

Delaware County DPW Facility Site Selection

July 12, 2017

Wendel Team



Gerald Summe
Executive Vice President



Mark Molnar, PE
Principal



David Duchscherer, PE, FASE
Chairman Emeritus

Wendel Architects & Engineers

- **Significant years of DPW / Maintenance Garage Experience**
- **Proven Technical Site Selection Process**
- **Nationally Recognized Expertise**
- **Totally Independent and transparent Evaluation**

Site Selection Process

1. Facility Programing

2. Typical Building/Site Layout

3. Candidate Sites

- Sites 3, 4 and 6 originally by County Planning,
- plus 8 volunteered sites and existing site
- Confirmed availability of all
- Site 6 off list due to unavailability

4. Establish Selection Criteria

- Supervisor Input

5. Score Sites (1 – 10)

- Site visits on 5/30/17 and 5/31/17

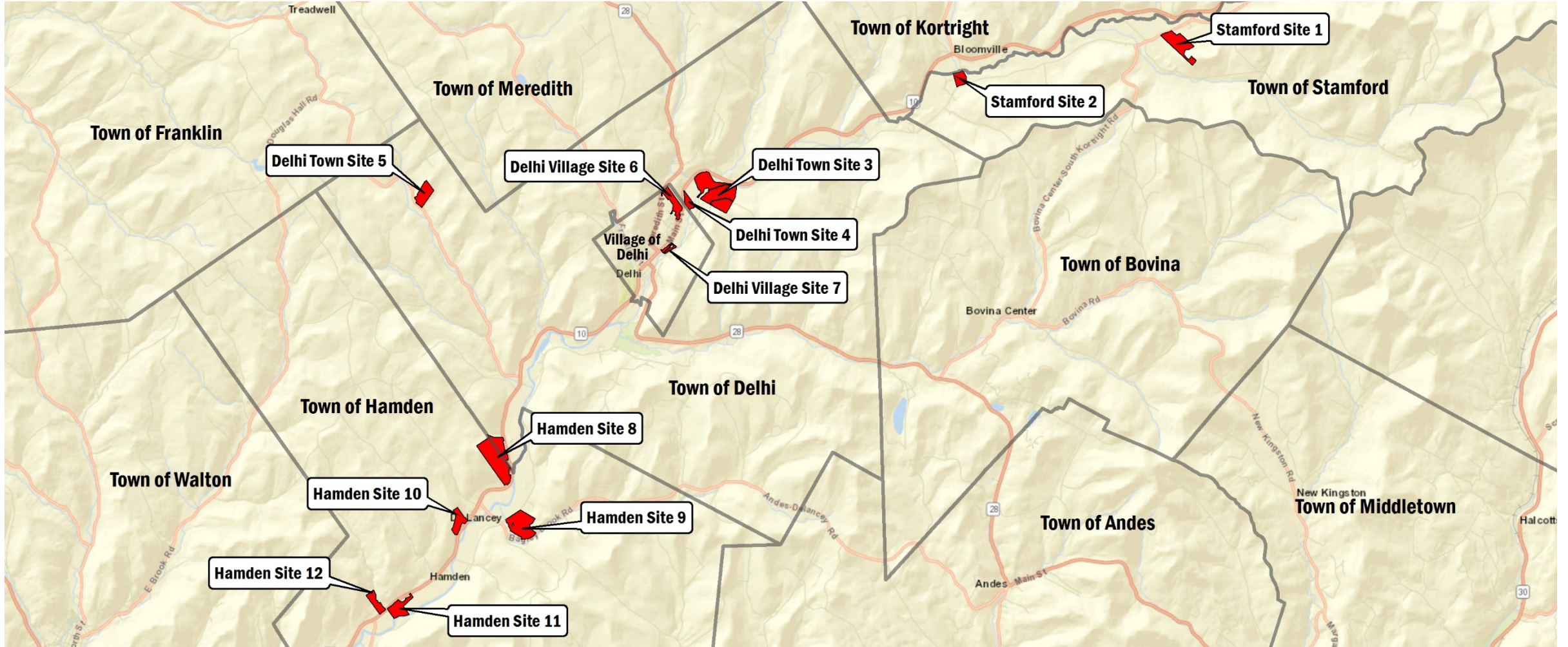
6. Establish Criteria Weight Parameters

- Supervisor Input

7. Ranking of Sites

- (Score x Average Weight)

Candidate Sites



Supervisor/Committee Weighting

Supervisor #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19				
Criteria	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Weight	Total	Average Weight	Order of Weight
Access	20%	10%	10%	20%	10%	15%	0%	20%	20%	10%	10%	15%	15%	20%	10%	9%	5%	9%	0%		228%	12.67%	
Capital Costs	20%	5%	10%	10%	4%	20%	0%	20%	10%	15%	8%	10%	10%	10%	25%	15%	25%	9%	0%		226%	12.56%	
Demolition	5%	5%	5%	5%	3%	5%	10%	5%	10%	5%	6%	5%	5%	10%	0%	5%	10%	9%	0%		108%	6.00%	
Environmental	5%	5%	10%	5%	10%	5%	5%	10%	5%	15%	10%	5%	10%	20%	5%	5%	5%	9%	0%		144%	8.00%	
Flood Plain	15%	25%	10%	5%	25%	10%	25%	10%	25%	5%	10%	15%	15%	20%	10%	15%	5%	9%	0%		254%	14.11%	
Neighborhood	10%	10%	5%	15%	3%	5%	0%	0%	2%	5%	10%	5%	10%	0%	20%	5%	5%	9%	0%		119%	6.61%	
Inc. Operational Costs	5%	5%	10%	5%	10%	15%	25%	0%	15%	5%	10%	15%	5%	20%	10%	15%	25%	9%	0%		204%	11.33%	
Soils	5%	15%	10%	15%	3%	5%	10%	10%	5%	10%	10%	5%	10%	0%	20%	10%	0%	9%	0%		152%	8.44%	
Topography	5%	5%	10%	10%	10%	5%	25%	5%	2%	5%	8%	5%	5%	0%	0%	6%	0%	9%	0%		115%	6.39%	
Utilities	5%	10%	10%	5%	12%	10%	0%	10%	4%	20%	10%	15%	10%	0%	0%	10%	10%	10%	0%		151%	8.39%	
Water	5%	5%	10%	5%	10%	5%	0%	10%	2%	5%	8%	5%	5%	0%	0%	5%	10%	9%	0%		99%	5.50%	
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	0%	1800%	100.00%	

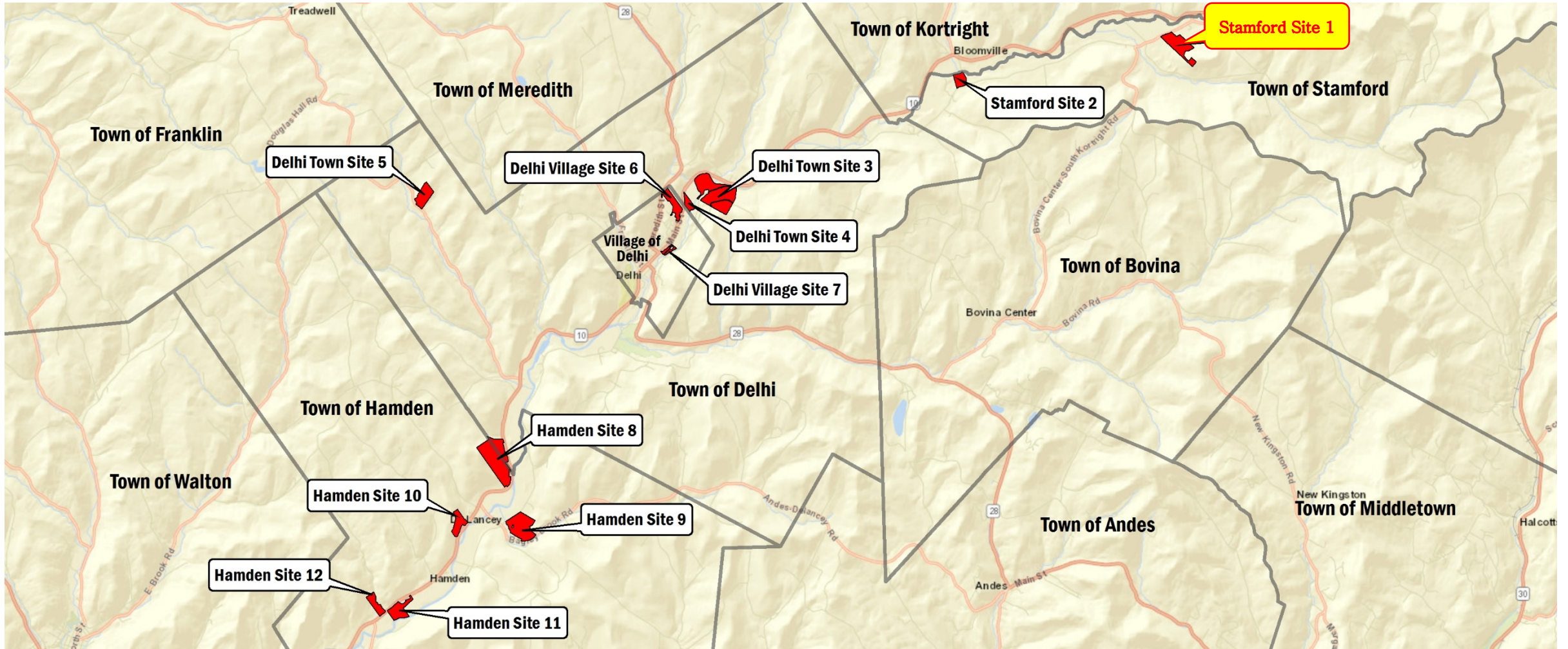
Selection Criteria & Weighting

Selection Criteria	Average Weight
Access	12.67 %
Capital Cost	12.56 %
Demolition	6.00 %
Environmental	8.00 %
Flood Plain	14.11 %
Neighborhood	6.61 %
Increased Operational Costs	11.33 %
Soils	8.44 %
Topography	6.39 %
Utilities	8.39 %
Water	5.50 %
Total	100 %

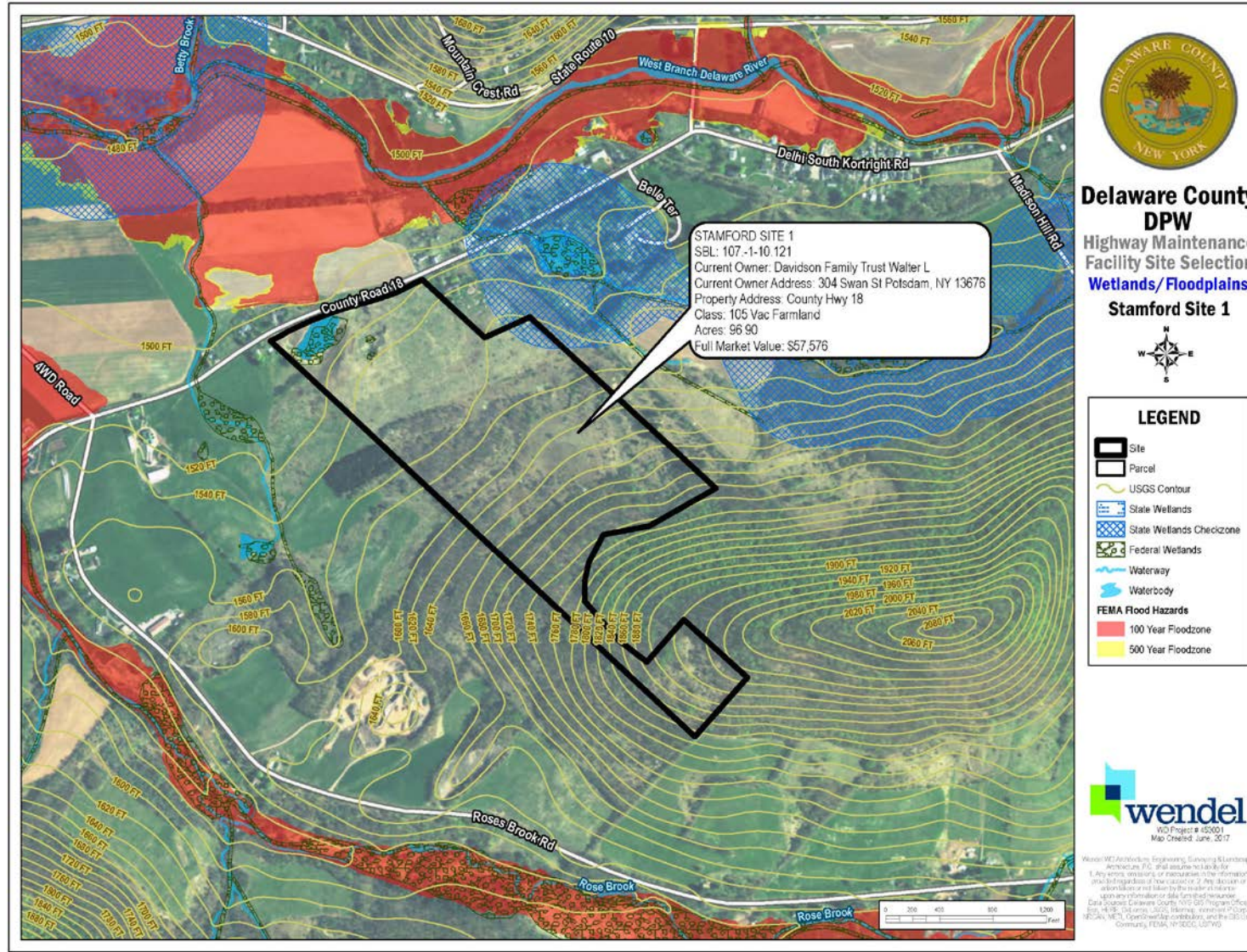
Top 4 Highest Ranked Sites

Selection Criteria	Average Weighting	Site 9		Site 1		Site 3		Site 11	
		Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Access	12.67 %	6	76.02	5	63.35	3	38.01	6	76.02
Capital Cost	12.56 %	7	87.92	7	87.92	4	50.24	8	100.48
Demolition	6.00 %	9	54.00	10	60.00	10	60.00	7	42.00
Environmental	8.00 %	7	56.00	7	56.00	6	48.00	6	48.00
Flood Plain	14.11 %	10	141.10	9	129.99	8	112.88	7	98.77
Neighborhood	6.61 %	6	39.66	9	59.49	7	46.27	7	46.27
Increased Operational Costs	11.33 %	5	56.65	3	33.99	9	101.97	5	56.65
Soils	8.44 %	6	50.64	8	67.52	6	50.64	6	50.64
Topography	6.34 %	10	63.90	8	51.12	10	63.90	8	51.12
Utilities	8.39 %	6	50.34	6	50.34	5	41.95	6	50.34
Water	5.50 %	4	22.00	5	27.50	8	44.00	5	27.50
Total	100 %	698.23		684.22		657.86		647.79	
Ranking		1		2		3		4	

Candidate Sites



Site 1



Site 1

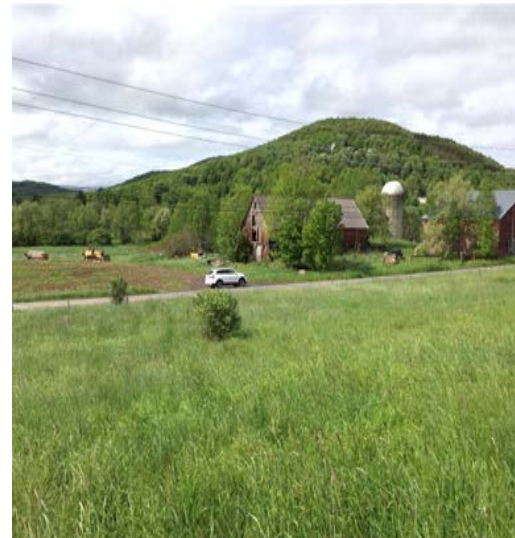
Positive Attributes

- Flat area for development
- Out of Floodplain
- Soils

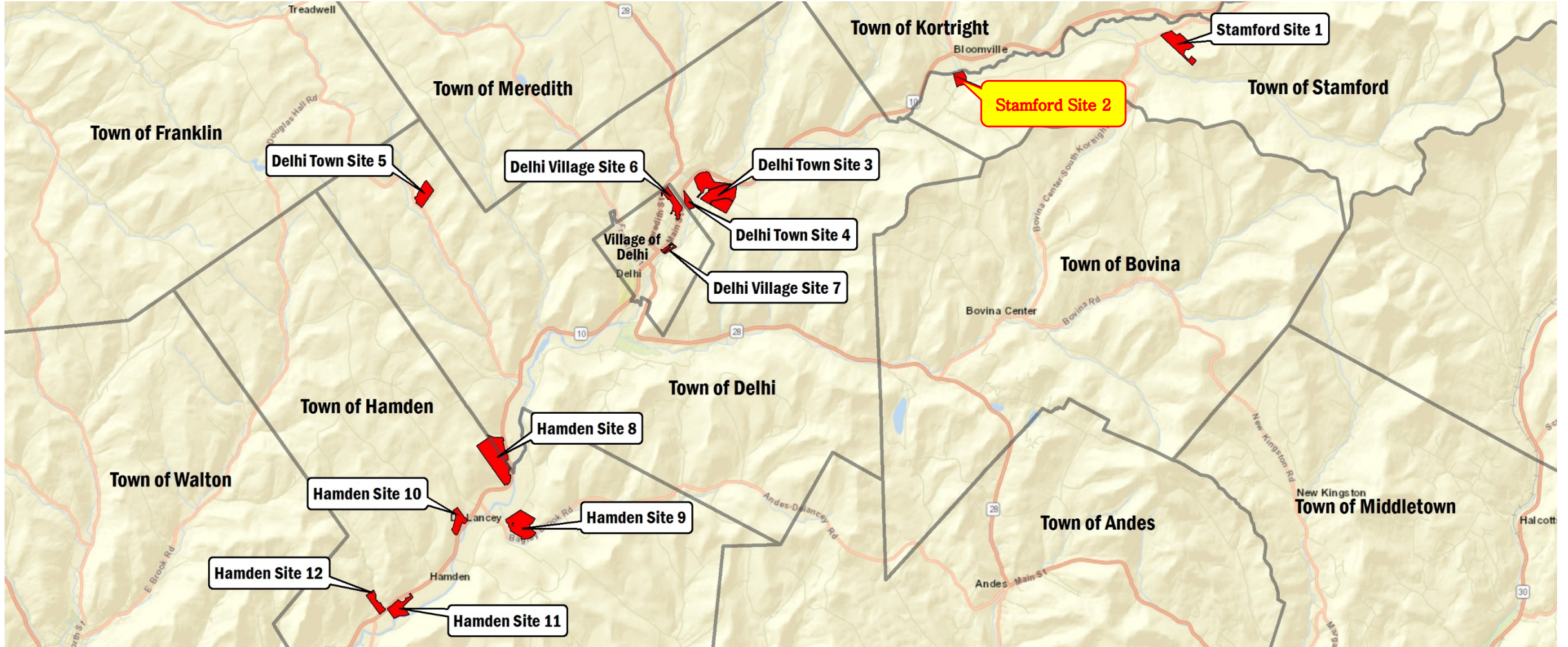


Negative Attributes

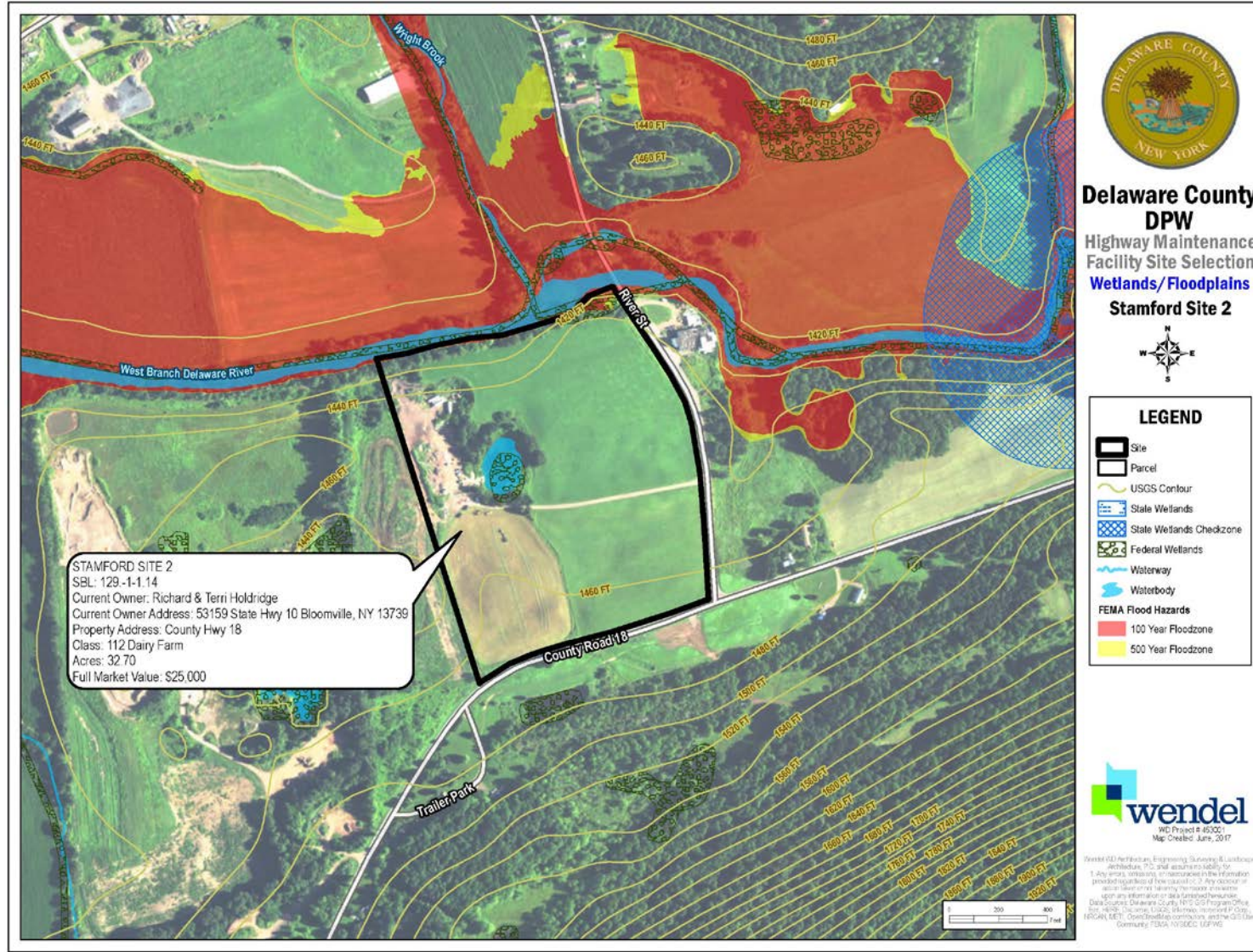
- Access Bridge Approaches in Floodplain
- Historic Bridge with Low Boy Clearance Issue
- Distance to C.O. = 13.2 miles
- Transmission Lines Bisect Parcel



Candidate Sites



Site 2



Site 2

Positive Attributes

- Out of Floodplain

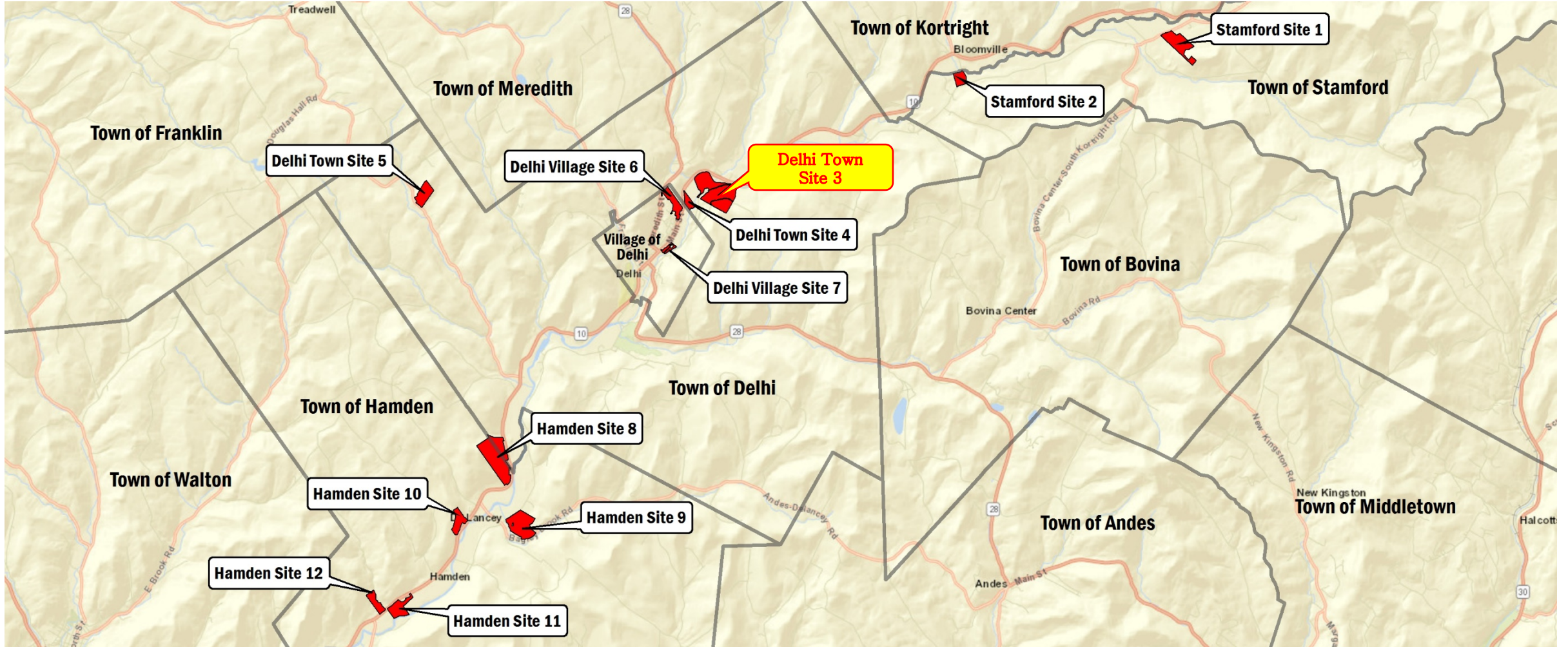


Negative Attributes

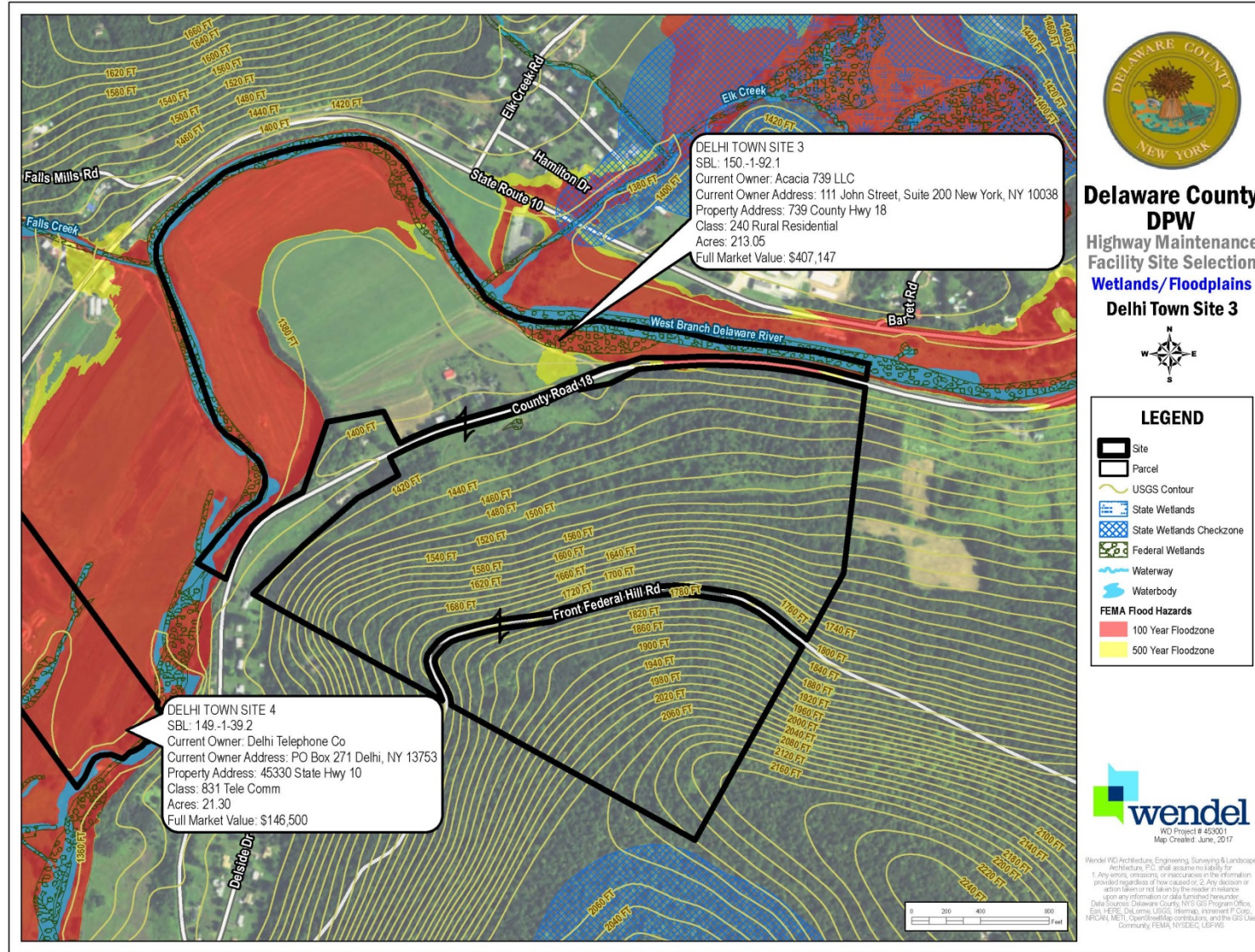
- Blind Corner at Rt. 10
- Rolling Topography
- Neighborhood Access
- Distance to C.O. = 9.0 miles



Candidate Sites



Site 3



Site 3

Positive Attributes

- Distance to C.O. Approximately 2 Miles
- Flat area for development
- Useable area out of Floodplain
- Gravel Soils
- Alternate Access to CR18

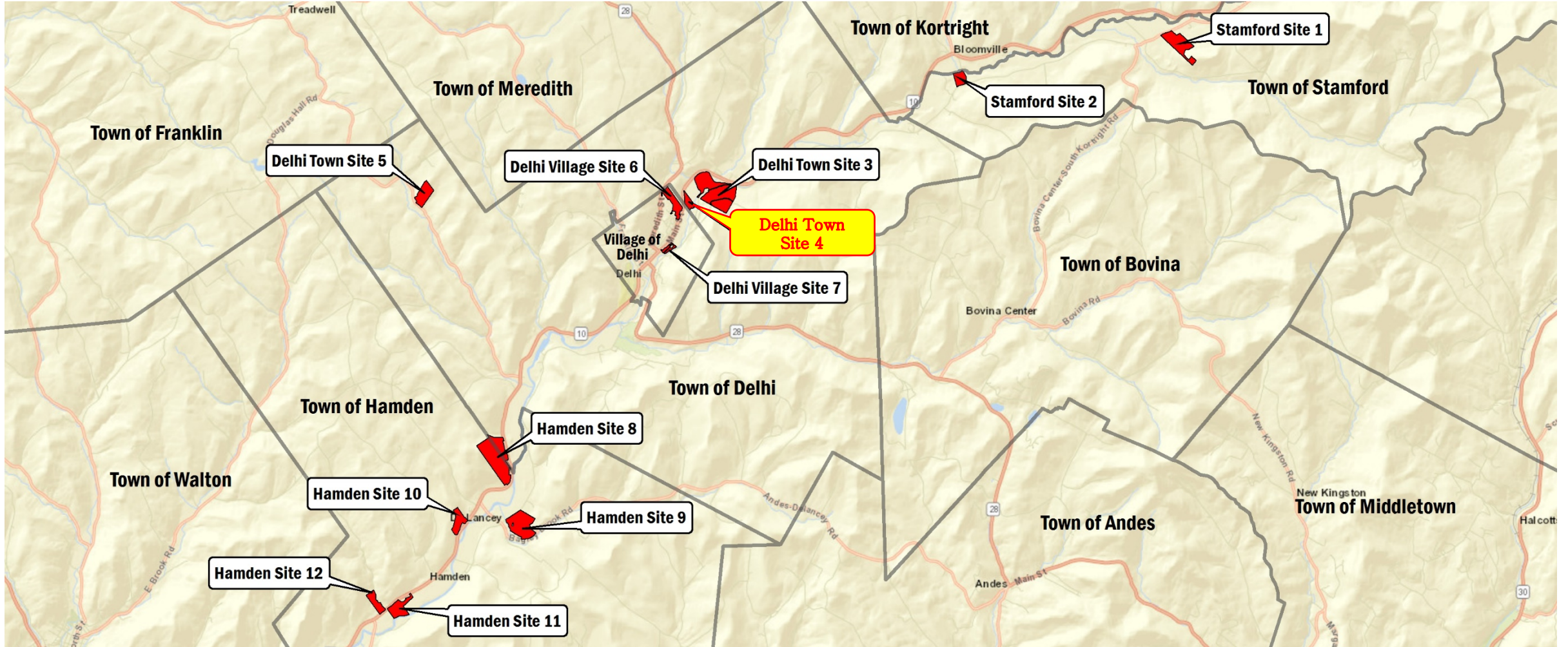


Negative Attributes

- Access Acquisition
- Capital Cost – Bridge/Road Required
- Archeological (?)



Candidate Sites



Site 4

Positive Attributes

- Neighborhood
- Distance to C.O. Approximately 2 miles

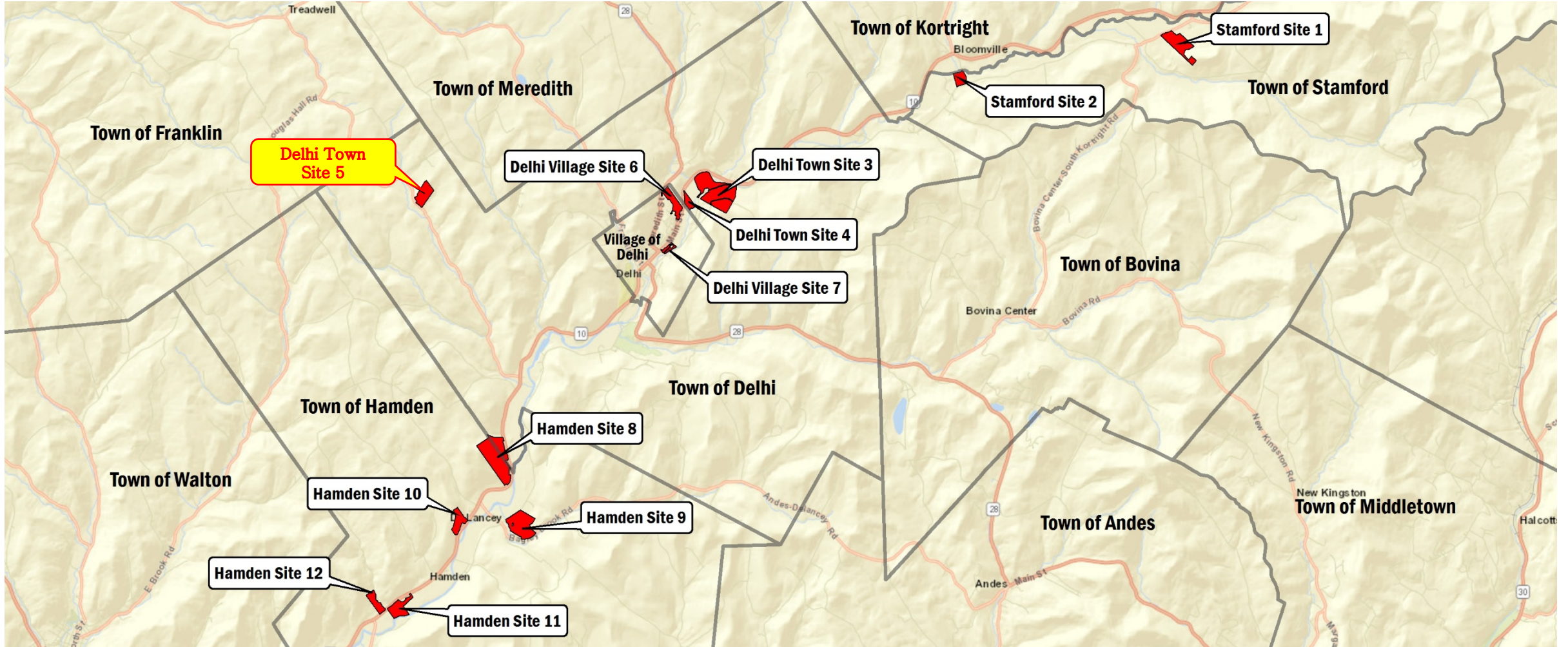


Negative Attributes

- Entire site in Floodplain
- Capital Costs – Build-up Site
- Access & Sight Distance
- Soils (Prime Farmland)



Candidate Sites



Site 5

Positive Attributes

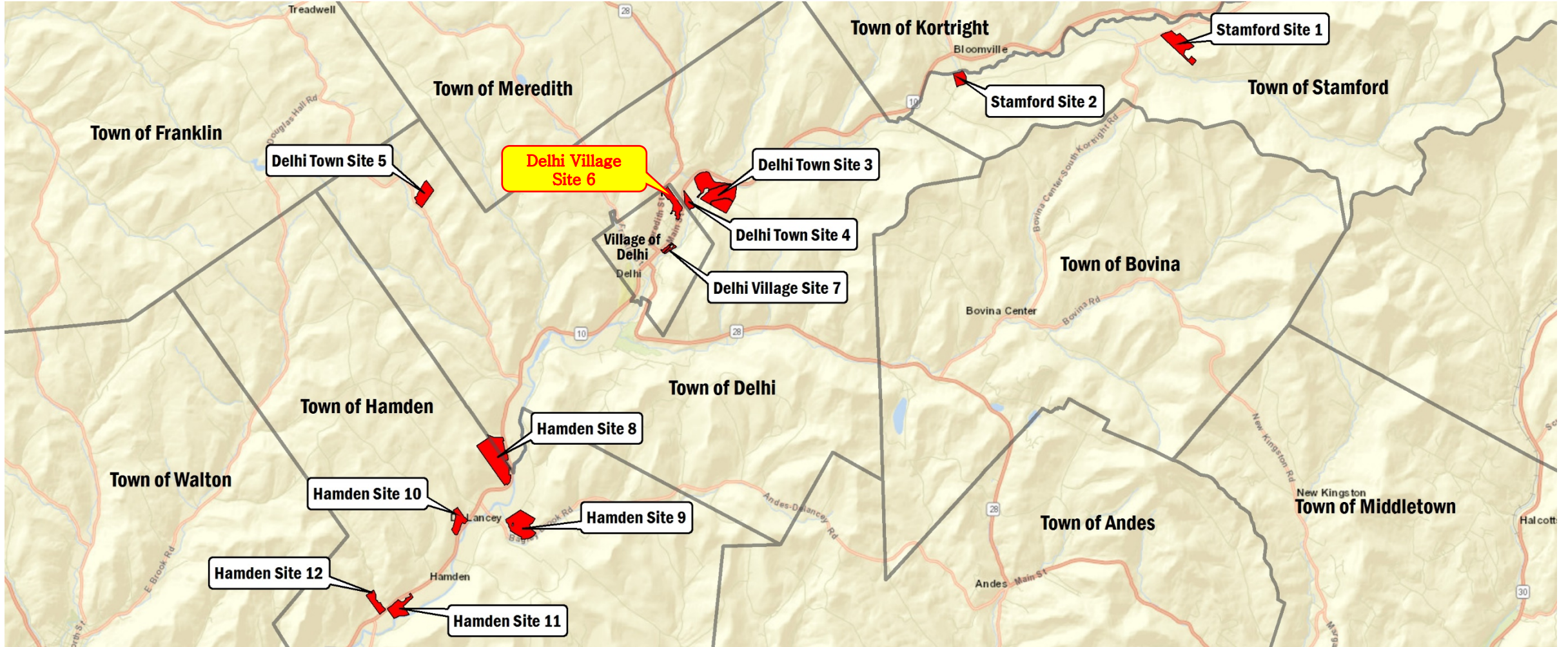
- Out of Floodplain



Negative Attributes

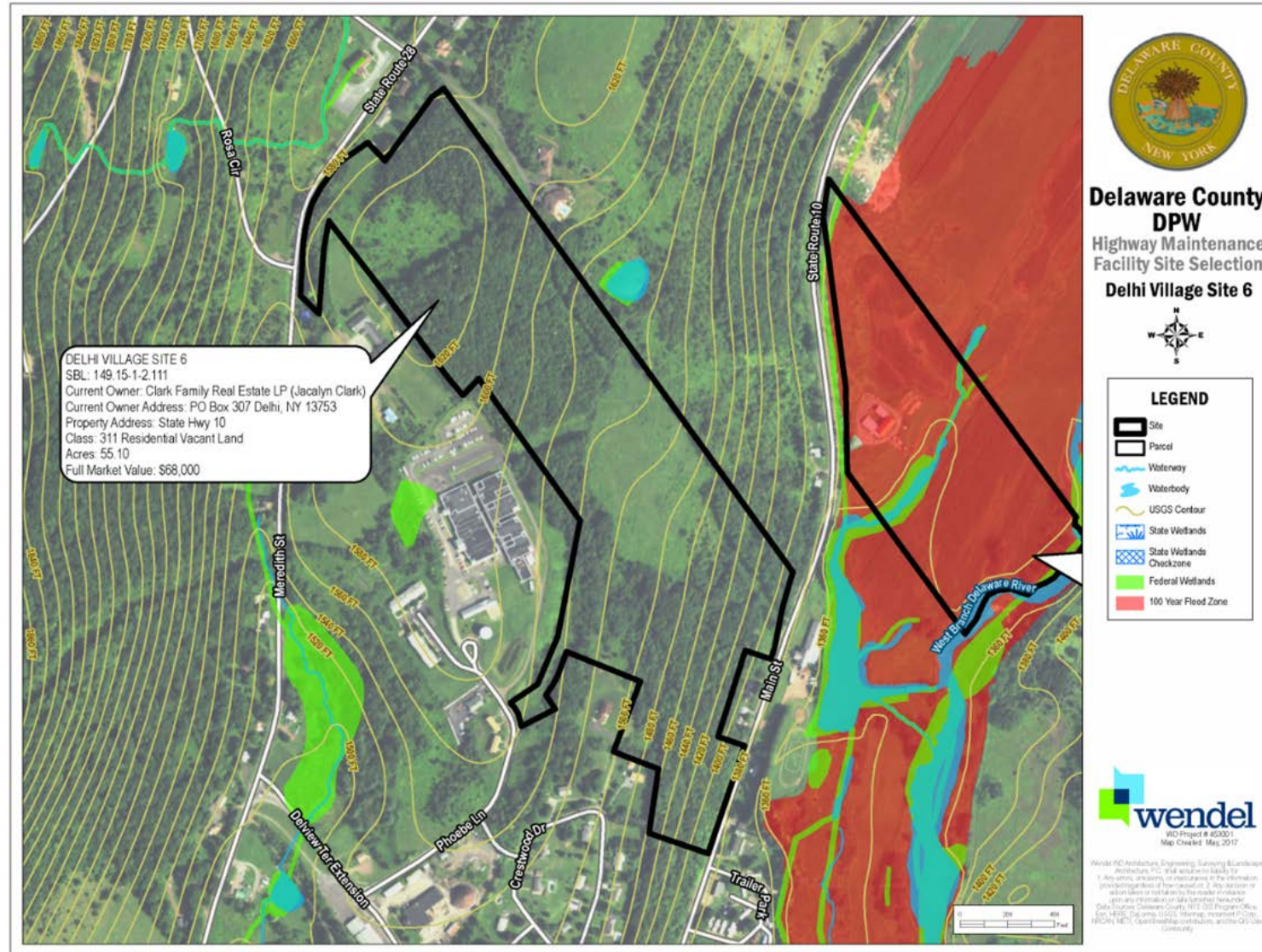
- Steep Topography
- Capital Costs
- Access & Sight Distance
- Distance to C.O. (8 Miles)
- Single Phase Power

Candidate Sites

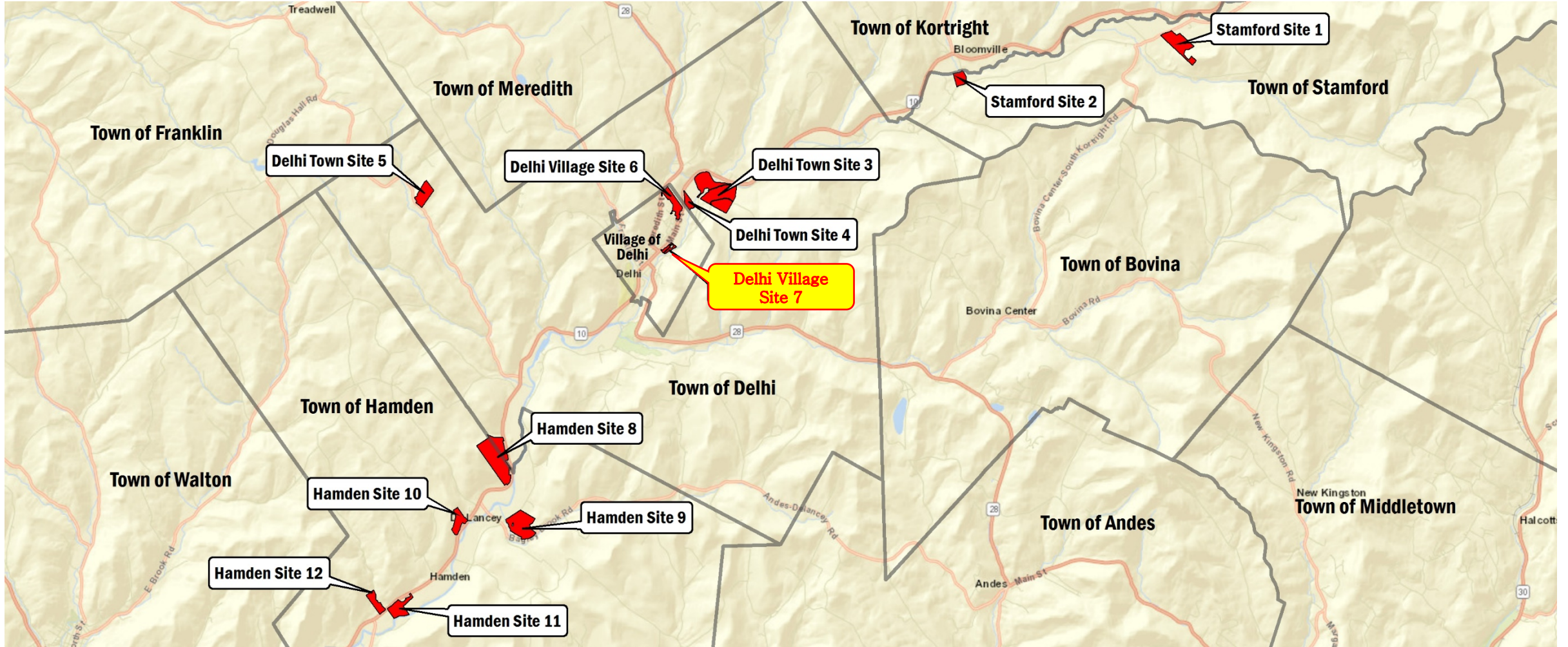


Site 6

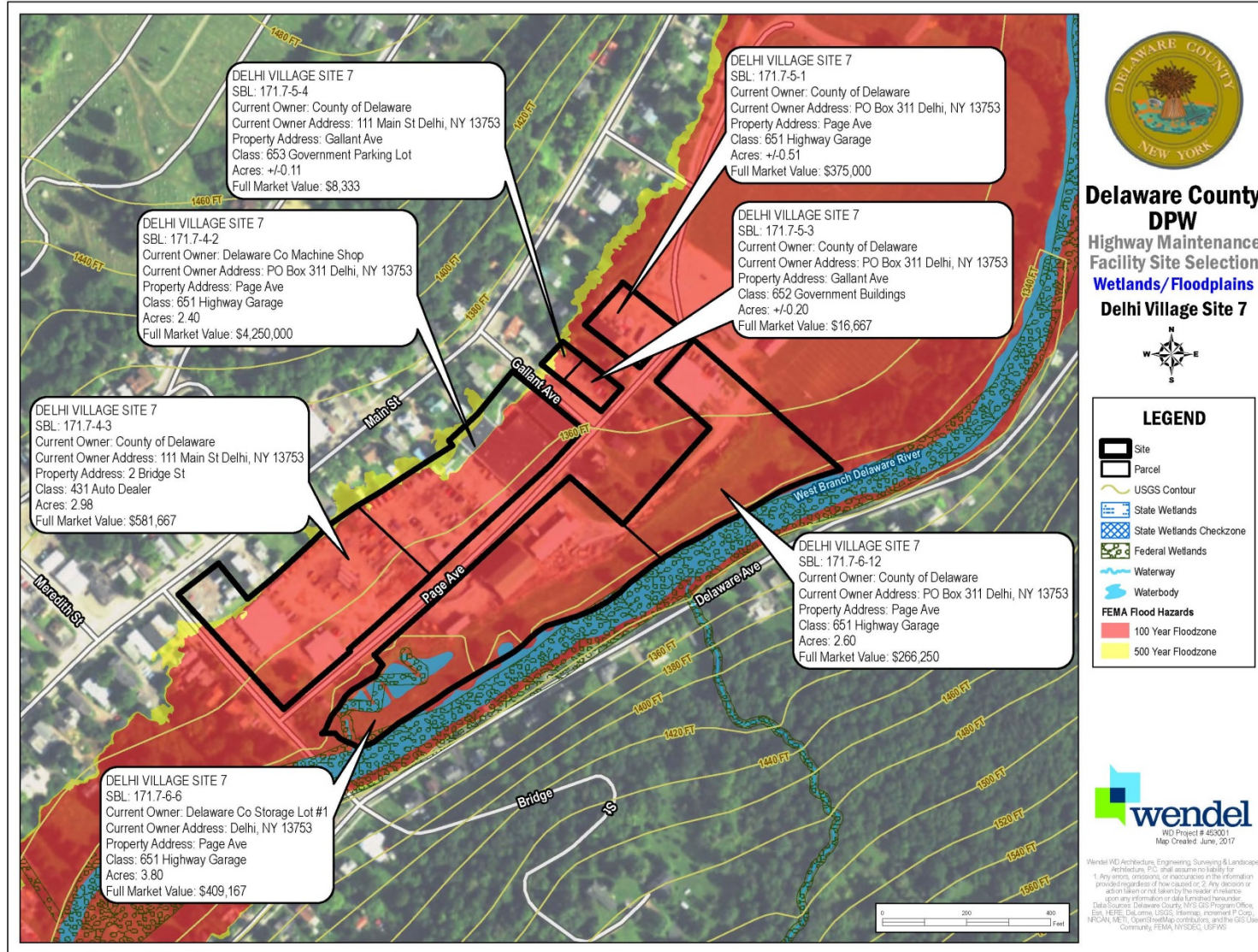
NOT AVAILABLE



Candidate Sites



Site 7



Site 7

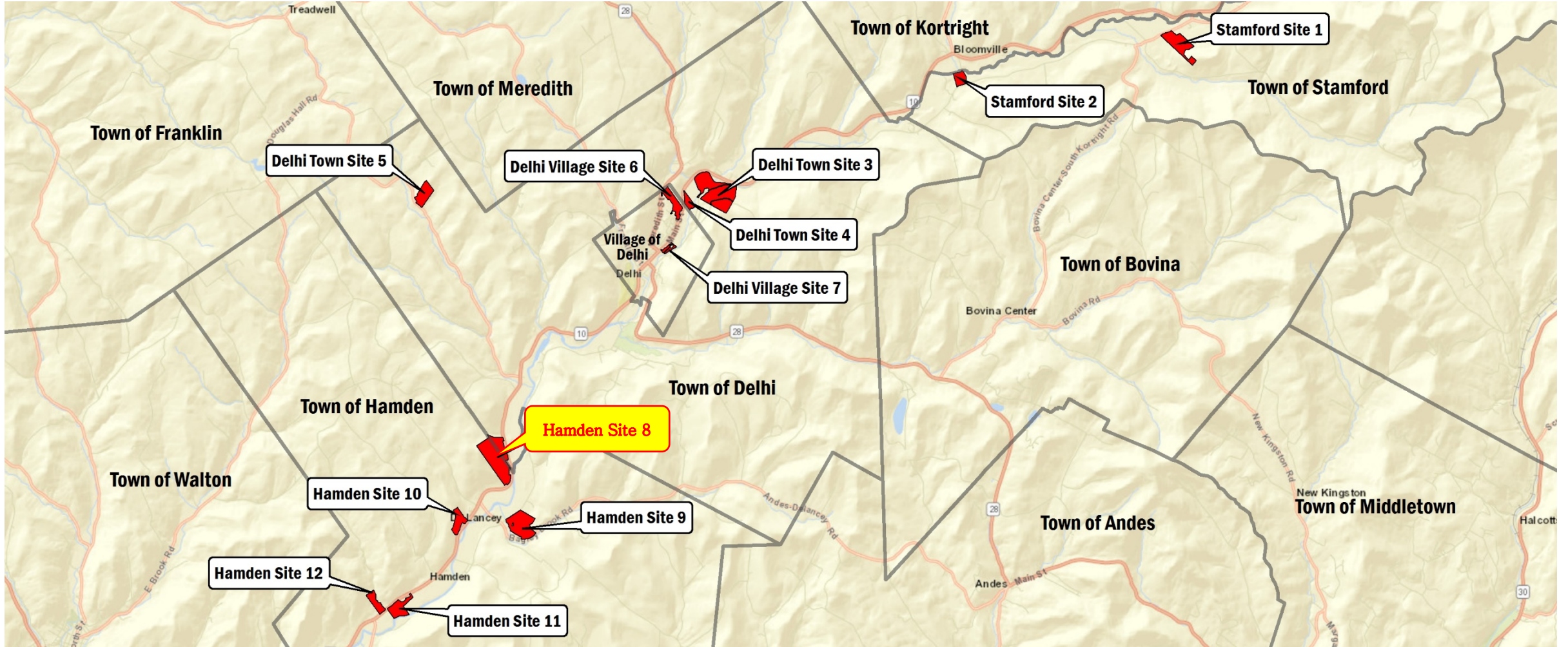
Positive Attributes

- Utilities
- Distance to C.O.
- Topography is flat
- Existing Neighborhood

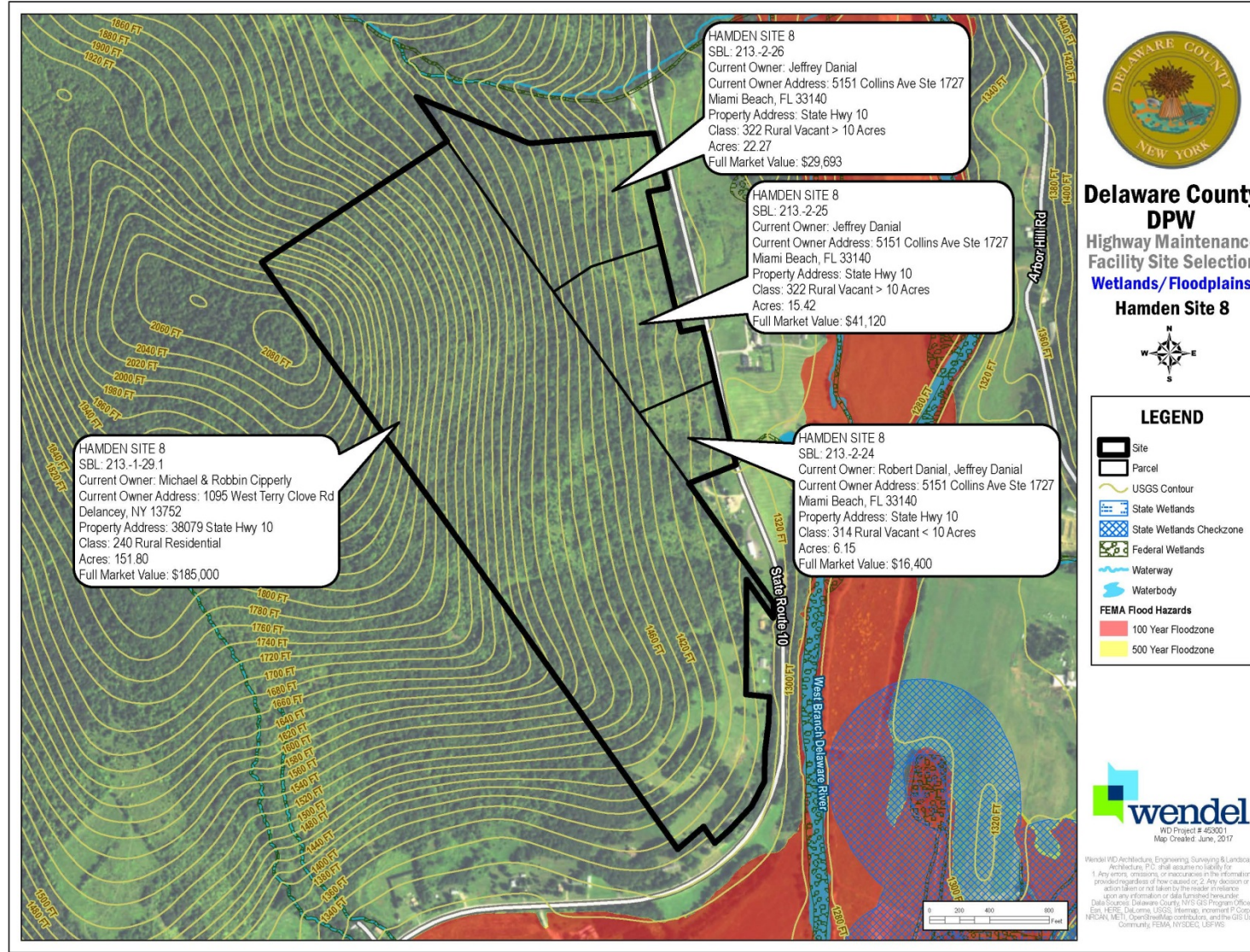
Negative Attributes

- Entire site in Floodplain
- Capital Costs – Build-up Site
- Access at Time of Flood
- Fill at Old Mill Pond – Deep Foundations

Candidate Sites



Site 8



Site 8

Positive Attributes

- Out of Floodplain

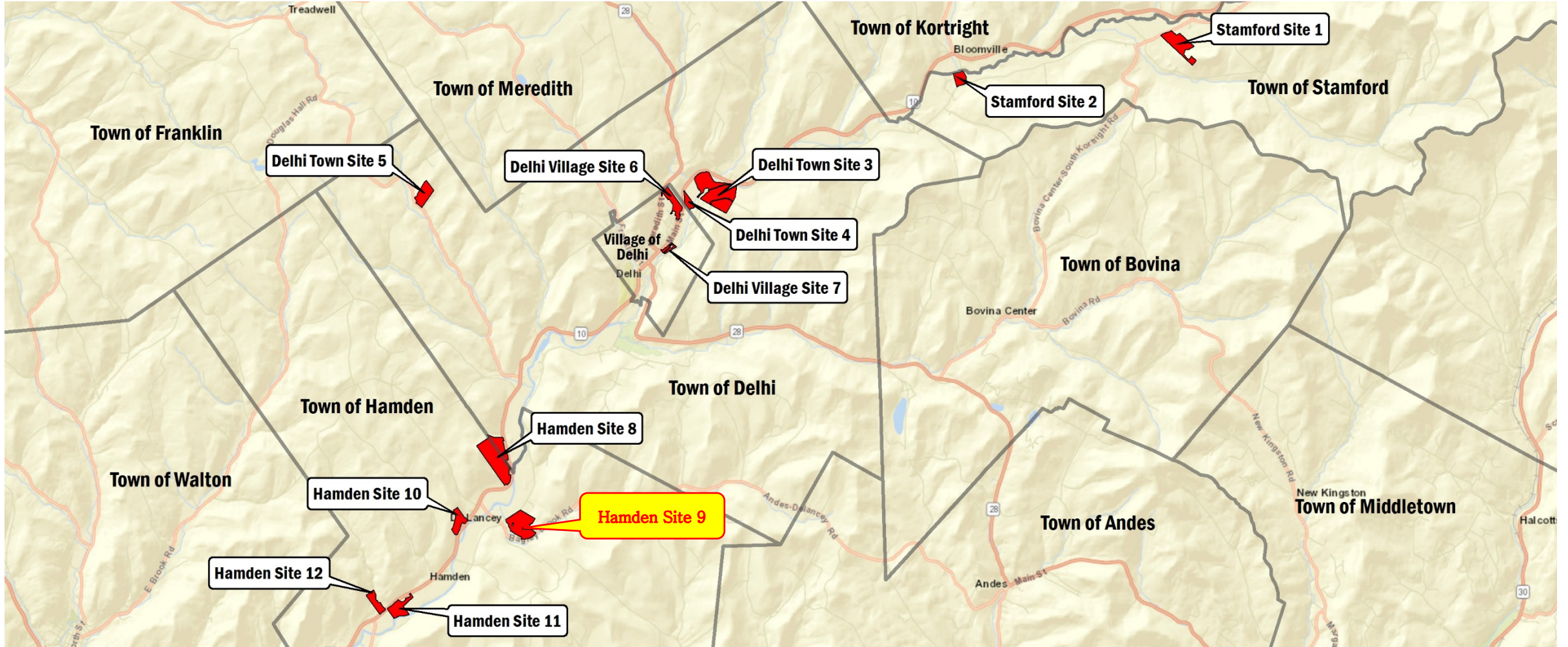


Negative Attributes

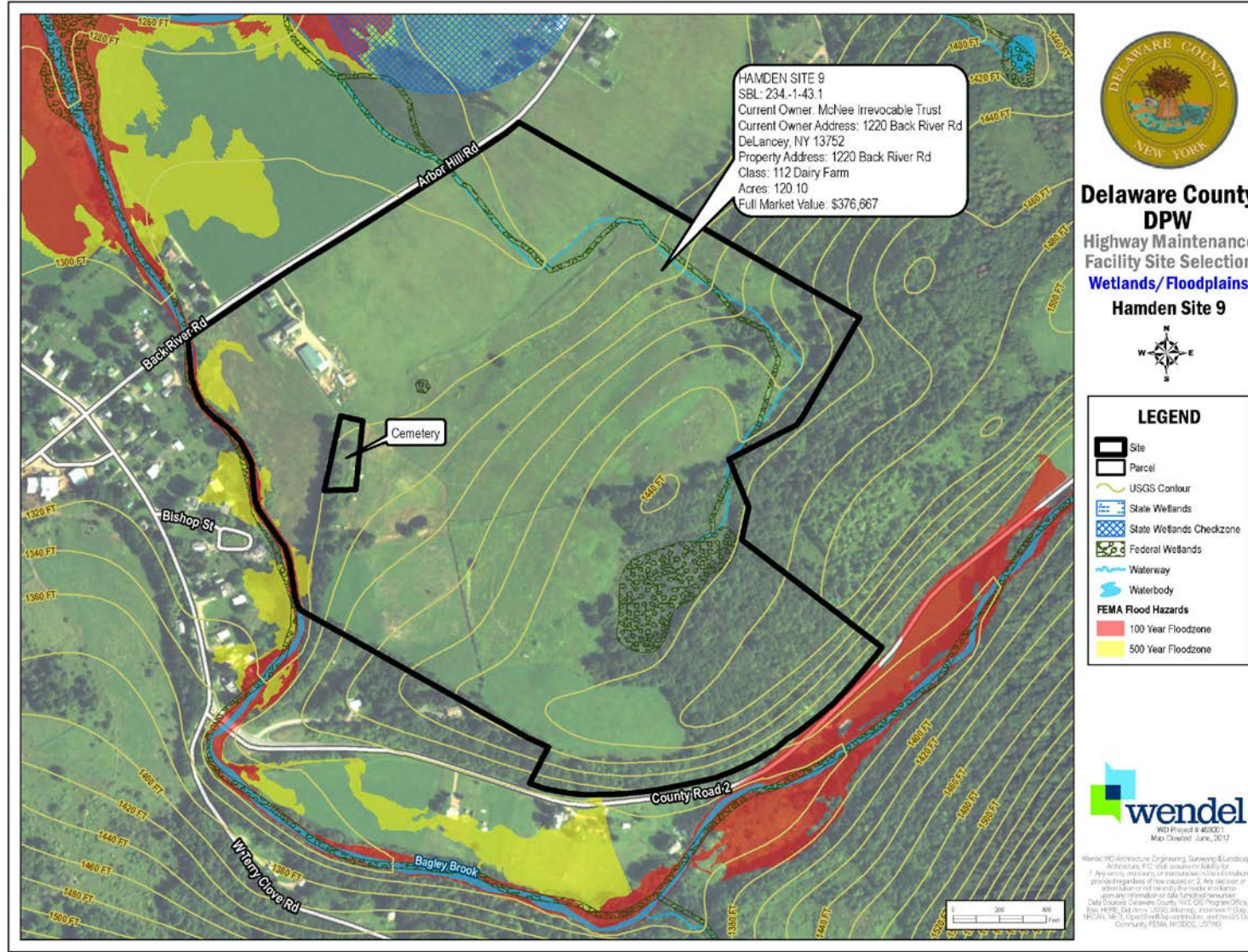
- Steep Topography
- Capital Costs
- Access, Speed Limit & Sight Distance
- Neighborhood



Candidate Sites



Site 9



Site 9

Positive Attributes

- Flat Area for Development
- Out of Floodplain

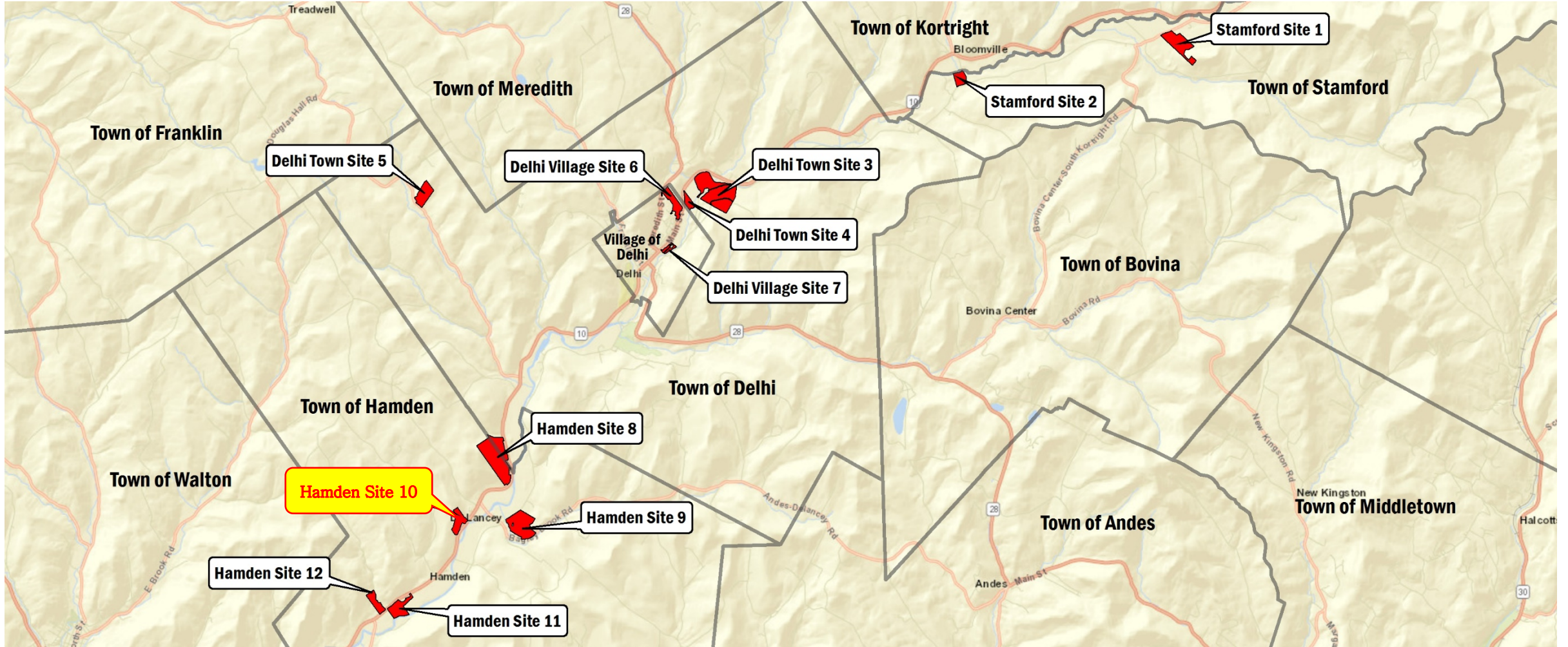


Negative Attributes

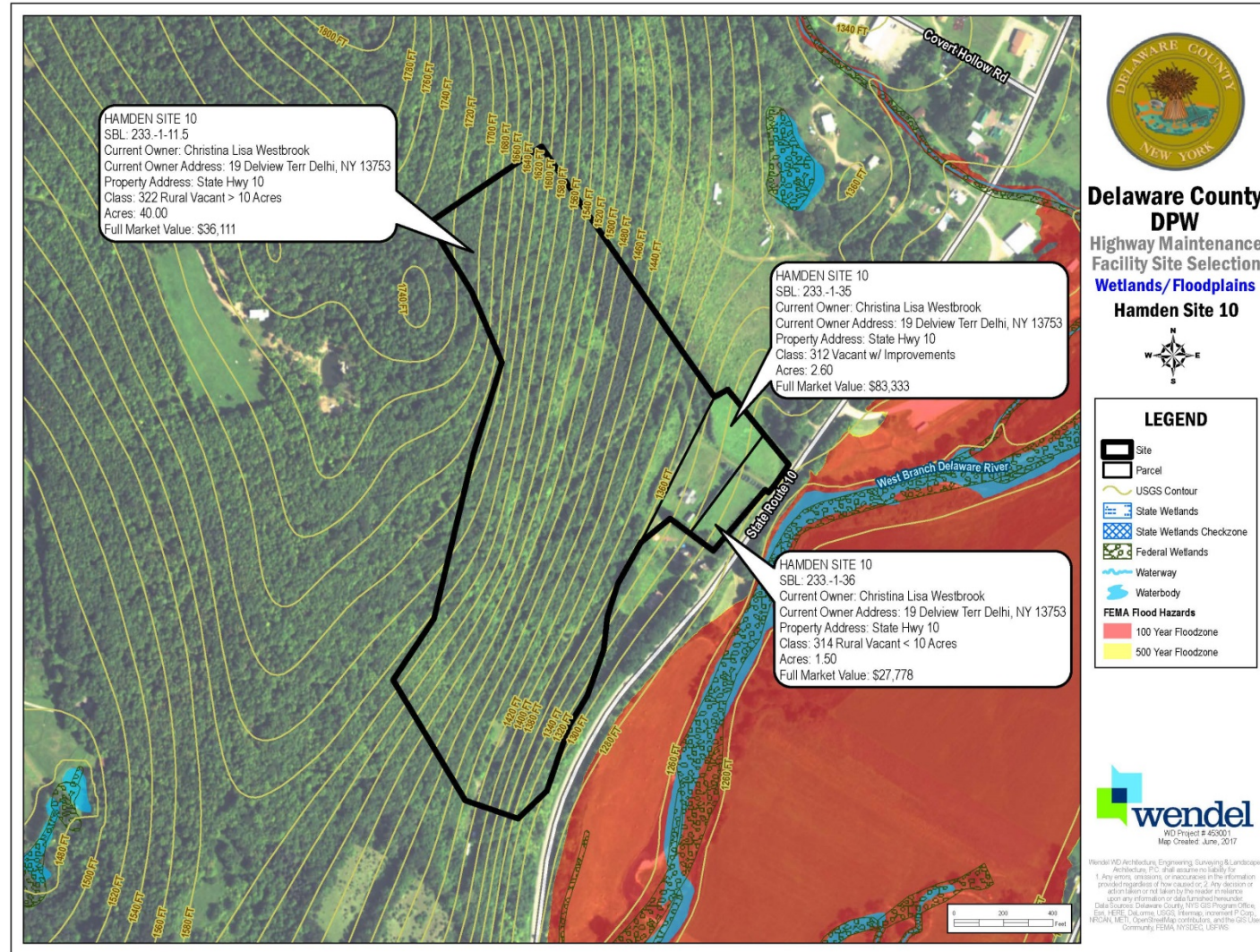
- Access – Bridge Approach in Floodplain
- Distance to C.O. (8 miles)
- Capital Costs – Narrow Road/Bridge/Intersections at CR2 and SR10 and CR2 and Backriver
- Neighborhood
- Cemetery



Candidate Sites



Site 10



Site 10

Positive Attributes

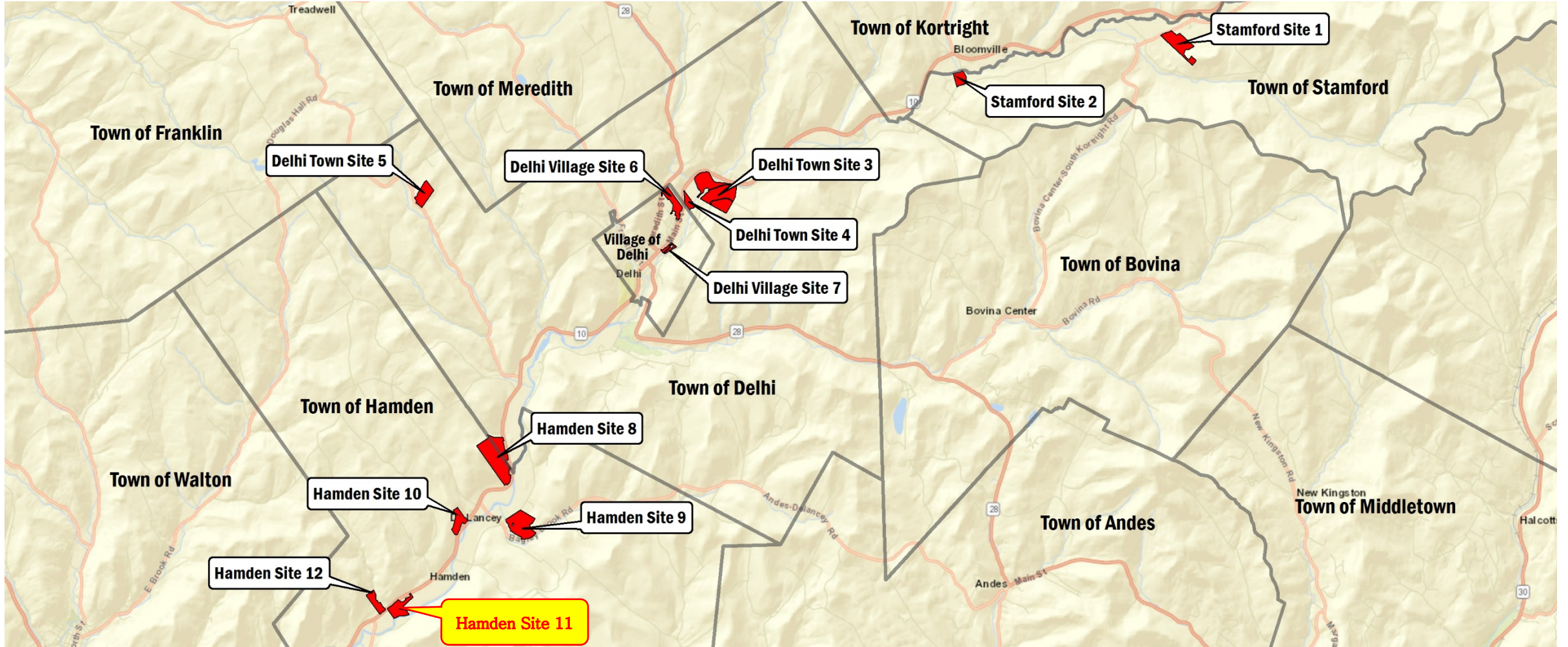
- Out of Floodplain
- Neighborhood



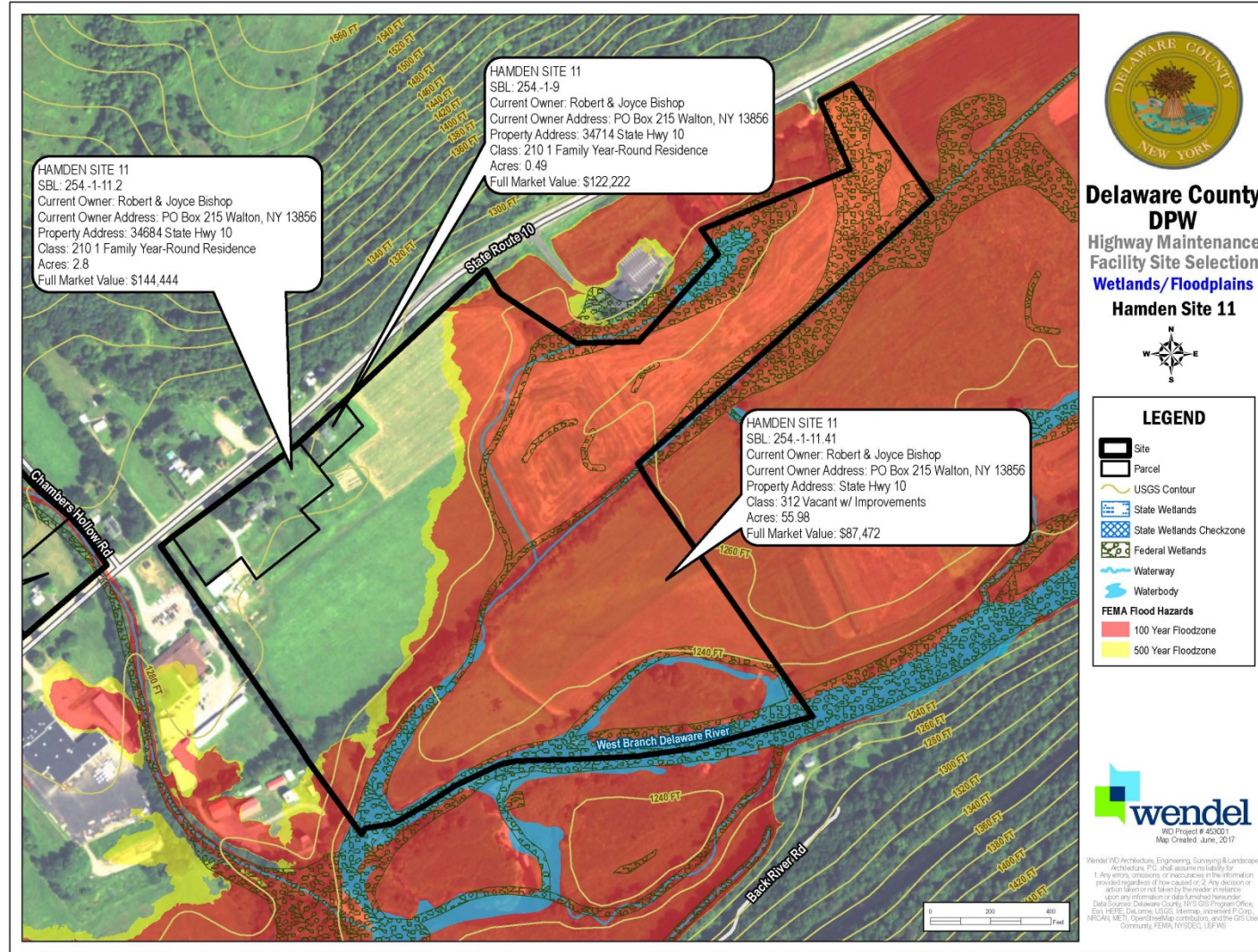
Negative Attributes

- Steep Topography
- Capital Costs
- Access, Speed Limit and Sight Distance

Candidate Sites



Site 11



Site 11

Positive Attributes

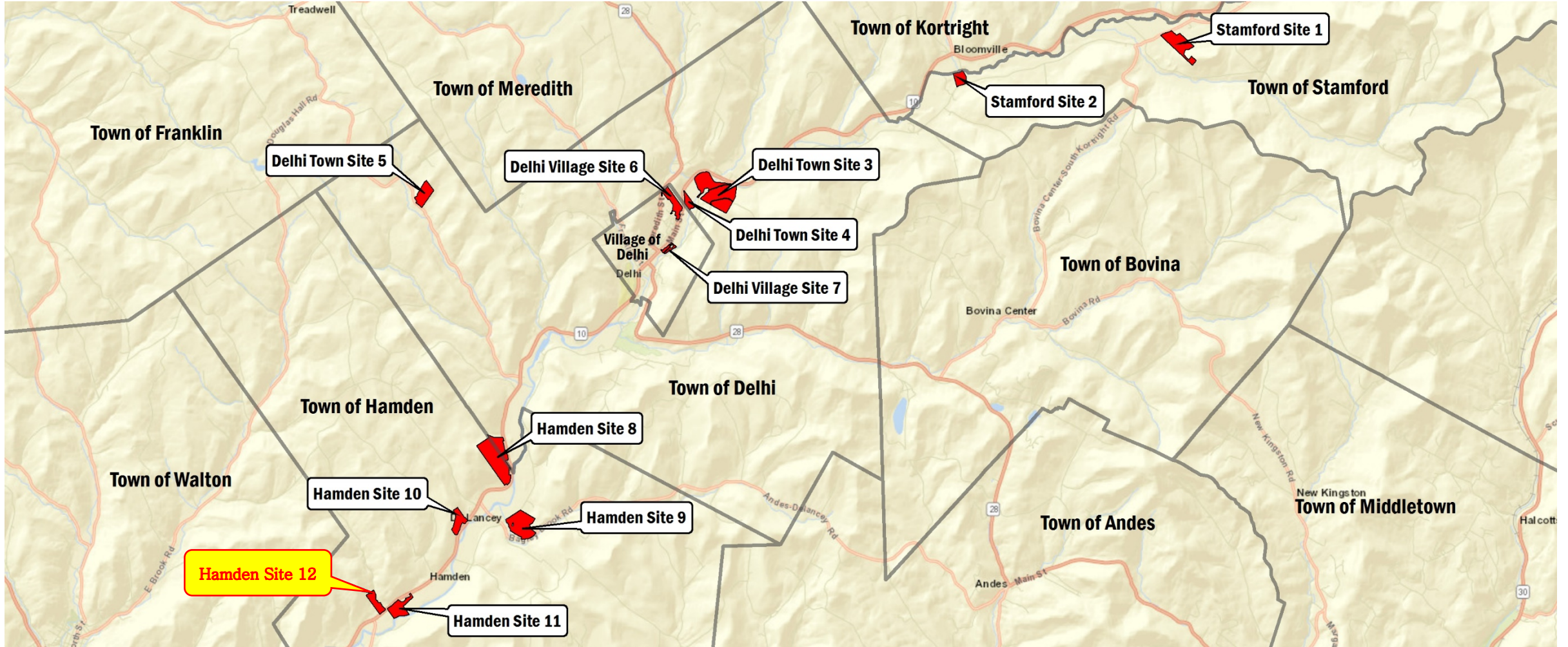
- Capital Costs
- Flat area for Development
- Development area Out of Floodplain



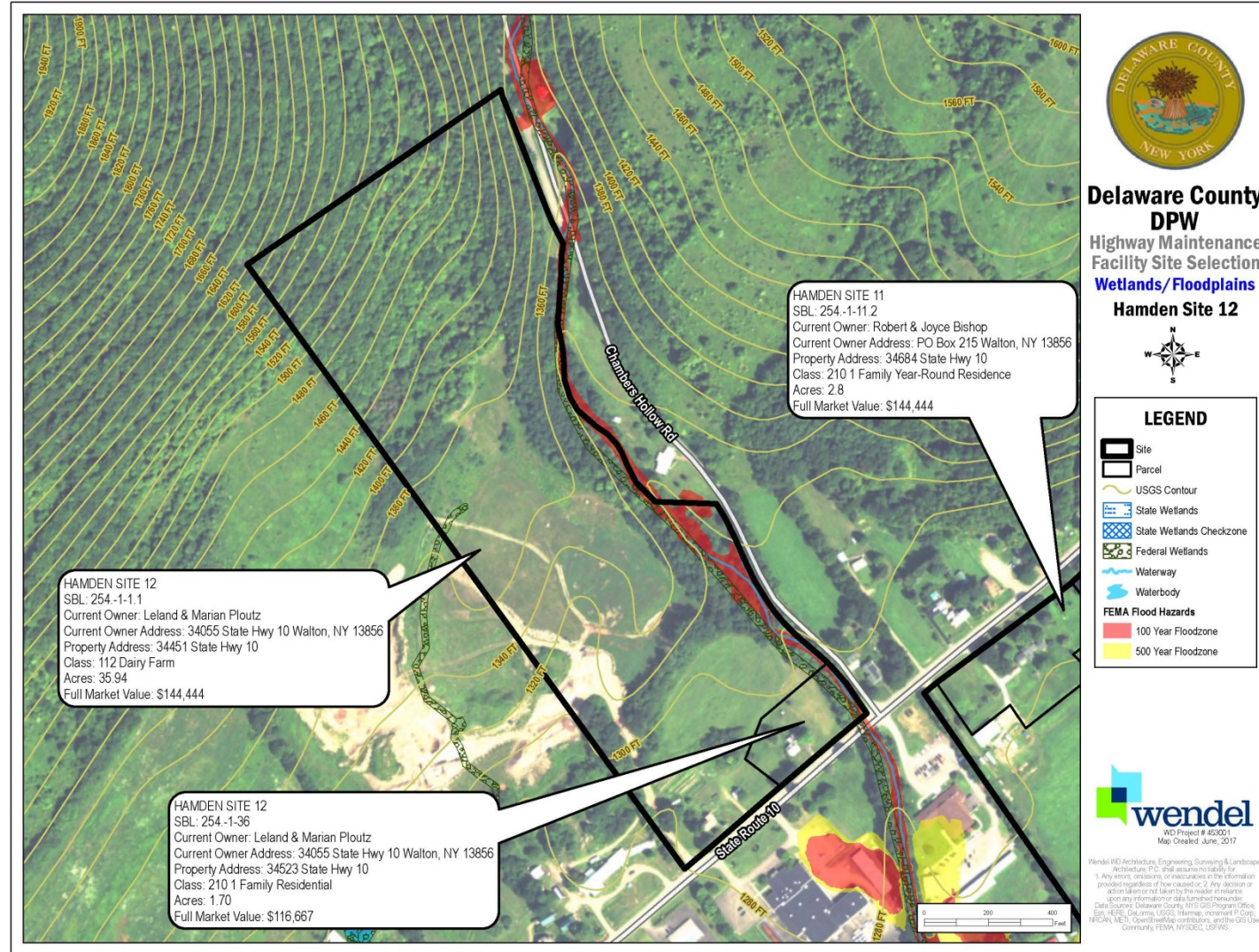
Negative Attributes

- Distance to C.O. (10 Miles)
- Neighborhood/Church
- Access, Speed Limit & Sight Distance
- Demolition

Candidate Sites



Site 12



Site 12

Positive Attributes

- Out of Floodplain
- Gravel Soils



Negative Attributes

- Steep Topography
- Capital Costs
- Access, Speed Limit & Sight Distance
- Environmental
- Distance to C.O. (10 Miles)

Site Ranking

Selection Criteria	Average Weight	Site 1		Site 2		Site 3		Site 4	
		Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Access	12.67%	5	63.35	2	25.34	3	38.01	4	50.68
Capital Costs	12.56%	7	87.92	7	87.92	4	50.24	2	25.12
Demolition	6.00%	10	60	10	60	10	60	10	60
Environmental	8.00%	7	56	6	48	6	48	5	40
Flood Plain	14.11%	9	126.99	9	126.99	8	112.88	0	0
Neighborhood	6.61%	9	59.49	7	46.27	7	46.27	10	66.1
Inc. Operational Costs	11.33%	3	33.99	6	67.98	9	101.97	8	90.64
Soils	8.44%	8	67.52	6	50.64	6	50.64	5	42.2
Topography	6.39%	8	51.12	6	38.34	10	63.9	3	19.17
Utilites	8.39%	6	50.34	6	50.34	5	41.95	6	50.34
Water	5.50%	5	27.5	5	27.5	8	44	8	44
Total	100.00%		684.22		629.32		657.86		488.25
Ranking		2		6		3		11	

Site Ranking

Selection Criteria	Average Weight	Site 5		Site 6		Site 7		Site 8	
		Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Access	12.67%	6	76.02	1		4	50.68	5	63.35
Capital Costs	12.56%	5	62.8	2		2	25.12	2	25.12
Demolition	6.00%	10	60	10		1	6	8	48
Environmental	8.00%	8	64	6		3	24	6	48
Flood Plain	14.11%	10	141.1	10		0	0	10	141.1
Neighborhood	6.61%	8	52.88	5		9	59.49	8	52.88
Inc. Operational Costs	11.33%	6	67.98	9		10	113.3	7	79.31
Soils	8.44%	6	50.64	8		4	33.76	5	42.2
Topography	6.39%	4	25.56	4		10	63.9	2	12.78
Utilites	8.39%	2	16.78	6		10	83.9	6	50.34
Water	5.50%	4	22	8		10	55	4	22
Total	100.00%		639.76				515.15		585.08
Ranking			5				10		9

Site Ranking

Selection Criteria	Average Weight	Site 9		Site 10		Site 11		Site 12	
		Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Access	12.67%	6	76.02	5	63.35	6	76.02	6	76.02
Capital Costs	12.56%	7	87.92	3	37.68	8	100.48	5	62.8
Demolition	6.00%	9	54	7	42	7	42	9	54
Environmental	8.00%	7	56	7	56	6	48	6	48
Flood Plain	14.11%	10	141.1	10	141.1	7	98.77	9	126.99
Neighborhood	6.61%	6	39.66	9	59.49	7	46.27	7	46.27
Inc. Operational Costs	11.33%	5	56.65	6	67.98	5	56.65	5	56.65
Soils	8.44%	6	50.64	6	50.64	6	50.64	6	50.64
Topography	6.39%	10	63.9	2	12.78	8	51.12	3	19.17
Utilites	8.39%	6	50.34	6	50.34	6	50.34	6	50.34
Water	5.50%	4	22	4	22	5	27.5	5	27.5
Total	100.00%		698.23		603.36		647.79		618.38
Ranking		1		8		4		7	

Top 4 Highest Ranked Sites

Selection Criteria	Average Weighting	Site 9		Site 1		Site 3		Site 11	
		Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Access	12.67 %	6	76.02	5	63.35	3	38.01	6	76.02
Capital Cost	12.56 %	7	87.92	7	87.92	4	50.24	8	100.48
Demolition	6.00 %	9	54.00	10	60.00	10	60.00	7	42.00
Environmental	8.00 %	7	56.00	7	56.00	6	48.00	6	48.00
Flood Plain	14.11 %	10	141.10	9	129.99	8	112.88	7	98.77
Neighborhood	6.61 %	6	39.66	9	59.49	7	46.27	7	46.27
Increased Operational Costs	11.33 %	5	56.65	3	33.99	9	101.97	5	56.65
Soils	8.44 %	6	50.64	8	67.52	6	50.64	6	50.64
Topography	6.34 %	10	63.90	8	51.12	10	63.90	8	51.12
Utilities	8.39 %	6	50.34	6	50.34	5	41.95	6	50.34
Water	5.50 %	4	22.00	5	27.50	8	44.00	5	27.50
Total	100 %	698.23		684.22		657.86		647.79	
Ranking		1		2		3		4	

Next Steps

1. TOP 4 SITES

- Due Diligence - Environmental Impact Paper Search
- Contact Local Code Officials
- Test Fitting – Conceptual Design/Cost Estimate/Schedule
- Traffic and Site Access (Bridges, Roads, Intersections, etc.)
- Assess Operational Costs

2. TOP RANKED SITE

- Preliminary Design/Cost Estimate
- SEQR
 - Detailed Impact Assessments
- Temporary Relocation – TBD (?)
- Acquisition
- Final Design/Cost Estimate
- Bidding
- Construction

Questions