From Delineation to Avoidance and Minimization: the New Wetlands Rules

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September 26, 2019

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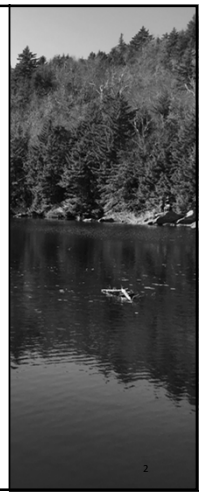
Introduction

- Delineation and (Resource) Classification
- Functional Assessment
- Avoidance and Minimization
  - BMP manual
- Mitigation



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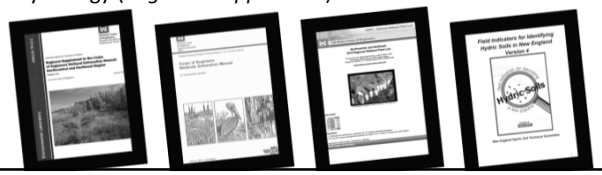
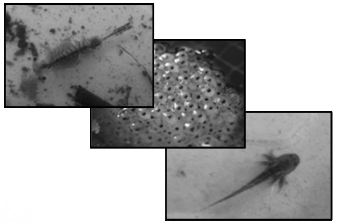
Delineation of Jurisdictional Areas: Wetlands

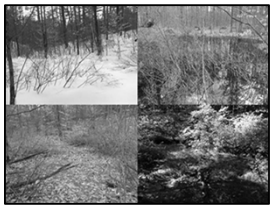
- Wetlands (Env-Wt 406):
  - *Wetlands Delineation Manual* (1987).
  - *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Northcentral and Northeast Region*, (2012).
    - Hydric Soils - *Field Indicators v.*4, 2017 (NEIWPCC).
    - Hydrophytic plants - *Northcentral and Northeast 2016 Regional Wetland Plant List* (USACE).
    - Hydrology (*Regional Supplement*).



Delineation of Jurisdictional Areas: Vernal Pools

- *Identification and Documentation of Vernal Pools in NH*, 3rd Ed., 2016 (NHF&G).
- *Vernal Pool Assessment* form and guidance, 2016 (USACE).
- Address timing of surveys for primary indicator species.





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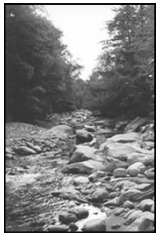
Delineation of Watercourses and Identification of Other Jurisdictional Areas

(Env-Wt 406.04 and 406.05)

- Perennial Streams
  - Limit of the banks
  - Ordinary high water mark
- Intermittent Streams
  - Ordinary high water mark
- Lakes and Ponds
  - Limit of the bank
  - Normal high water mark



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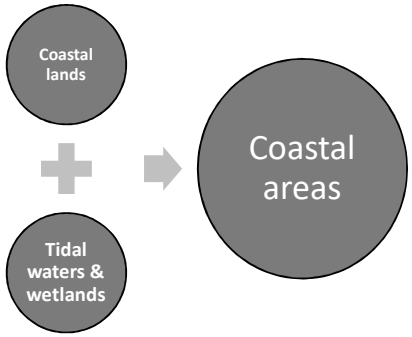
Delineation and Identification of Other Jurisdictional Areas: Coastal Areas

(Env-Wt 600)

- Coastal / Tidal Features
  - Delineated based on their definitions.



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More on Wetland Delineations...

- Some minimum impact projects don't require a wetland delineation (Env-Wt 406.03).
  - Statutory Permit By Notification (SPN).
    - Minimum: Forestry, Trails, Utilities, Routine Roadway (culvert maintenance only), seasonal dock.
  - Certain agriculture projects (Env-Wt 406.03(a)(3)).
  - Access for single-family dwelling where... homeowners prepare application... (RSA 310-A:79).
  - *Minimum impact* exotic aquatic weed (EAW) control and native aquatic vegetation (NAV) removal projects (Env-Wt 510).
  - *Minimum impact* projects at shoreline of open water (such as seasonal dock or beach) (Env-Wt 406.03(a)(5)).

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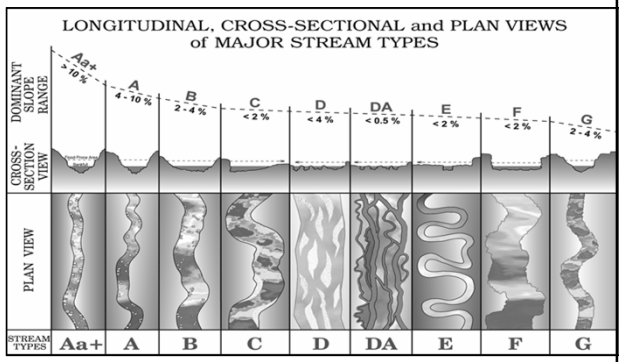
Watercourses: Rosgen Classification

- Where permanent stream or river impacts are proposed (Standard permit), these systems require Rosgen Classification.
- Minor and major crossings.
- Major bank stabilization projects.
- Mitigation proposals for stream restoration or enhancement



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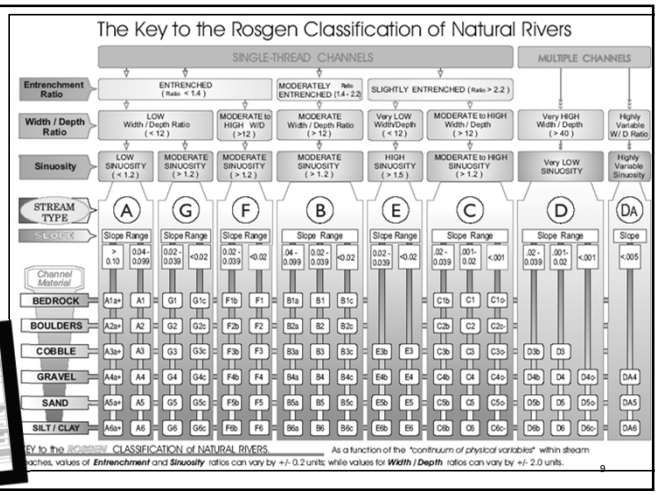
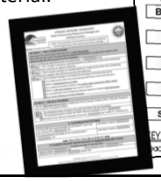
- Entrenchment ratio.
- Width/Depth ratio.
- Sinuosity.
- Stream type.
- Slope.
- Channel material.

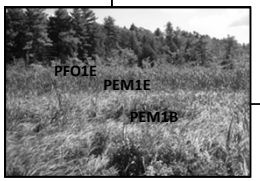




Required Planning: Classification of Wetlands

(Env-Wt 406.06)

- Federal Classification Method = **Cowardin** System.
- 2013 update.
- Required on plans submitted with the Standard application.
- CWS



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Required Planning: Identify predominant resource functions of each jurisdictional area

(Env-Wt 306.05(a)(1))

- Wetlands.
  - Freshwater.
  - Tidal.
  - Vernal pools.
- Surface water.
  - Lakes and ponds.
  - Watercourses and their banks.
    - Perennial, intermittent streams, and rivers.
- Tidal buffer zone.
- Sand dune.

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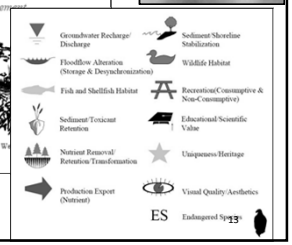
Functional Assessment

(Env-Wt 311.10)

- An evaluation of a wetland or *other jurisdictional area* to determine its functions and values in accordance with RSA 482-A:1, RSA 482-A:2, XI, and best available scientific methods.
- Required for ***minor*** and ***major*** projects.
  - Nontidal: CWS.
  - Tidal (Env-Wt 603.04):
    - Qualified coastal professional.
- Use Corps Highway Methodology Method **OR**

  An alternative scientifically-supported method with cited reference and the reasons for the alternative method substantiated.



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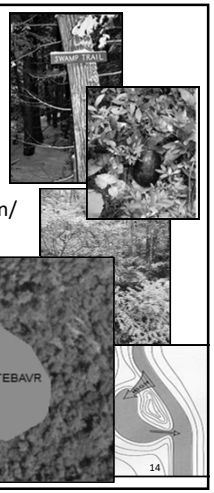
Wetland Functions
(RSA 482-A:2, XI or Corps)

- Ecological integrity.(R)
- Wetland-dependent wildlife habitat.
- Fish and aquatic life habitat.
- Scenic quality.
- Educational potential.
- Wetland-based recreation.
- Production Export (Nutrient).(C)
- Flood storage.
- Groundwater recharge.
- Sediment trapping.
- Nutrient trapping/ retention/ transformation.
- Shoreline ancho
- Noteworthiness
- Uniqueness/He



R= RSA only; C= Corps Method only

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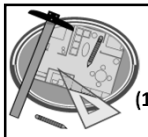

Use the Results of the Functional Assessment to Design the Project (Env-Wt 311.10(c))

(1) **Location:** Use the results of the functional assessment to select the location of the proposed project having the least impact to wetlands functions.

(2) **Design**: Design the proposed project to have the least impact to wetland functions.

(3) **Limit Impacts:** When impact to wetland function is unavoidable, limit project impacts to the least valuable functions on the site while avoiding and minimizing impacts to the highest and most valuable functions.

(4) **BMPs:** Use on-site *minimization measures* and construction management practices to protect aquatic resource functions.

(5) **Submit wetland evaluation report** describing results of functional analysis with the wetland application.

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Avoidance, Minimization, Mitigation
(Env-Wt 102.13)

Avoid

↓

Minimize

↓

Mitigate

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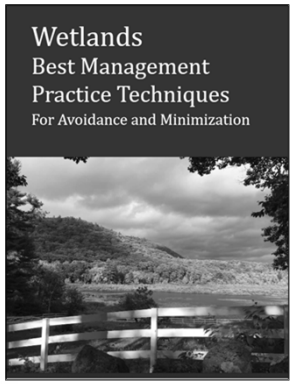
Avoidance and Minimization – BMP manual



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10. Construction & Maintenance
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Avoidance and Minimization: Application for Standard Permits

(Env-Wt 311.07)

Written Narrative

1. Primary purpose – access.
2. Address A&M for project that meet these criteria:

   Industrial/ commercial; impacts to create a buildable lot; impacts > 1 acre; impacts to a PRA; Other properties available to avoid impacts (for certain projects/ resources).

3. Alternative designs or techniques used to avoid impacts.
4. How functional assessment was used to select location, design and identify construction techniques to minimize impacts to resource functions.

**For a minimum project, certification signed by a certified wetland scientist that the project is located and designed to minimize impacts to wetlands functions and values.

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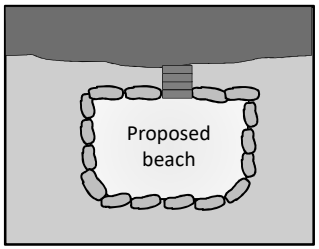
Written Narrative Includes: Primary Purpose

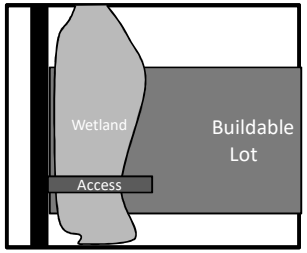
(Env-Wt 311.07(b))

Narrative needs to cover four broad points:

(1) Primary purpose: Access

Access to water or through wetlands required to reach a buildable lot?





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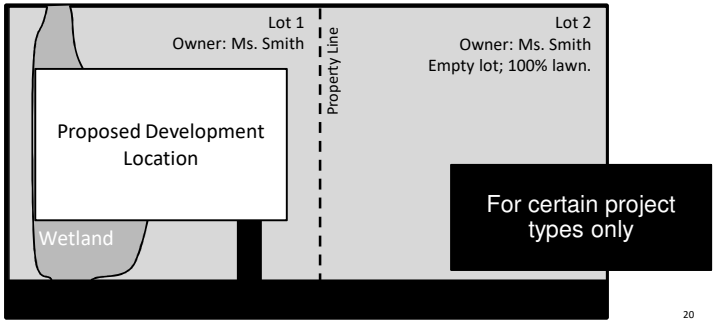
Written Narrative Includes: Other Properties Available?

(Env-Wt 311.07(b)(2))

(2) Other properties available to avoid impacts?



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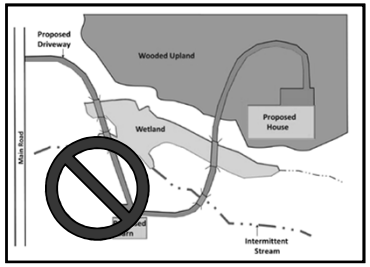
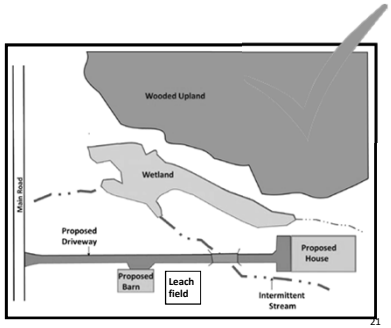
Written Narrative: Use of Alternative Designs or Techniques

(Env-Wt 311.07(b)(3))

(3) Alternative designs or techniques to avoid impacts?





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Written Narrative: Use of Functional Assessment Results

(Env-Wt 311.07(b)(4))

(4) How the project conforms to Env-Wt 311.10(c) for:

- Site Selection
- Project design
- Limiting the project impacts to the least valuable functions
- On-site minimization measures and construction practices.

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Coastal Areas: Avoidance and Minimization

(Env-Wt 605.01)

- ***Additional*** Avoidance and Minimization requirements in Env-Wt 605 for coastal areas.
- Use results of the Coastal Functional Assessment (required by Env-Wt 603.04).
- Avoidance and Minimization Standards for All Overwater Structures (Env-Wt 606.02).

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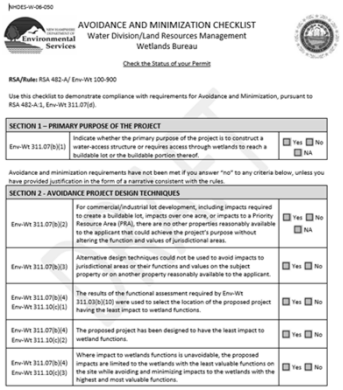
Avoidance and Minimization Checklist

(Env-Wt 311.07(d)

Section 1 - Primary purpose of the project
Section 2 - Avoidance Project Design Techniques
Section 3 - Minimization Design Techniques
Section 4 - Resource-Specific Design Techniques
Section 5 - Project-Specific Design Techniques
Section 6 - Construction Techniques
Section 7 - Construction Timing

Narrative text is required in each checklist section!



NHDES-W-08-050

AVOIDANCE AND MINIMIZATION CHECKLIST
Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Permit

RSA/Rule: RSA 482-A/ Env-Wt 100-900

Use this checklist to demonstrate compliance with requirements for Avoidance and Minimization, pursuant to RSA 482-A:1, Env-Wt 311.07(d).

SECTION 1 – PRIMARY PURPOSE OF THE PROJECT		
Env-Wt 311.07(b)(1)	Indicate whether the primary purpose of the project is to construct a water-access structure or requires access through wetlands to reach a buildable lot or the buildable portion thereof.	☐ Yes ☐ No ☐ N/A

Avoidance and minimization requirements have not been met if you answer "no" to any criteria below, unless you have provided justification in the form of a narrative consistent with the rules.

SECTION 2 - AVOIDANCE PROJECT DESIGN TECHNIQUES		
Env-Wt 311.07(b)(2)	For commercial/industrial lot development, including impacts required to create a buildable lot, impacts over one acre, or impacts to a Priority Resource Area (PRA), there are no other properties reasonably available to the applicant that could achieve the project's purpose without altering the function and values of jurisdictional areas.	☐ Yes ☐ No ☐ N/A
Env-Wt 311.07(b)(3)	Alternative design techniques could not be used to avoid impacts to jurisdictional areas or their functions and values on the subject property or on another property reasonably available to the applicant.	☐ Yes ☐ No
Env-Wt 311.07(b)(4) Env-Wt 311.10(c)(1)	The results of the functional assessment required by Env-Wt 311.03(b)(10) were used to select the location of the proposed project having the least impact to wetland functions.	☐ Yes ☐ No
Env-Wt 311.07(b)(4) Env-Wt 311.10(c)(2)	The proposed project has been designed to have the least impact to wetland functions.	☐ Yes ☐ No
Env-Wt 311.07(b)(4) Env-Wt 311.10(c)(3)	Where impact to wetlands functions is unavoidable, the proposed impacts are limited to the wetlands with the least valuable functions on the site while avoiding and minimizing impacts to the wetlands with the highest and most valuable functions.	☐ Yes ☐ No

tms@des.nh.gov or (603) 271-2147
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www.des.nh.gov

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Nine items minor and major impact projects must demonstrate (1)

(Env-Wt 313.03(a))

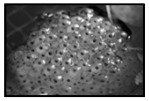
Nine aspects of avoidance and minimization need to be incorporated in project design:

(1) No practicable alternative with less adverse impact.

(2) Avoids and minimizes impacts to marshes.

(3) Maintains hydrologic connections.

(4) Avoids and minimizes impacts to exemplary natural communities, vernal pools, documented fisheries, etc.



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Nine items minor and major impact projects must demonstrate (2)

(Env-Wt 313.03(a))

Must avoid and minimize impacts to:

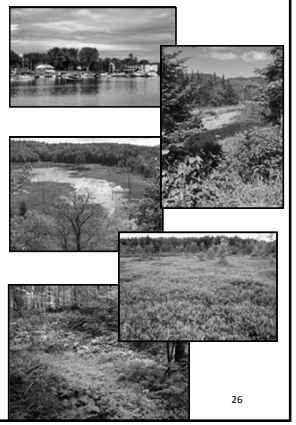
(5) Commerce, navigation, recreation.

(6) Floodplain wetlands.

(7) Natural riverine forested wetland systems and scrub-shrub marsh complexes of high ecological integrity.

(8) Wetlands adjacent to drinking water supply and groundwater aquifer levels.

(9) Stream channels and their ability to handle runoff.



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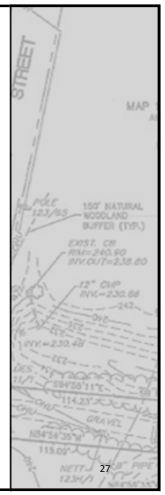
Off-site Alternatives Analysis

Required for proposed permanent impacts greater than one acre.

- Residential, Commercial or Industrial Development Projects (Env-Wt 524.02(d)).
- Standard Utility Permits (Env-Wt 521.03)

- See also: Narrative requirements for Demonstration of Avoidance and Minimization (Env-Wt 311.07(b)(2))
  - Other properties available to achieve project's purpose?



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Mitigation (Compensatory Mitigation)

(Env-Wt 102.38)

- Priority resource areas (PRA) elevate projects to require mitigation (subject to certain criteria).
- Places where mitigation requirements are described include:
  - Env-Wt 300 and Env-Wt 800 (and Env-Wt 600 for coastal).
  - Env-Wt 311.02 Pre-Application Requirements for Projects Requiring Compensatory Mitigation.
  - Env-Wt 313.04 Mitigation Requirements.
  - Env-Wt 311.08 Required Information for Projects with Compensatory Mitigation.
  - Env-Wt 605.03 Impacts Requiring Compensatory Mitigation.
  - Env-Wt 605.04 Requirements for Compensatory Mitigation for Projects in Coastal Areas.
- "Self-mitigating" (stream crossings) (Env-Wt 902.08)

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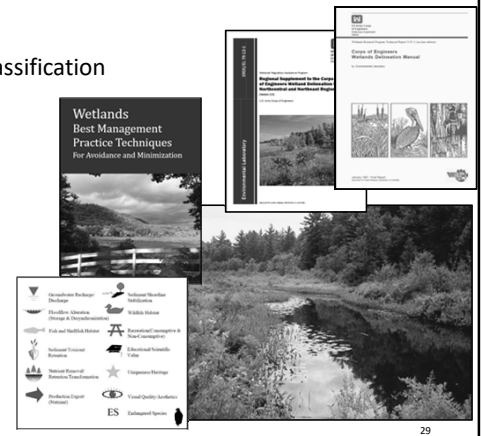
We covered...

- Delineation and (Resource) Classification
- Functional Assessment
- Avoidance and Minimization
- Mitigation



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Questions?

defined handle
submerged adequate
reduce significant thus
destroy groundwater
increasing reproduction
runoff
flow
despoliation
stream
crustacea
unregulated
protect
fresh aesthetic
shellfish disturb
water fish
affect
general
lands
commerce
finfish wildlife
wetlands
open good
habitats
ability
alteration
welfare
freshwater
channels
importance
salt
preserve
interests
public
nutrients
enjoyment
silting
recreation
levels
value
eliminate
damage
detrimental obstruct
depreciate absorb
plants sources