

DESIGN OR DELIVERY NOTES

FOLLOW-UP NEEDED TO COMPLETE FIELD CONCEPT

- | | |
|---|--|
| <input type="checkbox"/> Confirm property ownership | <input type="checkbox"/> Obtain existing stormwater practice as-builts |
| <input type="checkbox"/> Confirm drainage area | <input type="checkbox"/> Obtain site as-builts |
| <input type="checkbox"/> Confirm drainage area impervious cover | <input type="checkbox"/> Obtain detailed topography |
| <input type="checkbox"/> Confirm volume computations | <input type="checkbox"/> Obtain utility mapping |
| <input type="checkbox"/> Complete concept sketch | <input type="checkbox"/> Confirm storm drain invert elevations |
| <input type="checkbox"/> Other: _____ | <input type="checkbox"/> Confirm soil types |

INITIAL FEASIBILITY AND CONSTRUCTION CONSIDERATIONS

SITE CANDIDATE FOR FURTHER INVESTIGATION:

☐ YES☒ NO☐ MAYBE

IS SITE CANDIDATE FOR EARLY ACTION PROJECT(S):

☐ YES☒ NO☐ MAYBE

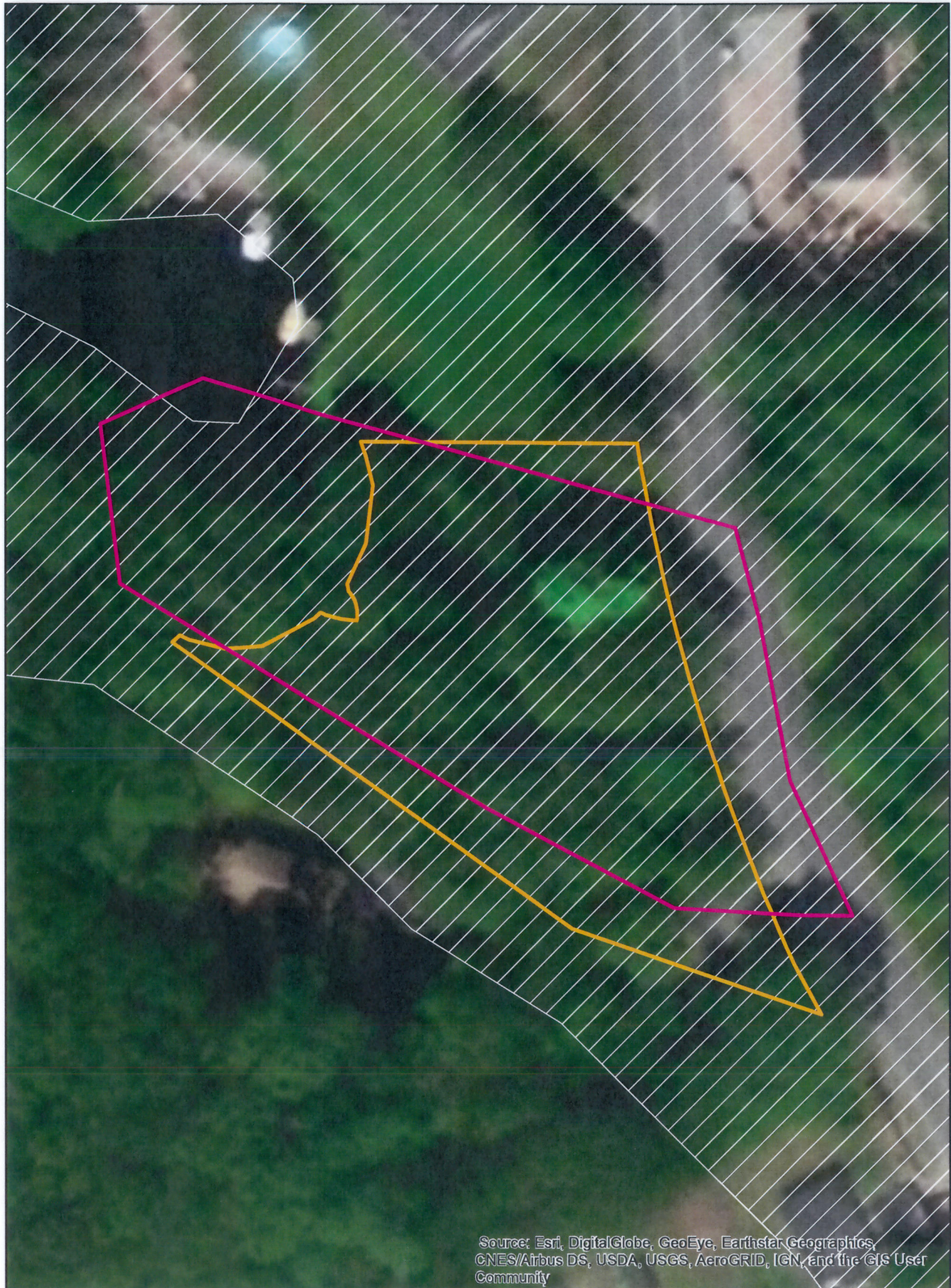
IF NO, SITE CANDIDATE FOR OTHER RESTORATION PROJECT(S):

☐ YES☐ NO☐ MAYBEIF YES, TYPE(S): invasive Sp. removal + ref. for

Site Name: Glen Echo Lake Public Access

Site Number: 14

0 30 60 120
Feet



Site Name: Glen Echo Lake Public Access
Site Number: 14



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,
CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User
Community

815

WATERSHED: <u>Charlton</u>		SUBWATERSHED:		UNIQUE SITE ID: <u>15</u>	
DATE: <u>12/4/18</u>	ASSESSED BY: <u>RWHF</u>	CAMERA ID: <u>2</u>	PICTURES: <u>815-839</u>		
GPS ID:	LMK ID:	LAT:	LONG:		
SITE DESCRIPTION					
Name: <u>Prindle Lake Park</u>					
Address: <u>Prindle Hill Rd</u>					
Ownership: <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Unknown					
If Public, Government Jurisdiction: <input checked="" type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> DOT <input type="checkbox"/> Other: _____					
Corresponding USSR/USA Field Sheet? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, Unique Site ID: _____					
Proposed Retrofit Location:					
Storage			On-Site		
<input type="checkbox"/> Existing Pond	<input type="checkbox"/> Above Roadway Culvert	<input type="checkbox"/> Hotspot Operation	<input type="checkbox"/> Individual Rooftop		
<input type="checkbox"/> Below Outfall	<input type="checkbox"/> In Conveyance System	<input checked="" type="checkbox"/> Small Parking Lot	<input type="checkbox"/> Small Impervious Area		
<input type="checkbox"/> In Road ROW	<input checked="" type="checkbox"/> Near <u>Large</u> Parking Lot	<input type="checkbox"/> Individual Street	<input type="checkbox"/> Landscape / Hardscape		
<input type="checkbox"/> Other: _____		<input type="checkbox"/> Underground	<input type="checkbox"/> Other: _____		
DRAINAGE AREA TO PROPOSED RETROFIT					
Drainage Area ≈ _____			Drainage Area Land Use:		
Imperviousness ≈ _____ %			<input type="checkbox"/> Residential <input type="checkbox"/> Institutional		
Impervious Area ≈ _____			<input type="checkbox"/> SFH (< 1 ac lots) <input type="checkbox"/> Industrial		
Notes:			<input type="checkbox"/> SFH (> 1 ac lots) <input type="checkbox"/> Transport-Related		
			<input type="checkbox"/> Townhouses <input checked="" type="checkbox"/> Park		
			<input type="checkbox"/> Multi-Family <input type="checkbox"/> Undeveloped		
			<input type="checkbox"/> Commercial <input type="checkbox"/> Other: _____		
EXISTING STORMWATER MANAGEMENT					
Existing Stormwater Practice: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible					
If Yes, Describe:					
Describe Existing Site Conditions, Including Existing Site Drainage and Conveyance:					
<u>No improved drainage</u> <u>Parking lot w/ sediment @ lowest edge (west)</u> <u>guardrail btwn lot & proposed loc'n</u>					

PROPOSED RETROFIT

Purpose of Retrofit:

- ☒ Water Quality ☐ Recharge ☐ Channel Protection ☐ Flood Control
☒ Demonstration / Education ☐ Repair ☐ Other: Quantity reduction

Proposed Treatment Option:

- ☐ Extended Detention ☐ Wet Pond ☐ Created Wetland ☒ Bioretention Linear
☐ Filtering Practice ☐ Infiltration ☐ Swale ☐ Other: _____

Describe Elements of Proposed Retrofit, Including Surface Area, Maximum Depth of Treatment, and Conveyance:

linear bioretention installed west of guardrail
 w/ grass maintained
 possible swales along road + lot to carry water to BRB

SITE CONSTRAINTS

Adjacent Land Use:

- ☒ Residential ☐ Commercial ☐ Institutional
☐ Industrial ☐ Transport-Related ☐ Park
☐ Undeveloped ☐ Other: _____

Possible Conflicts Due to Adjacent Land Use? ☐ Yes ☐ No

If Yes, Describe:

Access:

☒ No Constraints

Constrained due to

- ☐ Slope ☐ Space
☐ Utilities ☐ Tree Impacts
☐ Structures ☐ Property Ownership
☐ Other: _____

Conflicts with Existing Utilities:

- ☐ None
☐ Unknown
 Yes Possible
☐ ☒ Sewer
☐ ☒ Water
☐ ☒ Gas
☐ ☒ Cable
☐ ☐ Electric
☐ ☐ Electric to Streetlights
☒ ☐ Overhead Wires
☐ ☐ Other: _____

*Not likely
 (No markings)*

Potential Permitting Factors:

- Dam Safety Permits Necessary ☐ Probable ☒ Not Probable
 Impacts to Wetlands ☐ Probable ☒ Not Probable
 Impacts to a Stream ☐ Probable ☒ Not Probable
 Floodplain Fill ☐ Probable ☒ Not Probable
 Impacts to Forests ☐ Probable ☒ Not Probable
 Impacts to Specimen Trees ☐ Probable ☒ Not Probable

How many? _____

Approx. DBH _____

*exceptions - roots along
 roads etc
 - see sketch*

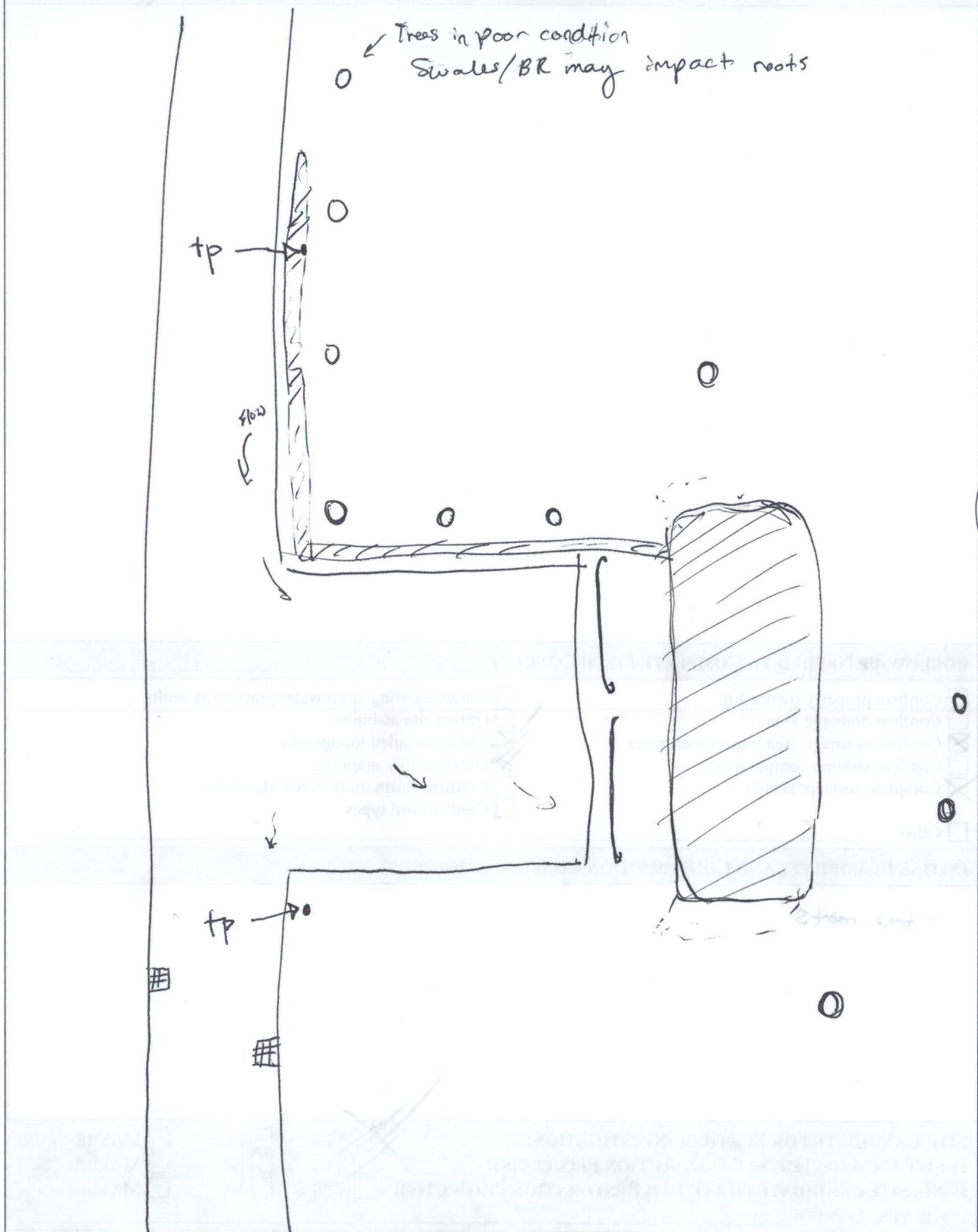
Other factors: _____

Soils:

- Soil auger test holes: ☐ Yes ☒ No
 Evidence of poor infiltration (clays, fines): ☐ Yes ☒ No
 Evidence of shallow bedrock: ☐ Yes ☒ No
 Evidence of high water table (gleying, saturation): ☐ Yes ☒ No



SKETCH



DESIGN OR DELIVERY NOTES

FOLLOW-UP NEEDED TO COMPLETE FIELD CONCEPT

- | | |
|--|--|
| <input checked="" type="checkbox"/> Confirm property ownership | <input type="checkbox"/> Obtain existing stormwater practice as-builts |
| <input type="checkbox"/> Confirm drainage area | <input type="checkbox"/> Obtain site as-builts |
| <input checked="" type="checkbox"/> Confirm drainage area impervious cover | <input checked="" type="checkbox"/> Obtain detailed topography |
| <input type="checkbox"/> Confirm volume computations | <input checked="" type="checkbox"/> Obtain utility mapping |
| <input checked="" type="checkbox"/> Complete concept sketch | <input type="checkbox"/> Confirm storm drain invert elevations |
| <input type="checkbox"/> Other: _____ | <input type="checkbox"/> Confirm soil types |

INITIAL FEASIBILITY AND CONSTRUCTION CONSIDERATIONS

SITE CANDIDATE FOR FURTHER INVESTIGATION:

IS SITE CANDIDATE FOR EARLY ACTION PROJECT(S):

IF NO, SITE CANDIDATE FOR OTHER RESTORATION PROJECT(S):

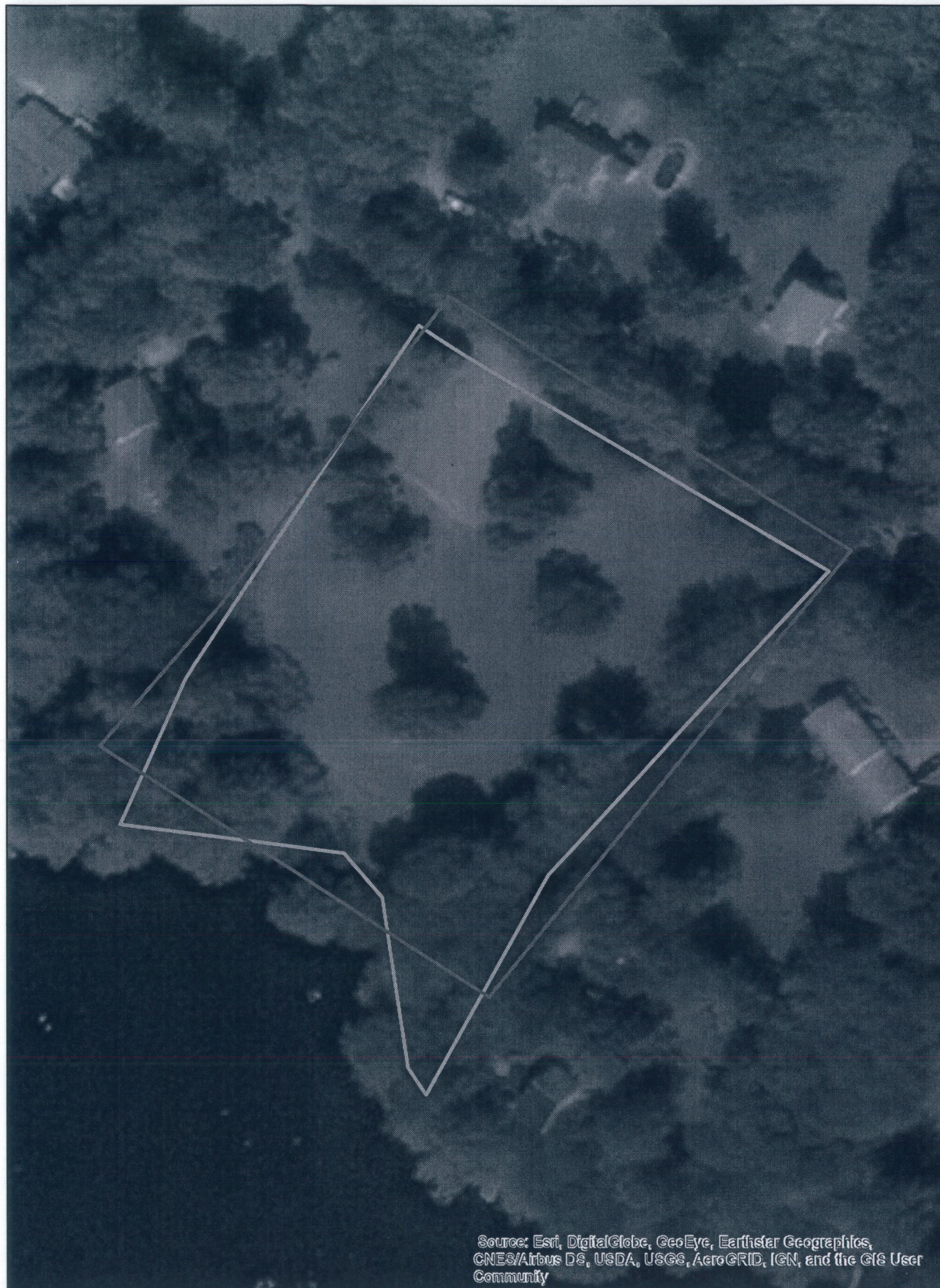
IF YES, TYPE(S): _____

- | | | |
|---|-----------------------------|--------------------------------|
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> MAYBE |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> MAYBE |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> MAYBE |

Site Name: Prindle Lake Park

Site Number: 15

0 40 80 160 Feet

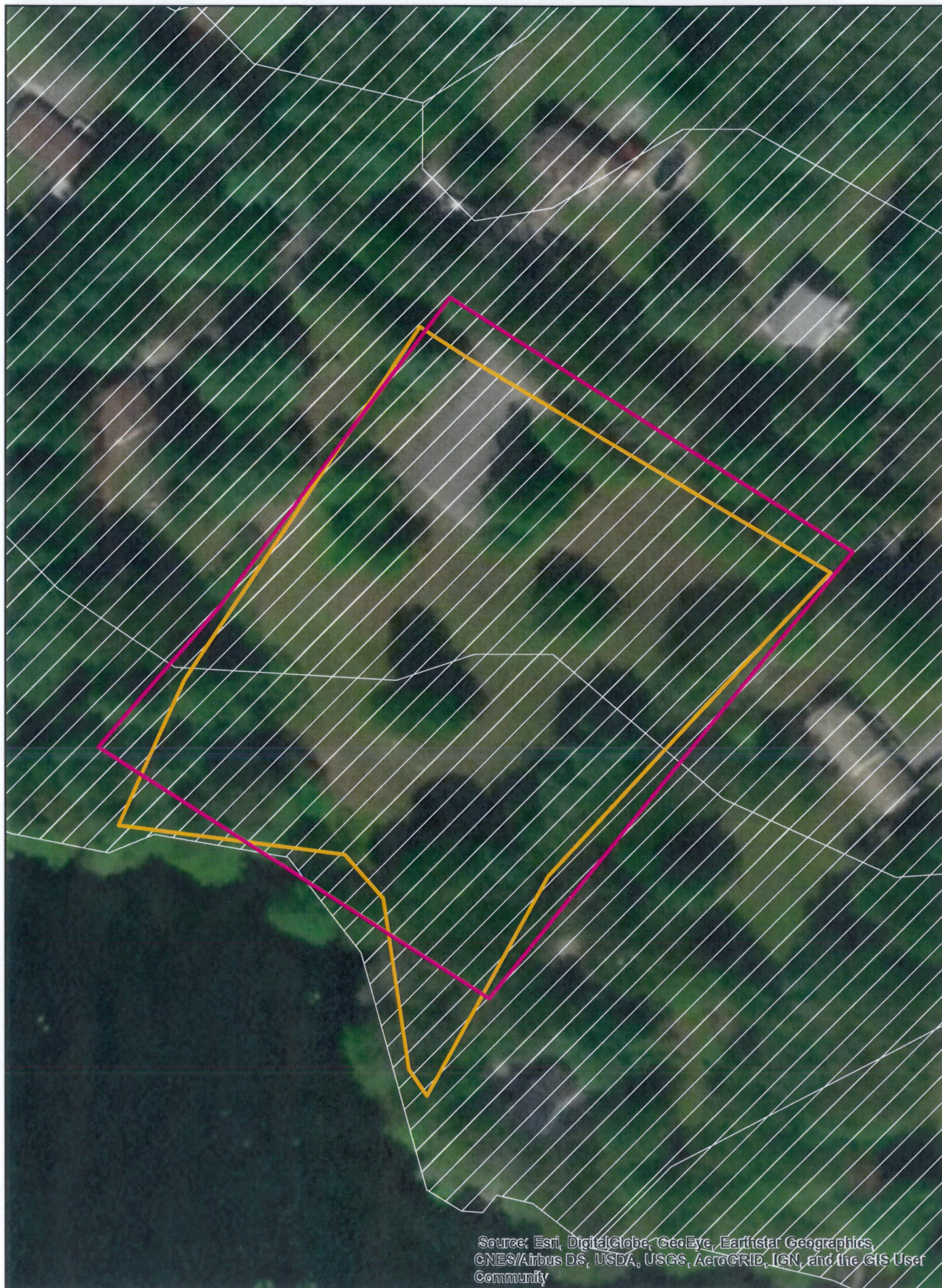


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,
CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User
Community

Site Name: Prindle Lake Park

Site Number: 15

0 40 80 160 Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

WATERSHED: <u>Spencer</u>		SUBWATERSHED:		UNIQUE SITE ID: <u>16</u>	
DATE: <u>12/4/18</u>		ASSESSED BY: <u>RW HF</u>		CAMERA ID: <u>2</u>	
GPS ID:		LMK ID:		LAT:	
				LONG:	
SITE DESCRIPTION					
Name: <u>Howe State Park</u>					
Address: <u>Howe Road</u>					
Ownership: <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Unknown					
If Public, Government Jurisdiction: <input type="checkbox"/> Local <input checked="" type="checkbox"/> State <input type="checkbox"/> DOT <input type="checkbox"/> Other: _____					
Corresponding USSR/USA Field Sheet? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, Unique Site ID: _____					
Proposed Retrofit Location:					
Storage					
<input type="checkbox"/> Existing Pond <input type="checkbox"/> Above Roadway Culvert					
<input type="checkbox"/> Below Outfall <input type="checkbox"/> In Conveyance System					
<input type="checkbox"/> In Road ROW <input checked="" type="checkbox"/> Near Large Parking Lot					
<input type="checkbox"/> Other: _____					
On-Site					
<input type="checkbox"/> Hotspot Operation <input type="checkbox"/> Individual Rooftop					
<input type="checkbox"/> Small Parking Lot <input type="checkbox"/> Small Impervious Area					
<input type="checkbox"/> Individual Street <input type="checkbox"/> Landscape / Hardscape					
<input type="checkbox"/> Underground <input type="checkbox"/> Other: _____					
DRAINAGE AREA TO PROPOSED RETROFIT					
Drainage Area ≈ _____			Drainage Area Land Use:		
Imperviousness ≈ _____ %			<input type="checkbox"/> Residential <input type="checkbox"/> Institutional		
Impervious Area ≈ _____			<input type="checkbox"/> SFH (< 1 ac lots) <input type="checkbox"/> Industrial		
Notes:			<input type="checkbox"/> SFH (> 1 ac lots) <input type="checkbox"/> Transport-Related		
			<input type="checkbox"/> Townhouses <input checked="" type="checkbox"/> Park		
			<input type="checkbox"/> Multi-Family <input type="checkbox"/> Undeveloped		
			<input type="checkbox"/> Commercial <input type="checkbox"/> Other: _____		
EXISTING STORMWATER MANAGEMENT					
Existing Stormwater Practice: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible					
If Yes, Describe:					
Describe Existing Site Conditions, Including Existing Site Drainage and Conveyance:					
<p>Site is about 1 acre. Parking area w/ 4 bays of paved 90° double parking (on each side of bay) w/ wide green belts in between (appx 15-20'). Slopes evenly from back of lot @ woods edge to front of lot which which zeros at road. Grade is appx 5-10% slope. Lot is surrounded by tall pines on all sides. Howe Mill Pond is directly to the west through treeline. Catch basins & storm drains run from each bay to storm sewer and/or creek locally</p>					

PROPOSED RETROFIT

Purpose of Retrofit:

- ☒ Water Quality ☒ Recharge ☒ Channel Protection ☐ Flood Control
☒ Demonstration / Education ☐ Repair ☐ Other: _____

Linear bioretention basins installed in green patches in between paved parking bays to divert runoff from catchbasins; infiltrate on site. Protect local stream (Cranbury River) from parking lot runoff.

Proposed Treatment Option:

- ☐ Extended Detention ☐ Wet Pond ☐ Created Wetland ☐ Bioretention
☐ Filtering Practice ☐ Infiltration ☐ Swale ☐ Other: _____

Describe Elements of Proposed Retrofit, Including Surface Area, Maximum Depth of Treatment, and Conveyance:

SITE CONSTRAINTS

Adjacent Land Use:

- ☐ Residential ☐ Commercial ☐ Institutional
☐ Industrial ☐ Transport-Related ☒ Park
☐ Undeveloped ☐ Other: _____

Possible Conflicts Due to Adjacent Land Use? ☐ Yes ☐ No

If Yes, Describe:

Access:

☐ No Constraints

Constrained due to

- ☒ Slope ☐ Space
☒ Utilities ☒ Tree Impacts
☐ Structures ☒ Property Ownership
☐ Other: _____

Conflicts with Existing Utilities:

- ☐ None
☐ Unknown

Yes Possible

- | | | |
|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Sewer |
| <input type="checkbox"/> | <input type="checkbox"/> | Water |
| <input type="checkbox"/> | <input type="checkbox"/> | Gas |
| <input type="checkbox"/> | <input type="checkbox"/> | Cable |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Electric |
| <input type="checkbox"/> | <input type="checkbox"/> | Electric to Streetlights |
| <input type="checkbox"/> | <input type="checkbox"/> | Overhead Wires |
| <input type="checkbox"/> | <input type="checkbox"/> | Other: _____ |

Potential Permitting Factors:

Dam Safety Permits Necessary

Impacts to Wetlands

Impacts to a Stream

Floodplain Fill

Impacts to Forests

Impacts to Specimen Trees

How many? _____

Approx. DBH _____

- | | |
|--|--|
| <input type="checkbox"/> Probable | <input checked="" type="checkbox"/> Not Probable |
| <input checked="" type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |
| <input checked="" type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |
| <input type="checkbox"/> Probable | <input checked="" type="checkbox"/> Not Probable |
| <input checked="" type="checkbox"/> Probable | <input type="checkbox"/> Not Probable |
| <input type="checkbox"/> Probable | <input checked="" type="checkbox"/> Not Probable |

Other factors: _____

Soils:

Soil auger test holes:

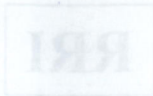
Evidence of poor infiltration (clays, fines):

Evidence of shallow bedrock:

Evidence of high water table (gleying, saturation):

- | | |
|------------------------------|--|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

A/B Soils



SKETCH

Curp's object around all over 3000

see aerial photo

DESIGN OR DELIVERY NOTES

curbs ~~again~~ around all green spaces

FOLLOW-UP NEEDED TO COMPLETE FIELD CONCEPT

- | | |
|---|--|
| <input type="checkbox"/> Confirm property ownership | <input type="checkbox"/> Obtain existing stormwater practice as-builts |
| <input type="checkbox"/> Confirm drainage area | <input type="checkbox"/> Obtain site as-builts |
| <input type="checkbox"/> Confirm drainage area impervious cover | <input type="checkbox"/> Obtain detailed topography |
| <input type="checkbox"/> Confirm volume computations | <input type="checkbox"/> Obtain utility mapping |
| <input checked="" type="checkbox"/> Complete concept sketch | <input type="checkbox"/> Confirm storm drain invert elevations |
| | <input type="checkbox"/> Confirm soil types |

☐ Other: *Notify necessary parties for collaborating on planning*

INITIAL FEASIBILITY AND CONSTRUCTION CONSIDERATIONS

SITE CANDIDATE FOR FURTHER INVESTIGATION:

☒ YES

☐ NO

☐ MAYBE

IS SITE CANDIDATE FOR EARLY ACTION PROJECT(S):

☒ YES

☐ NO

☐ MAYBE

IF NO, SITE CANDIDATE FOR OTHER RESTORATION PROJECT(S):

☐ YES

☐ NO

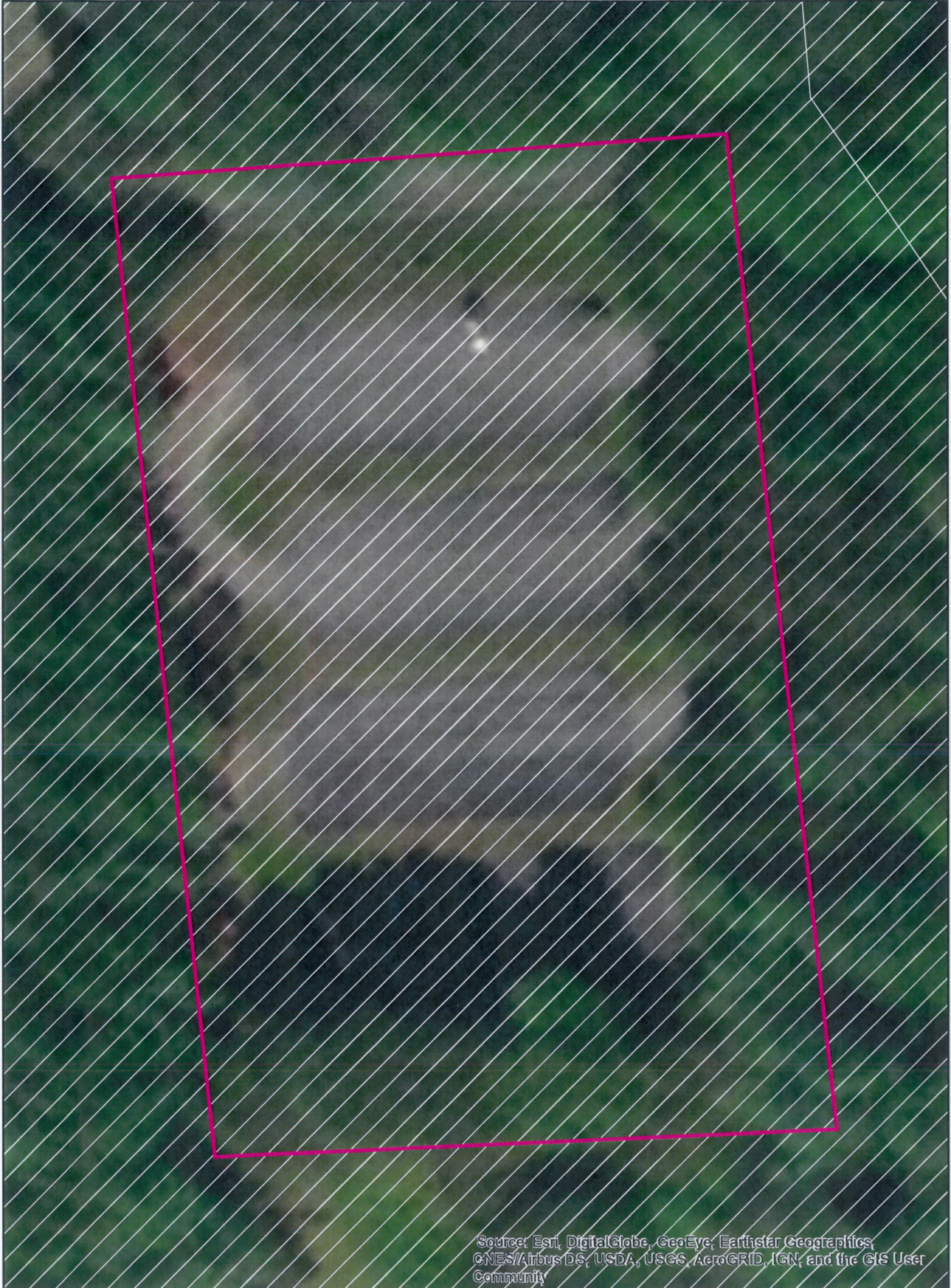
☐ MAYBE

IF YES, TYPE(S): _____

Site Name: Howe State Park

Site Number: 16

0 25 50 100
Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,
CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User
Community

Site Name: Howe State Park

Site Number: 16

0 25 50 100
Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

WATERSHED: <u>Spencer</u>		SUBWATERSHED:		UNIQUE SITE ID: <u>17,31</u>	
DATE: <u>12/12/18</u>	ASSESSED BY: <u>RW HF</u>	CAMERA ID: <u>2</u>	PICTURES: <u>8AM-</u>		
GPS ID:	LMK ID:	LAT:	LONG:		
SITE DESCRIPTION					
Name: <u>David Prouty NS + Associated Athletic Fields</u>					
Address:					
Ownership:		<input type="checkbox"/> Public	<input type="checkbox"/> Private	<input type="checkbox"/> Unknown	
If Public, Government Jurisdiction:		<input type="checkbox"/> Local	<input type="checkbox"/> State	<input type="checkbox"/> DOT	<input type="checkbox"/> Other:
Corresponding USSR/USA Field Sheet?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, Unique Site ID:	
Proposed Retrofit Location:					
Storage			On-Site		
<input type="checkbox"/> Existing Pond	<input checked="" type="checkbox"/> Above Roadway Culvert	<input type="checkbox"/> Hotspot Operation	<input checked="" type="checkbox"/> Individual Rooftop		
<input type="checkbox"/> Below Outfall	<input type="checkbox"/> In Conveyance System	<input checked="" type="checkbox"/> Small Parking Lot	<input type="checkbox"/> Small Impervious Area		
<input type="checkbox"/> In Road ROW	<input type="checkbox"/> Near Large Parking Lot	<input type="checkbox"/> Individual Street	<input checked="" type="checkbox"/> Landscape / Hardscape		
<input type="checkbox"/> Other:		<input type="checkbox"/> Underground	<input type="checkbox"/> Other:		
DRAINAGE AREA TO PROPOSED RETROFIT					
Drainage Area ≈ _____		Drainage Area Land Use:			
Imperviousness ≈ _____ %		<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> Institutional		
Impervious Area ≈ _____		<input type="checkbox"/> SFH (< 1 ac lots)	<input type="checkbox"/> Industrial		
Notes:		<input type="checkbox"/> SFH (> 1 ac lots)	<input type="checkbox"/> Transport-Related		
		<input type="checkbox"/> Townhouses	<input checked="" type="checkbox"/> Park		
		<input type="checkbox"/> Multi-Family	<input type="checkbox"/> Undeveloped		
		<input type="checkbox"/> Commercial	<input type="checkbox"/> Other:		
EXISTING STORMWATER MANAGEMENT					
Existing Stormwater Practice:		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Possible	
If Yes, Describe:					
Describe Existing Site Conditions, Including Existing Site Drainage and Conveyance:					
<u>Drains to main city storm sewer system</u>					
<u>Drains large hill</u>					
<u>Parking lots - winter treatment with salt/sand mixture</u>					
<u>Drainage issue w/ clippin donuts results in using more salt</u>					
<u>to deice drive-thru</u>					

PROPOSED RETROFIT

Purpose of Retrofit:

- ☒ Water Quality ☒ Recharge ☐ Channel Protection ☒ Flood Control
☒ Demonstration / Education ☐ Repair ☐ Other: _____

Proposed Treatment Option:

- ☐ Extended Detention ☐ Wet Pond ☐ Created Wetland ☒ Bioretention *various*
☒ Filtering Practice ☒ Infiltration ☒ Swale ☐ Other: _____

Describe Elements of Proposed Retrofit, Including Surface Area, Maximum Depth of Treatment, and Conveyance:

SITE CONSTRAINTS

Adjacent Land Use:

- ☐ Residential ☐ Commercial ☐ Institutional
☐ Industrial ☐ Transport-Related ☐ Park
☐ Undeveloped ☐ Other: _____

Possible Conflicts Due to Adjacent Land Use? ☐ Yes ☐ No

If Yes, Describe:

Access:

- ☐ No Constraints
 Constrained due to
☒ Slope ☐ Space
☒ Utilities ☐ Tree Impacts
☐ Structures ☐ Property Ownership
☐ Other: *site use*

Conflicts with Existing Utilities:

- ☐ None
☐ Unknown

Yes

Possible

- | | | |
|-------------------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Sewer |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Water |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Gas |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Cable |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Electric |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Electric to Streetlights <i>(foot ball field)</i> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Overhead Wires |
| <input type="checkbox"/> | <input type="checkbox"/> | Other: _____ |

Potential Permitting Factors:

- Dam Safety Permits Necessary ☐ Probable ☒ Not Probable
 Impacts to Wetlands ☐ Probable ☒ Not Probable
 Impacts to a Stream ☐ Probable ☒ Not Probable
 Floodplain Fill ☐ Probable ☒ Not Probable
 Impacts to Forests ☐ Probable ☒ Not Probable
 Impacts to Specimen Trees ☒ Probable ☐ Not Probable
 How many? _____ *depending on site*
 Approx. DBH _____

Other factors: _____

Soils:

- Soil auger test holes: ☐ Yes ☐ No
 Evidence of poor infiltration (clays, fines): ☐ Yes ☒ No
 Evidence of shallow bedrock: ☐ Yes ☒ No
 Evidence of high water table (gleying, saturation): ☐ Yes ☒ No

A/B soils (part)
C/D on urban soils (up)

WATERSHED: <u>Spencer</u>		SUBWATERSHED:		UNIQUE SITE ID: <u>31</u>	
DATE: <u>12/12/18</u>	ASSESSED BY: <u>Rw RF</u>	CAMERA ID: <u>2</u>	PICTURES:		
GPS ID:	LMK ID:	LAT:	LONG:		
SITE DESCRIPTION					
Name: _____					
Address: _____					
Ownership: <input type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Unknown If Public, Government Jurisdiction: <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> DOT <input type="checkbox"/> Other: _____					
Corresponding USSR/USA Field Sheet? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, Unique Site ID: _____					
Proposed Retrofit Location:					
Storage <input type="checkbox"/> Existing Pond <input type="checkbox"/> Above Roadway Culvert <input type="checkbox"/> Below Outfall <input type="checkbox"/> In Conveyance System <input type="checkbox"/> In Road ROW <input type="checkbox"/> Near Large Parking Lot <input type="checkbox"/> Other: _____			On-Site <input type="checkbox"/> Hotspot Operation <input type="checkbox"/> Individual Rooftop <input checked="" type="checkbox"/> Small Parking Lot <input type="checkbox"/> Small Impervious Area <input type="checkbox"/> Individual Street <input type="checkbox"/> Landscape / Hardscape <input type="checkbox"/> Underground <input type="checkbox"/> Other: <u>fields, water tower</u>		
DRAINAGE AREA TO PROPOSED RETROFIT					
Drainage Area ≈ _____ Imperviousness ≈ _____ % Impervious Area ≈ _____			Drainage Area Land Use: <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Institutional <input type="checkbox"/> SFH (< 1 ac lots) <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> SFH (> 1 ac lots) <input type="checkbox"/> Transport-Related <input type="checkbox"/> Townhouses <input checked="" type="checkbox"/> Park <input type="checkbox"/> Multi-Family <input type="checkbox"/> Undeveloped <input type="checkbox"/> Commercial <input type="checkbox"/> Other: _____		
Notes:			fields		
EXISTING STORMWATER MANAGEMENT					
Existing Stormwater Practice: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible If Yes, Describe: _____					
Describe Existing Site Conditions, Including Existing Site Drainage and Conveyance: large field- part heavily used Stockpile of leftover sand/salt mixture in water tower parking lot (uncovered) - normally in lower lot btwn concrete barriers, also covered w/ tarp Town + School use access road every day in winter - both plow it - lot of runoff @ bend - ices up					

PROPOSED RETROFIT

Purpose of Retrofit:

- ☒ Water Quality ☐ Recharge ☐ Channel Protection ☐ Flood Control
☐ Demonstration / Education ☐ Repair ☐ Other: _____

Proposed Treatment Option:

- ☐ Extended Detention ☐ Wet Pond ☐ Created Wetland ☒ Bioretention
☐ Filtering Practice ☐ Infiltration ☒ Swale ☐ Other: _____

Describe Elements of Proposed Retrofit, Including Surface Area, Maximum Depth of Treatment, and Conveyance:

Bioretention @ Water tower parking lot?

SITE CONSTRAINTS

Adjacent Land Use:

- ☐ Residential ☐ Commercial ☒ Institutional
☐ Industrial ☐ Transport-Related ☒ Park
☒ Undeveloped ☐ Other: _____

Possible Conflicts Due to Adjacent Land Use? ☐ Yes ☐ No

If Yes, Describe:

Access:

- ☐ No Constraints
 Constrained due to
☐ Slope ☐ Space
☐ Utilities ☐ Tree Impacts
☐ Structures ☐ Property Ownership
☐ Other: foot traffic

Conflicts with Existing Utilities:

- ☐ None
☐ Unknown

Yes

Possible

- ☒ Sewer
☒ Water
☐ Gas
☐ Cable
☒ Electric
☐ Electric to Streetlights
☐ Overhead Wires
☐ Other: _____
- lines run up west side of access road, stone wall on east side*

Potential Permitting Factors:

- Dam Safety Permits Necessary ☐ Probable ☒ Not Probable
 Impacts to Wetlands ☐ Probable ☒ Not Probable
 Impacts to a Stream ☐ Probable ☒ Not Probable
 Floodplain Fill ☐ Probable ☒ Not Probable
 Impacts to Forests ☐ Probable ☒ Not Probable
 Impacts to Specimen Trees ☐ Probable ☒ Not Probable
 How many? _____
 Approx. DBH _____

Other factors: _____

Soils:

- Soil auger test holes: ☐ Yes ☐ No
 Evidence of poor infiltration (clays, fines): ☐ Yes ☒ No
 Evidence of shallow bedrock: ☐ Yes ☒ No
 Evidence of high water table (gleying, saturation): ☐ Yes ☒ No

SKETCH

School District - 1348 students

Eric - 1 year

New superintendent as well - very interested in school district upgrade needs

Schools need maint

DP about to undergo major renovation
currently 100,000 s.f.
(may expand)

Lots of drainage issues

Some affect Dippin D; other neighbors

Irrigate fields

May be interested in

- green roof
- cisterns for ~~education~~ irrigation
- bioretention

Tennis Courts recently redone

HS offers some environmental science courses

Also looking @ "environmental pathways" w/ certificate

May need grant source ideas, "wouldn't spend \$100k on drainage"
Send ~~over~~ over concepts, images of some practices we may recommend

DESIGN OR DELIVERY NOTES

FOLLOW-UP NEEDED TO COMPLETE FIELD CONCEPT

- | | |
|---|--|
| <input type="checkbox"/> Confirm property ownership | <input type="checkbox"/> Obtain existing stormwater practice as-builts |
| <input type="checkbox"/> Confirm drainage area | <input type="checkbox"/> Obtain site as-builts |
| <input type="checkbox"/> Confirm drainage area impervious cover | <input type="checkbox"/> Obtain detailed topography |
| <input type="checkbox"/> Confirm volume computations | <input type="checkbox"/> Obtain utility mapping |
| <input type="checkbox"/> Complete concept sketch | <input type="checkbox"/> Confirm storm drain invert elevations |
| <input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Confirm soil types |

INITIAL FEASIBILITY AND CONSTRUCTION CONSIDERATIONS

SITE CANDIDATE FOR FURTHER INVESTIGATION:

IS SITE CANDIDATE FOR EARLY ACTION PROJECT(S):

IF NO, SITE CANDIDATE FOR OTHER RESTORATION PROJECT(S):

IF YES, TYPE(S): _____

- | | | |
|---|-----------------------------|--------------------------------|
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> MAYBE |
| <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> MAYBE |
| <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/> MAYBE |

SKETCH

Front of building on NE side of site parallels Main St. Parking lot slopes 3-6% toward rd. Storm drain in entrance alley. Runoff in back of building heads SW along accessway intercepts access road up to football field. Large open green space behind 2 main buildings gives way to low area w/ multiple drains (areas unused). Large open areas w/ baseball field, tennis courts, basketball courts and practice areas, largely flat w/ some swales & storm drains strategically located. Field overlooking Dippin Donuts runs off into parking lot & drive thru area creating stormwater mgmt issue for D.D. maint. Sparsely wooded edged & low areas w/ historic stone wall. Long drainage & area w/ overflow inlet feature along NW front of building. Possible flooding into abutting property. Large open green patches in road frontage already receiving runoff.

Roof - drains to storm sewer but ~~age~~ system is aging + leaking
 - needs repairs
 (except @ middle school where some downspouts are clogged,
 may have to replace entire pipe below ground level)

DESIGN OR DELIVERY NOTES

Project in place to restore football field + track
 - have an engineer, plans need finalization
 + approval
 - will occur after school renovation
 - may expand track by ~2 lanes
 Fire + police comm station @ edge of football field/track hill
 great view of roofs from top of field
 gym roof is stone
 other roofs are white plastic, metal

FOLLOW-UP NEEDED TO COMPLETE FIELD CONCEPT

- | | |
|---|--|
| <input type="checkbox"/> Confirm property ownership | <input type="checkbox"/> Obtain existing stormwater practice as-builts |
| <input type="checkbox"/> Confirm drainage area | <input type="checkbox"/> Obtain site as-builts |
| <input type="checkbox"/> Confirm drainage area impervious cover | <input type="checkbox"/> Obtain detailed topography |
| <input type="checkbox"/> Confirm volume computations | <input type="checkbox"/> Obtain utility mapping |
| <input type="checkbox"/> Complete concept sketch | <input type="checkbox"/> Confirm storm drain invert elevations |
| <input type="checkbox"/> Other: _____ | <input checked="" type="checkbox"/> Confirm soil types |

INITIAL FEASIBILITY AND CONSTRUCTION CONSIDERATIONS

SITE CANDIDATE FOR FURTHER INVESTIGATION:

IS SITE CANDIDATE FOR EARLY ACTION PROJECT(S):

IF NO, SITE CANDIDATE FOR OTHER RESTORATION PROJECT(S):

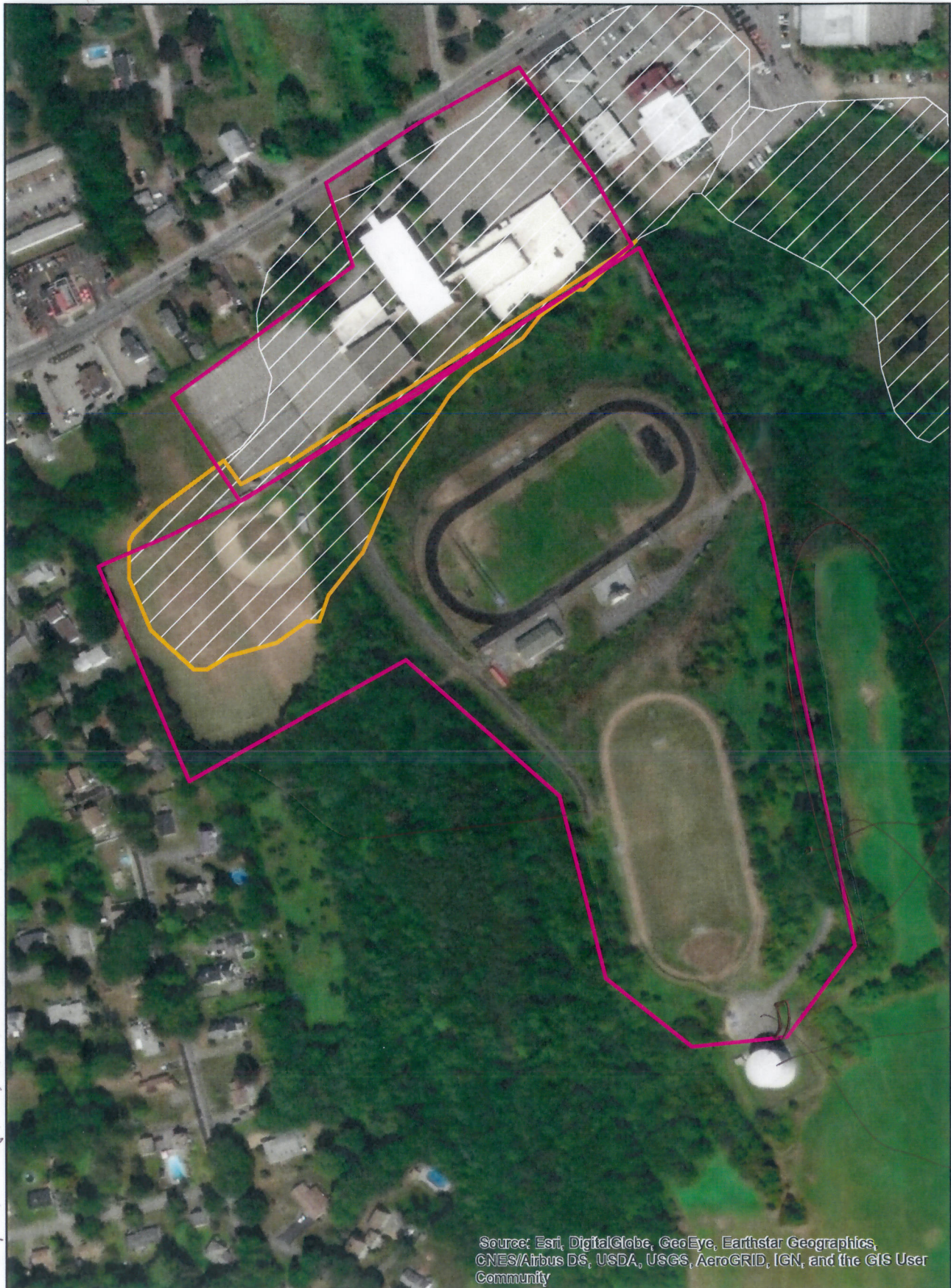
IF YES, TYPE(S): _____

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> MAYBE
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> MAYBE
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> MAYBE

Site Name: Regional High School Athletic Fields

Site Number: 31 + 17

0 130 260 520
Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

parking on west side of west access road
east side + whole access road - drainage problem

- softball field (area) not heavily used anymore

conservation

solar?

roadside swale
least side

town water tank

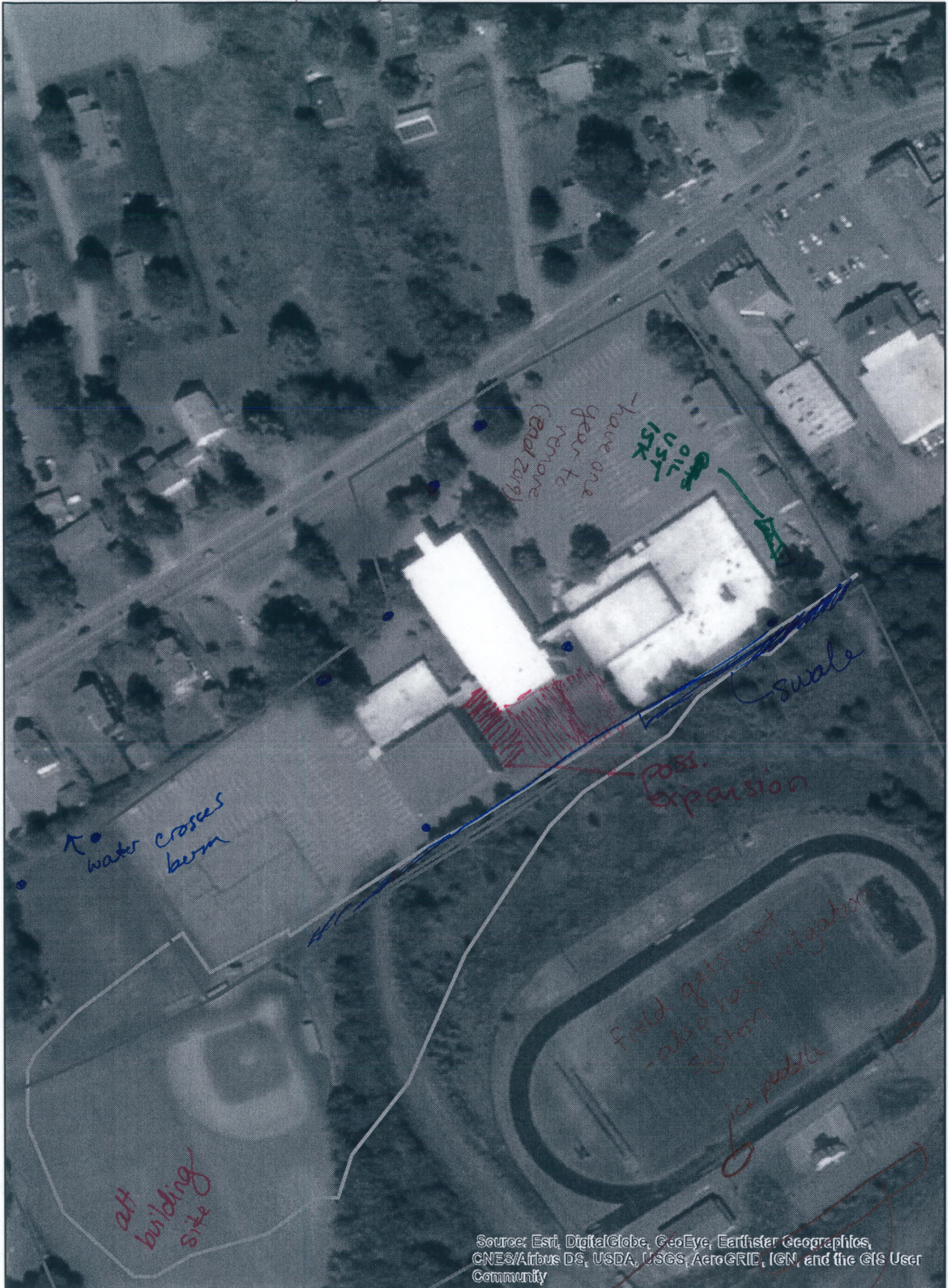
- potential to treat this lot

- study has already been done on potential windmill
- top field used for soccer; area heavily used - youth soccer league, HS football

Site Name: David Prouty High School

Site Number: 17 + 31 (partial)

0 80 160 320 Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

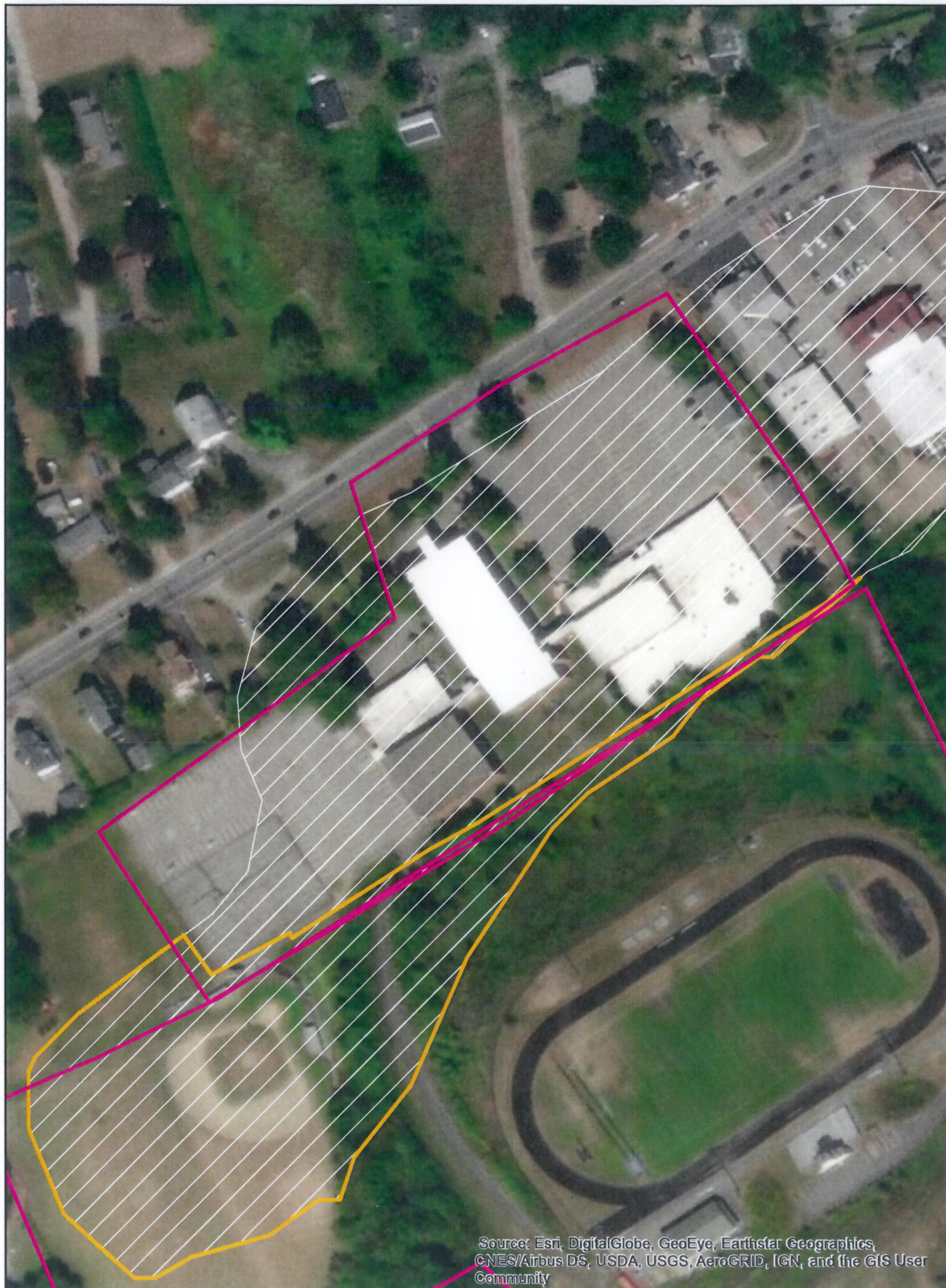
closures
+ maintenance

water accumulat;
phragmites, large manhole

Site Name: David Prouty High School

Site Number: 17

0 80 160 320
Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,
CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User
Community

Site Name: Regional High School Athletic Fields

Site Number: 31

potential solar canopy

0 130 260 520 Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

WATERSHED: <u>Spencer</u>		SUBWATERSHED:		UNIQUE SITE ID: <u>18</u>	
DATE: <u>12.5.18</u>		ASSESSED BY: <u>RW AF</u>		CAMERA ID:	
GPS ID:		LMK ID:		LAT:	
				LONG:	
SITE DESCRIPTION					
Name: <u>TOWN HALL OF SPENCER</u>					
Address: <u>MAIN ST.</u>					
Ownership: <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Unknown If Public, Government Jurisdiction: <input checked="" type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> DOT <input type="checkbox"/> Other: _____					
Corresponding USSR/USA Field Sheet? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, Unique Site ID: _____					
Proposed Retrofit Location:					
Storage <input type="checkbox"/> Existing Pond <input type="checkbox"/> Above Roadway Culvert <input type="checkbox"/> Below Outfall <input type="checkbox"/> In Conveyance System <input checked="" type="checkbox"/> In Road ROW <input checked="" type="checkbox"/> Near Large Parking Lot <input type="checkbox"/> Other: _____			On-Site <input type="checkbox"/> Hotspot Operation <input type="checkbox"/> Individual Rooftop <input checked="" type="checkbox"/> Small Parking Lot <input type="checkbox"/> Small Impervious Area <input type="checkbox"/> Individual Street <input checked="" type="checkbox"/> Landscape / Hardscape <input type="checkbox"/> Underground <input type="checkbox"/> Other: _____		
DRAINAGE AREA TO PROPOSED RETROFIT					
Drainage Area ≈ _____ Imperviousness ≈ _____ % Impervious Area ≈ _____			Drainage Area Land Use: <input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> Institutional <input type="checkbox"/> SFH (< 1 ac lots) <input type="checkbox"/> Industrial <input type="checkbox"/> SFH (> 1 ac lots) <input checked="" type="checkbox"/> Transport-Related <input type="checkbox"/> Townhouses <input type="checkbox"/> Park <input type="checkbox"/> Multi-Family <input type="checkbox"/> Undeveloped <input type="checkbox"/> Commercial <input type="checkbox"/> Other: _____		
Notes:					
EXISTING STORMWATER MANAGEMENT					
Existing Stormwater Practice: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible If Yes, Describe:					
Describe Existing Site Conditions, Including Existing Site Drainage and Conveyance: <u>Sm parking area to West of building leads to old firehouse. Gap btwn fire house & town hall opens up to small shady open space w/ retaining walls above & below and steep slopes heading several hundred feet Northwards. Above steep wooded slopes is large parking lot on East side of town hall w/ has short term spaces in front & overnight parking in large lot which extends ≈ 300' from back of town hall. Additional long narrow embankment to EAST supports church parking next door, which is fenced off</u>					

PROPOSED RETROFIT

Purpose of Retrofit:

- ☒ Water Quality ☒ Recharge ☐ Channel Protection ☐ Flood Control
☒ Demonstration / Education ☐ Repair ☐ Other: _____

Multiple bioretention basins at various points around site
 - remove unused parking from edges inward.
 PD expressed interest in stairs / passage from upper to lower lot
 - integrate w/ cascading bioretention filters

Proposed Treatment Option:

- ☐ Extended Detention ☐ Wet Pond ☐ Created Wetland ☒ Bioretention *filtering*
☐ Filtering Practice ☐ Infiltration ☒ Swale ☐ Other: *vegetation removal*

Describe Elements of Proposed Retrofit, Including Surface Area, Maximum Depth of Treatment, and Conveyance:

BRBs along building on upper side (east) to treat water from roof + prevent damage along building foundation
 Poss BRB out front + Row BRB w/ weirs along front sidewalk

SITE CONSTRAINTS

Adjacent Land Use:

- ☒ Residential ☒ Commercial ☒ Institutional
☐ Industrial ☐ Transport-Related ☐ Park
☐ Undeveloped ☒ Other: *religious*

Possible Conflicts Due to Adjacent Land Use? ☐ Yes ☐ No

If Yes, Describe:

Access:

- ☐ No Constraints
 Constrained due to
☒ Slope ☒ Space
☒ Utilities ☐ Tree Impacts
☒ Structures ☒ Property Ownership
☐ Other: _____

Conflicts with Existing Utilities:

- ☐ None
☒ Unknown
 Yes Possible
☐ Sewer
☐ Water
☐ Gas
☐ Cable
☐ Electric
☐ Electric to Streetlights
☐ Overhead Wires
☐ Other: _____

Potential Permitting Factors:

- Dam Safety Permits Necessary ☐ Probable ☒ Not Probable
 Impacts to Wetlands ☐ Probable ☒ Not Probable
 Impacts to a Stream ☐ Probable ☒ Not Probable
 Floodplain Fill ☐ Probable ☒ Not Probable
 Impacts to Forests ☐ Probable ☒ Not Probable
 Impacts to Specimen Trees ☐ Probable ☒ Not Probable
 How many? _____
 Approx. DBH _____

Other factors:

Soils:

- Soil auger test holes: ☐ Yes ☐ No
 Evidence of poor infiltration (clays, fines): ☐ Yes ☐ No
 Evidence of shallow bedrock: ☐ Yes ☐ No
 Evidence of high water table (gleying, saturation): ☐ Yes ☐ No

G/D soil or urban

see aerial

DESIGN OR DELIVERY NOTES

Design should work w/ needed or desired updates to town call

Make a point of civic pride; make going to town hall + participation seem like less of a hassle (parking)

Consider view of Town Hall from Price Chopper parking lot

CL soils? may not be able to directly infiltrate

FOLLOW-UP NEEDED TO COMPLETE FIELD CONCEPT

- | | |
|---|---|
| <input type="checkbox"/> Confirm property ownership | <input type="checkbox"/> Obtain existing stormwater practice as-builts |
| <input type="checkbox"/> Confirm drainage area | <input checked="" type="checkbox"/> Obtain site as-builts ~ poss. utility conflicts |
| <input type="checkbox"/> Confirm drainage area impervious cover | <input type="checkbox"/> Obtain detailed topography |
| <input type="checkbox"/> Confirm volume computations | <input checked="" type="checkbox"/> Obtain utility mapping |
| <input type="checkbox"/> Complete concept sketch | <input type="checkbox"/> Confirm storm drain invert elevations |
| | <input checked="" type="checkbox"/> Confirm soil types |
| <input type="checkbox"/> Other: discuss competing needs for parking areas | |

INITIAL FEASIBILITY AND CONSTRUCTION CONSIDERATIONS

Q - how much parking really needed?
- support for pass-through @ back of Town Hall?

SITE CANDIDATE FOR FURTHER INVESTIGATION:

☒ YES☐ NO☐ MAYBE

IS SITE CANDIDATE FOR EARLY ACTION PROJECT(S):

☒ YES☐ NO☐ MAYBE

IF NO, SITE CANDIDATE FOR OTHER RESTORATION PROJECT(S):

☐ YES☐ NO☐ MAYBE

IF YES, TYPE(S):

Site Name: Spencer Town Hall
Site Number: 18

0 40 80 160
Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Site Name: Spencer Town Hall
Site Number: 18

0 40 80 160
Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,
CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User
Community

WATERSHED: <u>Spencer</u>		SUBWATERSHED:		UNIQUE SITE ID: <u>19</u>	
DATE: <u>12/12/18</u>		ASSESSED BY: <u>RW HF</u>		CAMERA ID:	
GPS ID:		LMK ID:		LAT:	
				LONG:	
SITE DESCRIPTION					
Name: <u>Spencer Police Fire + Rescue</u>					
Address:					
Ownership: <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Unknown <input type="checkbox"/> Other: <u>except for Rescue (private)</u> If Public, Government Jurisdiction: <input checked="" type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> DOT					
Corresponding USSR/USA Field Sheet? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, Unique Site ID:					
Proposed Retrofit Location:					
Storage <input type="checkbox"/> Existing Pond <input type="checkbox"/> Above Roadway Culvert <input type="checkbox"/> Below Outfall <input type="checkbox"/> In Conveyance System <input type="checkbox"/> In Road ROW <input type="checkbox"/> Near Large Parking Lot <input type="checkbox"/> Other:			On-Site <input type="checkbox"/> Hotspot Operation <input type="checkbox"/> Individual Rooftop <input type="checkbox"/> Small Parking Lot <input type="checkbox"/> Small Impervious Area <input type="checkbox"/> Individual Street <input type="checkbox"/> Landscape / Hardscape <input type="checkbox"/> Underground <input type="checkbox"/> Other:		
DRAINAGE AREA TO PROPOSED RETROFIT					
Drainage Area ≈ _____ Imperviousness ≈ _____ % Impervious Area ≈ _____			Drainage Area Land Use: <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Institutional <input type="checkbox"/> SFH (< 1 ac lots) <input type="checkbox"/> Industrial <input type="checkbox"/> SFH (> 1 ac lots) <input type="checkbox"/> Transport-Related <input type="checkbox"/> Townhouses <input checked="" type="checkbox"/> Park <input type="checkbox"/> Multi-Family <input checked="" type="checkbox"/> Undeveloped <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Other:		
Notes:					
EXISTING STORMWATER MANAGEMENT					
Existing Stormwater Practice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Possible					
If Yes, Describe: <u>Detention basin treats runoff from Rescue lot</u> <u>- overgrown, needs maintenance</u> <u>- this lot is private, not affiliated w/ town</u>					
Describe Existing Site Conditions, Including Existing Site Drainage and Conveyance:					
<u>Fire station</u> <u>- uphill (each property flat, w/ steep slopes btwn)</u> <u>- parking lots drain toward Main road (Rte 9)</u> <u>- gutters drain to parking lot, lawns open ended</u>					
<u>Police Station</u> <u>- same parking lot drainage patterns as firehouse (downhill of FS)</u> <u>- No gutters on roof; roof runoff does not appear to be an issue</u> <u>- runoff from east fire gutters drains to parking lot (west side)</u>					

PROPOSED RETROFIT

Purpose of Retrofit:

- ☒ Water Quality ☐ Recharge ☐ Channel Protection ☐ Flood Control
☒ Demonstration/Education ☐ Repair ☐ Other: _____

Proposed Treatment Option:

- ☐ Extended Detention ☐ Wet Pond ☐ Created Wetland ☒ Bioretention
☐ Filtering Practice ☐ Infiltration ☐ Swale ☒ Other: Permeable pavement

Describe Elements of Proposed Retrofit, Including Surface Area, Maximum Depth of Treatment, and Conveyance:

Bioretention for filtering @ NW corner of FS lot
 - treat road or pl runoff - maybe both
 Rescue squad - maintain detention basin
 Permeable pavement - west side of FS + PS parking lots (under parking spaces only) to treat Plot runoff + runoff draining from upslope lots
 - contingent on soil types + winter treatment + FS roof

SITE CONSTRAINTS

Adjacent Land Use:

- ☒ Residential ☒ Commercial ☒ Institutional
☐ Industrial ☒ Transport-Related ☐ Park
☒ Undeveloped ☐ Other: _____

Possible Conflicts Due to Adjacent Land Use? ☐ Yes ☐ No

If Yes, Describe:

Access:

- ☐ No Constraints
 Constrained due to
☐ Slope ☒ Space
☐ Utilities ☐ Tree Impacts
☐ Structures ☐ Property Ownership
☒ Other: soils

Conflicts with Existing Utilities:

- ☐ None
☒ Unknown

Yes

Possible

- | | | |
|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Sewer |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Water |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Gas |
| <input type="checkbox"/> | <input type="checkbox"/> | Cable |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Electric |
| <input type="checkbox"/> | <input type="checkbox"/> | Electric to Streetlights |
| <input type="checkbox"/> | <input type="checkbox"/> | Overhead Wires |
| <input type="checkbox"/> | <input type="checkbox"/> | Other: _____ |

Potential Permitting Factors:

- Dam Safety Permits Necessary ☐ Probable ☒ Not Probable
 Impacts to Wetlands ☐ Probable ☒ Not Probable
 Impacts to a Stream ☐ Probable ☒ Not Probable
 Floodplain Fill ☐ Probable ☒ Not Probable
 Impacts to Forests ☐ Probable ☒ Not Probable
 Impacts to Specimen Trees ☐ Probable ☒ Not Probable
 How many? _____
 Approx. DBH _____

Other factors: _____

Soils:

Soil auger test holes:

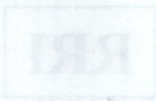
Evidence of poor infiltration (clays, fines):

Evidence of shallow bedrock:

Evidence of high water table (gleying, saturation):

- | | |
|---|--|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

C/D soils? confirm (may be variable)
 east side of
 PS (away from proposed practices)



SKETCH

Handwritten notes and sketches in the main area of the form.

DESIGN OR DELIVERY NOTES

FOLLOW-UP NEEDED TO COMPLETE FIELD CONCEPT

- | | |
|---|--|
| <input type="checkbox"/> Confirm property ownership | <input type="checkbox"/> Obtain existing stormwater practice as-builts |
| <input type="checkbox"/> Confirm drainage area | <input type="checkbox"/> Obtain site as-builts |
| <input type="checkbox"/> Confirm drainage area impervious cover | <input type="checkbox"/> Obtain detailed topography |
| <input type="checkbox"/> Confirm volume computations | <input checked="" type="checkbox"/> Obtain utility mapping |
| <input type="checkbox"/> Complete concept sketch | <input type="checkbox"/> Confirm storm drain invert elevations |
| | <input checked="" type="checkbox"/> Confirm soil types |
| <input type="checkbox"/> Other: _____ | |

INITIAL FEASIBILITY AND CONSTRUCTION CONSIDERATIONS

both lots actively used by 3 types of emergency personnel
 - if installing permeable pavement, do one lot at a time, so one access routes to back lots is always available

SITE CANDIDATE FOR FURTHER INVESTIGATION:

☐ YES ☐ NO ☒ MAYBE

IS SITE CANDIDATE FOR EARLY ACTION PROJECT(S):

☐ YES ☒ NO ☐ MAYBE

IF NO, SITE CANDIDATE FOR OTHER RESTORATION PROJECT(S):

☐ YES ☐ NO ☒ MAYBE

IF YES, TYPE(S): wildflower/native plantings on slopes @ edges of lots

to absorb water + provide habitat, reduce mowing needs

Site Name: Spencer Police Fire and Rescue
Site Number: 19

0 40 80 160
Feet



existing
detention
basin
Covergrowth

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,
CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User
Community

Site Name: Spencer Police Fire and Rescue

Site Number: 19

0 40 80 160
Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,
CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User
Community

WATERSHED: <u>Spencer</u>		SUBWATERSHED:		UNIQUE SITE ID: <u>20</u>	
DATE: <u>12-5-18</u>		ASSESSED BY: <u>RW, HC</u>		CAMERA ID:	
GPS ID:		LMK ID:		LAT:	
				LONG:	
SITE DESCRIPTION					
Name: <u>Richard Sugden Library</u>					
Address: _____					
Ownership: <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Unknown					
If Public, Government Jurisdiction: <input checked="" type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> DOT <input type="checkbox"/> Other: _____					
Corresponding USSR/USA Field Sheet? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, Unique Site ID: _____					
Proposed Retrofit Location:					
Storage			On-Site		
<input type="checkbox"/> Existing Pond	<input type="checkbox"/> Above Roadway Culvert	<input type="checkbox"/> Hotspot Operation	<input type="checkbox"/> Individual Rooftop		
<input type="checkbox"/> Below Outfall	<input checked="" type="checkbox"/> In Conveyance System	<input checked="" type="checkbox"/> Small Parking Lot	<input type="checkbox"/> Small Impervious Area		
<input checked="" type="checkbox"/> In Road ROW	<input checked="" type="checkbox"/> Near Large Parking Lot	<input checked="" type="checkbox"/> Individual Street	<input checked="" type="checkbox"/> Landscape / Hardscape		
<input type="checkbox"/> Other: _____		<input type="checkbox"/> Underground	<input type="checkbox"/> Other: _____		
DRAINAGE AREA TO PROPOSED RETROFIT					
Drainage Area ≈ _____			Drainage Area Land Use:		
Imperviousness ≈ _____ %			<input type="checkbox"/> Residential		
Impervious Area ≈ _____			<input type="checkbox"/> SFH (< 1 ac lots)		
Notes: _____			<input type="checkbox"/> SFH (> 1 ac lots)		
			<input type="checkbox"/> Townhouses		
			<input type="checkbox"/> Multi-Family		
			<input checked="" type="checkbox"/> Commercial		
			<input type="checkbox"/> Institutional		
			<input type="checkbox"/> Industrial		
			<input checked="" type="checkbox"/> Transport-Related		
			<input type="checkbox"/> Park		
			<input type="checkbox"/> Undeveloped		
			<input type="checkbox"/> Other: _____		
EXISTING STORMWATER MANAGEMENT					
Existing Stormwater Practice: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible					
If Yes, Describe: _____					
Describe Existing Site Conditions, Including Existing Site Drainage and Conveyance:					

PROPOSED RETROFIT

Purpose of Retrofit:

- ☒ Water Quality ☒ Recharge ☐ Channel Protection ☐ Flood Control
☒ Demonstration / Education ☐ Repair ☐ Other: _____

Proposed Treatment Option:

- ☐ Extended Detention ☐ Wet Pond ☐ Created Wetland ☒ Bioretention
☐ Filtering Practice ☒ Infiltration ☒ Swale ☐ Other: _____

Describe Elements of Proposed Retrofit, Including Surface Area, Maximum Depth of Treatment, and Conveyance:

Disconnect downspouts on front of library (maybe sides south) to fill rain gardens in green patches btm sidewalks @ main entrance. Rain gardens over flow from 1 → next & reconnect to storm sewer. Series of rain gardens in back in buffer btm gathering space & drive. Possible curb cuts on street in front of library (Pleasant?) & utilize neighboring open space to ⑤

SITE CONSTRAINTS

Adjacent Land Use:

- ☐ Residential ☒ Commercial ☐ Institutional
☐ Industrial ☐ Transport-Related ☐ Park
☐ Undeveloped ☐ Other: _____

Possible Conflicts Due to Adjacent Land Use? ☒ Yes ☐ No

If Yes, Describe:

Access:

☐ No Constraints

Constrained due to

- ☒ Slope ☒ Space
☒ Utilities ☐ Tree Impacts
☒ Structures ☒ Property Ownership
☐ Other: _____

Conflicts with Existing Utilities:

☐ None☒ Unknown

Yes

Possible

- ☐ Sewer
☐ Water
☐ Gas
☐ Cable
☐ Electric
☐ Electric to Streetlights
☐ Overhead Wires
☐ Other: _____

Potential Permitting Factors:

Dam Safety Permits Necessary

Impacts to Wetlands

Impacts to a Stream

Floodplain Fill

Impacts to Forests

Impacts to Specimen Trees

How many? _____

Approx. DBH _____

☐ Probable ☒ Not Probable☐ Probable ☒ Not Probable☐ Probable ☒ Not Probable☐ Probable ☒ Not Probable☐ Probable ☒ Not Probable☐ Probable ☒ Not Probable

Other factors: _____

Soils:

Soil auger test holes:

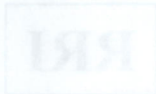
Evidence of poor infiltration (clays, fines):

Evidence of shallow bedrock:

Evidence of high water table (gleying, saturation):

- ☐ Yes ☐ No
☐ Yes ☐ No
☐ Yes ☐ No
☐ Yes ☐ No

C/O soils at urban



SKETCH

see aerial

<input type="checkbox"/> Obtain property ownership	<input type="checkbox"/> Obtain existing topographic map
<input checked="" type="checkbox"/> Obtain historic aerial photography	<input checked="" type="checkbox"/> Obtain detailed topography
<input type="checkbox"/> Obtain historic maps and reports	<input checked="" type="checkbox"/> Obtain utility mapping
<input type="checkbox"/> Obtain aerial photography	<input checked="" type="checkbox"/> Obtain soil data from recent investigations
<input checked="" type="checkbox"/> Obtain sketch	<input checked="" type="checkbox"/> Obtain soil types
<input type="checkbox"/> Other	

DESIGN OR DELIVERY NOTES

- Some info (out front) updated v. recently, Some (back) Not
- Front sidewalks - sawcut sidewalk + pour concrete channels to convey water btwn BRBs
(cover w/ removable grates for cover + easy cleaning + visible connection)
- C/D soils - practices need to connect back to storm sewer

FOLLOW-UP NEEDED TO COMPLETE FIELD CONCEPT

- | | |
|---|--|
| <input type="checkbox"/> Confirm property ownership | <input type="checkbox"/> Obtain existing stormwater practice as-builts |
| <input checked="" type="checkbox"/> Confirm drainage area | <input checked="" type="checkbox"/> Obtain site as-builts |
| <input type="checkbox"/> Confirm drainage area impervious cover | <input type="checkbox"/> Obtain detailed topography |
| <input type="checkbox"/> Confirm volume computations | <input checked="" type="checkbox"/> Obtain utility mapping |
| <input checked="" type="checkbox"/> Complete concept sketch | <input type="checkbox"/> Confirm storm drain invert elevations |
| | <input checked="" type="checkbox"/> Confirm soil types |
| <input type="checkbox"/> Other: _____ | |

INITIAL FEASIBILITY AND CONSTRUCTION CONSIDERATIONS

Front sidewalks all recently repaved; road out front recently repaired
Sync proposed BMPs w/ capital improvement plan

SITE CANDIDATE FOR FURTHER INVESTIGATION:

IS SITE CANDIDATE FOR EARLY ACTION PROJECT(S):

IF NO, SITE CANDIDATE FOR OTHER RESTORATION PROJECT(S):

IF YES, TYPE(S): _____

☒ YES☐ NO☐ MAYBE☒ YES☐ NO☐ MAYBE☐ YES☐ NO☐ MAYBE

Site Name: Richard Sugden Library

Site Number: 20

0 15 30 60 Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Site Name: Richard Sugden Library

Site Number: 20

0 15 30 60 Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics,
CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User
Community

WATERSHED: <u>Spencer</u>		SUBWATERSHED:		UNIQUE SITE ID: <u>21</u>																															
DATE:		ASSESSED BY: <u>RW HF</u>		CAMERA ID:																															
GPS ID:		LMK ID:		LAT:																															
				LONG:																															
SITE DESCRIPTION																																			
Name: <u>Spencer Water Dept Meadow St Pumping Station</u>																																			
Address:																																			
Ownership: <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private <input type="checkbox"/> Unknown																																			
If Public, Government Jurisdiction: <input checked="" type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> DOT <input type="checkbox"/> Other:																																			
Corresponding USSR/USA Field Sheet? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, Unique Site ID:																																			
Proposed Retrofit Location:																																			
<table border="0"> <tr> <td colspan="2">Storage</td> <td colspan="2">On-Site</td> <td colspan="2"></td> </tr> <tr> <td><input type="checkbox"/> Existing Pond</td> <td><input type="checkbox"/> Above Roadway Culvert</td> <td><input type="checkbox"/> Hotspot Operation</td> <td><input checked="" type="checkbox"/> Individual Rooftop</td> <td colspan="2"></td> </tr> <tr> <td><input type="checkbox"/> Below Outfall</td> <td><input type="checkbox"/> In Conveyance System</td> <td><input checked="" type="checkbox"/> Small Parking Lot</td> <td><input type="checkbox"/> Small Impervious Area</td> <td colspan="2"></td> </tr> <tr> <td><input checked="" type="checkbox"/> In Road ROW</td> <td><input type="checkbox"/> Near Large Parking Lot</td> <td><input checked="" type="checkbox"/> Individual Street</td> <td><input type="checkbox"/> Landscape / Hardscape</td> <td colspan="2"></td> </tr> <tr> <td><input type="checkbox"/> Other:</td> <td></td> <td><input type="checkbox"/> Underground</td> <td><input type="checkbox"/> Other:</td> <td colspan="2"></td> </tr> </table>						Storage		On-Site				<input type="checkbox"/> Existing Pond	<input type="checkbox"/> Above Roadway Culvert	<input type="checkbox"/> Hotspot Operation	<input checked="" type="checkbox"/> Individual Rooftop			<input type="checkbox"/> Below Outfall	<input type="checkbox"/> In Conveyance System	<input checked="" type="checkbox"/> Small Parking Lot	<input type="checkbox"/> Small Impervious Area			<input checked="" type="checkbox"/> In Road ROW	<input type="checkbox"/> Near Large Parking Lot	<input checked="" type="checkbox"/> Individual Street	<input type="checkbox"/> Landscape / Hardscape			<input type="checkbox"/> Other:		<input type="checkbox"/> Underground	<input type="checkbox"/> Other:		
Storage		On-Site																																	
<input type="checkbox"/> Existing Pond	<input type="checkbox"/> Above Roadway Culvert	<input type="checkbox"/> Hotspot Operation	<input checked="" type="checkbox"/> Individual Rooftop																																
<input type="checkbox"/> Below Outfall	<input type="checkbox"/> In Conveyance System	<input checked="" type="checkbox"/> Small Parking Lot	<input type="checkbox"/> Small Impervious Area																																
<input checked="" type="checkbox"/> In Road ROW	<input type="checkbox"/> Near Large Parking Lot	<input checked="" type="checkbox"/> Individual Street	<input type="checkbox"/> Landscape / Hardscape																																
<input type="checkbox"/> Other:		<input type="checkbox"/> Underground	<input type="checkbox"/> Other:																																
DRAINAGE AREA TO PROPOSED RETROFIT																																			
Drainage Area ≈ _____ Imperviousness ≈ _____ % Impervious Area ≈ _____			Drainage Area Land Use: <input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> SFH (< 1 ac lots) <input type="checkbox"/> SFH (> 1 ac lots) <input type="checkbox"/> Townhouses <input type="checkbox"/> Multi-Family <input type="checkbox"/> Commercial <input type="checkbox"/> Institutional <input checked="" type="checkbox"/> Industrial <input checked="" type="checkbox"/> Transport-Related <input type="checkbox"/> Park <input type="checkbox"/> Undeveloped <input type="checkbox"/> Other:																																
Notes:																																			
EXISTING STORMWATER MANAGEMENT																																			
Existing Stormwater Practice: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Possible																																			
If Yes, Describe:																																			
Describe Existing Site Conditions, Including Existing Site Drainage and Conveyance:																																			
<u>PS set @ edge of wetland</u> <u>PL drains directly to wetland? via CB @ S edge of PL</u>																																			

PROPOSED RETROFIT

Purpose of Retrofit:

- ☒ Water Quality ☐ Recharge ☐ Channel Protection ☐ Flood Control
☐ Demonstration / Education ☐ Repair ☐ Other: _____

Proposed Treatment Option:

- ☐ Extended Detention ☐ Wet Pond ☐ Created Wetland ☒ Bioretention *Row*
☐ Filtering Practice ☐ Infiltration ☐ Swale ☐ Other: _____

Describe Elements of Proposed Retrofit, Including Surface Area, Maximum Depth of Treatment, and Conveyance:

SITE CONSTRAINTS

Adjacent Land Use:

- ☒ Residential ☐ Commercial ☐ Institutional
☐ Industrial ☒ Transport-Related ☒ Park
☒ Undeveloped ☐ Other: _____

Possible Conflicts Due to Adjacent Land Use? ☐ Yes ☐ No

If Yes, Describe:

Access:

- ☐ No Constraints
 Constrained due to
☐ Slope ☒ Space
☐ Utilities ☐ Tree Impacts
☐ Structures ☐ Property Ownership
☒ Other: *Soils, DWA*

Conflicts with Existing Utilities:

- ☐ None
☒ Unknown

Yes	Possible	
<input type="checkbox"/>	<input type="checkbox"/>	Sewer
<input type="checkbox"/>	<input type="checkbox"/>	Water
<input type="checkbox"/>	<input type="checkbox"/>	Gas
<input type="checkbox"/>	<input type="checkbox"/>	Cable
<input type="checkbox"/>	<input type="checkbox"/>	Electric
<input type="checkbox"/>	<input type="checkbox"/>	Electric to Streetlights
<input type="checkbox"/>	<input type="checkbox"/>	Overhead Wires
<input type="checkbox"/>	<input type="checkbox"/>	Other: _____

Potential Permitting Factors:

- Dam Safety Permits Necessary ☐ Probable ☒ Not Probable
 Impacts to Wetlands ☒ Probable ☐ Not Probable
 Impacts to a Stream ☐ Probable ☒ Not Probable
 Floodplain Fill ☐ Probable ☒ Not Probable
 Impacts to Forests ☐ Probable ☒ Not Probable
 Impacts to Specimen Trees ☐ Probable ☒ Not Probable
 How many? _____
 Approx. DBH _____

Other factors: *Drinking water protection area*

Soils:

- Soil auger test holes: ☐ Yes ☐ No
 Evidence of poor infiltration (clays, fines): ☐ Yes ☒ No
 Evidence of shallow bedrock: ☐ Yes ☒ No
 Evidence of high water table (gleying, saturation): ☐ Yes ☒ No

Map says A/B soils but presence of wetlands adjacent calls A/B design into soils



SKETCH

see
aerial

drinking water protection area

DESIGN OR DELIVERY NOTES

FOLLOW-UP NEEDED TO COMPLETE FIELD CONCEPT

- | | |
|---|--|
| <input type="checkbox"/> Confirm property ownership | <input type="checkbox"/> Obtain existing stormwater practice as-builts |
| <input type="checkbox"/> Confirm drainage area | <input type="checkbox"/> Obtain site as-builts |
| <input type="checkbox"/> Confirm drainage area impervious cover | <input type="checkbox"/> Obtain detailed topography |
| <input type="checkbox"/> Confirm volume computations | <input type="checkbox"/> Obtain utility mapping |
| <input type="checkbox"/> Complete concept sketch | <input type="checkbox"/> Confirm storm drain invert elevations |
| | <input checked="" type="checkbox"/> Confirm soil types |

☒ Other: drinking water protection area?

INITIAL FEASIBILITY AND CONSTRUCTION CONSIDERATIONS

SITE CANDIDATE FOR FURTHER INVESTIGATION:

☐ YES ☐ NO ☒ MAYBE

IS SITE CANDIDATE FOR EARLY ACTION PROJECT(S):

☐ YES ☒ NO ☐ MAYBE

IF NO, SITE CANDIDATE FOR OTHER RESTORATION PROJECT(S):

☐ YES ☐ NO ☐ MAYBE

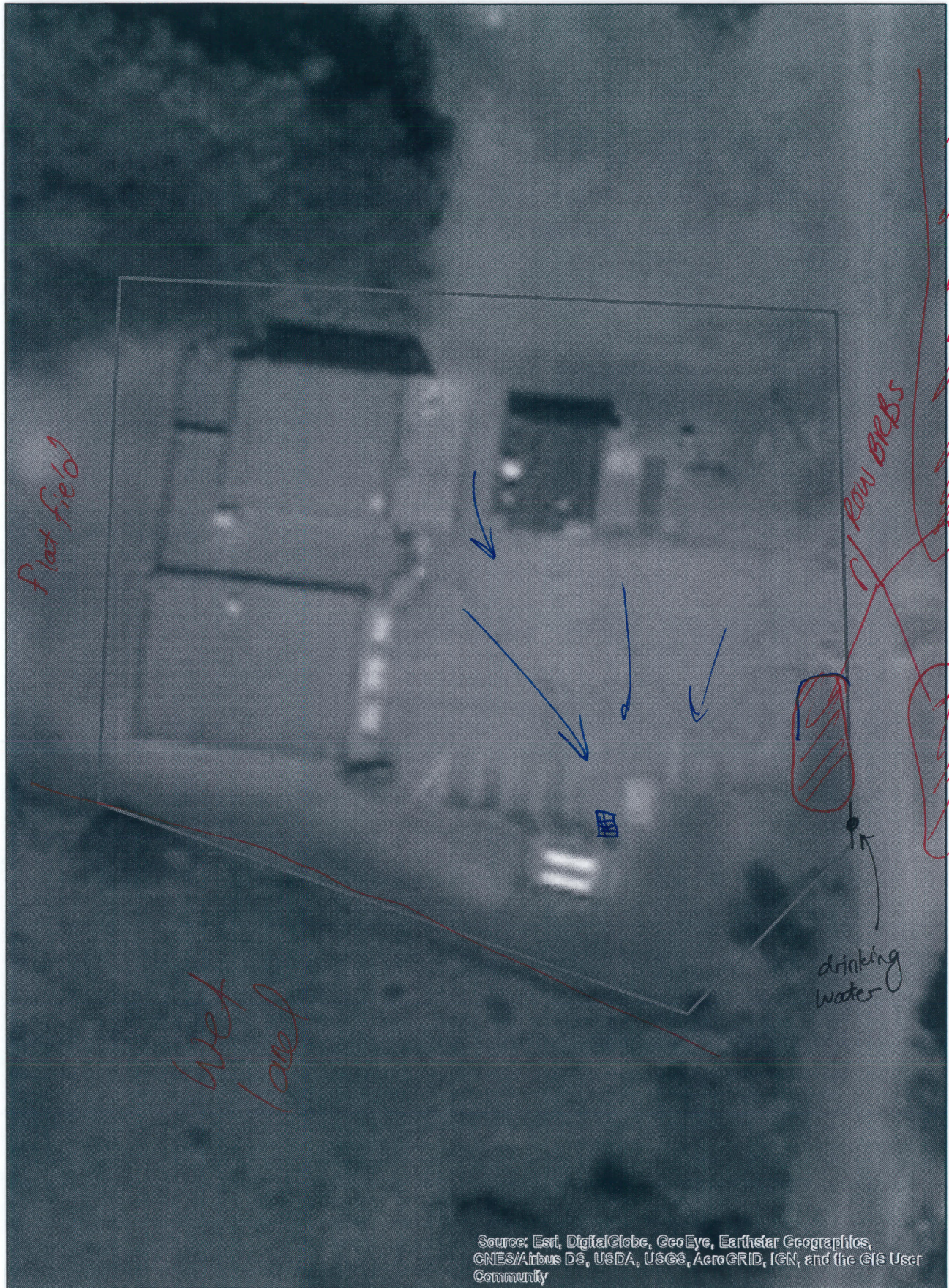
IF YES, TYPE(S): Native plantings

Old Meadow St Pumping Station

Site Name: ~~Spencer Water Department~~

Site Number: 21

0 20 40 80 Feet



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community