## PHASE I THREATENED AND ENDANGERED WILDLIFE AND HABITAT ASSESSMENT OUTLINE

Please include the following in order (additional supporting information can be included as Appendices)

Part 1: Findings and Summary (follow format of this part)

Part 2: NHB Datacheck Results Letter, Figures, Site Photographs

## Part 3: Detailed Evaluation

PROPOSED PROJECT:

PROJECT SITE AND SURROUNDING LAND USE DESCRIPTION:

THREATENED AND ENDANGERED AND WILDLIFE HABITAT EVALUATION:

SITE VISIT(S) EFFORT:

POTENTIAL IMPACTS AND PROPOSED CONSERVATION MEASURES:

## Part 4: Appendices

- A. Resume of Mark West
- B. Conservation Land Map
- C. Town of Warner Rare Species List

#### **PART 1: SUMMARY AND FINDINGS**

Mark C. West	NHB19-4037
West Environmental, Inc.	Comet Site
48 Stevens Hill Rd, Nottingham, NH 03290	9 Route 3 West
mark@westenv.net	Ranger Engineering Group Inc.
603-778-5292	[AOT APPLICATION # (if known)]

#### **PROPOSED PROJECT:**

West Environmental, Inc. (WEI) has prepared this report to document an assessment of wildlife habitat on two parcels totaling 3.13 acre between south of Route 103 and north of the Warner Rover. The project proposes to develop two commercial lots along the state highway impacting 2.1 acres with 1.03 acres left undeveloped adjacent to the conservation land to the south.

We have included plant community descriptions, photo documentation, aerial photo habitat map, development plan, and findings. The NH Natural Memo found Wood Turtle (*Glyptemys insculpta*) associated with the Warner river. In addition, a list of rare species known occurrences in Warner prepared by the NH Natural Heritage Bureau was used to help identify potential rare wildlife species that may utilize the site. The site was analyzed for all threatened and endangered wildlife species found in New Hampshire.

## PHASE I Threatened and Endangered Wildlife and Habitat Assessment Findings:

Check one

No threatened and endangered wildlife and habitat present, no threatened or endangered wildlife, habitat, or wildlife corridors likely to be impacted by project activities.

X Threatened and endangered wildlife and habitat present; HOWEVER, NO threatened or

endangered wildlife, habitat, or wildlife corridors likely to be impacted by project activities. No conservation measures are proposed.

Threatened and endangered wildlife and habitat present or wildlife corridors present. Proposed actions have the potential for impacts. Conservation measures incorporated into the proposed project or project design.

#### THREATENED AND ENDANGERED WILDLIFE AND HABITAT:

• Wood Turtle Habitat exists along the Warner River including the river and the forested riverbanks and slopes. There were no potential vernal pools found onsite during inspections on August 10 and October 8, 2020 and no wetland depressions are present on the site. The wet meadow has very dense phragmites stands and there is higher value aquatic habitat in the large wetland complex south of the site. The compacted fill on the site appears too firm to provide areas for turtle nesting and no dug holes were found in the project area.

# PART 1: SUMMARY AND FINDINGS

	NHB19-4037
	Comet LLC
	3 Route 103 West Warner NH
	Ranger Engineering Group Inc.
	[AOT APPLICATION #] (if known)
Endangered Wildlife and Habitat Assessment biologist (Env. Wq. 1503.19(h)) is assuming reto be included in Part 4: Appendices.	al that conducted the Phase I Threatened and   . Note: By signing this document, the qualified wildlife  esponsibility for the wildlife assessment. Credentials need
Mark C. West	120/30/2020
Name – printed	Date
Request for NHFG Concurrence with Find with Env. Wq. 1503.19(h)(1)b*	dings in compliance with Env. Wq. 1503.19(h)(1)a ings and Proposed Conservation Measures in compliance
potential focused survey needs (Phase II)	to discuss proposed conservation measures and/or, *
provided in this assessment. Changes to proje	d recommendations are based on the information ect scope may affect NHFG and/or NHDES determination on measures and project design modifications proposed

## PART 2: NHB Datacheck Results Letter, Figures, Site Photograph/90-=-phs

- 1. NHB Memo
- 2. 2018 Aerial Photo
- 3. Site Plan
- 4. Habitat Map
- 5. NH Wildlife Action Plan Land Cover Figure
- 6. NH Wildlife Action Plan Habitat Rankings
- 7. NWI Map
- 8. Photo Documentation
- 9. 1998 Aerial Photo
- 10. 2003 Aerial Photo
- 11. Potential Deed Restriction Plan

#### **PART 3: Detailed Evaluation**

#### **PROPOSED PROJECT:**

This project proposes two commercial buildings and associated parking, driveways, and storm water management. The buildings include restaurants, and one will have drive-up window. The development footprint includes 2.1 acres. There is the potential for a 1.03-acre deed restricted area in the southern portion of the site most of which is wetland. There are no wetland impacts associated with this project. The site was filled with stony subsoil in 2003 which covers most of the development footprint. The sit is relatively flat and slopes slightly south towards the Warner River. There is a steeper slope at the edge of the fill adjacent the wetland and power lines.

## PROJECT SITE AND SURROUNDING LAND USE DESCRIPTION:

The property is bordered by a gas station/convenience store to the west a park and ride to the north an undeveloped parcel to the east and conservation land to the south. The site previously had a building on one of the lots and was filled with subsoil material in 2003. We have included 1998 and 2003 aerial photography showing the site before and after filling. The site includes shrub openings and early successional woodland on the filled areas and a wet meadow area with a powerline in the southern portion of the lot. There is a ditched stream along the eastern boundary. There is a 11.2-acre conservation easement between the site and the Warner River located 300 to 800 feet from the southern property boundary west to east.

This site is situated south of a developed shopping center with an interstate highway to the west and the state highway to the north with residential development to the east. The conservation easement to the south adjacent the river provides opportunities for wildlife corridor and habitat connections. The most important habitat is located on the conservation easement and includes a variety of wetland habitat associated with a stream that drains into the Warner River.

A list of plant communities follows.

## **PLANT COMMUNITIES**

### **Upland Sapling Shrub Disturbed**

Sapling: quaking aspen (pole sized), black locust, white pine, grey birch

Shrub: white pine, grey birch, pussywillow, sweet fern, autumn olive, meadowsweet, staghorn sumac

Herb: grasses, goldenrod, birdsfoot trefoil, rabbits' foot, corn vetch, aster, wild lettuce, reed canary grass, purple loosestrife, clover crown vetch

Wildlife: raven, yellow throat, morning dover, catbird, goldfinch, tufted titmouse Soils Stone/Gravel/silt soil appears to be compacted

## Wetland Forest Scrub Shrub - powerlines

Canopy: red maple

Shrub: silky dogwood, pussywillow, speckled alder, meadowsweet

Herb: goldenrod, sensitive fern

Species noted: chickadee, yellowthroat Old fill slope at edge of power lines

#### **Wetland Wet Meadow**

Shrub: speckled alder, meadowsweet, silky dogwood

Herb: reed canary grass

Species noted: song sparrow

## Red Map Swamp Floodplain - offsite

Canopy: red maple, black willow

Shrub: silky dogwood, speckled alder, grey birch, multiflora rose, winterberry

Herb: false nettle, sensitive fern

Vine: Virginia creeper, oriental bittersweet

Species noted: veery

## <u>Ditch Mature Forest</u> – feeds wet meadow

Canopy: white pine, quaking aspen, black cherry, linden, red oak, elm, and American beech

Vine: bittersweet

## Red Map Swamp Floodplain - offsite

Canopy: red maple, black willow

Shrub: silky dogwood, speckled alder, grey birch, multiflora rose, winterberry

Herb: false nettle, sensitive fern

Vine: Virginia creeper, oriental bittersweet

Species noted: veery

#### THREATENED AND ENDANGERED WILDLIFE AND HABITAT EVALUATION:

All Threatened and Endangered species known to occur in New Hampshire were considered in this evaluation. Many species were eliminated from consideration based on the habitat types on this site.

Below is a review of the wildlife species known to occur in the Town of Warner. The habitat requirements for these species is analyzed to determine the likelihood of their presence. Other that the Bald Eagle and American Eel this site does not appear to provide suitable habitat for these rare species or other threatened or endangered wildlife species. The Bald Eagle should not be impacted due to the protection of the open space area along the river.

Mammals

Northern Long-eared Bat - Myotis septentrionalis

The site may provide feeding areas for this species due to its proximity to the river.

#### Birds

Vesper Sparrow - Pooecetes gramineus -- SC Historical

This species requires open fields and low growing shrublands and that habitat does not exist on this site. This site has taller vegetation.

### Reptiles

Blanding's Turtle - Emydoidea blandingii - Endangered

The site does not have any freshwater pond, deep marsh, shallow marsh habitat or vernal pools. The closest suitable habitat is over 600' away in the conservation easement closer to the river. There does not appear to be habitat to attract this species onto this site or suitable habitat north of this site that would require them to pass through the property. This project does not appear to have any impact on this species.

#### Northern Black Racer - Coluber constrictor - Threatened

The lack of open fields, dry sandy soils reduces the potential habitat for this species onsite along with the habitat fragmentation north of the site. The compacted fill reduces the likelihood of nesting habitat. Several cover items were turned over that did not reveal this species during hot sunny weather. There does not appear to be habitat to attract this species onto this site or suitable habitat north of this site that would require them to pass through the property. It is possible that they may utilize the powerline corridor.

### Wood Turtle - Glyptemys insculpta – SC

The NHB Memo identified the presence of this species west of the site along the Warner River near the interstate. The actual species record was not included with the Memo, but the Warne River has suitable habitat including approximately 100 linear feet of riverbank. They also may use the powerline corridor and wet meadow which will remain undeveloped. The existing conservation easement provides an excellent buffer between the site and the riverbank habitat.

The two species that may utilize the site Black Racer and Wood Turtle would most likely utilize the southern portion of the property which will not be developed and can be deed restricted. The critical habitat for Wood Turtle is already protected by an 11.2- acre Conservation Easement which will have a 100-foot +/- buffer from the development.

SITE VISIT(S) EFFORT:

Date: August 10<sup>th</sup> and October 8<sup>th</sup>, 2020

Weather Conditions: 8/10 – sunny and dry with a light breeze, 84 degrees; 10/8 – sunny and breezy, 72

degrees

<u>Duration of Visit</u>: 8/10 – 4.5 hrs.; 9/8 – 2.5 hrs.

Site Conditions:

<u>Discussion</u>: The first site inspection included a reconnaissance of the entire site with a focus on the riparian buffer, wetlands, and forest habitat. Habitat features were noted, and photo documentation was collected. The second inspection included an inspection of the Warner River corridor from the Interstate 89 bridge to the eastern boundary of the conservation easement. This also included a walk throughout the conservation easement and property to the east.

#### POTENTIAL IMPACTS AND PROPOSED CONSERVATION MEASURES:

This project proposes two restaurants, and one will have drive-up window. The development footprint includes 2.1 acres closest to the road and other developed lands. The stormwater management system will help to protect water quality. The development envelope on this site is focused on previously disturbed areas close to the road but there will be an incremental loos of buffer habitat to the more valuable habitat associated with the Warner River/Conservation easement.

The proposed development will impact a young woodland adjacent to other developed areas. The project provides a balance of development and protection resulting in thirty percent of the site left undeveloped. There will be impact to the non-endangered wildlife species that utilize this habitat.

This project will have minimal impact on habitat for threatened or endangered species due to its disturbed condition and landscape position. This project will not impact travel corridors for threatened or endangered species as they are located south of the site closer to the Warner River.

## PART 4: Appendices

- A. Resume of Mark West
- B. Conservation Land Map
- C. Town of Warner Rare Species List



# 48 Stevens Hill Road, Nottingham, NH 03290 (603) 734-4298 mark@westenv.net

## WILDLIFE RESUME - MARK C. WEST

#### **SKILLS**

Plant Community Identification
Wildlife Habitat Assessment
Wetland Delineation Inventory and Assessment
Vernal Pool Documentation and Assessment
Bird Identification
Wildlife Photography

#### **EDUCATION**

B.A. in Environmental Studies, New England College, Henniker, NH, 1980 Concentration in Ornithology

Specialized Postgraduate Studies:

**USACE Highway Methodology Training Workshop** 

Certificate of Training: 1987 U.S. Army Corps of Engineers Wetland Delineation Manual

Postgraduate-Wetlands, University of New Hampshire

Postgraduate-Wetland Delineation, University of Massachusetts-Amherst

## **WORK EXPERIENCE**

- 1980 Research Assistant, Red-shouldered Hawk Nest Location Survey Audubon Society of NH
- 1981 Hack Site Attendant, Peregrine Fund, Deal Island Wildlife Refuge, Maryland.
- 1982 Field Biologist, Westport River Osprey Project, Westport, MA.
- 1983-1984 Marine Biologist, Princess Cruise Lines Whale Watches, Plymouth, MA
- 1984-1988 *Ranger / Naturalist*, Ipswich River Wildlife Sanctuary Massachusetts Audubon Society, Topsfield, MA.
- 1988-1989 Senior Ecologist, Natural Resources Consulting Services, Concord, NH
- 1989-1998 Senior Wetland Scientist, Gove Environmental Services, Inc., Exeter, NH
- 1999-2001 Adjunct *Professor, Environmental Studies* Antioch New England Graduate School, Keene, NH
- 1998-Present President/Wetland Scientist, West Environmental, Inc., Nottingham, NH.

## **Town Wide Wetland Inventories**

Auburn, Brentwood, Exeter, Fremont, Manchester, Newfields, Newington, Newmarket, Nottingham, Pelham, Plaistow, Salem, Sandown

ARM Studies over 20 between 2009 and 2019 covering sites from 100 to 1,800 acres

### THREATENED AND ENDANGERED SPECIES SURVEYS

2007 Merrimack River Bald Eagle Roosting Site Survey Brown Ave Property Manchester

2009 Portsmouth City-wide Vernal pool Survey

2010 Blanding's Turtle Survey Lorden Parcel Londonderry, NH

2010 Oak Ridge Subdivision Wildlife Habitat Assessment Nottingham, NH 17 vernal pools

2010 Exeter River Floodplain Bio-Inventory Danville Fremont, Sandown

2011 Stoneyfield Farm Habitat Index Sites for New England Cottontail Habitat Enhancement

2011 Lamprey River Floodplain Bio-Inventory Epping, Lee, Durham, Newmarket documented Blanding's and Wood Turtle Habitat

2012 NRCS Wetland Reserve Documented Wood Turtle & Blanding's Turtle Habitat Nottingham

2014 Wildlife Habitat Assessment of Milton CAT Site - Londonderry, NH

2014 Wildlife Habitat Assessment of Prologis Site - Londonderry, NH

Bald Eagle, Eastern Hognose Snake, New England Cottontail, Northern Black Racer, Spotted Turtle, Blanding's Turtle

2015 NE Cottontail Survey Silver Street Project Dover, NH

2016 Horsburgh ARM Study Fremont Documented Blanding's Turtle Habitat

2016 Mathes ARM Study for NH Fish and Game Londonderry Documented Blanding's Turtle

2017 Borthwick Forest Development – Review of Wildlife Habitat Study for City of Portsmouth

2018 Brighton Hill and Loverin Hill ARM Studies for NH Fish and Game Croyden, Grantham,

Newport 3,181 acres Documented Least Bittern Habitat

2019 Sanborn ARM Study Auburn Documented Blanding's Turtle Habitat

#### **PUBLIC SERVICE**

New Hampshire Board of Natural Scientists

Past Chairman, Nottingham Conservation Commission

Past President, New Hampshire Association of Wetland Scientists

Past Chairman, Board of Directors, Bear Paw Regional Greenways

Past Member of Board of Directors, New England Chapter of the Society of Wetland Scientists

Assistant to NH Wetlands Bureau in Wetland Delineation Training

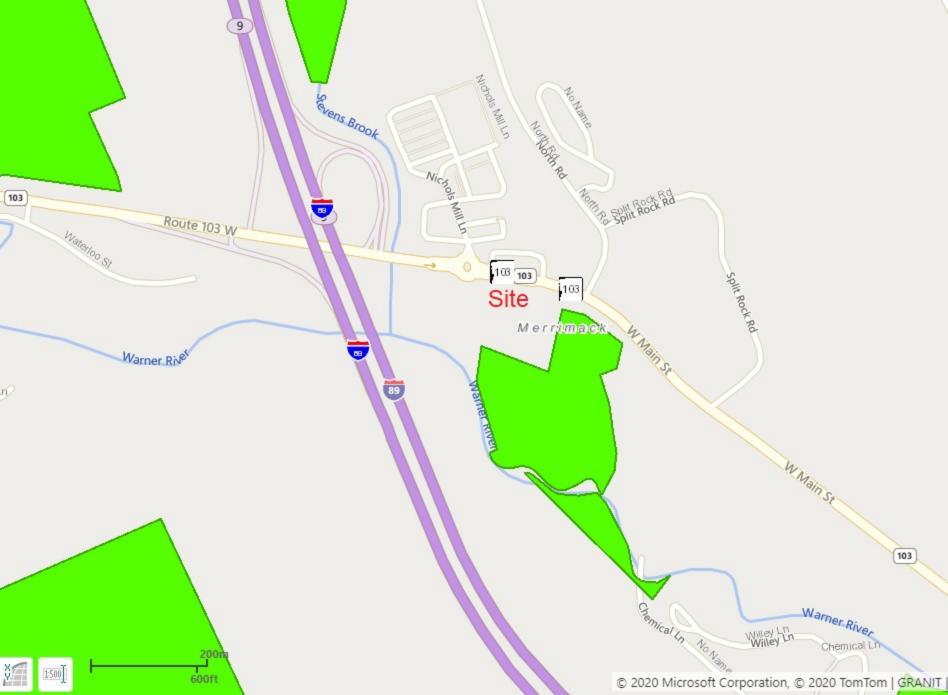
Member of Steering Committee-Analysis of Wetland Mitigation in NH, NHDES/EPA

Trainer for USACE Highway Methodology Workbook Supplement in New Hampshire

Trainer for Method for Cooperative Evaluation of Non-tidal Wetlands in NH

Member of Wetlands Advisory Committee, Audubon Society of NH

Member of Site-Specific Wildlife Habitat Assessment Committee



Warner Natural Communities - Palustrine ~ - Black gum - red maple basin swamp -- -- Historical 28 Plants \*\* American ginseng - Panax quinquefolius -- T 1 82 \*\*\*\* small whorled pogonia - Isotria medeoloides T T 3 56 Vertebrates - Bat Hibernacula \*\* Bat hibernaculum - Bat Hibernaculum T E 1 13 Vertebrates - Mammals \*\*\* Northern Long-eared Bat - Myotis septentrionalis T E 1 23 Vertebrates - Birds ~ Vesper Sparrow - Pooecetes gramineus -- SC Historical 20 Vertebrates - Reptiles \*\* Blanding's Turtle - Emydoidea blandingii -- E 1 1098 \*\* Northern Black Racer - Coluber constrictor constrictor -- T 1 70 \*\*\* Wood Turtle - Glyptemys insculpta -- SC 4 281

## **CONFIDENTIAL – NH Dept. of Environmental Services review**

## Memo



**To:** Kim Brown, Ranger Engineering

13 Branch Street

Suite 101

Methuen, MA 01844

From: Amy Lamb, NH Natural Heritage Bureau

Date: 12/19/2019 (valid for one year from this date)

Re: Review by NH Natural Heritage Bureau

NHB File ID: NHB19-4037 Town: Warner Location: #9 Route 103 West

Description: Construct 3 new buildings on 3 existing lots with associated driveways, parking, utilities, and stormwater controls.

cc: Kim Tuttle

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments: Please contact the NH Fish & Game Department.

Vertebrate species State<sup>1</sup> Federal Notes

Wood Turtle (*Glyptemys insculpta*) SC -- Contact the NH Fish & Game Dept (see below).

<sup>1</sup>Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (\*) indicates that the most recent report for that occurrence was more than 20 years ago.

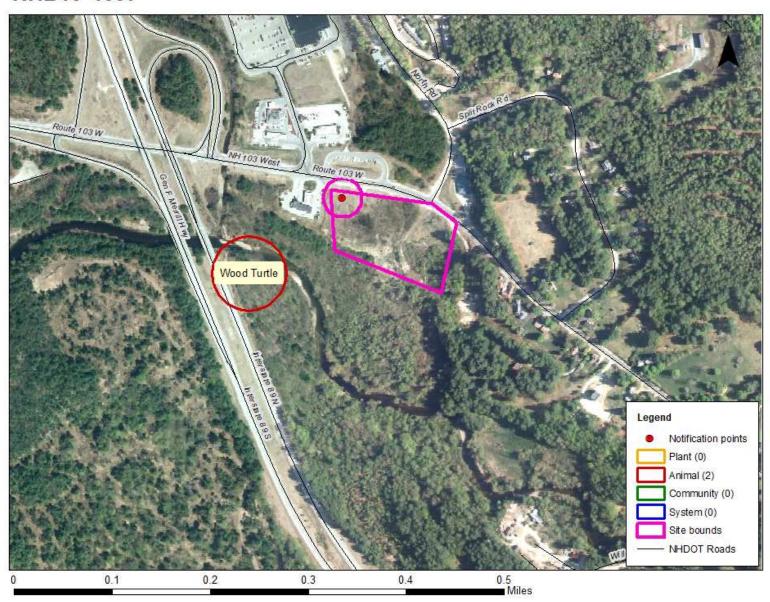
Contact for all animal reviews: Kim Tuttle, NH F&G, (603) 271-6544.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

Department of Natural and Cultural Resources Division of Forests and Lands (603) 271-2214 fax: 271-6488

# **CONFIDENTIAL** – **NH Dept. of Environmental Services review**

## NHB19-4037

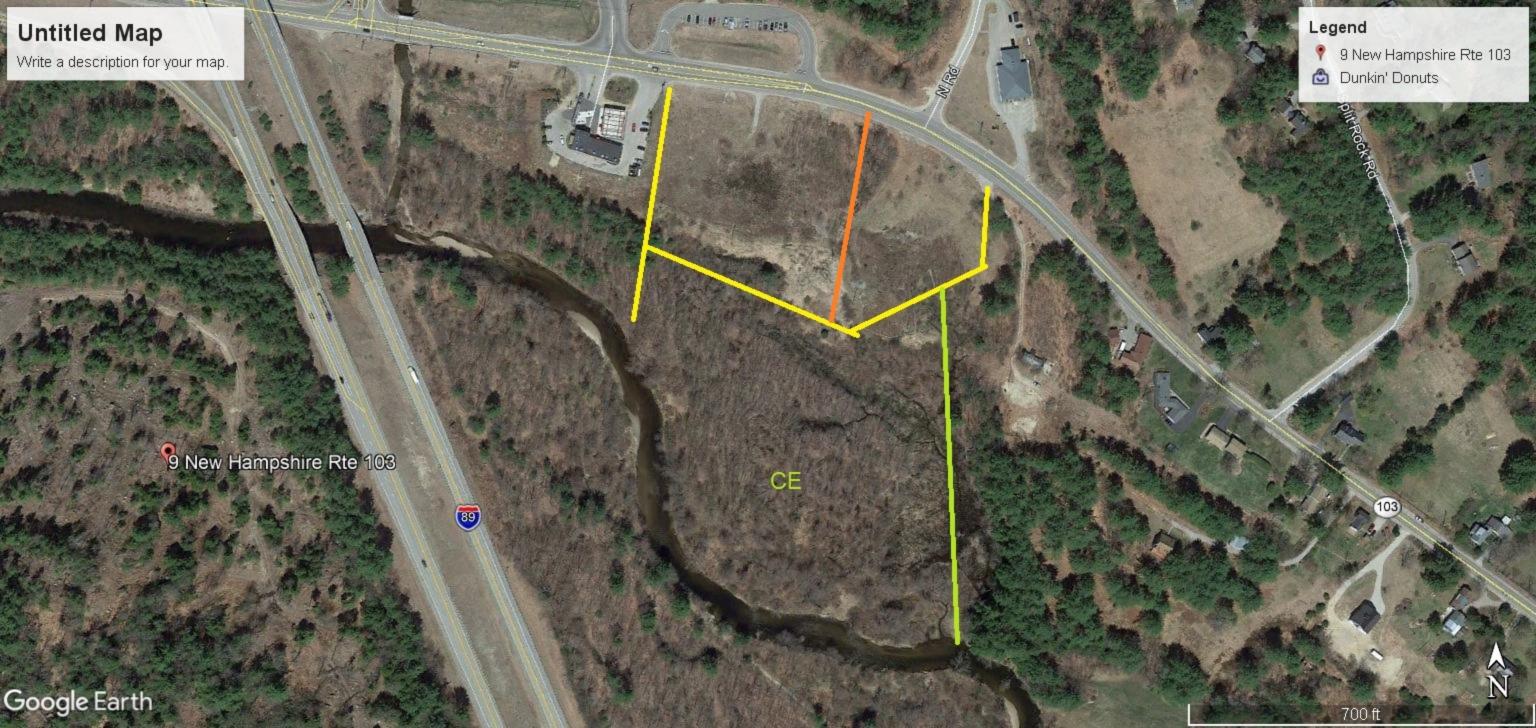


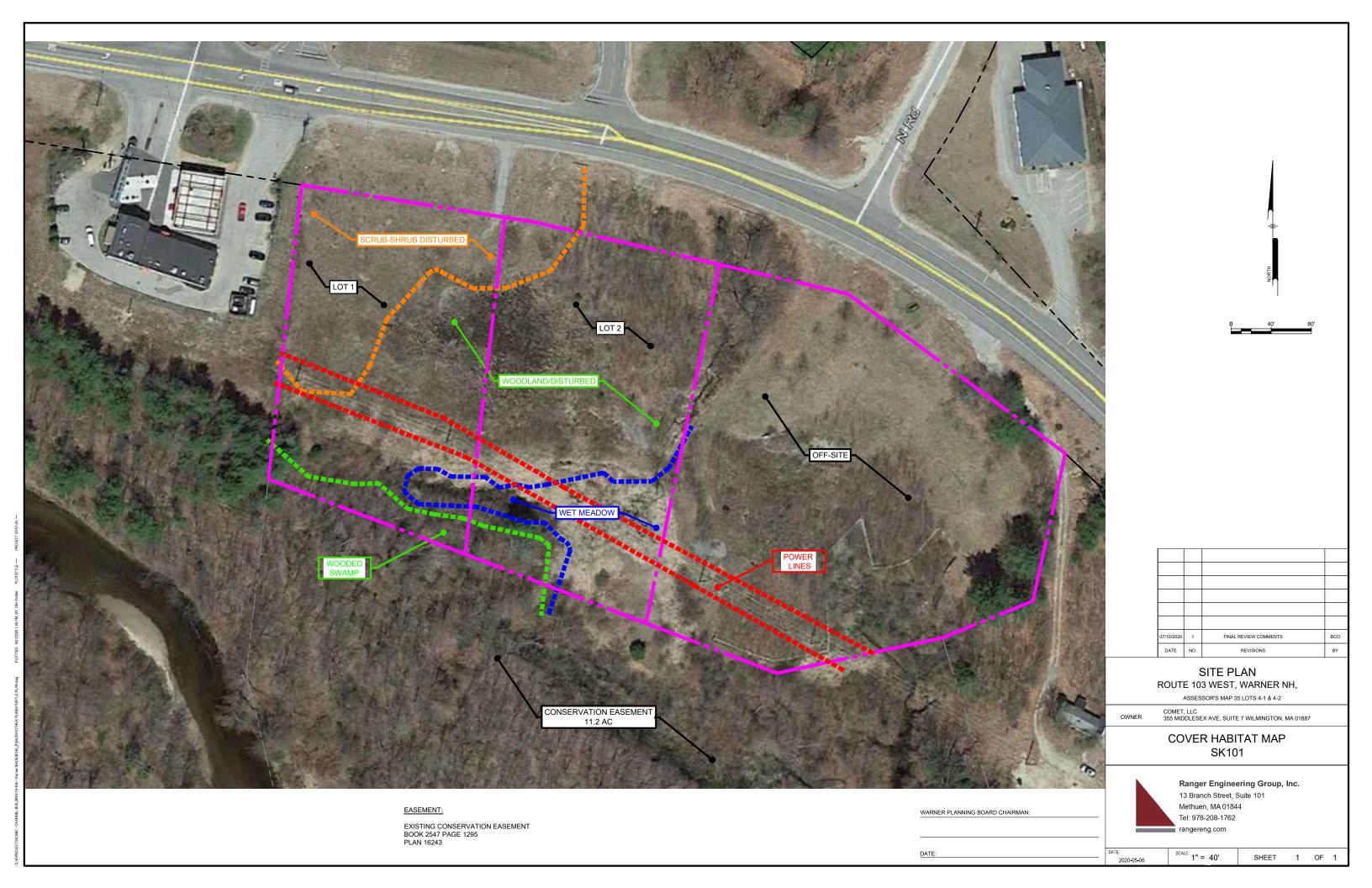
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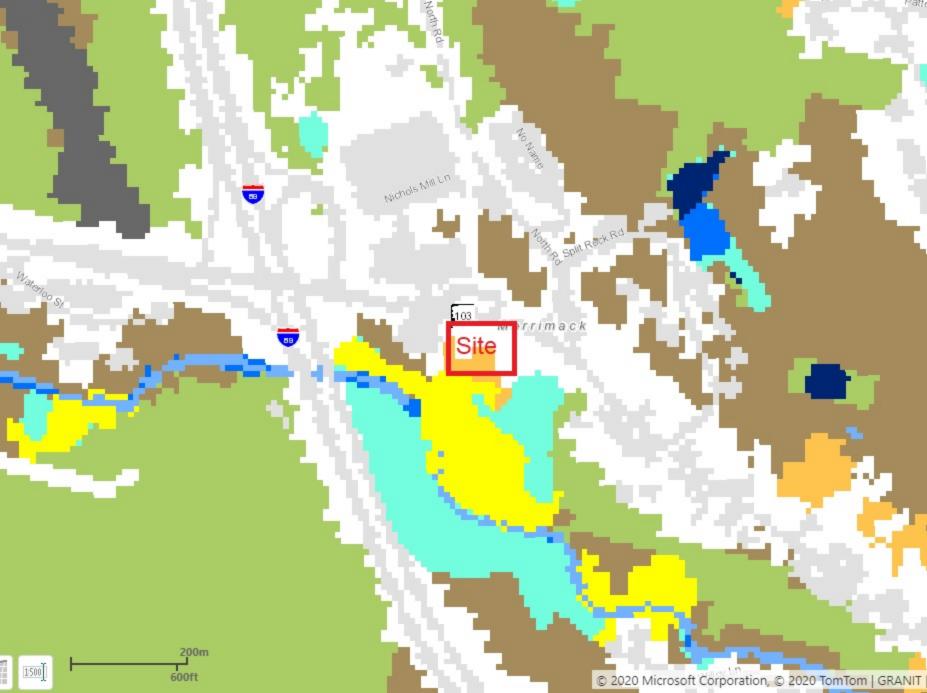
Legal Status	Conservation Status	
Federal:	Global:	
State:	State:	
Description at this Location		
Conservation Rank:		
Comments on Rank:		
Detailed Description:		
General Area:		
General Comments:		
Management		
Comments:		
Location		
Survey Site Name:		
Managed By:		
County:		
Town(s):		
Size:	Elevation:	
Precision:		
Directions:		
Dates documented		
First reported:	Last reported:	

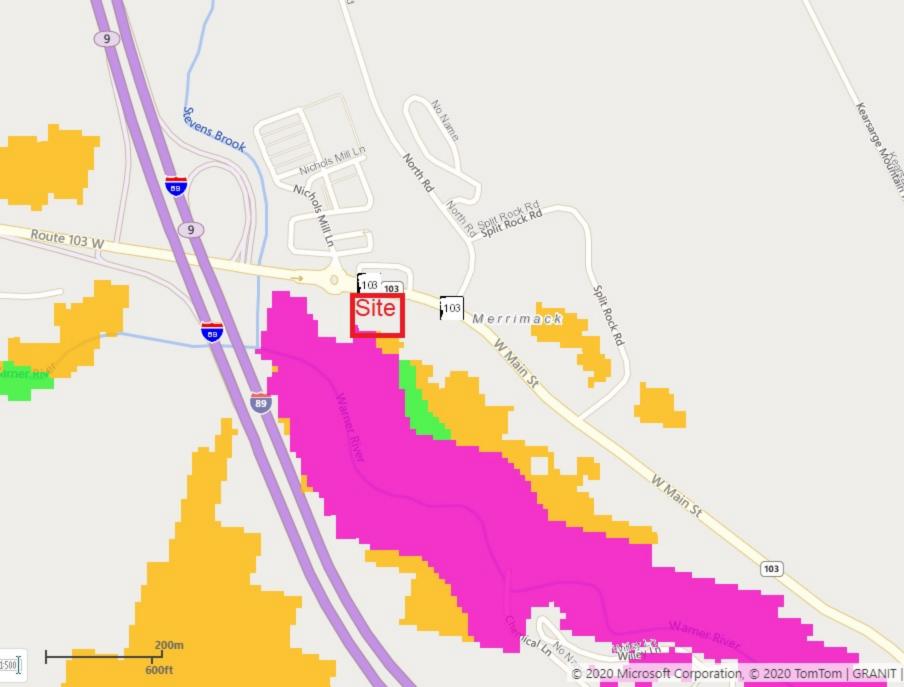
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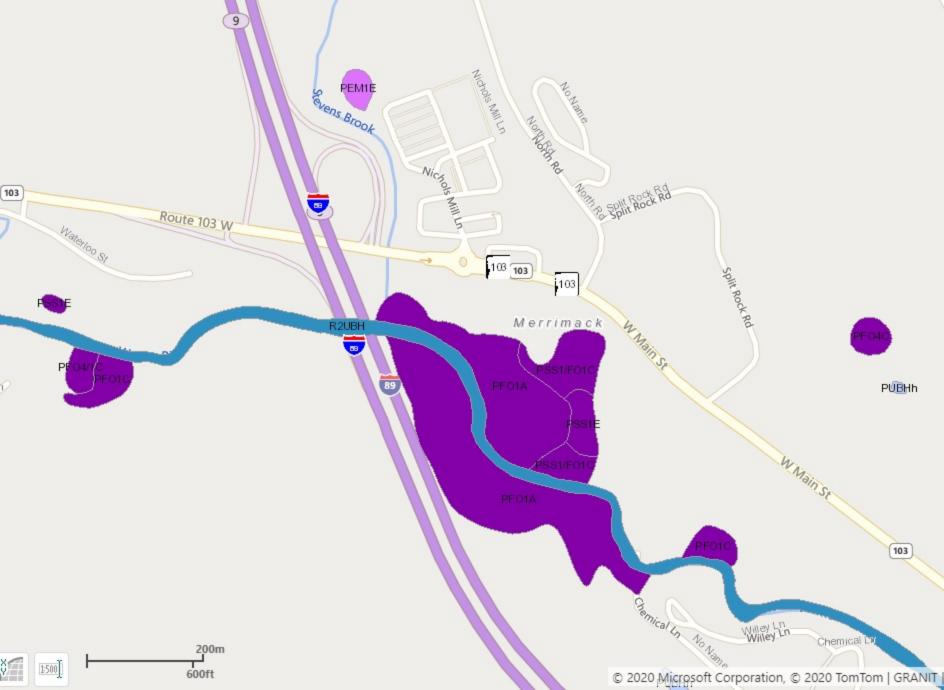
Legal Status	Conservation Status	
Federal:	Global:	
State:	State:	
Description at this Location		
Conservation Rank:		
Comments on Rank:		
Detailed Description:		
General Area:		
General Comments:		
Management		
Comments:		
Location		
Survey Site Name:		
Managed By:		
County:		
Town(s):		
Size:	Elevation:	
Precision:		
Directions:		
Dates documented		
First reported:	Last reported:	













1. Looking south into the site from the driveway.



2. Looking southwest from Route 103 at the edge of the scrub shrub habitat.



3. This is a close up of the scrub shrub habitat which developed on gravel fill.



4. The soil surface is compacted gravel that is somewhat poorly drained.



5. This is a close up of the young forest in the eastern portion of the site.



6. Looking west at the wet meadow under the powerline which is dominated by reed canary grass.



7. Looking east along the boundary between woodland and wet meadow.



8. This is a view of the scrub shrub/woodland transition in the southwest portion of the site under the powerlines.



9. Looking south into the floodplain forest south of the site on the conservation easement.



10. Brush piles and bags were turned over to try and locate snakes.



11. This is a view of the ditched intermittent stream that takes runoff from Route 103 along the western property line.



12. Looking east (downstream) at the Warner River which provides good wood turtle habitat.



13. There is a wildlife corridor along the east side of the large wetland on the conservation easement.



14. Looking west into the large wetland complex adjacent the river in the conservation easement.





