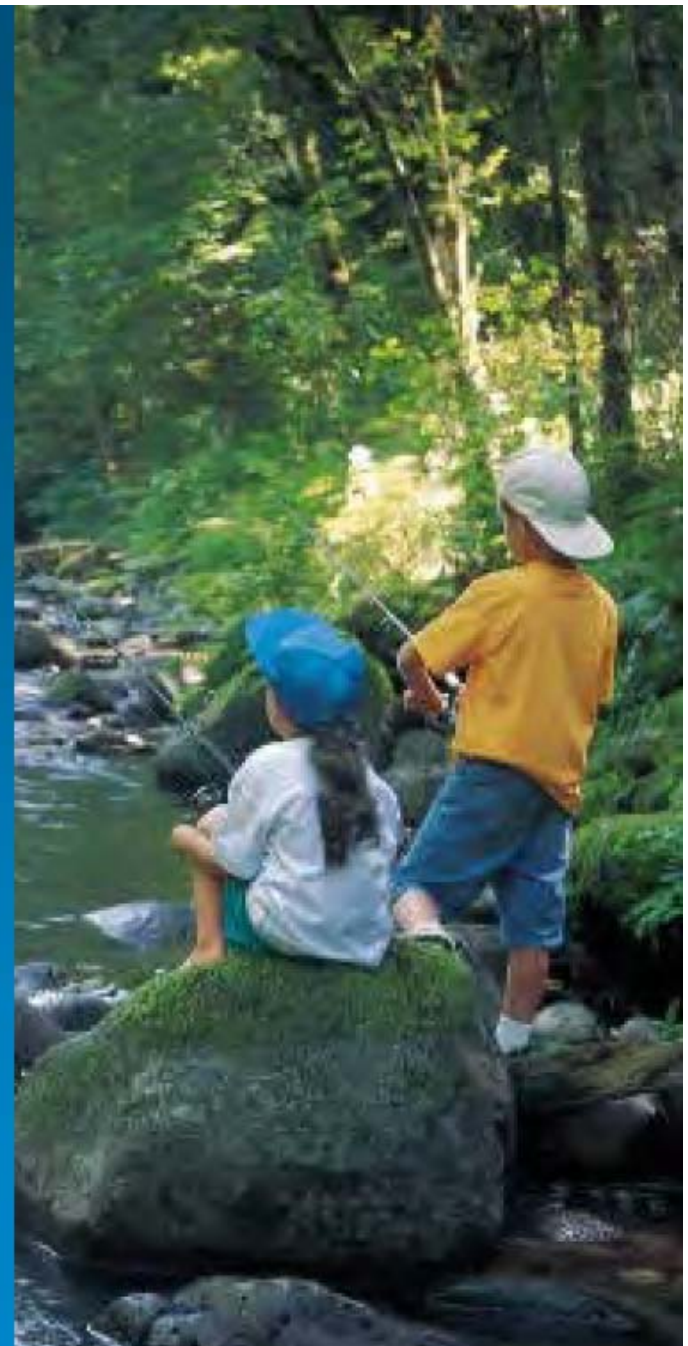
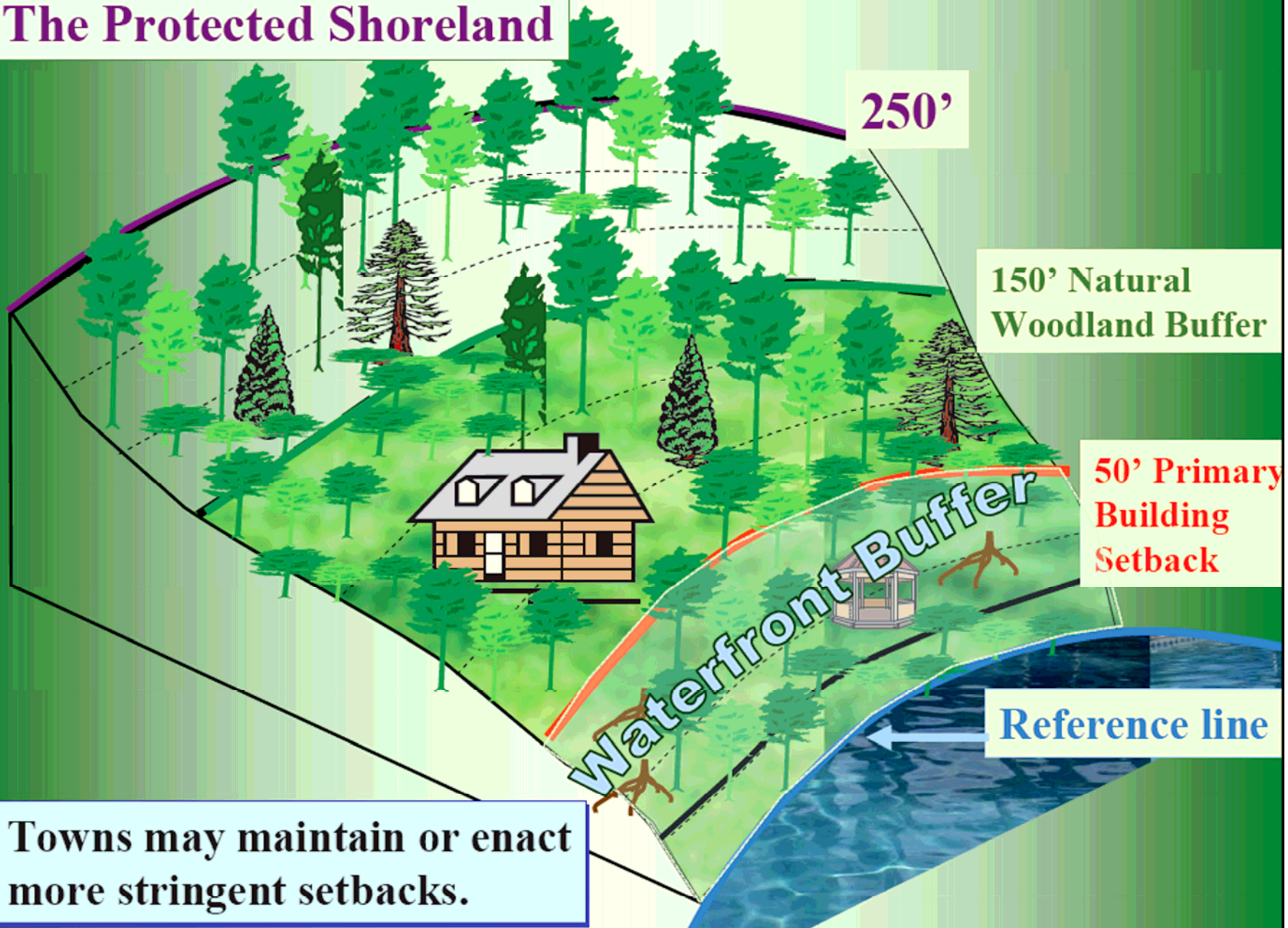


The Comprehensive Shoreland Protection Act (CSPA)

*Investment
in the
Future*



The Protected Shoreland



Towns may maintain or enact more stringent setbacks.

Which water bodies will come under the protection of the CSPA?

- **Tidal Waters** – All waters subject to the ebb and flow of the tide.
- **Lakes and Ponds (10+ acres) on the DES Official List of Public Waters**
- **Fourth Order Streams**
- **Designated Rivers** (those rivers designated under RSA 483)

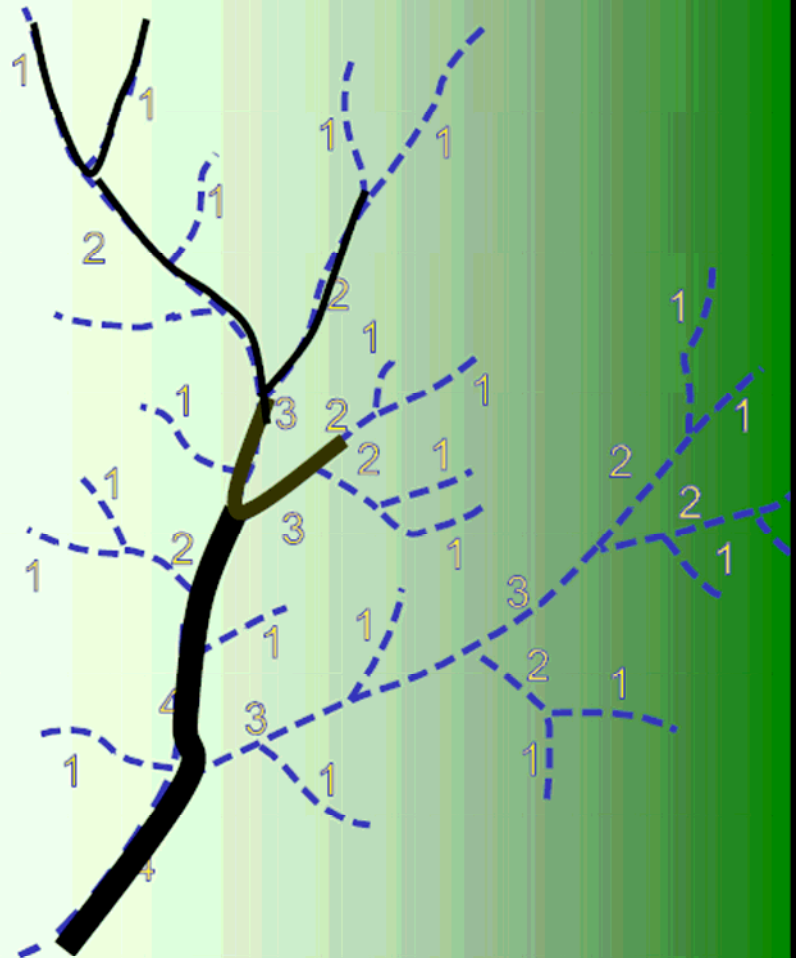
River Ordering

The Strahler Method

What are fourth order streams?

Stream ordering is a way to classify the size of a stream.

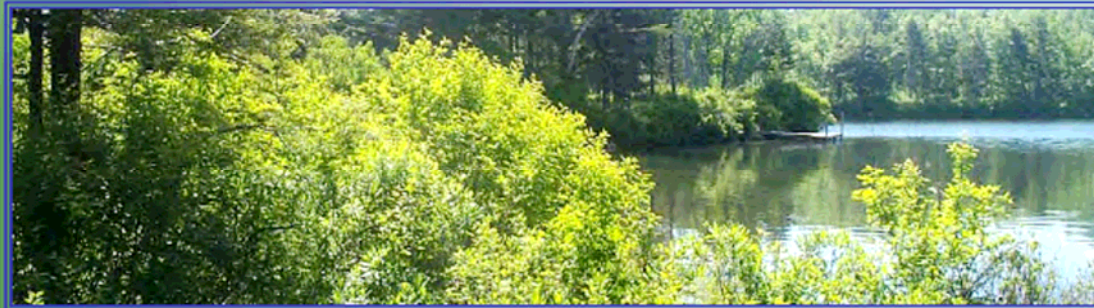
The smaller headwater streams shown as dashed blue lines on USGS maps are first order streams. When two first order streams come together, it creates a second order stream. When two second order streams come together it creates a third order stream. Two third orders make a fourth order stream.



Where is the Reference Line?

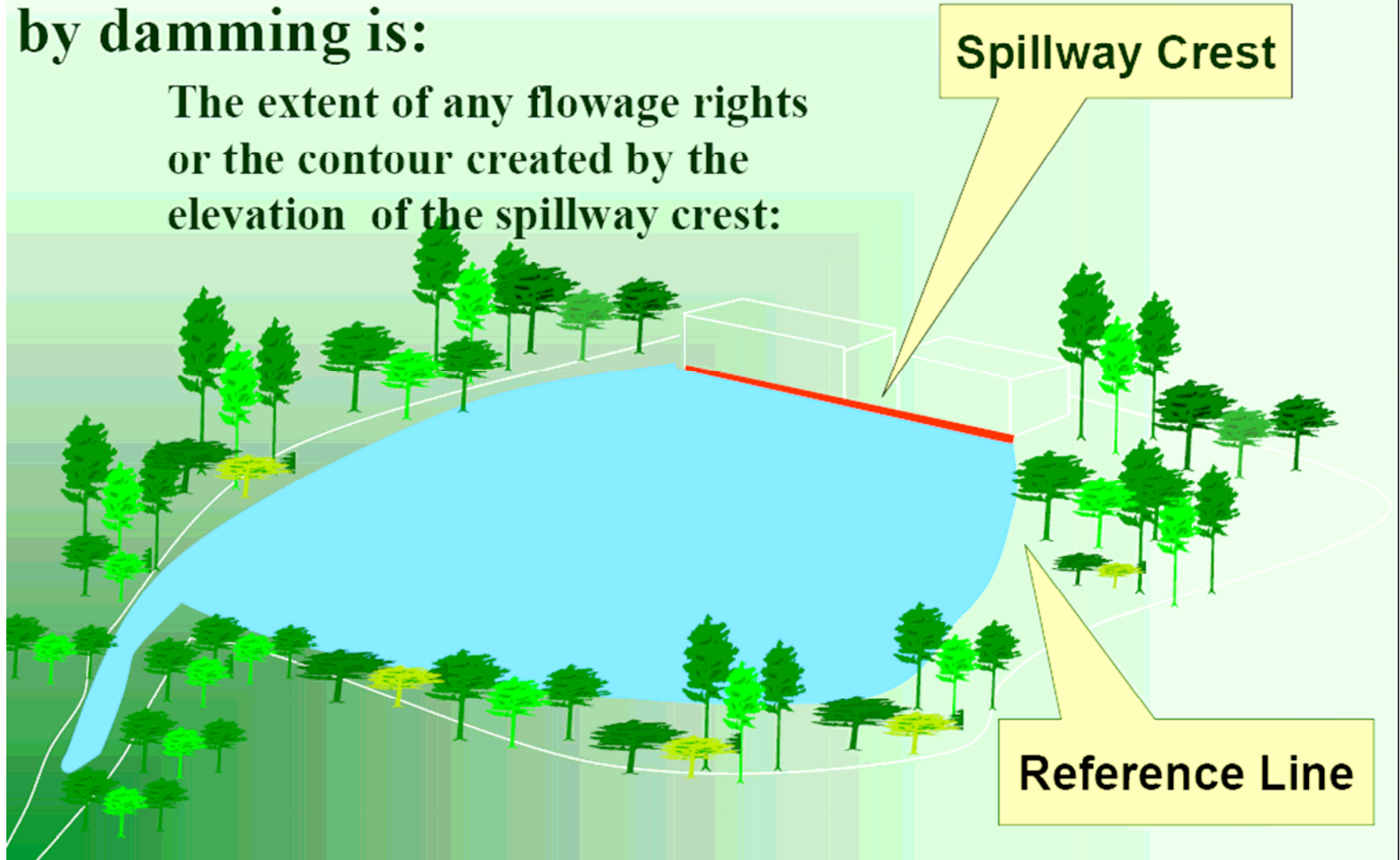
The Reference Line for Natural Lakes and Ponds is the Natural mean high water level. DES makes the determination.

- NHDES Natural Mean High Water Elevations (List) from Dam Bureau and *NH Official List of Public Water bodies, or*
- *DES Consolidated List of Shorelands under the Jurisdiction of the CSPA*



The reference line for lakes and ponds with artificial impoundments or water bodies raised by damming is:

The extent of any flowage rights or the contour created by the elevation of the spillway crest:



Studies show that the threshold for impacts to water quality from impervious surfaces is between 5%-25%.





Impervious Surface Allowance of 20% within the Protected Shoreland

RSA 483-B:VII-a

Definition – “Impervious surface” means any modified surface that cannot effectively absorb or infiltrate water.

Examples of impervious surfaces include:

- Roofs**
- Decks**
- Patios**
- Paved-gravel-crushed stone driveways unless specifically designed to infiltrate water.**

Exposed ledge is not considered a “modified Surface.”

RSA 483-B:9 V(g) Impervious Surfaces

The maximum impervious surface area shall be:

(1) No more than 20% of the area of the lot located within the protected shoreland.

To exceed the 20% allowance (up to 30%) there must be 50 points of trees and saplings within each grid segment in the waterfront buffer (or if there are no existing trees and saplings, an equivalent level of protection must be planted to achieve the 50 points) and a storm water management plan submitted to DES for approval.





New Permit Requirements

A permit will be required for many construction, excavation or filling activities within the Protected Shoreland.

The permit application fee is \$100 plus 10 cents per square foot of area affected by the activity.

Fees will be capped as follows:

<u>Square Feet</u>	<u>Cap</u>
0 - 9,999	\$ 750
10,000 - 24,999	1,875
25,000 +	3,750



Jurisdictions

Shoreland Compared with Wetland

(freshwater)

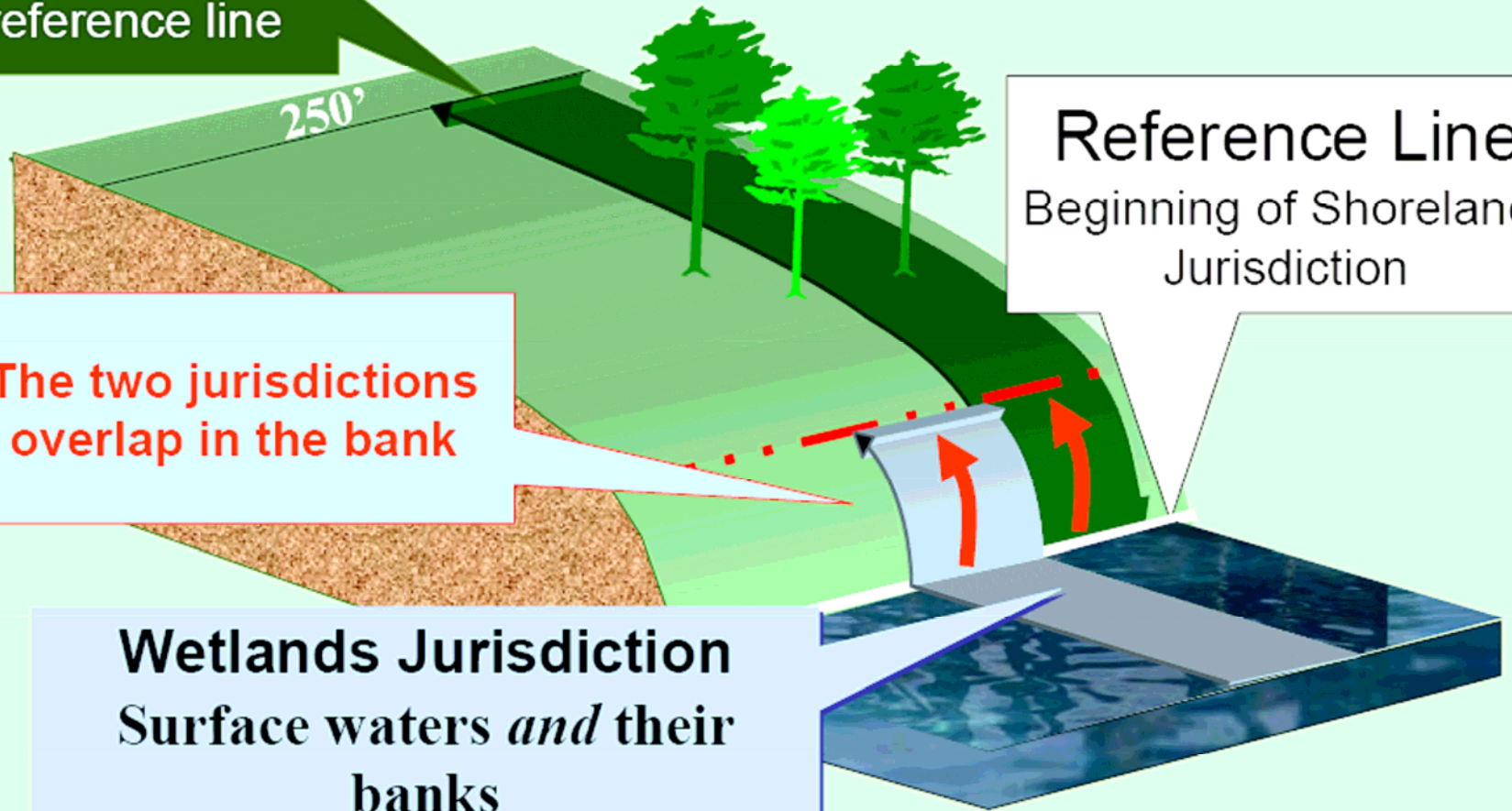
Protected Shoreland
Land within 250 ft
of the reference line

250'

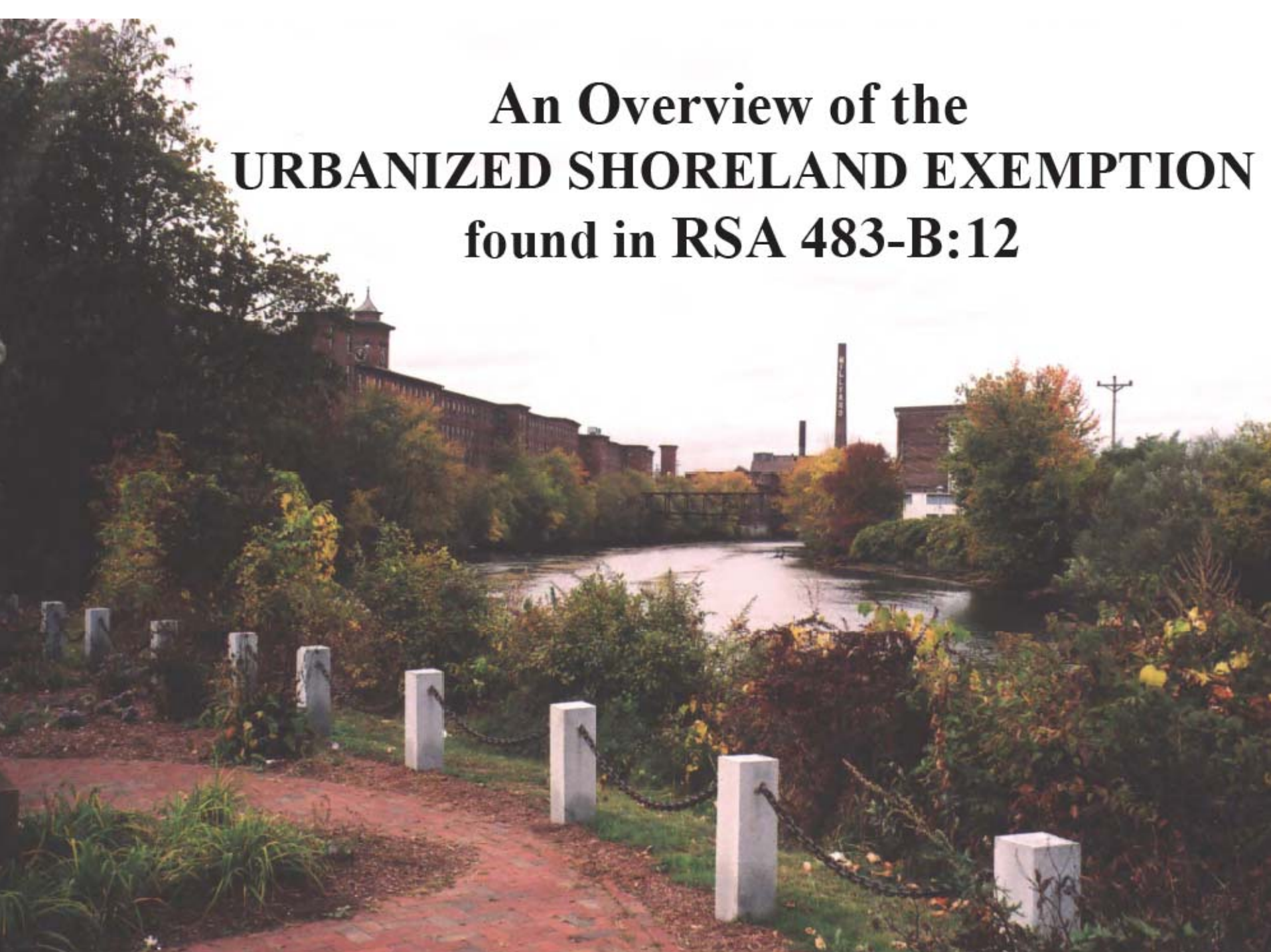
Reference Line
Beginning of Shoreland
Jurisdiction

The two jurisdictions
overlap in the bank

Wetlands Jurisdiction
Surface waters *and* their
banks



**An Overview of the
URBANIZED SHORELAND EXEMPTION
found in RSA 483-B:12**



URBANIZED SHORELAND EXEMPTION

PART Env-Ws 1410

Env-Wq 1410.02 Eligibility for Urbanized Shoreland Exemption.

(a) Pursuant to RSA 483-B:12, I, the governing body of a municipality may, in its discretion, request the commissioner to exempt all or a portion of the protected shoreland within its boundaries from the provisions of this chapter if the governing body finds that special local urbanization conditions exist in the protected shoreland for which the exemption is sought.

URBANIZED SHORELAND EXEMPTION

Evidence of existing and historic patterns of building and development:

- (1) Current and historic building density.**
- (2) Current commercial or industrial uses.**
- (3) Municipal or other public utilities.**
- (4) Current municipal land use regulations that affect the protected shoreland.**







WD-08-9

DES List of Fourth Order and Higher Streams

The following is a list compiled by DES of fourth order and greater streams (rivers) that come under the protection of RSA 483-B, the Comprehensive Shoreland Protection Act as of July 1, 2008. The fourth order and higher stream classifications were obtained from the *New Hampshire Hydrography Dataset: Fourth Order and Higher Streams List* developed by Granit at the University of New Hampshire. This list does not include designated river segments.

The information on this list is subject to amendment. Revised editions of this list will be issued as information in the New Hampshire Hydrographic Dataset is reviewed and corrected. For information and assistance in determining if a particular section of a river or stream falls under the jurisdiction of the Comprehensive Shoreland Protection Act, please contact the Shoreland Program at shoreland@des.nh.gov. Your request should include the name of the river or stream, the town in which the section is located, and street name or road intersection.

For information about the New Hampshire Hydrographic Database, please visit the Granit web site at <http://www.granit.unh.edu/>.

Exeter, NH

- Fourth Order Streams

Exeter	Exeter River	Juncture of unnamed 3 rd order stream in Sandown
	Squamscott River	Juncture of Little and Exeter River
	Dudley Brook	Juncture of (2) unnamed 3 rd order streams in Brentwood
	Great Brook	Juncture of York Brook in East Kingston
	Little River	Juncture of Dudley Brook
	Piscassic River	Juncture of unnamed 4 th order stream in Epping

Manchester, NH

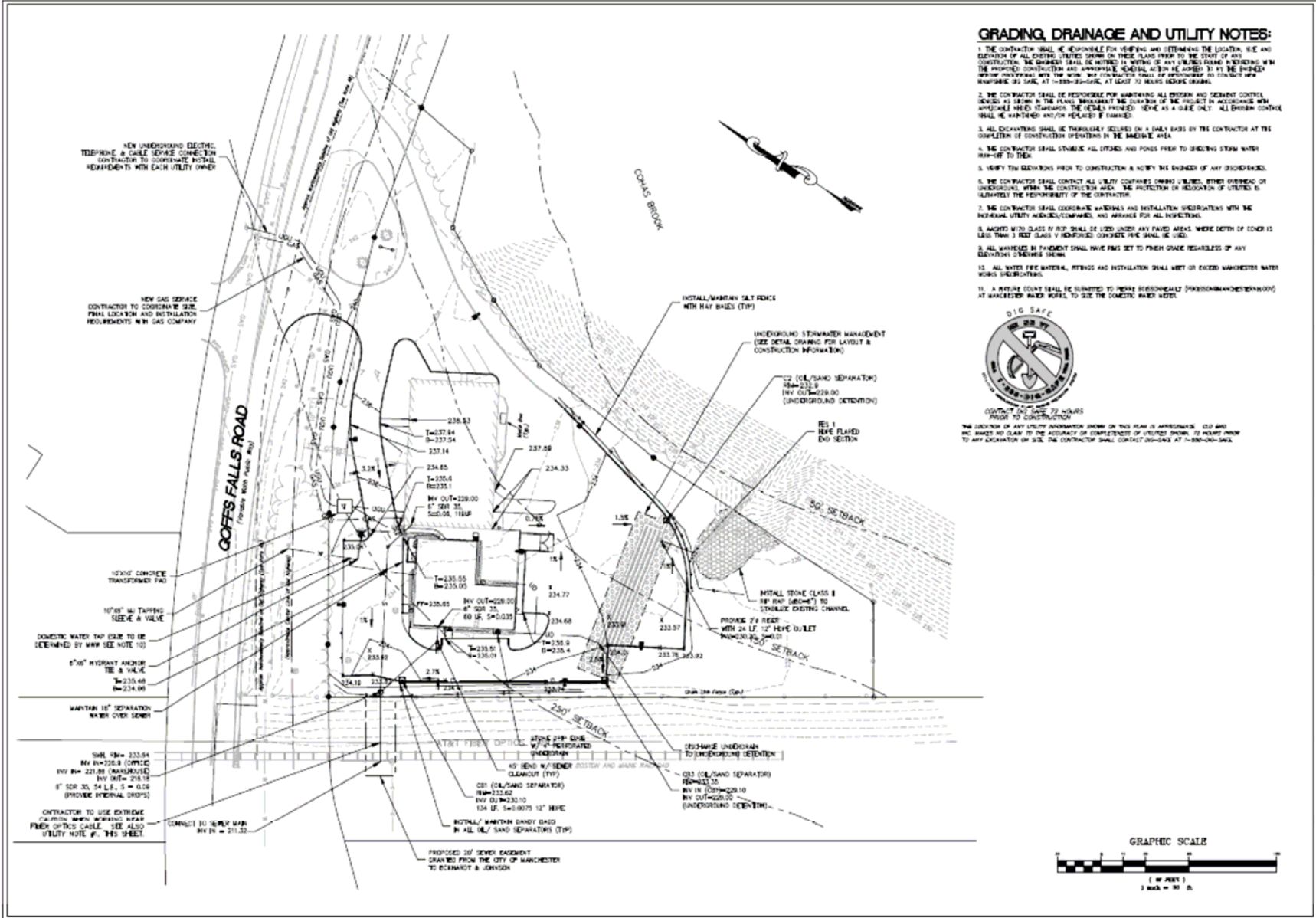
- Fourth Order Streams

Manchester	Merrimack River	Juncture of Pemigewasset & Winnipesaukee Rivers in Franklin
	Piscataquog River	Juncture of unnamed 3 rd order in Weare
	Black Brook	Juncture of Purgatory Brook in Goffstown
	Cohas Brook	Juncture of unnamed 4 th order stream







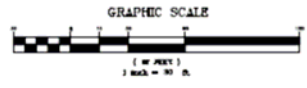


GRADING, DRAINAGE AND UTILITY NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND DETERMINING THE LOCATION, DEPTH AND EXISTENCE OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS PRIOR TO THE START OF ANY CONSTRUCTION. THE OWNER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND IN ACCORDANCE WITH THE APPLICABLE CONSTRUCTION AND APPROVED RECORDS WHEN HE JUDGES TO BE THE ENGINEER RESPONSIBLE FOR THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT NEW HAMPSHIRE 800-SAFE, AT 1-800-353-6842, AT LEAST 72 HOURS BEFORE BEGINS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING AND EXISTING CONTROL DEVICES AS SHOWN IN THE PLANS THROUGHOUT THE DURATION OF THE PROJECT IN ACCORDANCE WITH APPLICABLE RECORD DRAWINGS. THE RECORDS PROVIDED HEREIN AS A GUIDE ONLY. ALL EXISTING CONTROL SHALL BE MAINTAINED AND/OR RECALIBRATED AS NEEDED.
3. ALL EXISTING SHALL BE THOROUGHLY SECURED ON A DAILY BASIS BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION OPERATIONS IN THE WORK AREA.
4. THE CONTRACTOR SHALL STABILIZE ALL ERODED AND PONDING PRIOR TO UNDOING STORM WATER RUN-OFF TO THEM.
5. VERIFY THE ELEVATIONS PRIOR TO CONSTRUCTION & NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
6. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES OWNERS (PUBLIC, OTHER OVERHEAD OR UNDERGROUND) WITHIN THE CONSTRUCTION AREA. THE PROTECTION OR RELOCATION OF UTILITIES IS ULTIMATELY THE RESPONSIBILITY OF THE CONTRACTOR.
7. THE CONTRACTOR SHALL COORDINATE MATERIALS AND INSTALLATION SPECIFICATIONS WITH THE RESPECTIVE UTILITY AGENCIES/COMPANIES AND ARRANGE FOR ALL INSPECTING.
8. RIGHTS WAYS SHALL BE USED UNLESS ANY PAVED AREAS WHERE DEPTH OF COVER IS LESS THAN 3 FEET CLASS V HIGH-PRESSURE CONCRETE PIPE SHALL BE USED.
9. ALL MANHOLES IN PAVEMENT SHALL HAVE RIMS SET TO FINISH GRADE REGARDLESS OF ANY EXISTING CURBSIDE SLOPE.
10. ALL EXPOSED PIPE MATERIAL, FITTINGS AND INSTALLATION SHALL BEET OR EXCEED MANHOLE WATER RINGS SPECIFICATIONS.
11. A RIVER COUNTY SHALL BE SUBMITTED TO VERIFY DESIGNATED (PROPOSED) MANHOLE LOCATIONS AT MANHOLE WATER RINGS TO SIZE THE DOMESTIC WATER MAIN.



CONTRACTOR TO CALL 72 HOURS PRIOR TO CONSTRUCTION
THE LOCATION OF ANY EXISTING UTILITIES SHOWN ON THIS PLAN IS APPROXIMATE. THE OWNER MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. 72 HOURS PRIOR TO ANY EXCAVATION OR SILE, THE CONTRACTOR SHALL CONTACT 800-SAFE AT 1-800-353-6842.



		CHECKED: [] DATE: []
100 Commercial Street, Manchester, NH 03102 603-251-1234 www.eckhartandjohnson.com		DRAWN: [] DATE: []
TAX MAP 871 LOT 4 ECKHART & JOHNSON INC. BUILDING ADDITION 898 COFF FALLS ROAD MANCHESTER, NH 03103		APPROVED: [] DATE: []
PERMITTING PLAN		JOB NO. 03-0301 DATE 1/31/08 SCALE 1"=30'

Request for More Information

1. The submitted variance request to RSA 483-B:9 V(g) will not be granted, as you have not provided information necessary to demonstrate that strict compliance with RSA 483-B:9 V(g) would create an unnecessary hardship. Please substitute any proposed impervious surfaces with a pervious alternative in a quantity necessary to create no gain in impervious surface upon the projects completion. Please provide the locations and square footage of all areas where pervious technologies are proposed and a plan with specifications of how those surfaces will be maintained (ref. Env-Wq 1406.09(g)). This includes general product specifications, installation specifications and a maintenance plan. Proposed pervious surfaces must consist of technologies specifically designed to allow for storm water infiltration. If RSA 483-B:9 V(g) cannot be met, please submit a Shoreland Redevelopment Waiver Request Form that includes sufficient information to demonstrate that the project is "more nearly conforming" (ref. RSA 483-B:11 II) to the CSPA than existing conditions and that there will be at least the same degree of protection provided to the public waters.

Permit Approved

PERMIT DESCRIPTION: Impact 38,145 sq ft to expand an existing nonconforming commercial structure and parking area.

WAIVER APPROVED: RSA 483-B:9, V,(g),(1), is waived to allow the improvement and expansion of facilities on a commercial property adjacent to Cohas Brook.

THIS APPROVAL IS SUBJECT TO THE FOLLOWING PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with building plans by CLD Consulting Engineers dated April 7, 2008 and received by the Department of Environmental Services ("DES") on August 18, 2008, stormwater control plans by CLD Consulting Engineers dated July 30, 2008 and received by DES on August 18, 2008 and planting plans by CLD Consulting Engineers dated March, 2008 and received by DES on August 18, 2008.
2. This approval includes a waiver of the impervious surface limit set forth in RSA 483-B:9, V,(g),(1). This permit shall not be effective until it has been recorded with the appropriate Registry of Deeds office by the Permittee. A copy of the recorded permit shall be submitted to the DES Wetlands Bureau by certified mail, return receipt requested, prior to construction.
3. All stormwater retention, infiltration and treatment structures shall be constructed and stabilized prior to the expansion of the commercial facilities.
4. No more than 88.9% of the area of the lot within the protected shoreland shall be covered by impervious surfaces unless additional approval is obtained from DES.
5. The project as proposed shall impact no unaltered areas within the Natural Woodland Buffer beyond the primary building setback.

Projects Considered Vested

Rule Env-Wq 1406.03

- Building permit issued before January 1, 2008
- Subject of notice of local PB or ZBA prior to July 1, 2007
- Alteration of Terrain permit issued before July 1, 2008
- Foundation was constructed before July 1, 2008
- Owner has incurred *substantial liability*.

Maintenance and Modification of Existing Structures Rules Env-Wq 1406.04

Takes Focus off of Projects that do NOT:

- Increase impervious surfaces
- Involve excavation or fill
- Increase septic loading
- Involve the removal of vegetation

Forms to be Completed

- Application Form
- Application Worksheet

IF NEEDED

- Waiver Form
 - NON CONFORMING STRUCTURES ONLY
 - Redevelopment or expansion of footprint
- Variance Form
 - New development
 - Condominiums

Waiver vs Variance

Waivers are “project dependent”.

A waiver allows you to take an existing situation and improve it without requiring absolute compliance.

Variances are “lot dependent”.

A variance changes the standard of the law as it applies to a property only where a condition of the land itself would result in an unintended consequence of the law and the variance would not adversely affect abutters or violate the spirit and intent of the law.

What to Expect

Immediately Acknowledgement of Receipt Letter

Within 30 days Decision

OR Possible More Information Request

Applicants have 60 days to respond to More Information Requests.

Links to Important Information

Shoreland Program Page

www.des.nh.gov (use Hot Topics links)

Jurisdictional Waters:

http://des.nh.gov/organization/divisions/water/wetlands/cspa/water_bodies.htm

Jay Aube, Shoreland Outreach Specialist

603-271-2147

D. Forst, Shoreland Section Supervisor

603-271-2147

Grant Mecozzi, Shoreland Permitting Specialist

603-271-4055

Wetlands



Wetlands Updates and Stream Crossings: Current & Anticipated Standards



Sandra Crystall, PWS
Wetlands Bureau
March 27, 2009



Vernal Pool: Env-Wt 101.99

A surface water or wetland, including an area intentionally created for purposes of compensatory mitigation, which provides breeding habitat for amphibians and invertebrates that have adapted to the unique environments provided by such pools and which:

(b) Typically has the following characteristics:

- (1) Cycles annually from flooded to dry conditions, although the hydroperiod, size, and shape of the pool might vary from year to year;
- (2) Forms in a shallow depression or basin;
- (3) Has no permanently flowing outlet;
- (4) Holds water for at least 2 continuous months following spring ice-out;
- (5) Lacks a viable fish population; and
- (6) Supports one or more primary vernal pool indicators, or 3 or more secondary vernal pool indicators.

Vernal Pool Buffers





NEW HAMPSHIRE TOWNS HAVING
DESIGNATED PRIME WETLANDS
JANUARY, 2007

ANDOVER
BARRINGTON
BOW
BROOKLINE
DERRY
ENFIELD
EXETER
FRENCH
GILFORD
GOFFSTOWN
HOLDERNESS
HOOKSETT
MEREDITH
NASHUA
NEW IPSWICH
NEW LONDON
NEWINGTON
NEWMARKET
NORTHWOOD
PELHAM
SALEM
SANBORNTON
SANDWICH
TAMWORTH
WEARE
WOLFEBORO

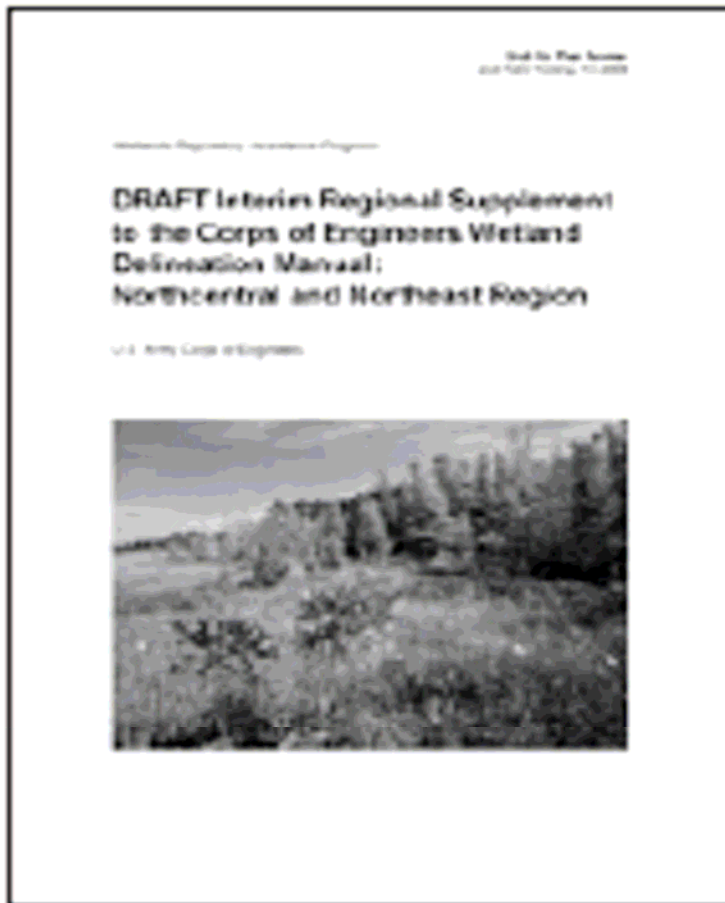


Municipally Designated Prime Wetlands

- Communities with designated prime wetlands: 26
 - Additional communities have:
 - Maps & reports under review by DES
 - Completed the designation process locally but have not yet submitted reports and maps to DES.
- 100 ft. prime wetland buffer - Sept 2007

Upcoming: Regionalizing the 1987 Corps of Engineers' Wetland Delineation Manual

- Update manual to reflect state-of-the-art science.
- Improve its sensitivity to regional differences.
- Address National Academy of Sciences - National Research Council recommendations.
- Establish a mechanism to propose, review, and approve periodic updates.
- Goal is to identify all wetlands, without regard to current regulatory policy.



Some Exempt Activities in Law or Rules (Env-Wt 303.05)

Read the details in the exemption for certain drainage
ditches!

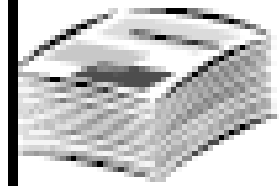
➤ **Man-made nontidal drainage ditches, culverts, catch basins, and ponds that have been legally constructed to collect or convey storm water**

...may be cleaned out when necessary to preserve their usefulness without a permit from the department...

...provided

- that the facility is neither enlarged nor extended into any area of wetlands jurisdiction
- dredged spoils are deposited in areas outside wetlands jurisdiction, and
- wetlands or surface waters outside the limits of the constructed drainage facility ... are neither disturbed nor degraded.

RSA 482-A:3, IV (b)



Appeals: Timeframes Changed (July 2008)

- Appeal to DES Wetlands Bureau “Request reconsideration”
 - 30 days from DES decision
- If DES reaffirms initial decision, appeal decision to Wetlands Council
 - 30 days from DES reconsideration decision.
- Final appeal option is to the NH Supreme Court.



Stream Crossings



- Increased development
- Culvert failures/flooding
- Habitat degradation
- Rare, threatened and endangered fish and wildlife associated with streams
- Movement of biota and other watershed products (such as woody debris, sediment)



Development of Stream Guidelines and Rules

- 2006 - 2007
 - Workgroup met to review stream guidelines drafted by NH Fish and Game
- 2007 - 2008
 - Workgroup met to develop and review stream crossing rules



Potential Choices for a Stream Crossing



- Avoid the crossing (access property elsewhere)
- Bridge
- Arch culvert (open bottom)
- Pipe culvert (sized properly and embedded)

Stream Crossing Rules Filed



Stream Mitigation

- Included in proposed rules.
 - Restoration
 - Buffers

- Additional authority for stream mitigation is the focus of SB 65 in this legislative session.



Rulemaking Will Start Soon

Until then...

- If perennial stream, prefer open bottom structure
 - If replacing, explain why open bottom structure cannot work.
 - Open bottom structure includes embedded culvert.
- Create natural bottom substrate within culvert (match upstream and downstream substrates).
- Crossing structure should allow stream flow and movement of aquatic organisms to be comparable to undisturbed stream.



DES Innovative Permitting Initiative

Goals:

- Better Overall Environmental Outcome
- Streamline DES's Land Development Permitting Processes
- Improve Coordination with other Agencies and Municipalities

Innovative Permitting Initiative

Key Components

Enhanced Pre-application Meeting

- Detailed review of conceptual (pre-engineering) site plans and available resource information
- Discussion of opportunities to reduce environmental impact (Best Practices Guidelines)



Innovative Permitting Initiative Key Components

Streamlined, Coordinated Permit Review and Technical Assistance

- Coordinated project review by DES permit team for higher-performing projects
- Enhanced coordination with municipal review, Federal review, and other state agencies
- Technical assistance provided to advance best practices from concept to design and implementation

Innovative Permitting Initiative

Questions or Comments?

Carolyn Russell

Senior Environment and Land Use Planner

271-3010

carolyn.russell@des.nh.gov

1579 Land Use Commission

- **HB 1579 COMMISSION TO STUDY LAND DEVELOPMENT REGULATIONS AND THE EFFECTS OF LAND DEVELOPMENT WITHIN UPLAND AREAS THAT MAY AFFECT WETLANDS AND SURFACE WATERS OF THE STATE**



1579 Land Use Commission

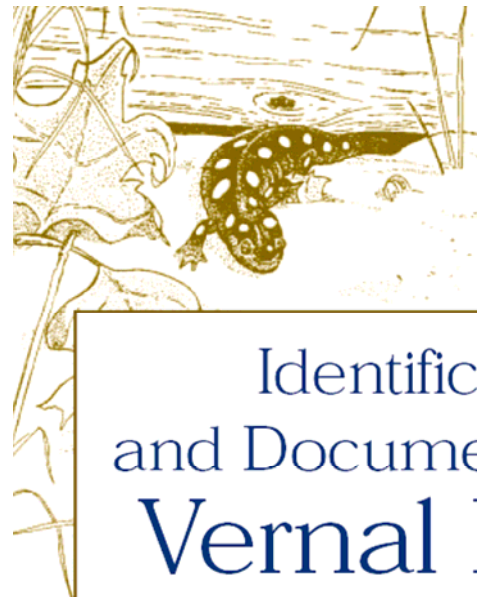
- 294:3 Duties. *The commission shall study:*
-
- I. *The effects of land development on surface and ground water quality and quantity, and terrestrial and aquatic habitat.*
- II. *The adequacy and consistency of local, state, and federal programs as they relate to the regulation and management of land development, including regulations of wetland buffers and setbacks, stormwater management, and cumulative effects of development.*
- III. *The opportunities for integration of land use controls, open space protection techniques, and environmental and public health protection laws to promote land development patterns that maintain ecosystem health and integrity while providing desirable communities in which to live and work. This shall include study of any programs of this kind underway in other states or nations.*
- IV. *The potential legal, fiscal, regulatory, and technical obstacles for creating an integrated approach to land development.*
- V. *Legislation that may be necessary to implement the recommendations of the commission.*
-

1579 Land Use Commission

- “40 CFR 230.11 (h) (1) Secondary effects are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill materials.”
- This limitation to Secondary Effects or Impacts will keep our definition tied to the Chapter 482-A Public Purpose. As noted in some of the past testimony, this will not be construed as statewide zoning, but will be tied to projects that have applied for a Dredge and Fill in Wetlands permit. While the Commission may choose to take up the issue of Indirect or Cumulative Impacts in the future, and that may encompass statewide zoning, such impacts may not be tied to a Dredge and Fill in Wetlands permit.

What Might Go Wrong

- You apply for a Dredge and Fill Permit and the Army Corps and EPA “kick out” the project because you did not have a Vernal Pool Analysis in the spring.



Identification
and Documentation of
Vernal Pools
in
New Hampshire



What Might Go Wrong

6. Natural Heritage Bureau Documentation

DES requires submittal of information about **endangered or threatened species** or **exemplary natural communities** [Env-Wt 303.02(k); Env-Wt 302.04(a)(7)e.]. Applicants must provide documentation from the Department of Resources and Economic Development's Natural Heritage Bureau (NHB) indicating that NHB has reviewed your project's location against the information in its database, identified the documented presence of any state or federally listed endangered or threatened species or **exemplary natural community**. To request this information, go to www.nhnaturalheritage.org, click on "Services" for links to (1) the DataCheck web tool or (2) a hard-copy request form to obtain the required documentation from NHB. If you do not have Internet access, contact NHB directly at (603)271-2215 x323 for information about obtaining the required

- You did not check for RTE species at the NHB.

What Might Go Wrong

General Conditions Related to National Concerns:

7. Historic Properties. Any activity authorized by this PGP shall comply with Section 106 of the National Historic Preservation Act. Information on the location and existence of historic resources can be obtained from the New Hampshire Historic Preservation Office (See page 18) and the National Register of Historic Places. Project proponents shall apply to the Corps for all projects that would otherwise qualify for a Minimum Impact Project if there is the potential for an effect on a historic property within the permit area or any known historic property that may occur outside the permit area. Historic properties include those that are eligible for inclusion, but not necessarily listed on the National

You are in the middle of
construction and are
stopped by DHR.

What Might Go Wrong

Env-Wt 304.04 Setback From Property Lines.

(a) The department shall limit the location of a project to at least 20 feet from an abutting property line or imaginary extension thereof over surface water unless it receives written agreement from the affected abutter concurring with any impact that may result relative to the abutter's interests.

(b) The department shall increase the setback if it finds that the proposed location represents a danger to other waterfront activities, a navigation hazard, or interferes with an abutter's access to or use of the abutter's property.

- Work within 20 feet of an opposing abutter.

Alteration of Terrain

Permit Jurisdiction

Terrain Alteration Law: RSA 485-A:17

Administrative Rules: Env-Wq 1500 (Jan. 1, 2009)

Permit needed:

- 100,000 sf (2.3 ac) of earth disturbance
- 50,000 sf of earth disturbance if any of the disturbance is in the protected shoreland
- 0+ sf of earth disturbance if any of the disturbance is on a 25%+ slope AND within 50' of a surface water



1. General Permit by Rule Created

General Permit By Rule

- Linear utility projects
- Asphalt maintenance projects
- Trail projects
- Projects < 100,000 sf or <50,000 sf in Shoreland



Exemptions:

- NHDOT (covered under a MOA)
- Agricultural projects (RSA 21:34-a) with
 - No significant terrain alteration
 - < 10,000 sq. ft. impervious cover

2. New Application Requirements

- Submit a copy of the application to the town and to the local advisory committees, if applicable

- Identification of the resources to be affected:
 - Receiving waters
 - 100-year floodplain location
 - Designated rivers
 - State & federally listed threatened and endangered species
 - Natural heritage bureau check
 - Impaired surface waters

6. Groundwater Recharge Added

All
New!

- Mimic natural hydrology
- Not for high load sites



Digital Animation, Inc.