

91 Foster Sheldon Road
Wakefield, RI 02879



Office: (401) 789-6092
Email: 4dkalen@gmail.com

Onsite Wastewater Initiative, LLC

November 1, 2019

Mr. Joshua Rosen
Principe Engineering, Inc.
PO Box 298, Tiverton, RI 02878
email: josh@principeengineering.com
Ph: (401) 219-0161 (cell), (401) 816-5385 (office)

Re: Wetland flagging/report - Curtis Corner Road, AP 47-2 Lot 32- South Kingstown, RI

Mr. Rosen:

At your request, Onsite Wastewater Initiative, LLC (OWI) has completed the freshwater wetland delineation on and in the vicinity of the above referenced property (Curtis Cr. property). The field work was done in accordance with the delineation standards outlined in Appendix 2 of the Rules and Regulations Governing the Administration and Enforcement of the Freshwater Wetlands Act (2014).

The referenced property is located within the jurisdiction of the RI Department of Environmental Management (RIDEM). Any work or opinions stated by OWI are subject to the review of the RIDEM and the Town of South Kingstown. Wetland delineation data forms are provided with this report that document vegetation, soils and hydrology found. Preliminary research indicate that there are forested wetlands in close vicinity and within the referenced property. The RIDEM requires regulatory setbacks from the established wetland delineations.

The assessor's database for the Town of South Kingstown depicts A.P. 47-2, Lot 32 as a 3.3 acre parcel situated on the north side of Curtis Corner Road. The parcel is approximately 1,250 feet east from the centerline intersection between South Road and Curtis Corner Road. The lot is undeveloped and is situated between developed parcels to the east and west and partial wetland to the north. There are approved test holes for an onsite wastewater treatment system design on the north west area of the parcel where this environmental scientist assumes that development is sought.

The western portion of the lot contains upland features. To the east of the upland features of the lot are wetland features: a deciduous forested wetland (swamp). To the north of the lot there are wetlands in close vicinity of the property in the form of a forested wetland. Within these wetland resource areas, OWI staff noted additional presence of surface hydrology in the form of stained leaf litter, and buttressed roots.

The RIDEM Environmental Resource Map has mapped the forested wetland that is within the property and in its vicinity, but the map shows the wetland as a continuum. It is the opinion of this environmental scientist that the flagged edge of wetland within the property is not contiguous to the forested wetland to the north of the property. The wetland within the property is approximately 20,000 s.f. in area (1/2 acre +/-). The wetland to the north of the property appears greater than 3 acres in size.

The field work for the delineation was performed by OWI principal David Kalen on October 2, 2019 and partly reviewed on November 1, 2019. The wetland edge was flagged onsite. These wetland features need to be located and set on a site plan by a Professional Land Surveyor or Engineer for permitting purposes. The wetland to the north of the Curtis Cr. property was only flagged partially, on the portion of the wetland that would affect development on the Curtis Cr. property. Permission from the current owner to the north of the Curtis Cr. property was sought before flagging took place.

The Rhode Island Soil Survey (2014) depicts the lot as being comprised mainly of Narragansett very stony silt loam (NbB, for most of the lot, including the wetland area) and to the north of the lot there are Wapping very stony silt loam (WcB, predominantly non-hydric, but with shallow seasonal high water tables) and Ridgebury, Whitman, and Leicester extremely stony fine sandy loams (Rf). Ridgebury, Whitman, and Leicester extremely stony fine sandy loams soils are classified as hydric and can be indicative of wetland features. The OWI findings were fairly consistent with that of the soil survey, other than different soils found on the easterly portion of the Curtis Cr. property.

OWI has established two (2) wetland flag series on the property and to the north with orange color flagging for all flags. On the ground flagging labeled WF-1A through WF-16A depicts the limits of a forested wetland (swamp) on the referenced parcel. This wetland is contained within the lot and is lesser than 3 acres. On the ground flagging labeled WF-1B through WF-16B depicts the southerly limits of a forested wetland (swamp) on the parcel to the north of the Curtis Cr. property (partial flagging of the wetland). This wetland extends to the northwest and northeast of the flags and is greater than 3 acres. A regulatory setback is allocated to this wetland feature to the north of the Curtis Cr. property in the form of a 50-foot perimeter wetland.

The following chart has been prepared to depict the OWI flag series in relation to its classification and any applicable setbacks.

OWI Flag Series	Classification	Regulatory Setback
WF-1A— WF-16A	Forested Swamp (< 3 acres)	None allocated
WF-1B— WF-16B	Forested Swamp (> 3 acres)	50 ft. Perimeter Wetland

The regulations allocate the forested swamp (> than 3 acres) a 50-foot perimeter. Any work proposed within these allocated setbacks or in proximity of any wetland edge may require a permit from the RIDEM and/or the Town of South Kingstown.

Summary

This report describes the field work performed by OWI. There are two wetland features on the property or its vicinity which fall under the regulatory authority of the RIDEM. These features include two forested swamps, one of which maintains a 50 foot setback requirement. Further development on this parcel may require a permit from the RIDEM or the Town of South Kingstown. Do not hesitate to contact OWI if you have any questions or require elaboration on the content of this report.

Note: There are revisions to the RIDEM freshwater wetlands regulations that could change the required setbacks to wetland edges. Please be advised to submit your application before the new regulations are in effect if you wish to submit under the current regulations.

Sincerely,



Onsite Wastewater Initiative, LLC
 David Kalen, M.S., Principal
 Class IV Soil Evaluator (License D4052)

enclosures

Wetland Edge Delineation Data Form (UPLAND)

Applicant:

Wetland No. 1

Project: Curtis Corner Road (AP 47-2 Lot 32)

Flag No. Sequence: WF-1A through WF-16A

City/Town: South Kingstown

Date: 10/2/19, reviewed 11/1/19

Vegetation: List the three dominant species in each vegetative strata along with their NWI status:

<u>Tree</u>	<u>Indicator Status</u>	<u>Herbs</u>	<u>Indicator Status</u>
1. Quercus rubra	FACU	1. Dryopteris marginalis	FACU
2. Acer rubrum	FAC	2. Carex pensylvanica	N/A
3. Prunus serotina	FACU	3.	
<u>Saplings/Shrubs</u>		<u>Woody Vines</u>	
1. Prunus serotina	FACU	1. Smilax rotundifolia	FAC
2. Acer rubrum	FAC	2. Toxicodendron radicans	FAC
3. Quercus rubra	FACU	3.	

List other vegetative species noted which may have affected determination of the wetland edge:

Soil: SCS Soil Survey Mapping Unit: NbB (Narragansett very stony silt loam)
On Hydric Soils List? (Y/N) No

Soil Profile (Note wetland flag no. nearest soil test pit): WF-8A

Horizon	Depth	Matrix Color	Mottling Description	Depth to Saturation	Depth to Free Water	Soil Texture
Ap	0 - 8"	10YR 3/2	-	-	-	SL
Bw	22	2.5 Y 5/4	-	-	-	SiL
C	26+	2.5 Y 5/3	10 YR 4/6	-	-	SiL

Other indicators exhibiting an absence of wetland hydrology (e.g. absence of water marks, lack of redoximorphic features, lack of oxidized rhizospheres, etc.): no wetland hydrology observed

Landscape position: slight back slope

Altered/atypical situation? (describe): None

Comments:

None

Wetland Edge Delineation Data Form (WETLAND)

Applicant:

Wetland No. 1

Project: Curtis Corner Road (AP 47-2 Lot 32)

Flag No. Sequence: WF-1A through WF-16A

City/Town: South Kingstown

Date: 10/2/19, reviewed 11/1/19

Vegetation: List the three dominant species in each vegetative strata along with their NWI status:

<u>Tree</u>	<u>Indicator Status</u>	<u>Herbs</u>	<u>Indicator Status</u>
1. Acer rubrum	FAC	1. Osmunda cinnamomea	FACW
2.		2.	
3.		3.	
<u>Saplings/Shrubs</u>		<u>Woody Vines</u>	
1. Acer rubrum	FAC	1. Toxicodendron radicans	FAC
2.		2.	
3.		3.	

List other vegetative species noted which may have affected determination of the wetland edge: _____

Soil: SCS Soil Survey Mapping Unit: : NbB (Narragansett very stony silt loam)
On Hydric Soils List? (Y/N) No

Soil Profile (Note wetland flag no. nearest soil test pit): WF-8A

Horizon	Depth	Matrix Color	Mottling Description	Depth to Saturation	Depth to Free Water	Soil Texture
A	0 - 13"	2.5Y 2.5/1	-	-	-	SiL
Bw	17	10YR 4/3	7.5YR 4/4	-	-	SL
Cd	24+	2.5Y 4/3	10YR 4/6	-	-	SL

Other hydrological indicators (e.g. water marks, drainage patterns, root rhizospheres, etc.; see Appendix 4(A)(4) of the Rules): stained leaf litter, buttressed roots.

Landscape position: slight toe of slope/depression

Altered/atypical situation? (describe)

Soil mapping unit does not match field observations

Comments: None

Wetland Edge Delineation Data Form (UPLAND)

Applicant:

Wetland No. 2

Project: Curtis Corner Rd (AP 39-3 Lot 7, with owner perm.) Flag No. Sequence: WF-1B through WF-16B

City/Town: South Kingstown

Date: 10/2/19

Vegetation: List the three dominant species in each vegetative strata along with their NWI status:

<u>Tree</u>	<u>Indicator Status</u>	<u>Herbs</u>	<u>Indicator Status</u>
1. Quercus rubra	FACU	1. Dryopteris marginalis	FACU
2. Acer rubrum	FAC	2. Carex pensylvanica	N/A
3. Prunus serotina	FACU	3. Solidago canadensis	FACU
<u>Saplings/Shrubs</u>		<u>Woody Vines</u>	
1. Prunus serotina	FACU	1. Smilax rotundifolia	FAC
2. Acer rubrum	FAC	2. Toxicodendron radicans	FAC
3. Quercus rubra	FACU	3.	

List other vegetative species noted which may have affected determination of the wetland edge:

Soil: SCS Soil Survey Mapping Unit: WcB (Wapping very stony silt loam)
On Hydric Soils List? (Y/N) No

Soil Profile (Note wetland flag no. nearest soil test pit): WF-7B

Horizon	Depth	Matrix Color	Mottling Description	Depth to Saturation	Depth to Free Water	Soil Texture
Ap	0 - 8"	10YR 2/1	-	-	-	SL
Bw	20	10 YR 4/3	-	-	-	vfSL
C	24+	2.5Y 5/3	10 YR 4/6	-	-	vfSL

Other indicators exhibiting an absence of wetland hydrology (e.g. absence of water marks, lack of redoximorphic features, lack of oxidized rhizospheres, etc.): no wetland hydrology observed

Landscape position: slight back slope

Altered/atypical situation? (describe): None

Comments:

None

Wetland Edge Delineation Data Form (WETLAND)

Applicant:

Wetland No. 2

Project: Curtis Corner Rd (AP 39-3 Lot 7, with owner permiss.) Flag No. Sequence: WF-1B through WF-16B

City/Town: South Kingstown

Date: 10/2/19

Vegetation: List the three dominant species in each vegetative strata along with their NWI status:

<u>Tree</u>	<u>Indicator Status</u>	<u>Herbs</u>	<u>Indicator Status</u>
1. Acer rubrum	FAC	1. Osmunda cinnamomea	FACW
2.		2.	
3.		3.	
<u>Saplings/Shrubs</u>		<u>Woody Vines</u>	
1. Clethra alnifolia	FACW	1. Toxicodendron radicans	FAC
2. Linder benzoin	FACW	2.	
3.		3.	

List other vegetative species noted which may have affected determination of the wetland edge: _____

Soil: SCS Soil Survey Mapping Unit: WcB (Wapping very stony silt loam)
On Hydric Soils List? (Y/N) No

Soil Profile (Note wetland flag no. nearest soil test pit): WF-7B

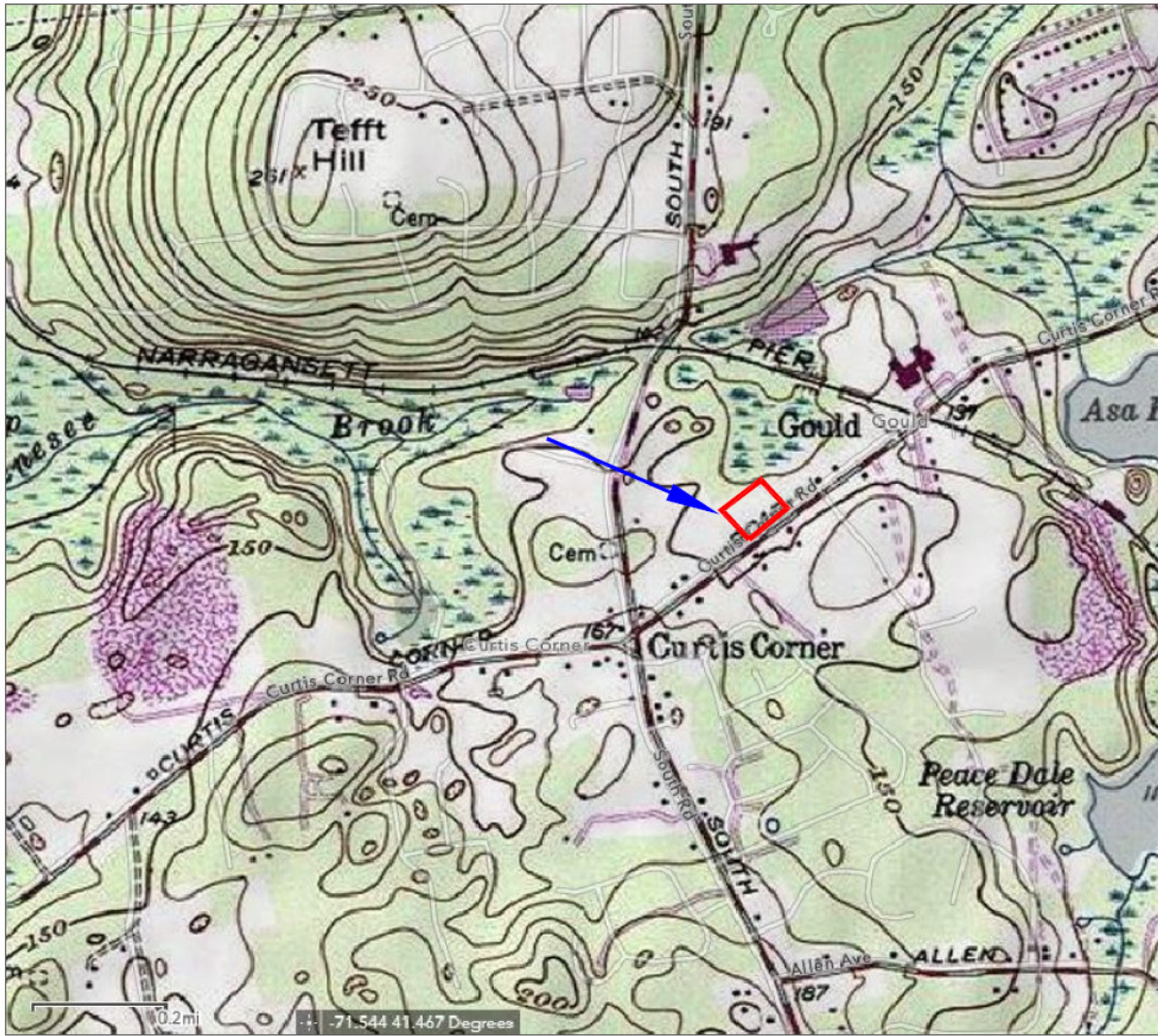
Horizon	Depth	Matrix Color	Mottling Description	Depth to Saturation	Depth to Free Water	Soil Texture
A	0 - 10"	2.5Y 2.5/1	-	-	-	SiL (mucky)
Cg1	15	2.5Y 4/2	-	-	-	vfSL
Cg2	24+	2.5Y 4/2	2.5Y 5/6	-	-	vfSL

Other hydrological indicators (e.g. water marks, drainage patterns, root rhizospheres, etc.; see Appendix 4(A)(4) of the Rules): buttressed roots.

Landscape position: toe of slope

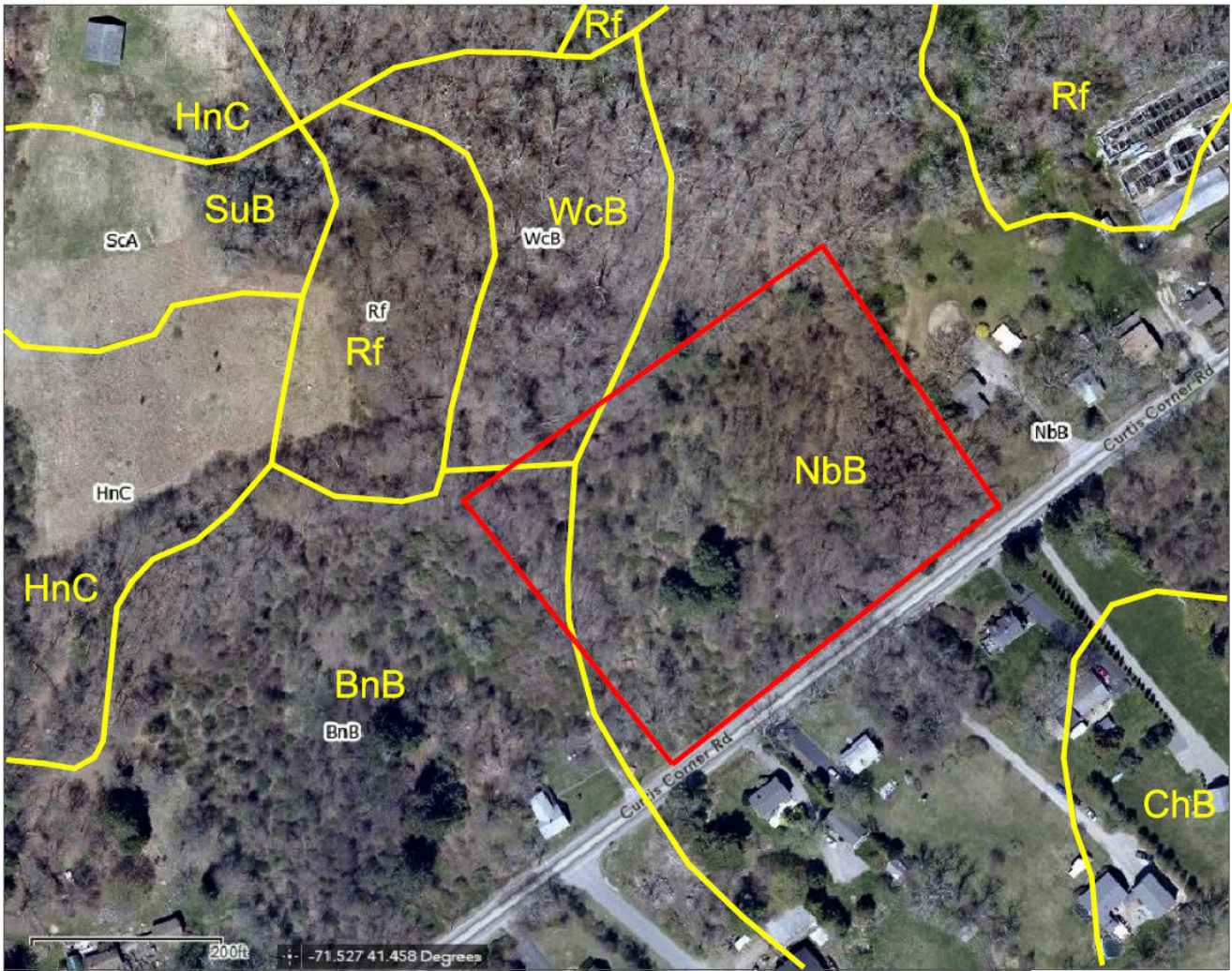
Altered/atypical situation? (describe)

Comments: None



USGA Topographic Map (Kingston)
Curtis Corner Road - South Kingstown, RI.
(approximate location in red)





USDA Soil Survey Map

Curtis Corner Road - South Kingstown, RI.
 (approximate property line in red)





Site sketch with approximate wetland flag locations

Curtis Corner Road - South Kingstown, RI.
(approximate property line in red)

