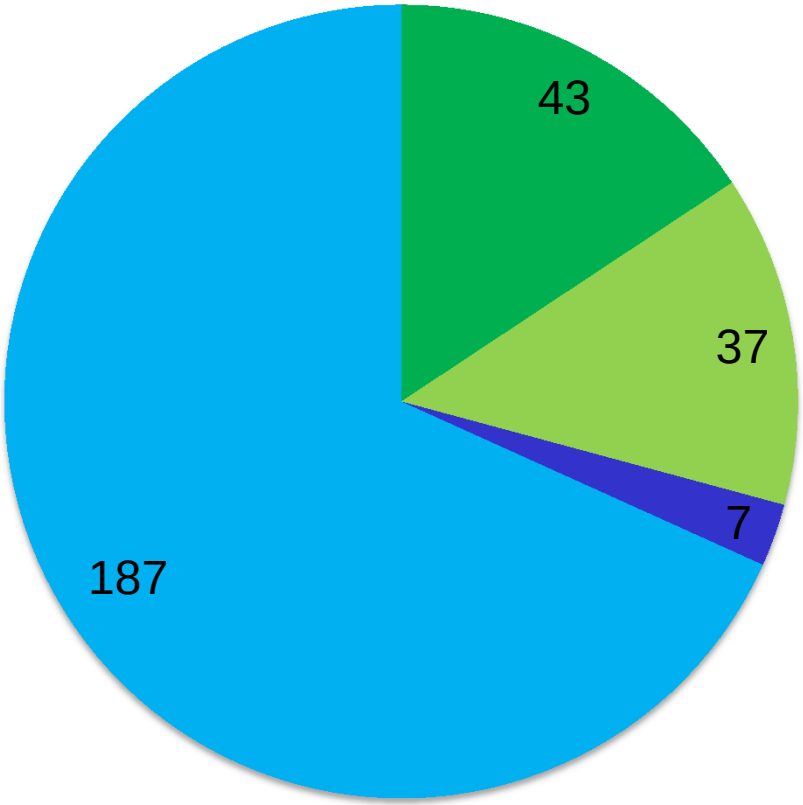
Project Areas - Villages



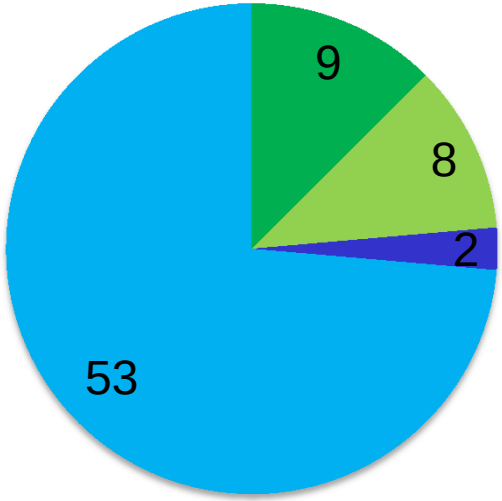
- Lower Huntington Village
- Huntington Center
- Hanksville
- Project areas limited to Village Zoning Districts plus 50-foot buffer

Water Supply Capacity Assessment Summary

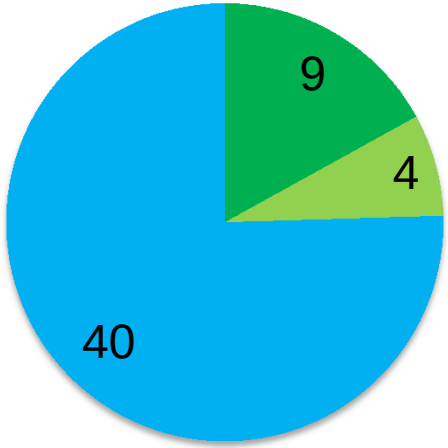
Lower Village



Huntington Center



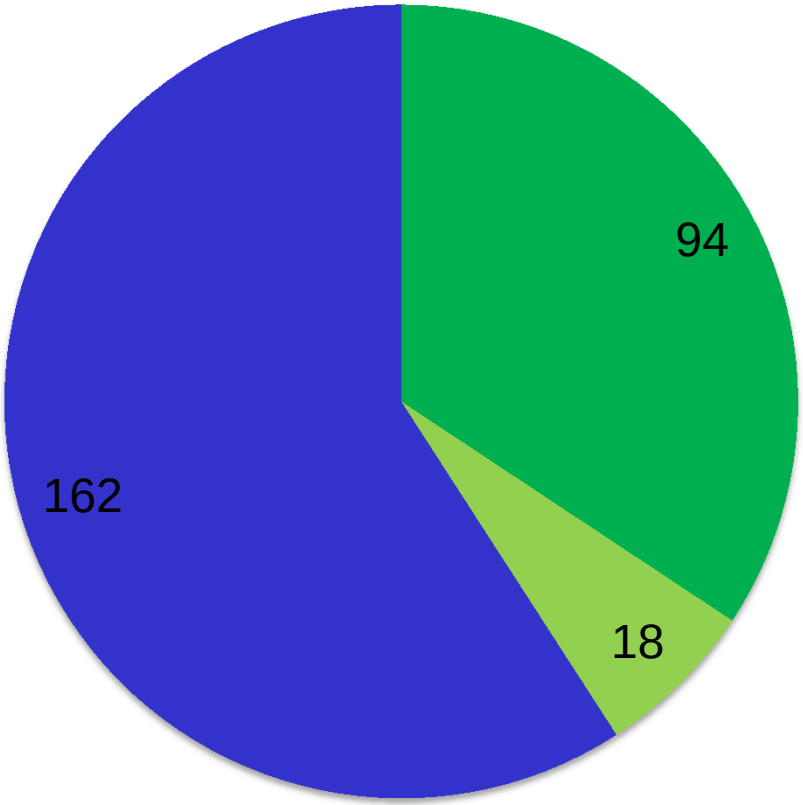
Hanksville



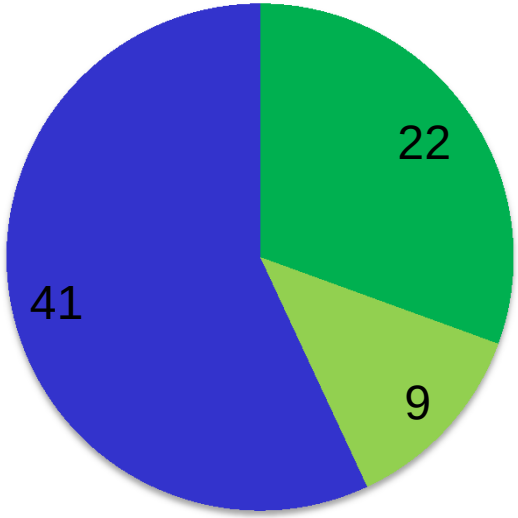
- Low-yielding wells, or water quantity issues identified/ reported
- Water quality issues identified
- Water quality and quantity issues
- No issues identified or reported

Wastewater Treatment Capacity Assessment Summary (Properties)

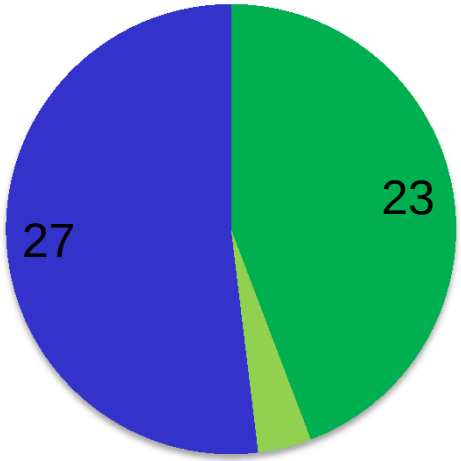
Lower Village



Huntington Center



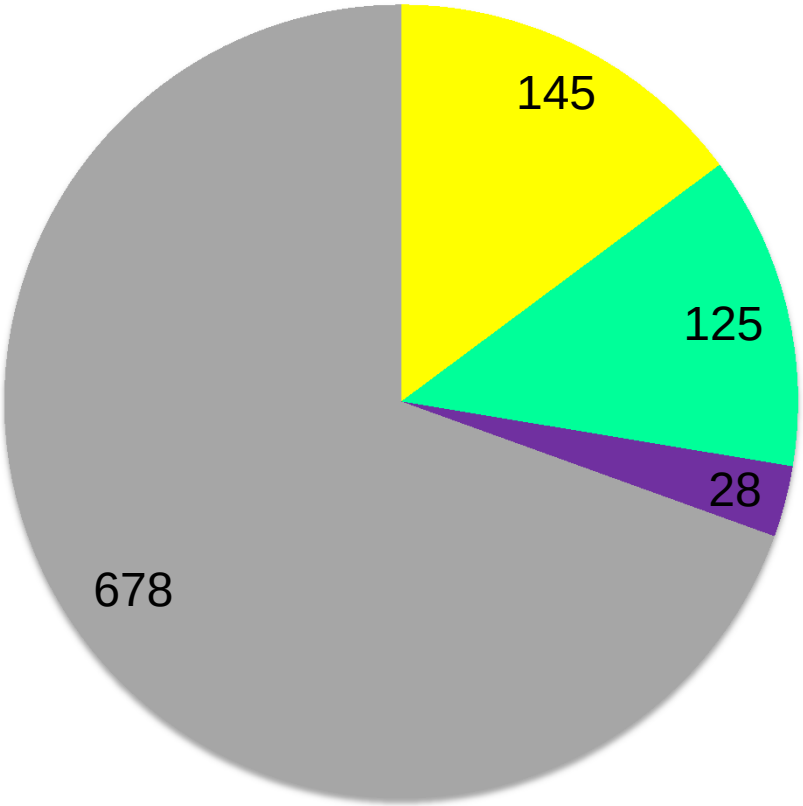
Hanksville



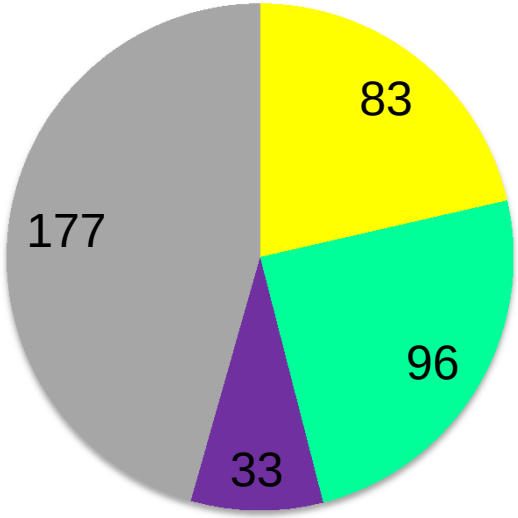
- Limited area for existing system replacement
- Currently comply, future capacity limited
- Currently comply, additional capacity possible

Wastewater Treatment Capacity Assessment Summary (Acreages)

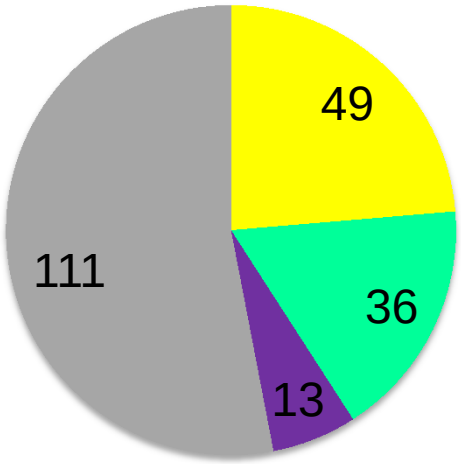
Lower Village



Huntington Center

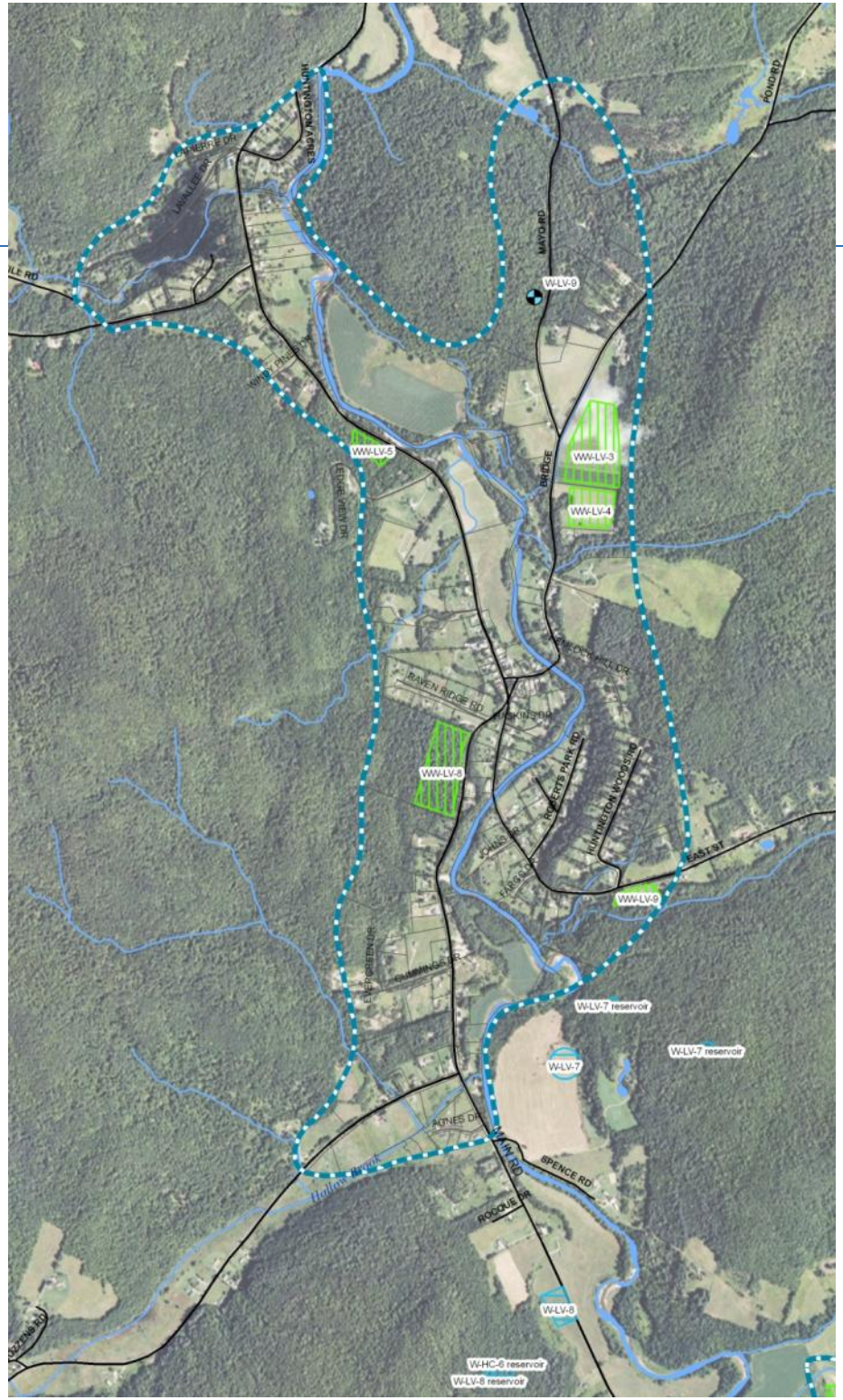


Hanksville



- Acres Suitable for Conventional Subsurface Leachfield
- Acres Suitable for At-Grade, Mound, or Filtrate Leachfield
- Acres with Marginal Soils (Performance Based/Best Fix)
- Acres with Environmental or Development Limitations

Potential Community Water and Wastewater Sites



Lower Village

- Nine potential water source sites originally considered, and three sites were used in developing build-out options
- 12 potential wastewater treatment/dispersal sites originally considered, and five sites were used in developing build-out options

Study Area

Parcels with flows

Potential Community Wastewater Area

Potential Community Water Area

Potential Water Source

N

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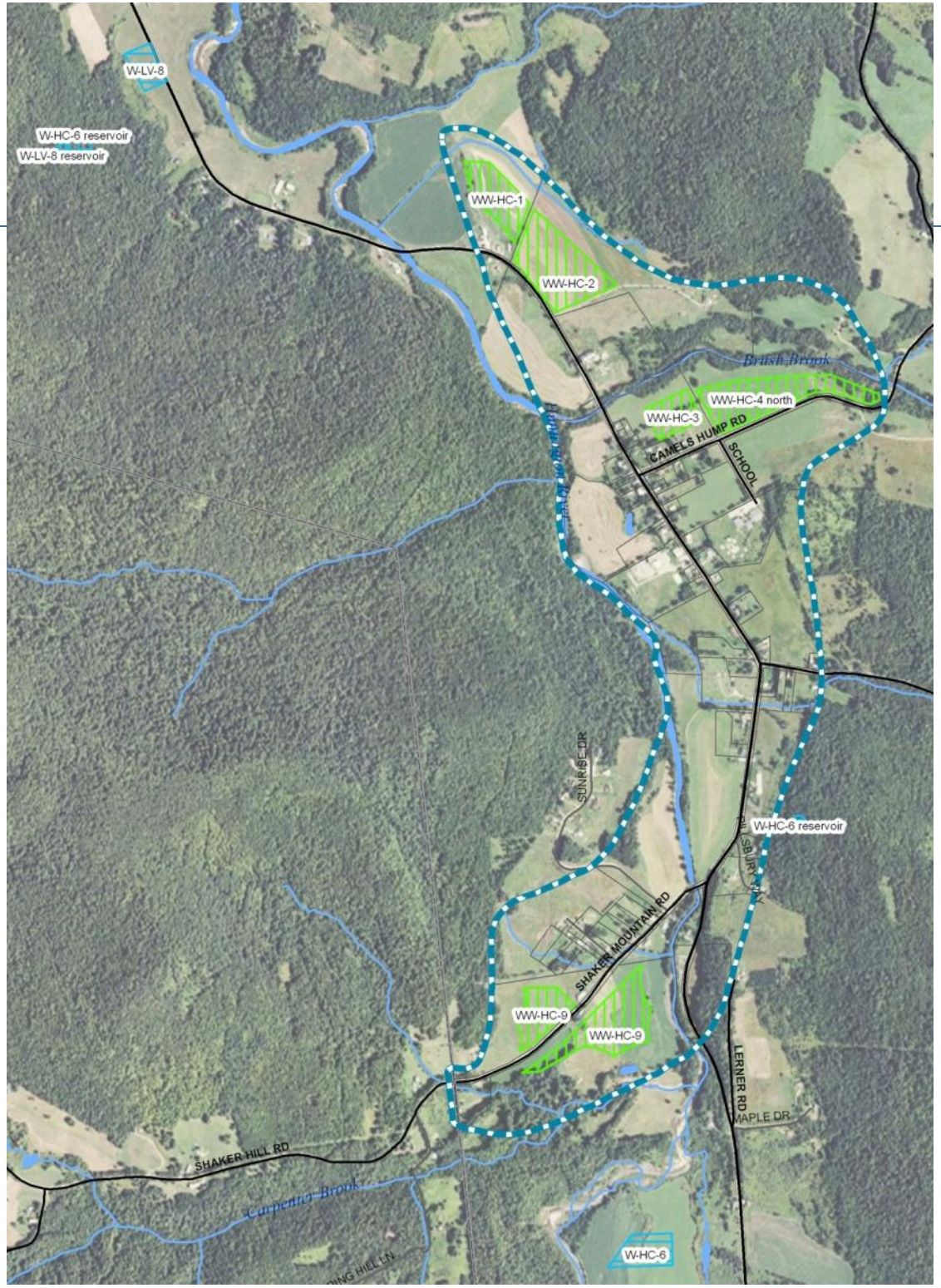
Potential Community Water and Wastewater Sites



Huntington Center

- Six potential water source sites originally considered, and two sites were used in developing build-out options
- Nine potential wastewater treatment/dispersal sites originally considered, and five sites were used in developing build-out options

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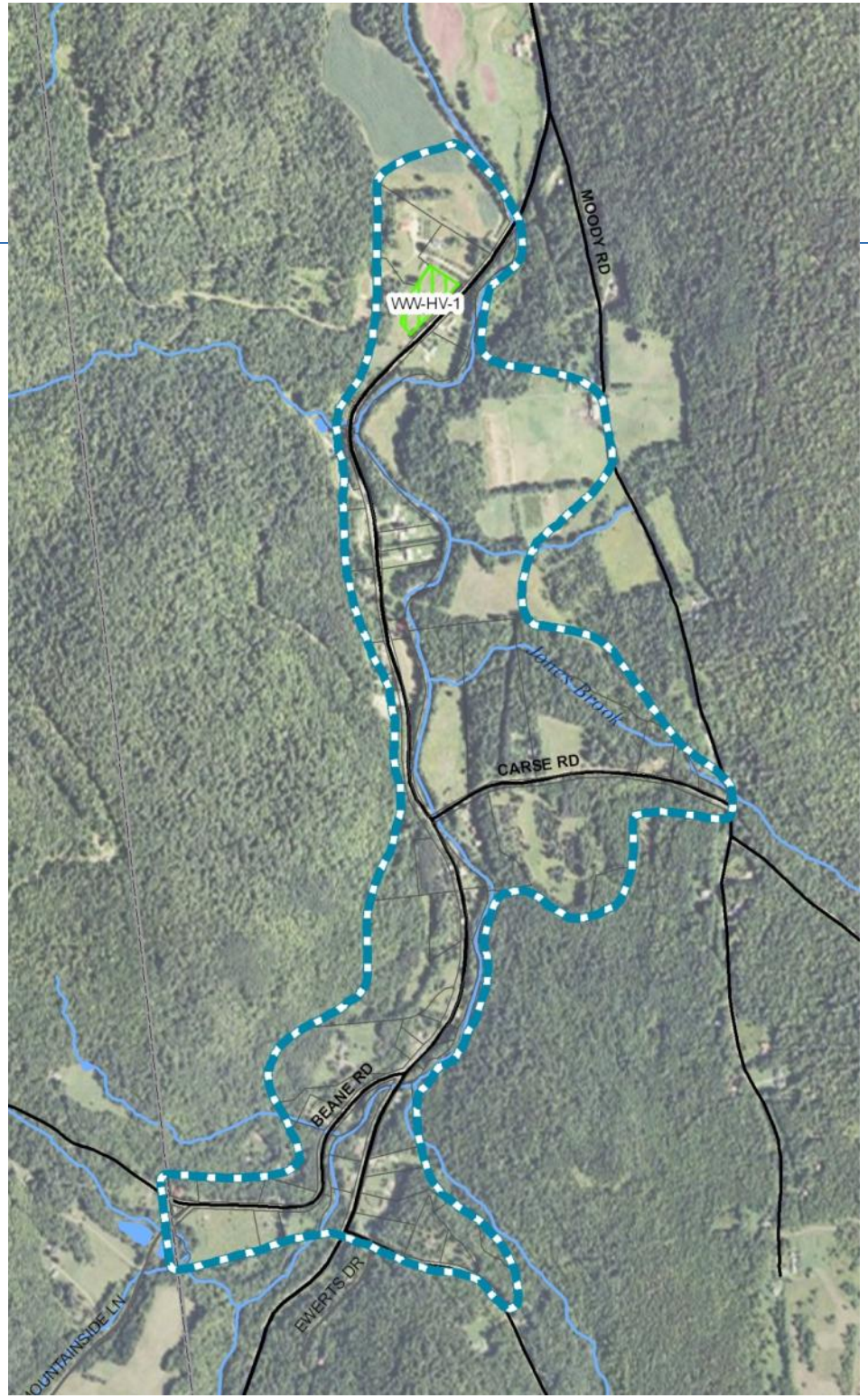
Potential Community Water and Wastewater Sites



Hanksville

- No water supply sources considered
- One potential wastewater treatment/dispersal sites originally considered, and this site was used in developing build-out options

Study Area

Parcels with flows

Potential Community Wastewater Area

Potential Community Water Area

Potential Water Source

N

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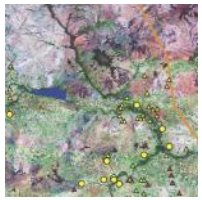


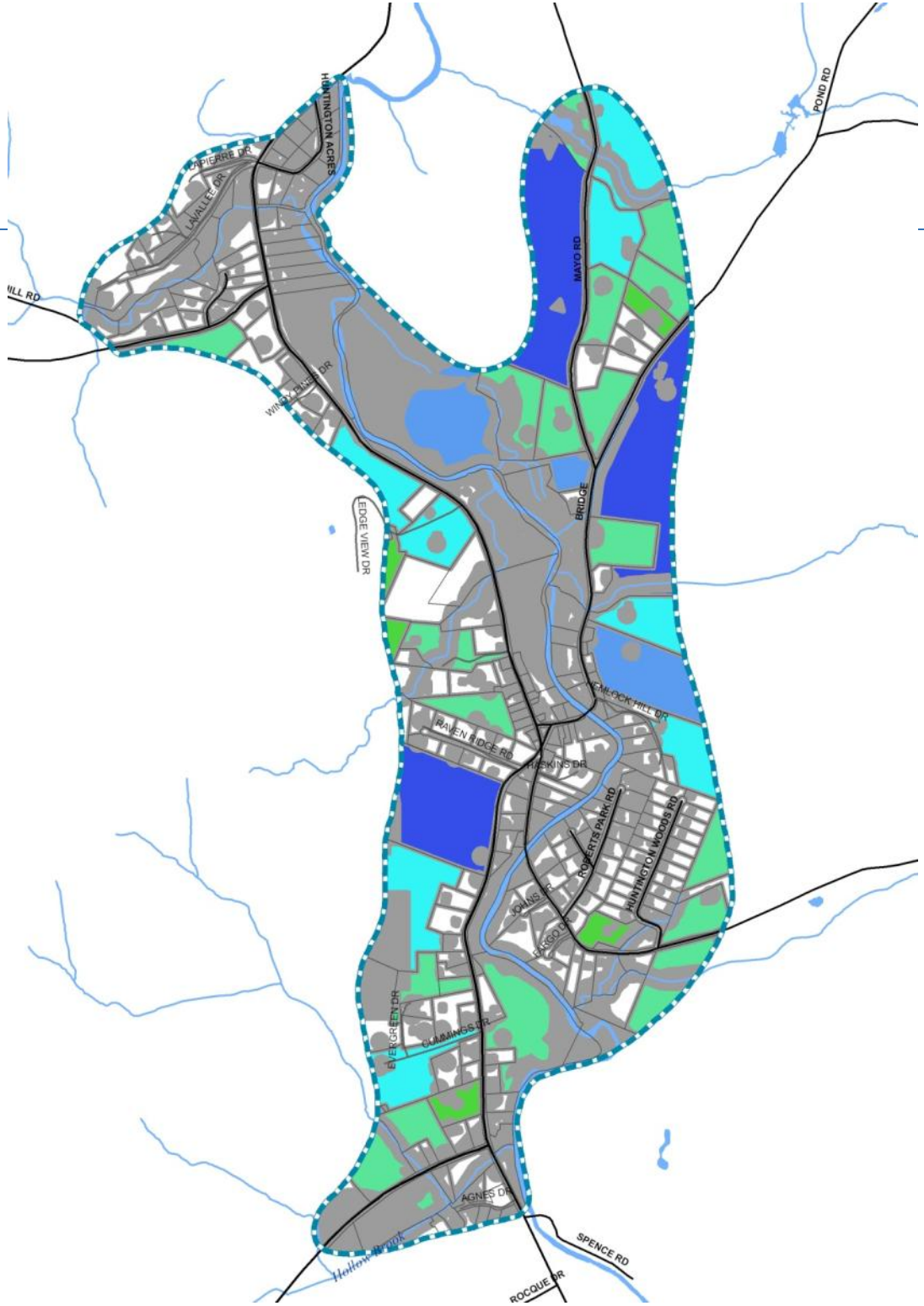


Build-out Scenarios

1 Do Nothing

- Maintain existing water/wastewater infrastructure and 1-acre Village zoning
- New or replacement infrastructure located on same property as original systems
- Property owners solely responsible for construction / replacement costs
- Future subdivisions predicted based on existing lot sizes and the suitability of soils for onsite wastewater

Future Development, Do Nothing Scenario



Lower Village

- Up to 146 new single-family homes on ~35 parcels
- Nearly all future development happens on fringes
- No lots in “core” area can subdivide under 1-acre zoning

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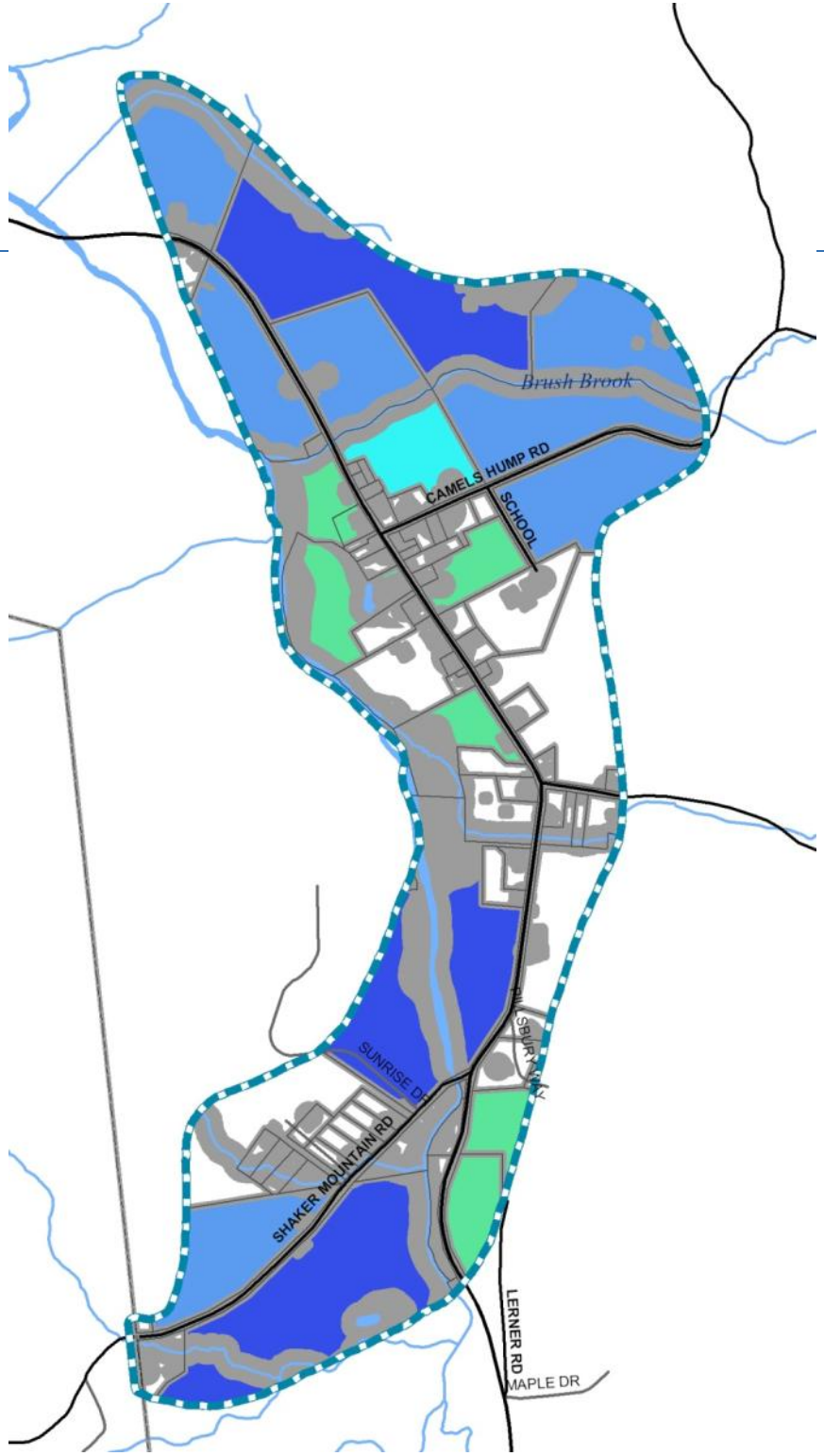
Future Development, Do Nothing Scenario



Huntington Center

- Up to 108 new single-family homes on ~18 parcels
- Most future development happens on fringes
- A few lots adjacent to “core” area can subdivide under 1-acre zoning

Study Area

Environmental or Development Setback

Parcel Boundary

Potential Development: Additional Parcels

1

2 to 3

3 to 5

5 to 10

10 to 20

None

N

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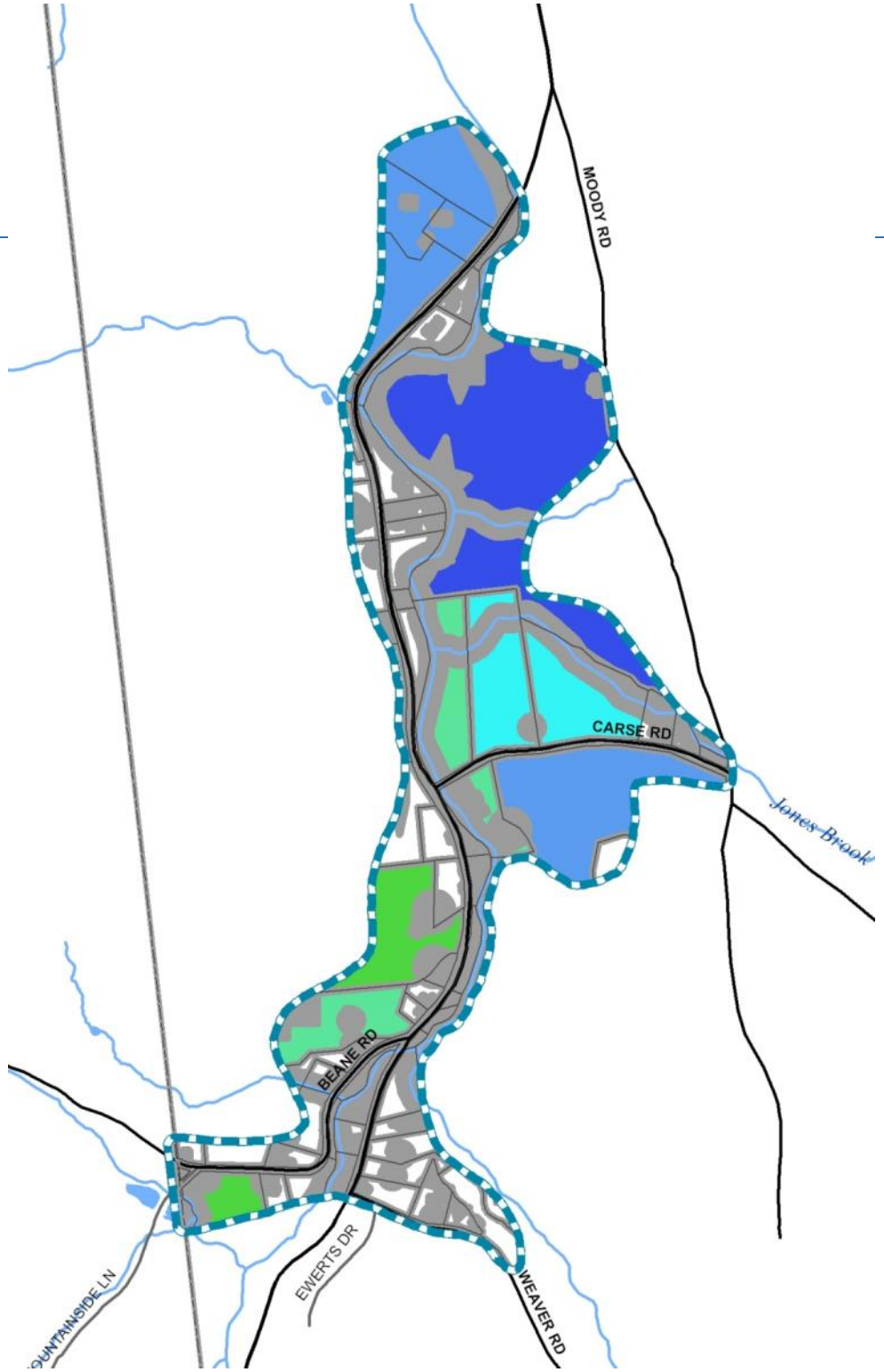
Future Development, Do Nothing Scenario



Hanksville

- Up to 59 new single-family homes on ~11 parcels
- Most future development follows current pattern

Study Area

Environmental or Development Setback

Parcel Boundary

Potential Development: Additional Parcels

1

2 to 3

3 to 5

5 to 10

10 to 20

None

N

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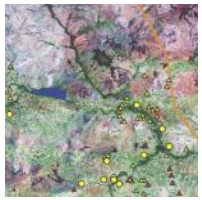
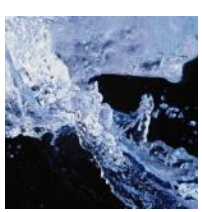
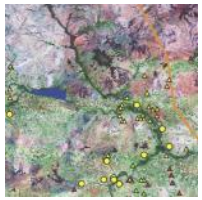



Build-out Scenarios

2 Fix Existing Village Problems Only

- Provide shared water and/or wastewater capacity only to support areas of demonstrated need
- Accommodate current development densities and land uses
- Community systems owned by Town, financed by Town/users
- Keep current zoning districts / regulations

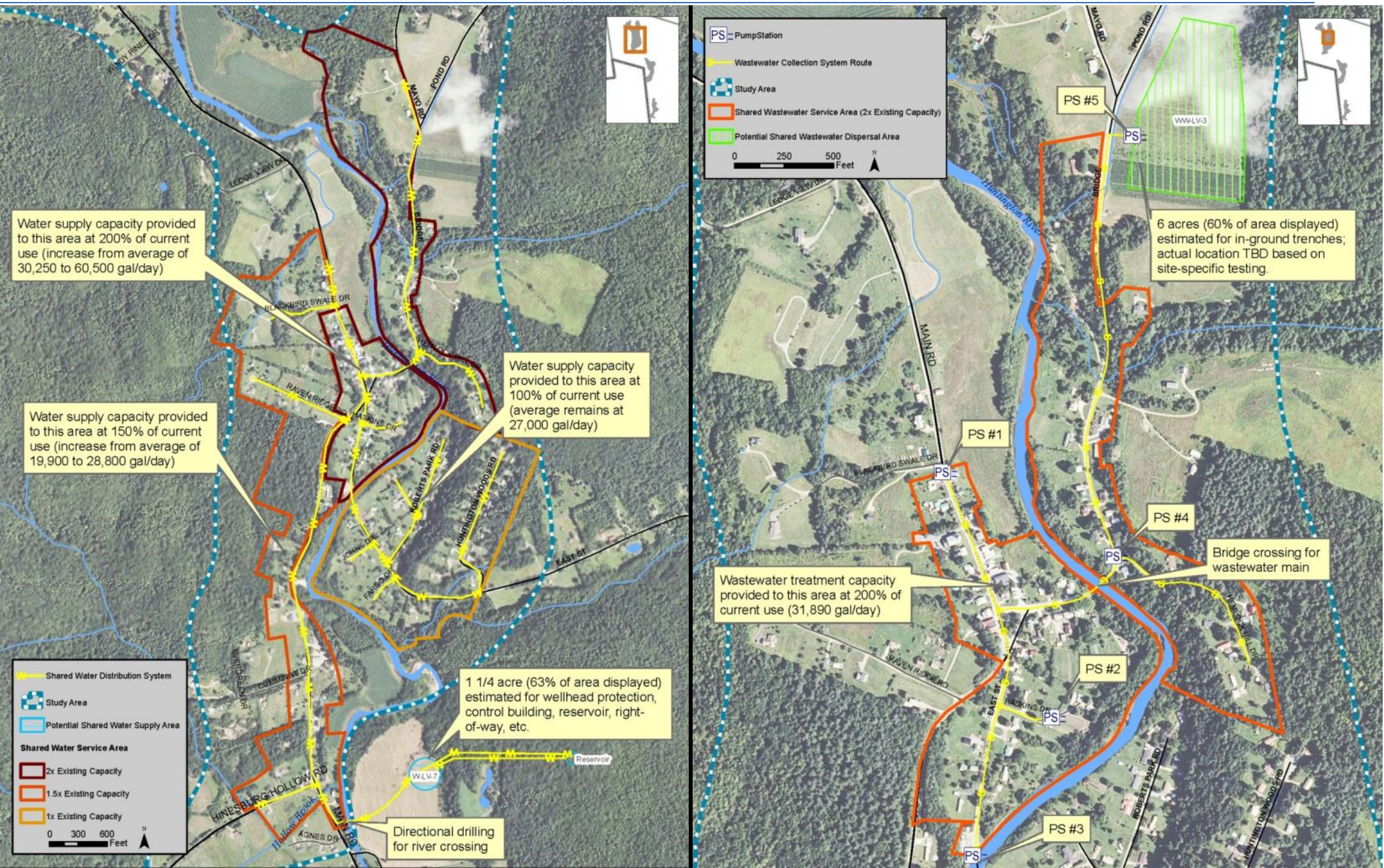


Build-out Scenarios

3 Provide for Village Centered Vitality

- Zoning districts and regulations are changed to encourage continuing historic development pattern
- Smaller or no minimum lot size in “core” areas; 1-acre minimum lot size on fringes
- Options under this scenario support up to 2x existing flows for water and wastewater in core areas of Lower Village and Huntington Center

What do the options look like?

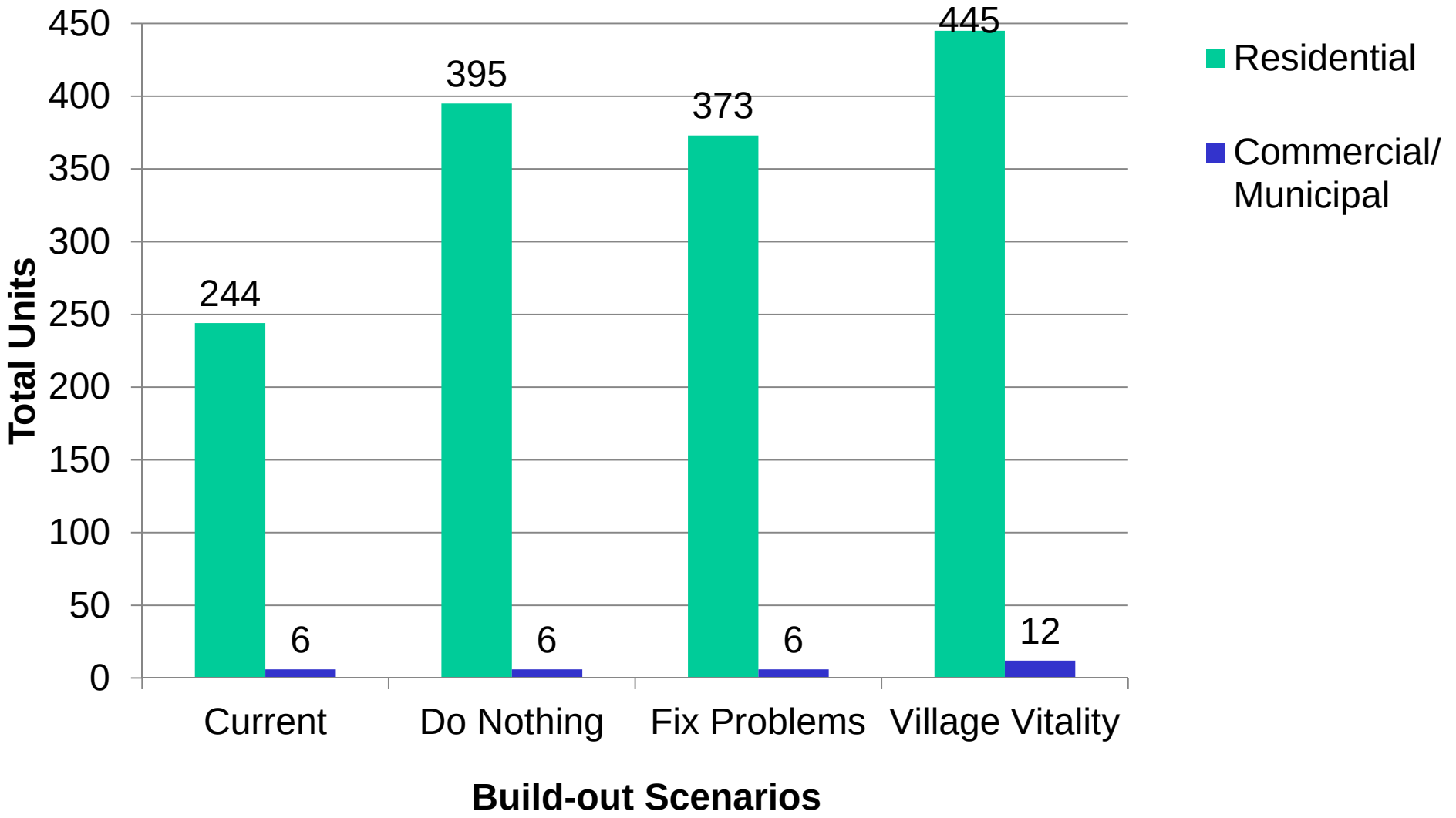


Water & Wastewater Options Summary

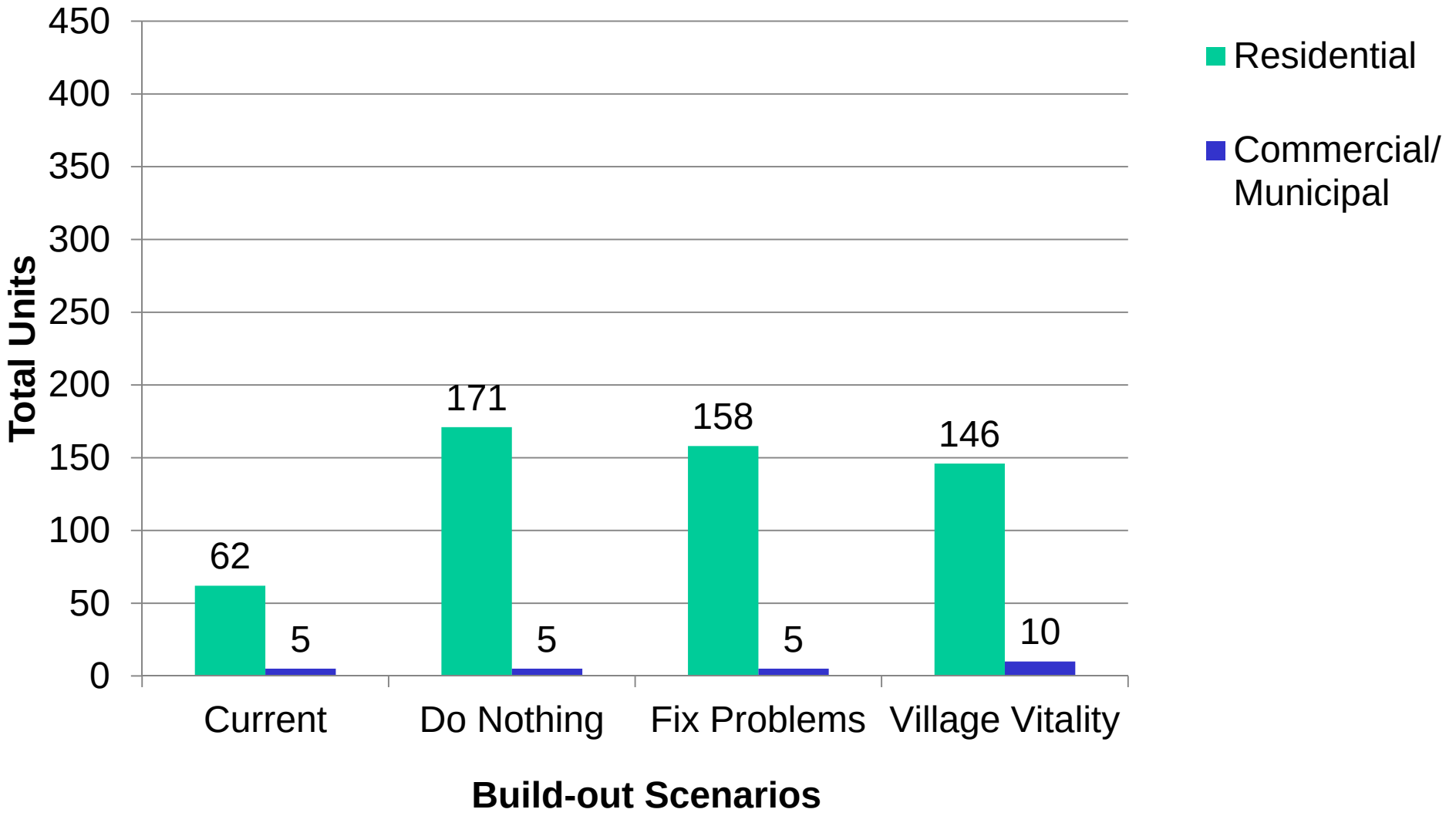
- 12 water options and 16 wastewater options
- Passive, primarily gravity-based water distribution and wastewater treatment technologies
- Little need for alternative or advanced community wastewater treatment technologies

Natural resources and water infrastructure in Huntington, Summer-Fall 2011.

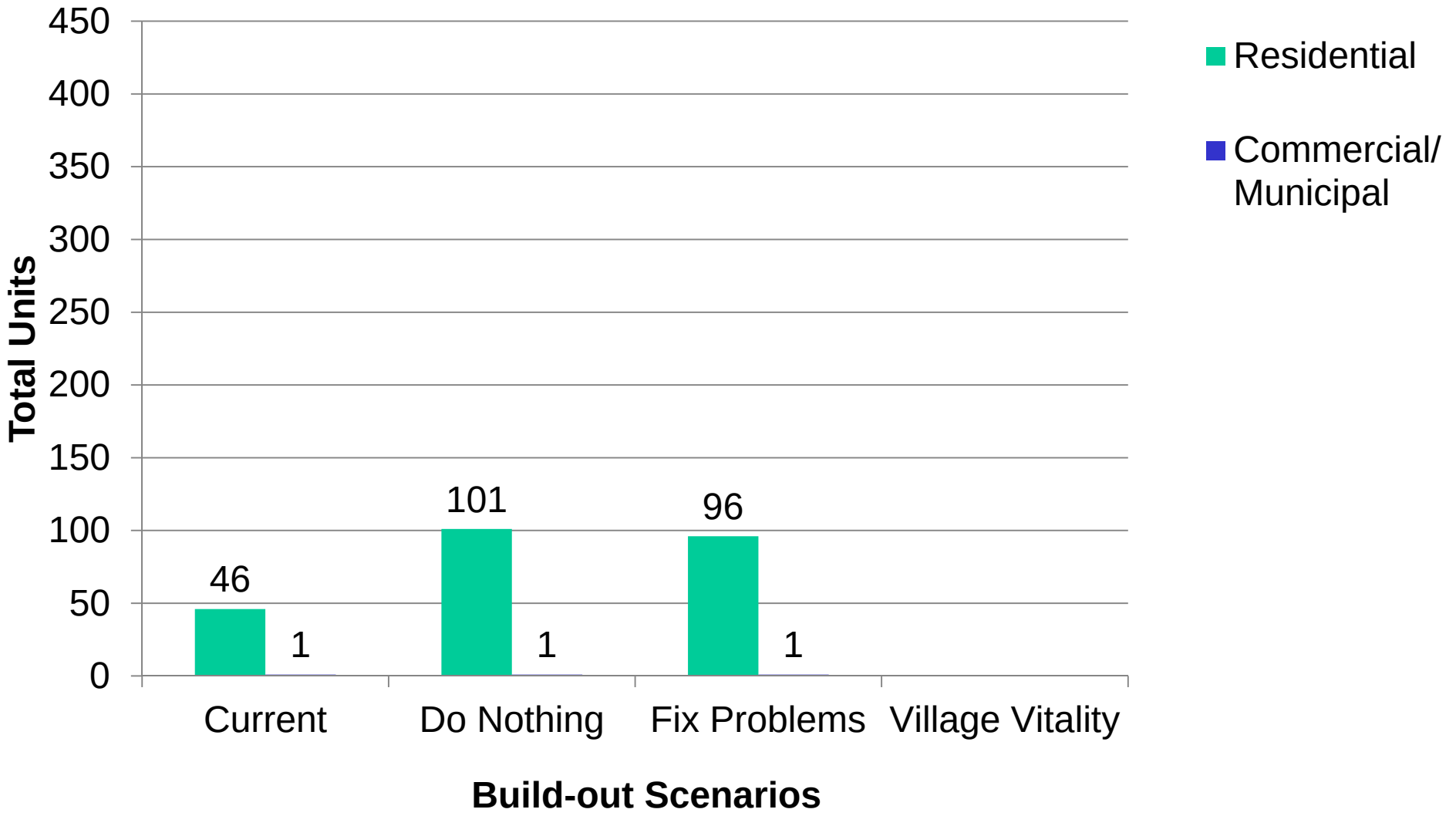
Lower Village: Additional Capacity by Scenario



Huntington Center: Additional Capacity by Scenario



Hanksville:
Additional Capacity by Scenario



Future Water Supply Costs by Scenario (Million $)

	Do Nothing		Fix Problems		Village Vitality	
	Private	Municipal	Private	Municipal	Private	Municipal
Lower Village	$ 3.3		$ 2.7 - $ 3.2*	$ 0.49- $ 2.4*	$ 1.2	$ 5.3 - $ 7.2**
Huntington Center	$ 1.2		$ 1.1		$ 0.5	$ 1.9 - $ 7.2**
Hanksville	$ 0.78		$ 0.73			

* In the “Fix Problems” scenario, water supply capacity is provided primarily to facilitate use of specific shared wastewater treatment sites, so costs (and cost distribution between private or municipal systems) vary widely depending on which shared wastewater site is chosen.

** In the “Village Vitality” scenario, the high-range cost is for an alternative that supplies municipal water to the Lower Village AND Huntington Center, using a single source, reservoir, and distribution system.

Cost estimates for community water and wastewater options include site and source testing, permitting/engineering/legal, construction, and land acquisition.

Future Wastewater Treatment Costs by Scenario (Million $)

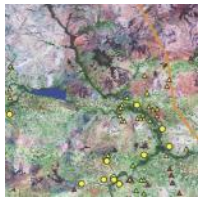
	Do Nothing		Fix Problems		Village Vitality	
	Private	Municipal	Private	Municipal	Private	Municipal
Lower Village*	$ 5.4		$ 3.8 - $ 4.7	$ 3.0 - $ 5.7	$ 2.9 - $ 3.3	$ 3.9 - $ 7.1
Huntington Center	$ 2.4		$ 1.9	$ 1.6 - $ 1.7	$ 1.1	$ 3.0 - $ 3.4
Hanksville	$ 1.4		$ 1.2	$ 1.6		

* In the Lower Village, the low range of costs for “Fix Problems” and “Village Vitality” includes only the Main Road-Bridge Street-East Street vicinity, generally; while the high range also includes Huntington Acres and the Roberts Park Road vicinity, especially properties on the Huntington River.

Cost estimates for community water and wastewater options include site and source testing, permitting/engineering/legal, construction, and land acquisition.

Future Wastewater Costs, Financing Compared to Recent VT Projects

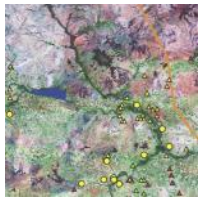
	Shoreham	Pownal	Cabot	Warren	Lower Village	Hunt. Center
Total Project Cost (Other communities' costs not adjusted for inflation and are as of ~2006)	$2,400,000	$29,000,000	$4,678,000	$4,350,000	$3,900,000 - $7,200,000	$3,000,000 - $3,400,000
Equivalent Users (EU)	86	700	139	115	~150-200	~80
Gross Cost per EU	$27,900	$41,400	$33,655	$31,950	$26,000 - $36,000	$37,500 - $42,500
Connected Users to pay all?	No	No	Yes	No		
Cost on Town Wide Tax	Yes	Yes	No	Yes		
	4.5¢ on Town Tax	$76 Flat Tax per Parcel		1.7¢ on Town Tax		
Local Share %	19%	7%	13%	21%		
State and Federal Grant %	81%	93%	87%	79%		



Conclusions

- Issues are real—but solutions are feasible
- No action = no new development focused near historically dense areas of Lower Village and Huntington Center
- Fixing problems at current property uses still does not enable small-lot development near the Bridge St. or Camel's Hump Rd. intersections
- If zoning is changed to reduce minimum lot size, little will happen in historically compact areas without wastewater capacity—for maximum flexibility, water capacity is also needed
- Capacity is available close to areas of need, but is privately owned and vulnerable to fragmentation/development



Next Steps

- Finalize report (expected by end of June)
- Joint meeting with Selectboard, Planning Commission in July—discuss whether / how to move forward
- Continue to talk about options and implications with the owners of potential community water supply source and wastewater treatment sites
- If a decision is made to move forward with one or more options, negotiate with property owners to complete preliminary field testing on preferred sites


Thank You!