2024 Winter Technical Conference

ACEC - NHDOT

New Hampshire DOT
Department of Transportation

Welcome

- 36 projects currently in scope and fee or in the PQLB process
- 98 Active Consultant Projects/Standalone/On-calls/PQLB
- 58 projects were advertised for Construction by the Department (and you) and supported 14 additional projects advertised by the Local Public Assistance (LPA) program. These projects total approximately $410M in construction.
- Over the past summer there were 86 active construction projects with a contract value for all projects of approximately $500M.
- 439 miles of state roadways paved using more than 400,000 tons of pavement.

New Hampshire DOT Department of Transportation

Technical Stuff

- Accelerated project delivery for $40M worth of projects taking advantage of Federal Highway Redistribution.
- $49M bridge rehabilitation and expansion project on I-89 bridge between Lebanon, NH and Hartford, VT has completed the third year of construction and is scheduled for completion during the summer of 2025.
- The first of three projects for Exit 4A Derry-Londonderry completed the second season of construction. First project cost $54M.
- Everett Turnpike Widening south of the Bedford tolls to Nashua kicked off this summer with the first construction contract. Scheduled for completion in 2025 at a cost of $23M.
- Spaulding Turnpike conversion to All Electronic Tolling (AET) at the Rochester and Dover plazas is scheduled to finish during the summer of 2024. Total project cost $26M.

New Hampshire DOT Department of Transportation

Bottom Line

WE CANNOT DO THIS WITHOUT YOU

VULNERABLE ROAD USER SAFETY ASSESSMENT

NEW HAMPSHIRE DOT

ACEC-NH / NHDOT
7th Annual Winter Technical Meeting
February 2, 2024

AGENDA

- VRU Assessment Overview
- Data Summary
- High Risk Trends
- High Injury Network
- Programs / Strategies
- Questions

VRU SAFETY ASSESSMENT OVERVIEW

PROJECT TEAM

New Hampshire DOT
Department of Transportation

- **Bill Lambert, PE**
  State Highway Safety Administrator
- **Corey Spetelunas, PE**
  Asst Safety Engineer
- **Gerry Bedard, PE**
  Active Transportation Engineer

GPI

- **Mike Dugas, PE**
  Project Manager
- **Carolyn Radisch, AICP**
  Senior Transportation Planner
- **Nicole Rogers, PE**
  Project Engineer, GIS Analyst

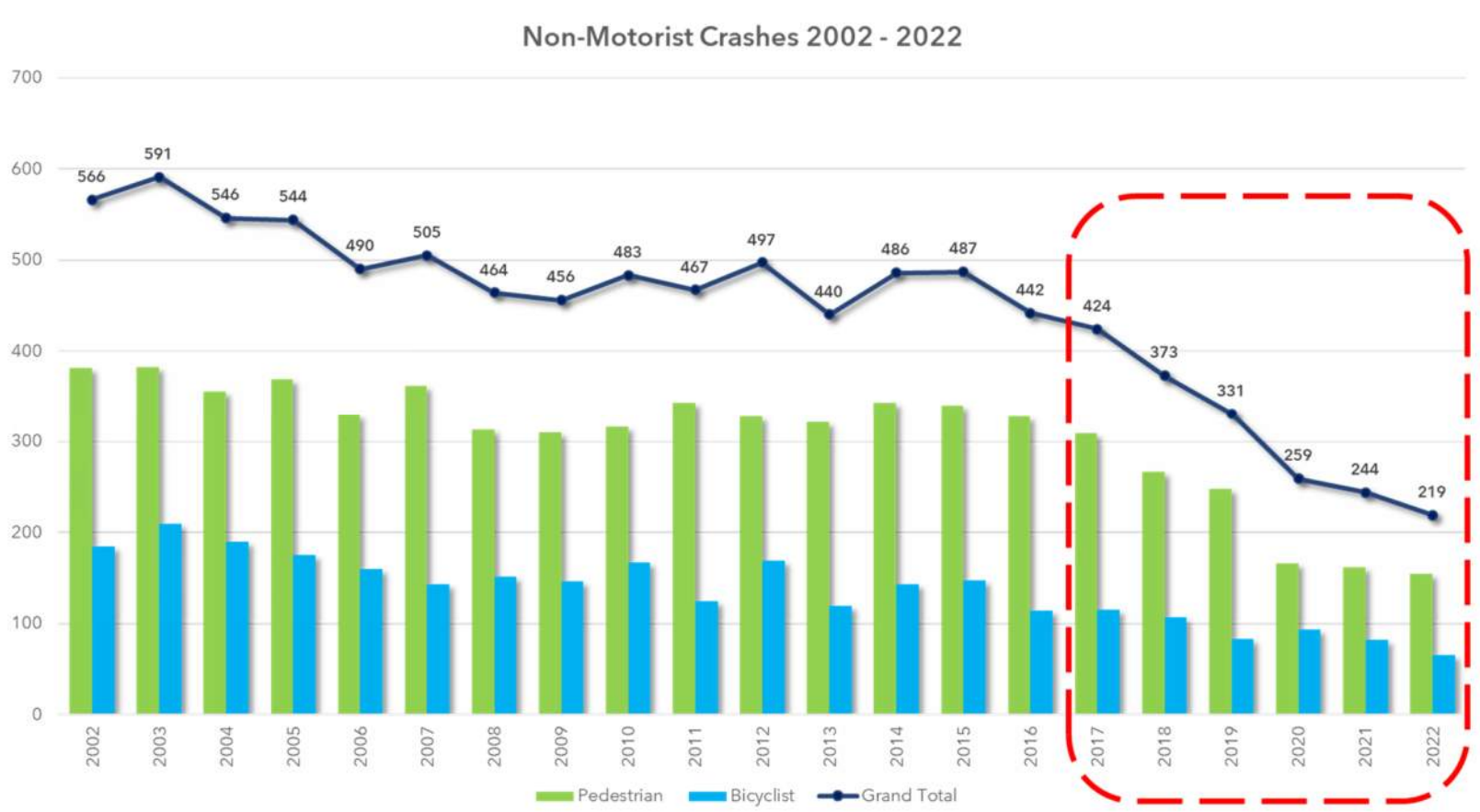
U.S. Department of Transportation
Federal Highway Administration

- **Michelle Marshall**
  NH Division, Safety/Area Engineer

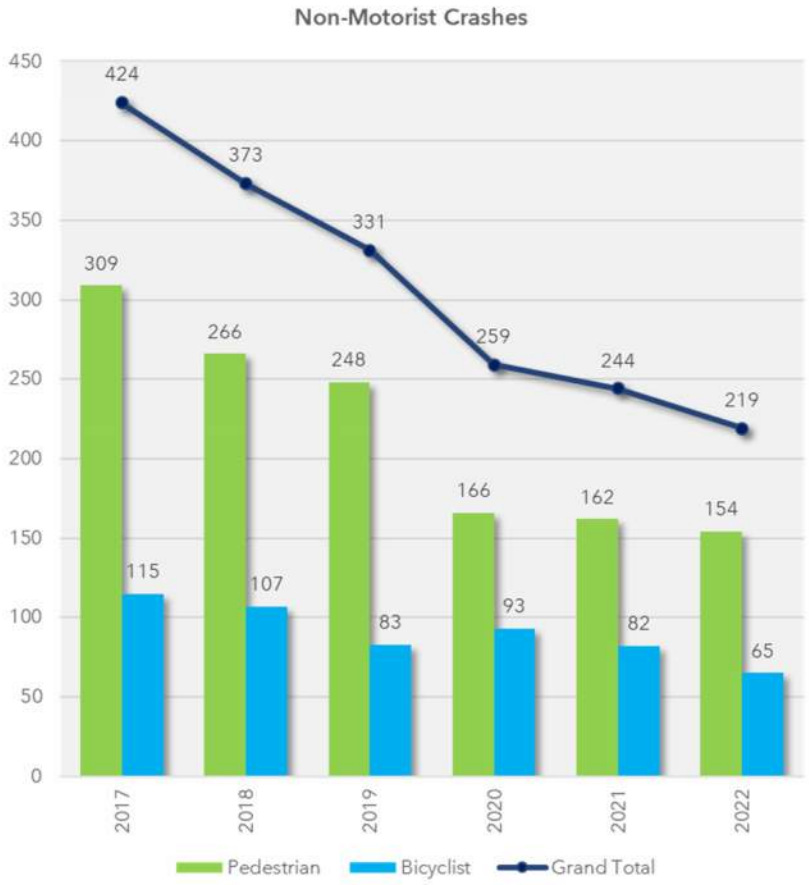
WHAT IS A VULNERABLE ROAD USER?

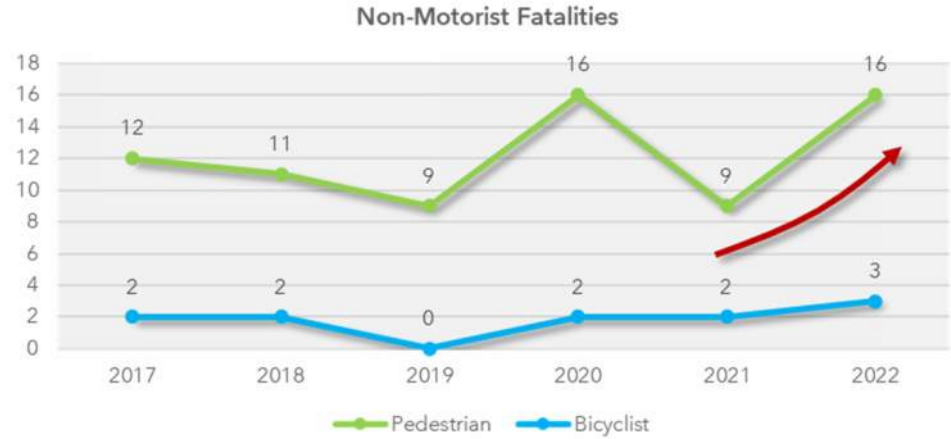
A Vulnerable Road User is defined by FHWA as "a non-motorist with a Fatality Analysis Reporting System (FARS) person attribute code for **pedestrian, bicyclist, other cyclist**, **and person on personal conveyance or an injured person that is, or is equivalent to, a pedestrian or pedal cyclist**…" It is important to note that unlike other organizations including the National Highway Traffic Safety Administration (NHTSA) and the National Safety Council, FHWA does not include motorcyclists among VRUs.

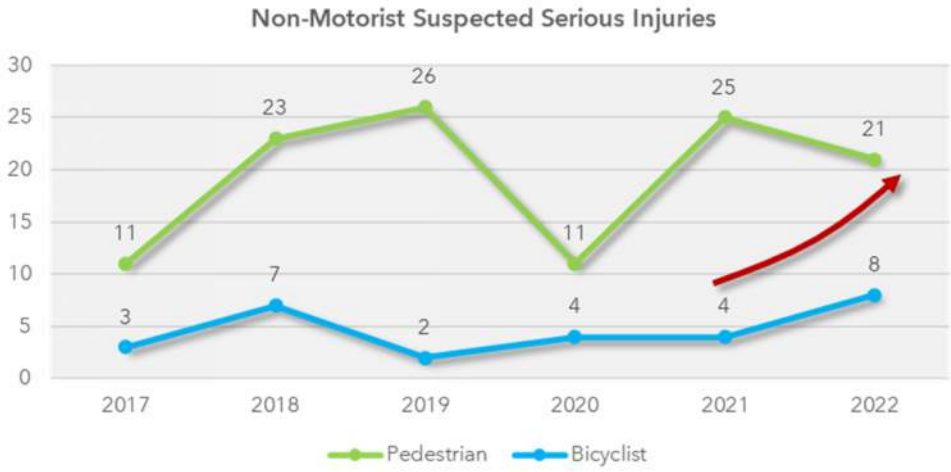
2002 – 2022 New Hampshire



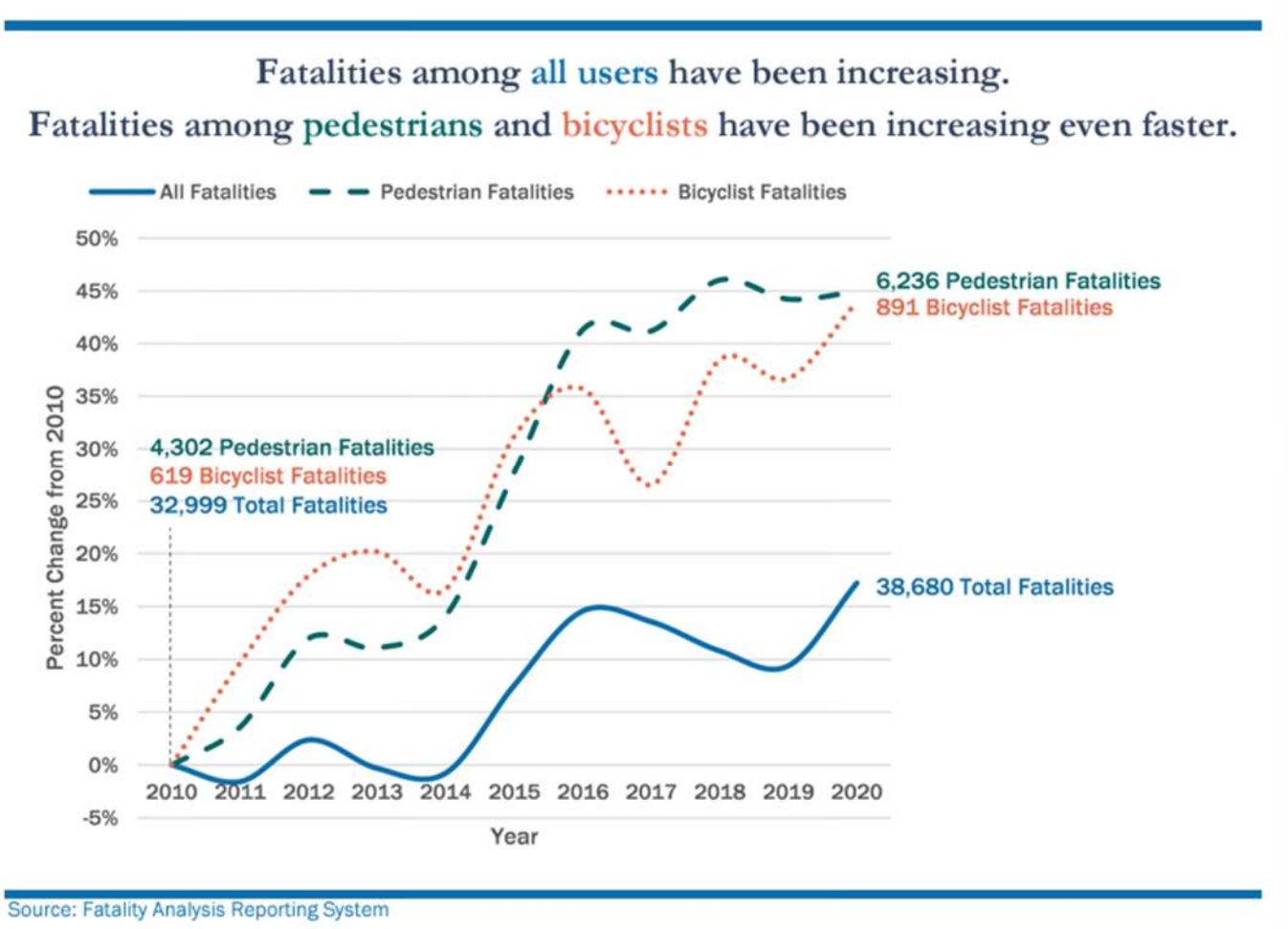
2017 - 2022 New Hampshire







2010 - 2020 National Trends



FEDERAL REQUIREMENTS

2021 Bipartisan Infrastructure Law (BIL)

- **Data-driven process to identify areas of high-risk for vulnerable road users**. Specifically, the State must perform a quantitative analysis of VRU fatalities and serious injuries.
- **Consult with local governments, MPOs, and regional transportation planning organizations that represent high-risk areas**.
- **Develop program of projects/strategies** to reduce safety risks to vulnerable road users in areas identified as high-risk
- **Consider Safe System Approach**
- **Due to FHWA November 15, 2023**

DATA-DRIVEN ANALYSIS

AVAILABLE DATA + LIMITATIONS

DATA SOURCES

Crash Data
- NH Department of Safety Crash Data 2017-2022
- NHDOS – DMV Run Lists 2017-2022
- National Highway Traffic Safety Administration (NHTSA) FARS Data 2017-2022

Infrastructure Data
- NHDOT GIS Roadway Inventory – Roadway Classification, Volumes, Speed, Roadway Features

Socio-Economic Data
- US Census Demographic Data - Income, Racial Makeup, Auto Availability, Environmental Justice Communities
- EPA EJ Screen Tool
- FHWA – Socioeconomic and Equity Analysis Maps
- CDC – Social Vulnerability Index

Land Uses
- NHDOT GIS Data – Schools, Recreation Areas/Points, Community Centers, Transit Stops, etc.

CHALLENGES + LIMITATIONS

- **Frequency of Crashes**
- **Exposure Data**
- **Underreported Data**
- **Inconsistent Data**
- **Unknown Data**
- **Time Constraints!**

- **Lack of Individual Demographic Data**

- **All States doing this for the first time at the same time!**

CRASH SEVERITY

DATA ANALYSIS...

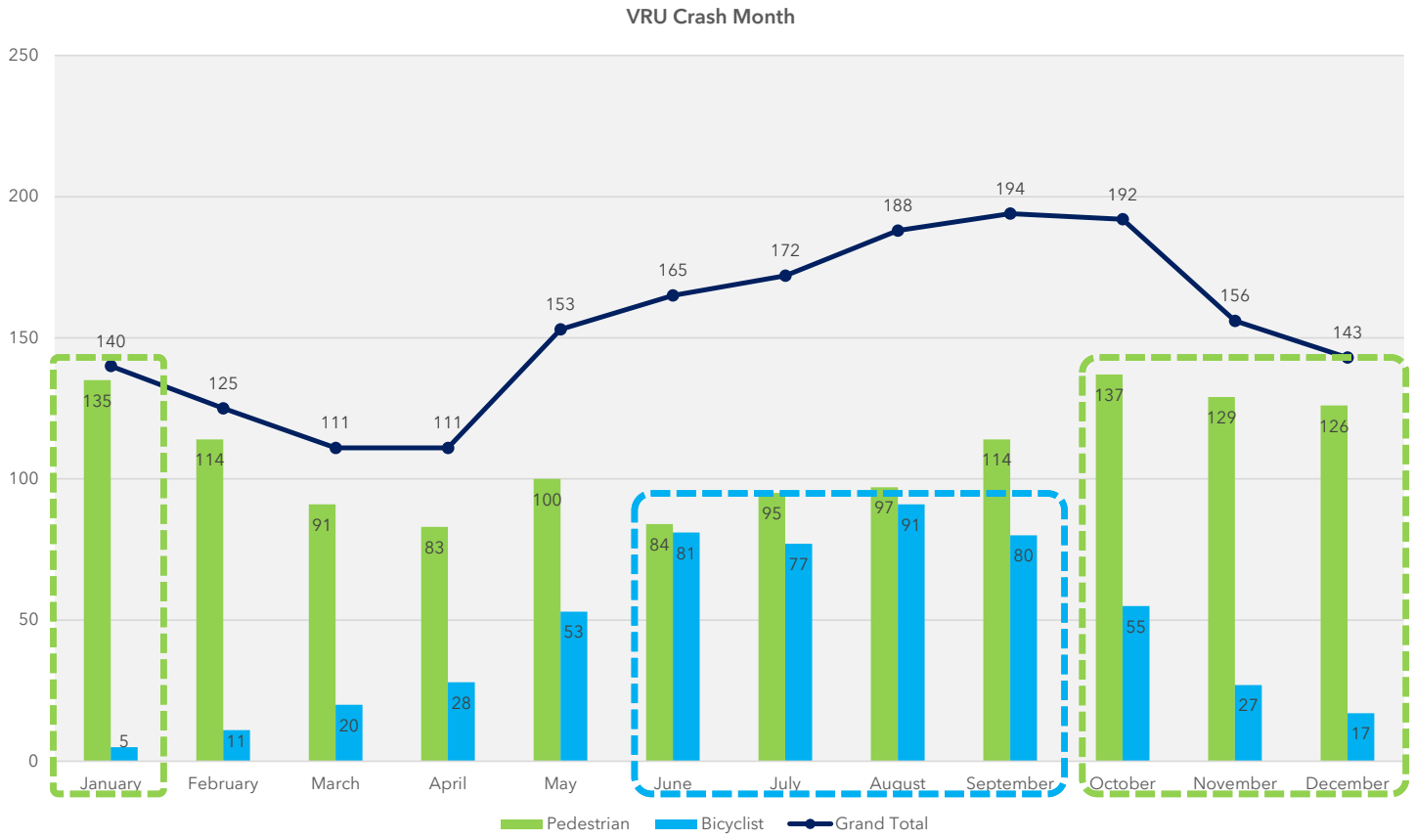
When are crashes occurring?

In what conditions are crashes occurring?

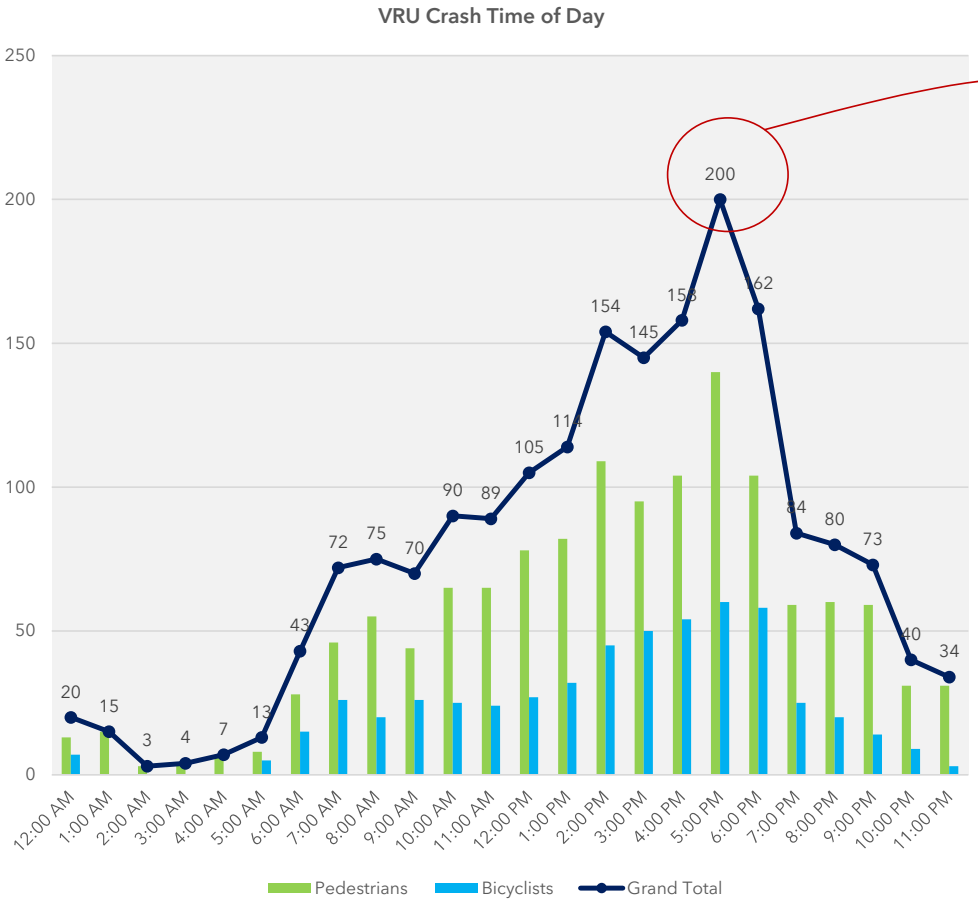
Where are crashes occurring?

Who is involved?

WHEN ARE CRASHES OCCURRING?



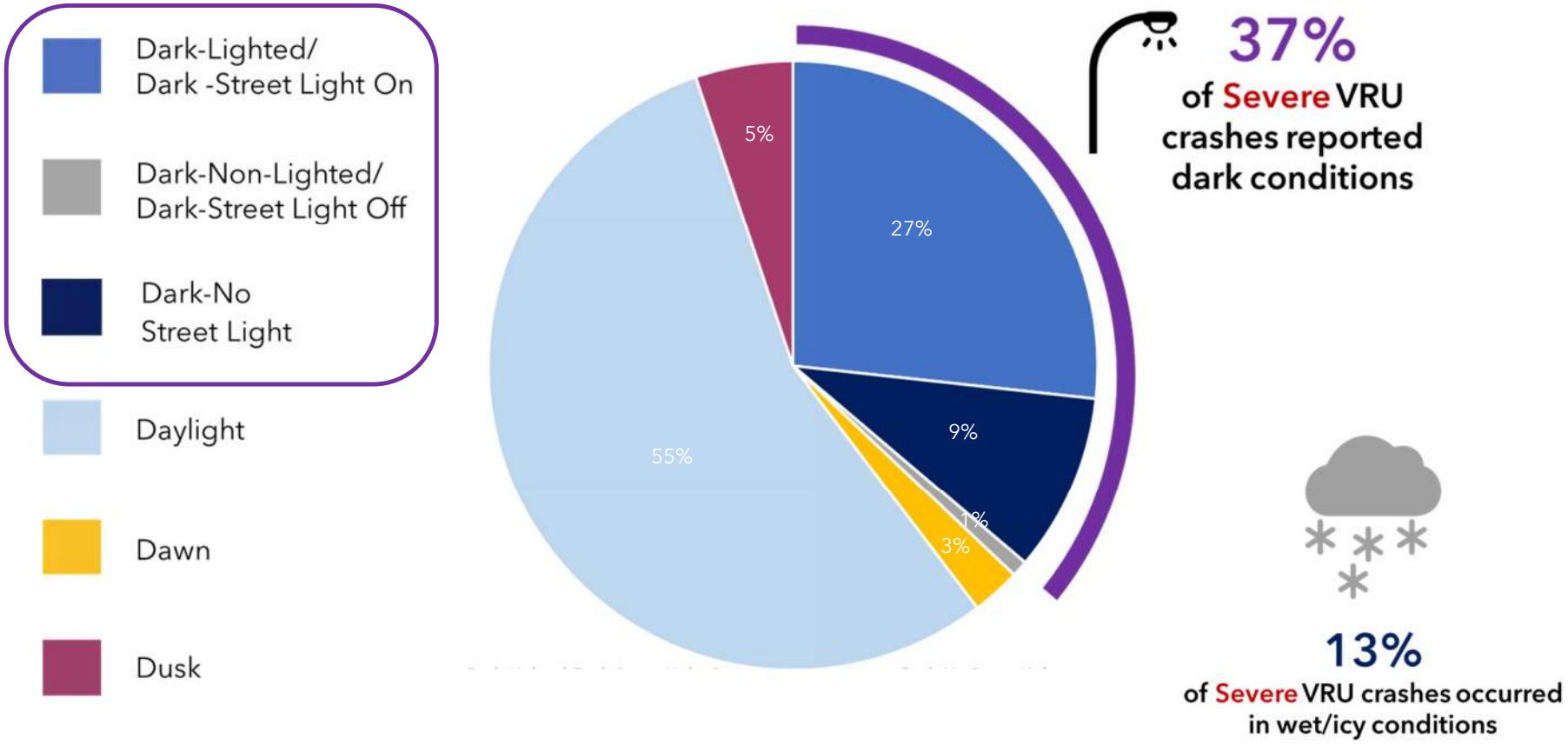
WHEN ARE CRASHES OCCURRING?



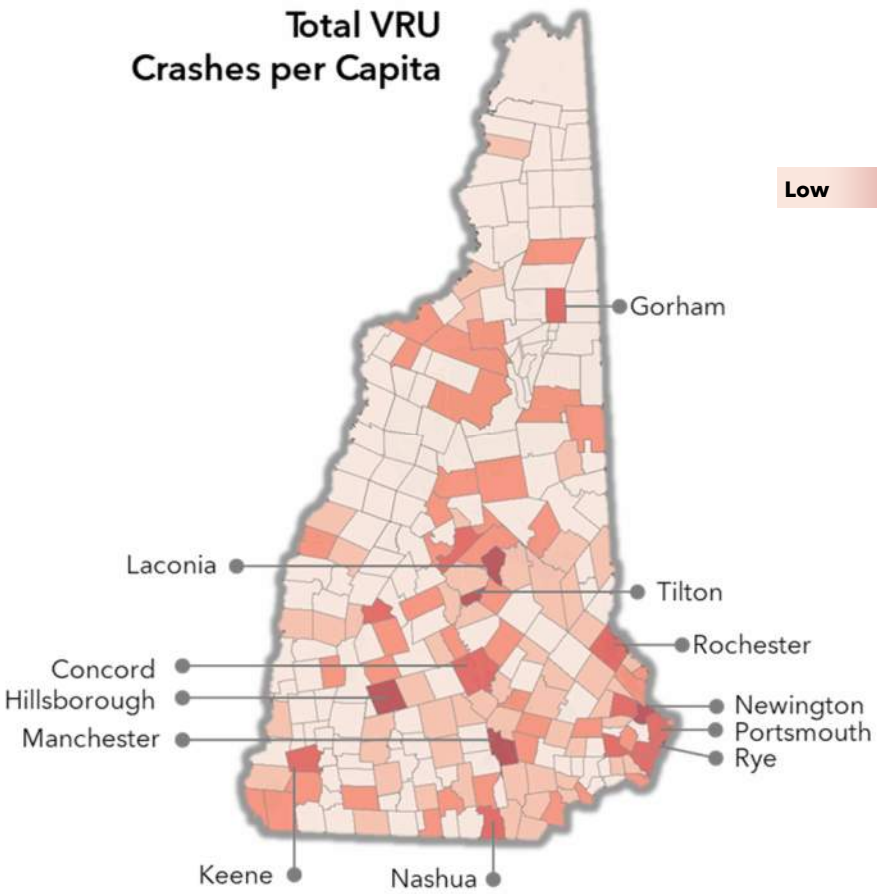
Month	% of 5 PM Ped Crashes
Jan	**20%**
Feb	**6%**
Mar	5%
Apr	7%
May	6%
Jun	5%
July	5%
Aug	4%
Sep	9%
Oct	6%
Nov	**14%**
Dec.	**14%**

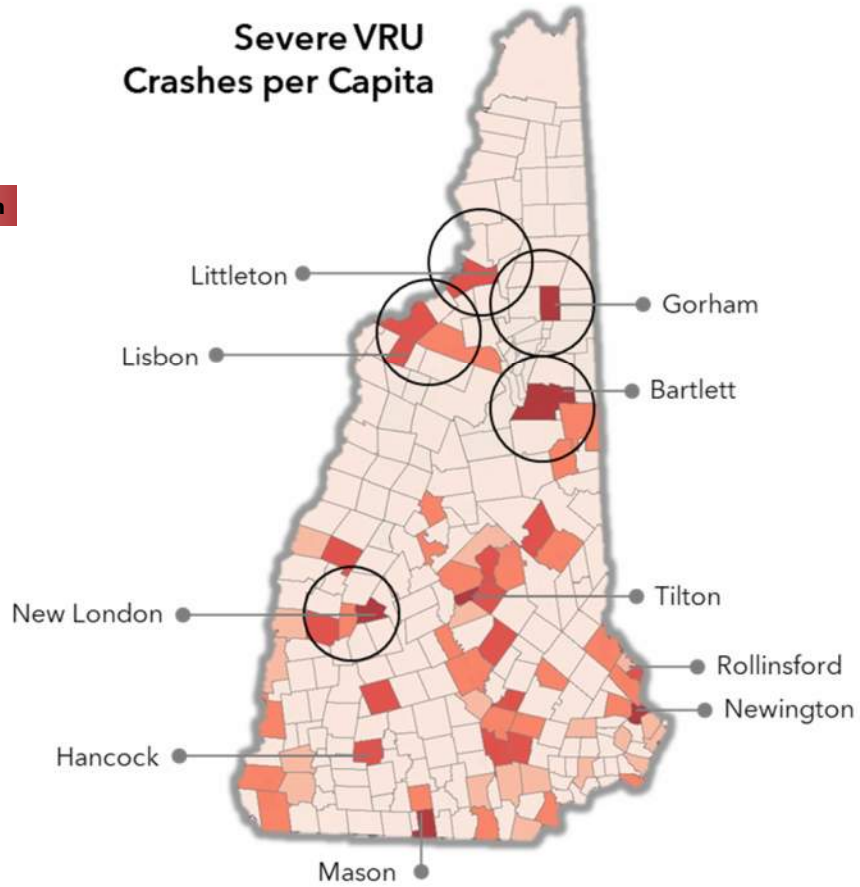
OVER 50%

IN WHAT CONDITIONS?

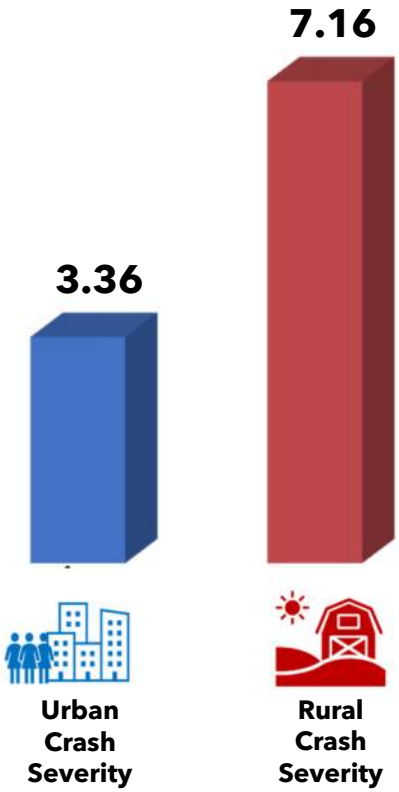


WHERE ARE CRASHES OCCURRING?





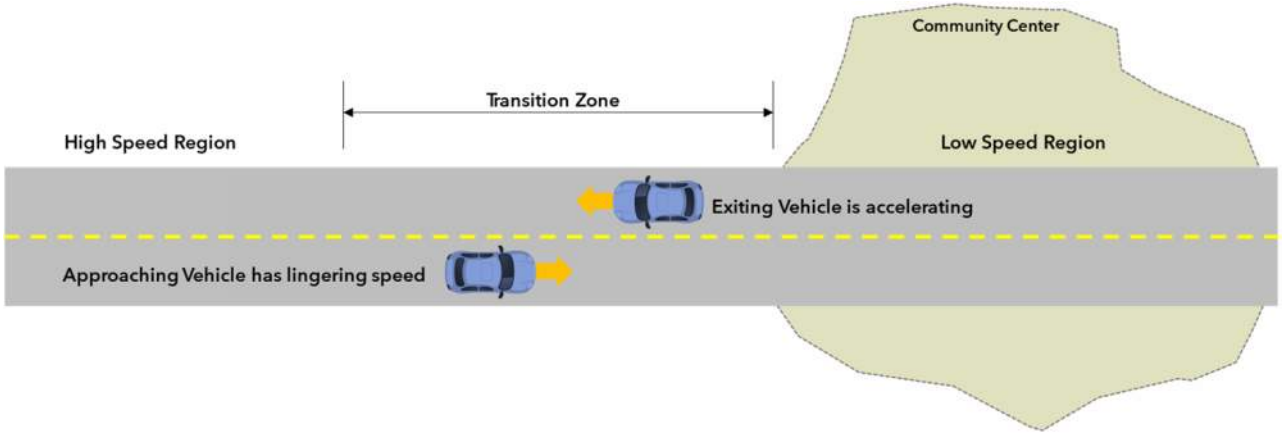
WHERE ARE CRASHES OCCURRING?

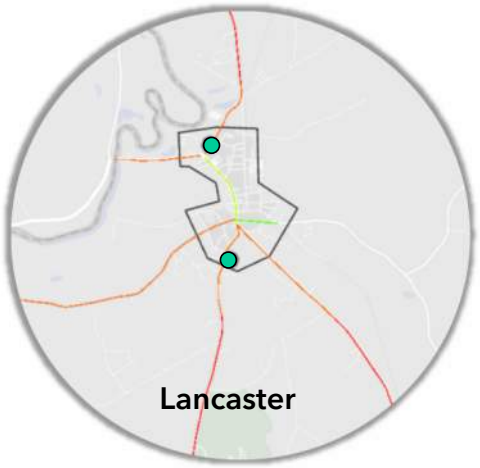


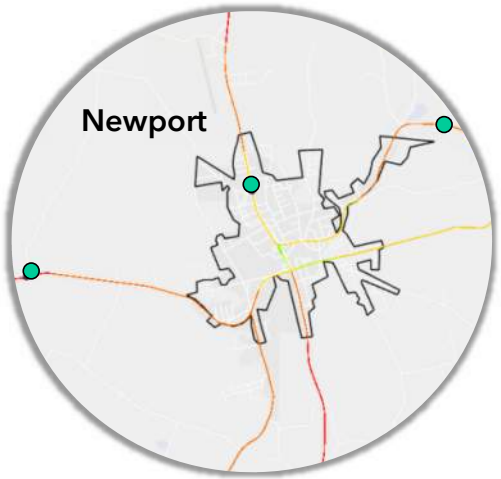
- Higher Speed Limits
- Limited Infrastructure
- Lower Population Density / Driver Behavior
- Lack of Street Lighting
- Limited Public Transportation
- Limited Access to Healthcare / Longer Response Times

$$\text{Severity Index} = \frac{(66.7 \times \text{Fatal}) + (3.53 \times \text{Serious Injury}) + (1.29 \times \text{Minor Injury}) + (0.73 \times \text{Possible Injury}) + (0.12 \times (\text{PDO} + \text{Unknown}))}{\text{Total Crashes or Injuries}}$$

WHERE ARE CRASHES OCCURRING?







VRU Crash

NH Designated Community Center

Free-Flow Speed (Replica)

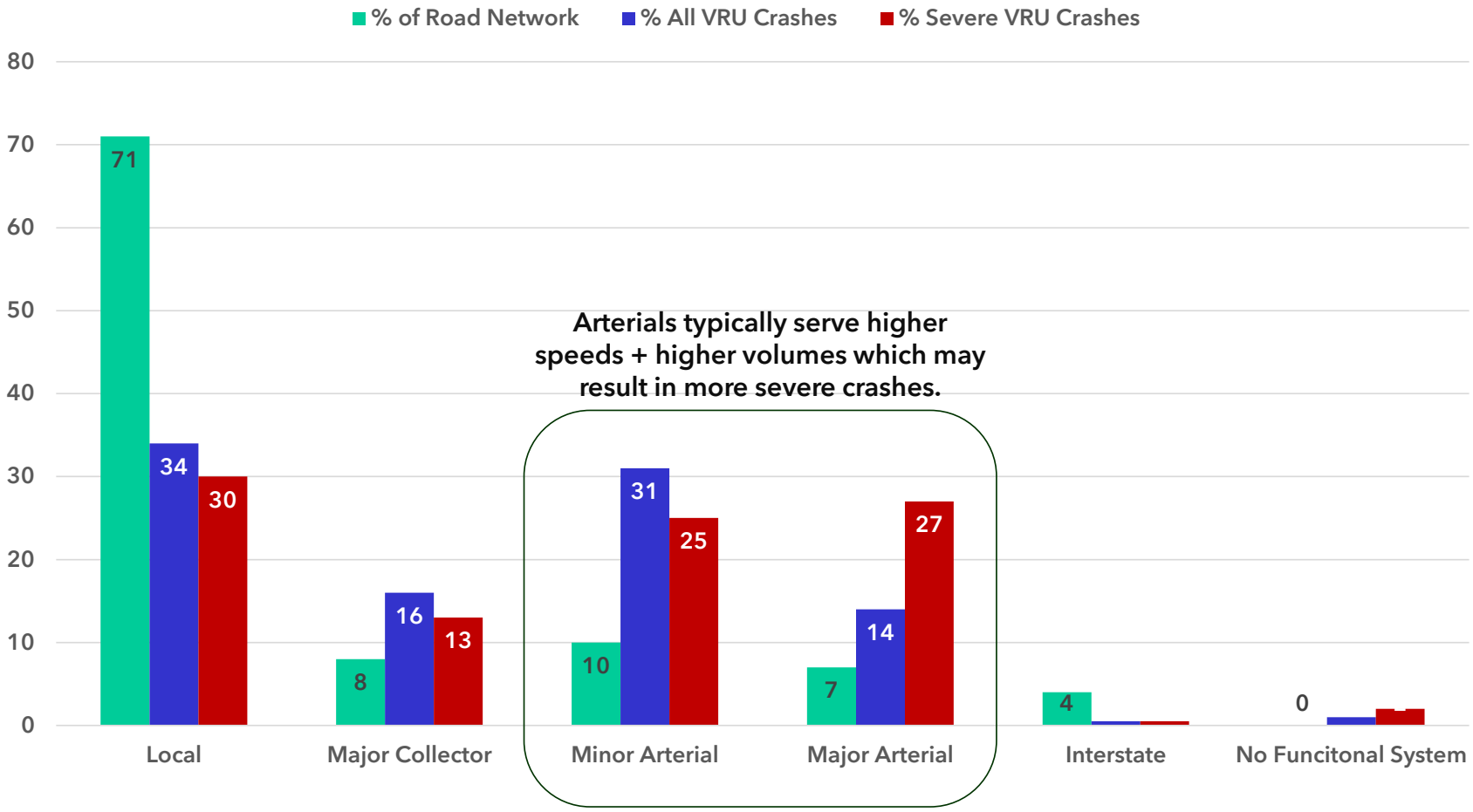
21-29

30-35

36-45

46 - 59

WHERE ARE CRASHES OCCURRING?



WHERE ARE CRASHES OCCURRING?

6.5%
of all VRU crashes were within 500 feet of a school

7%
of all severe VRU crashes were within 500 feet of a school

WHO IS INVOLVED?

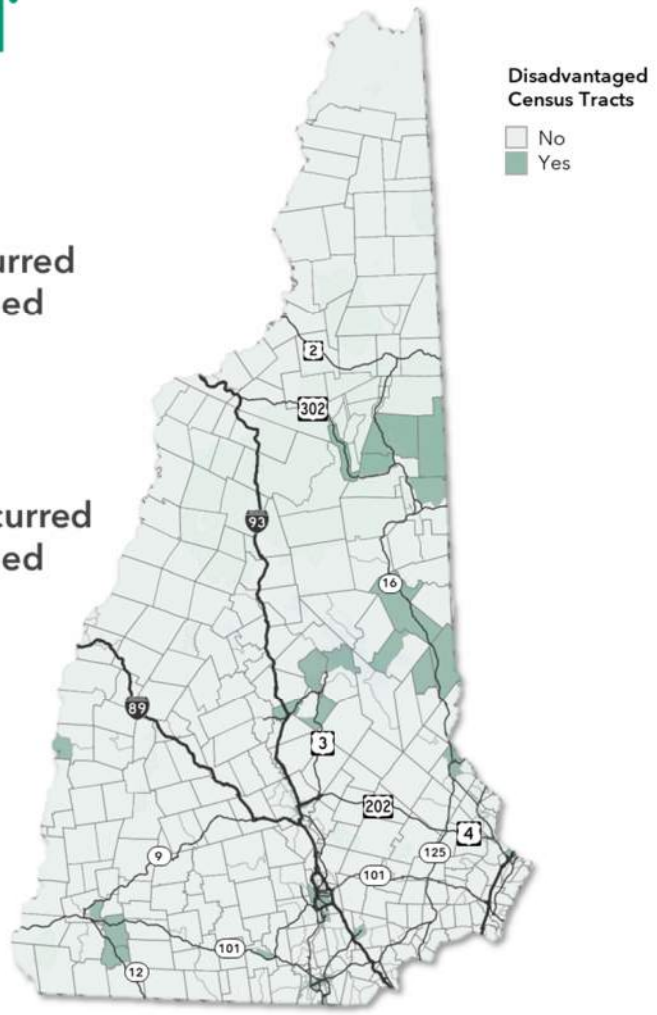
1.4 M
Total Population Living in NH

218.9 K
Total Population Living in Census Tracts Identified as Disadvantaged by USDOT

17%
% of State Population Living in Census Tracts Identified as Disadvantaged

40%
Total VRU Crashes occurred within a disadvantaged community

34%
Severe VRU Crashes occurred within a disadvantaged community



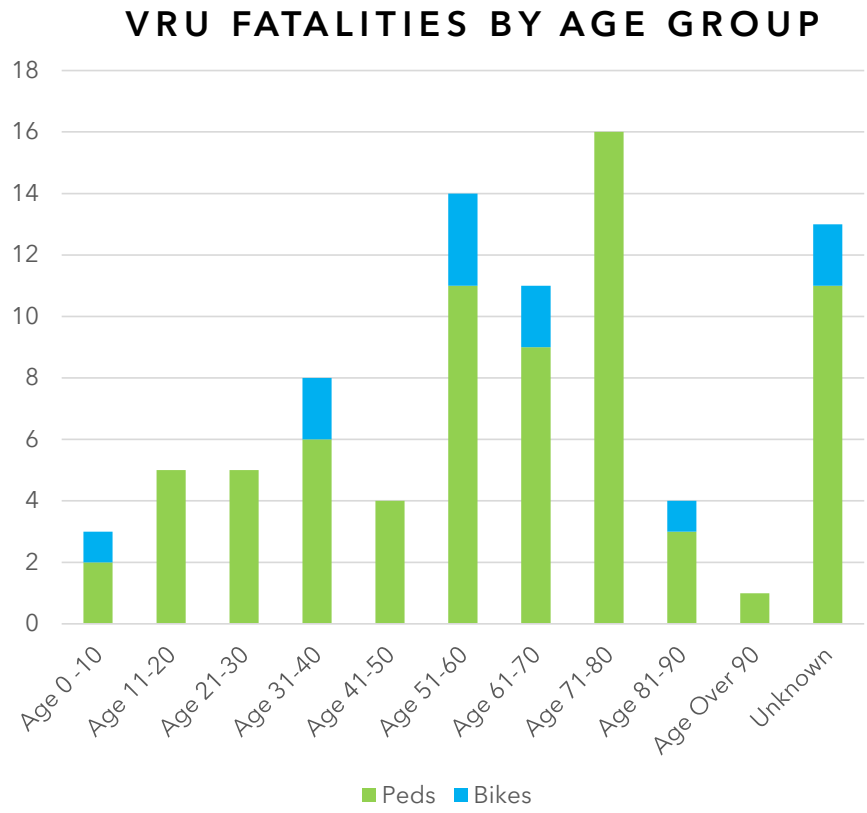
WHO IS INVOLVED?

20% of pedestrian fatalities involved pedestrians under the influence of drugs or alcohol.

5% of VRU fatalities involved driver impairment.

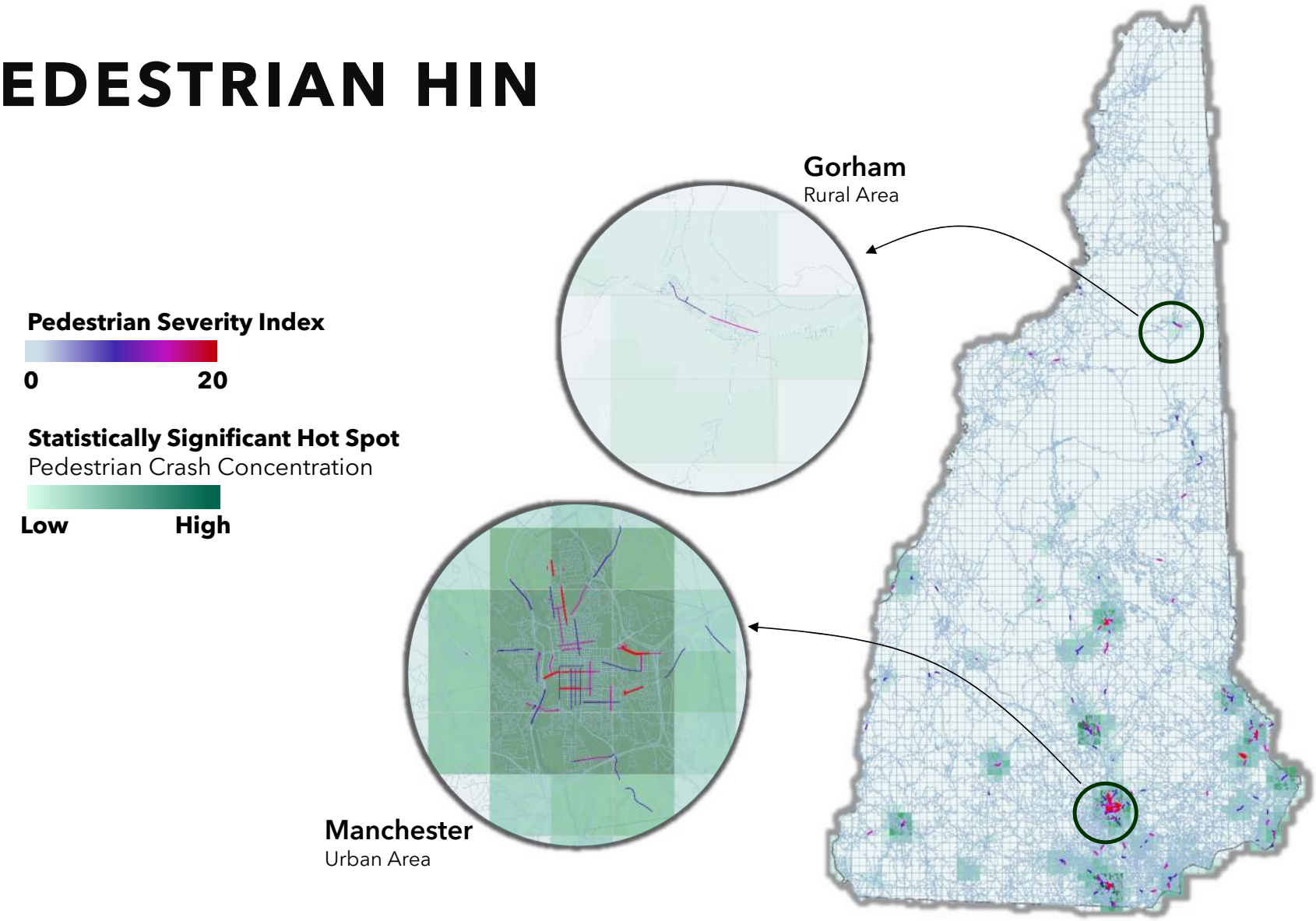
45% of bike fatalities involved cyclists not wearing a helmet.

30% of VRU fatalities were people aged 65+

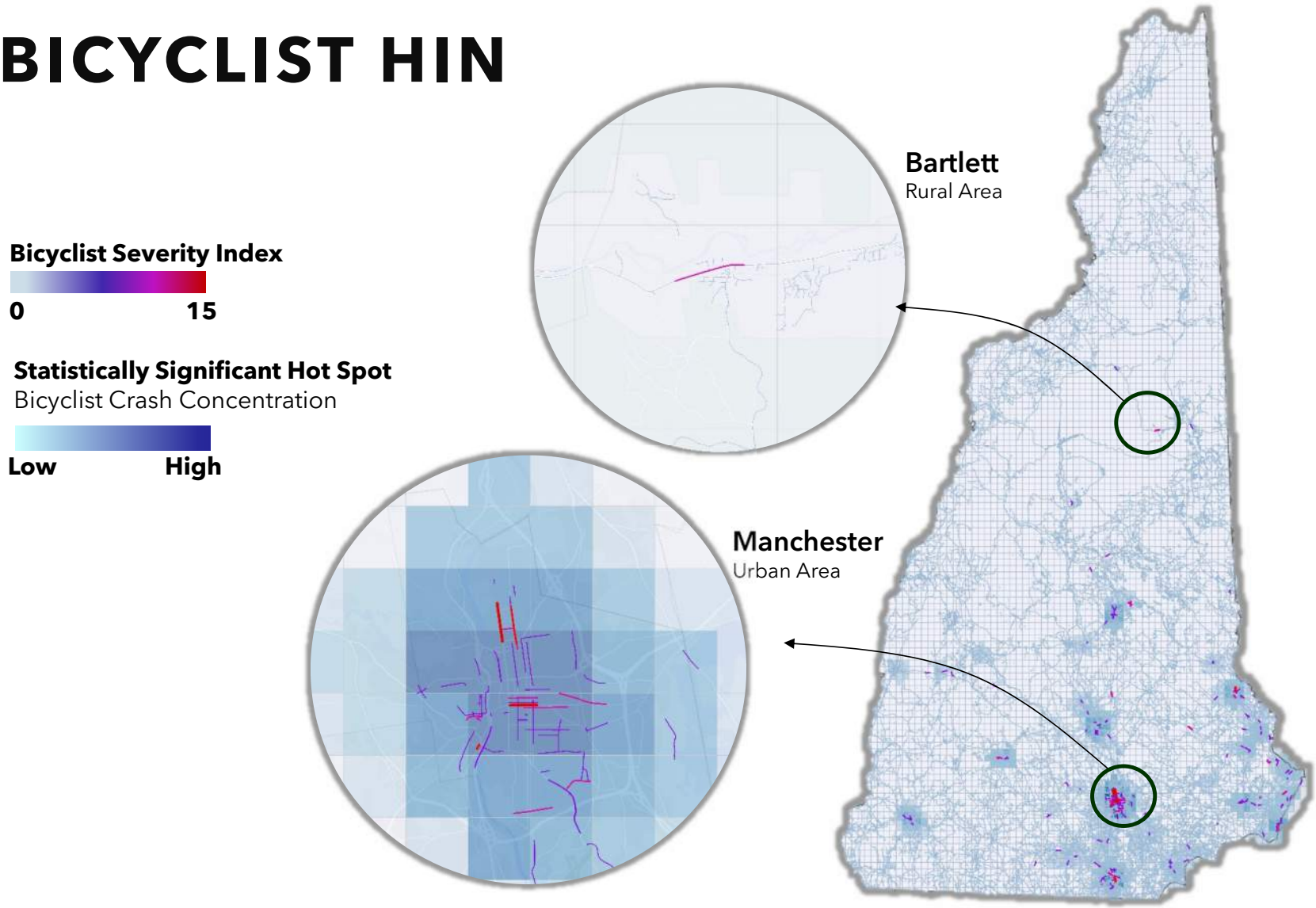


HIGH INJURY NETWORK

PEDESTRIAN HIN



BICYCLIST HIN



VRU STRATEGIES

VRU STRATEGIES

SPOT IMPROVEMENTS

- High Injury Network – Proven Safety Countermeasures

SYSTEMIC IMPROVEMENTS

- Systemic Risk Approach – Program and Strategies

SAFE ROADS / SAFE SPEEDS

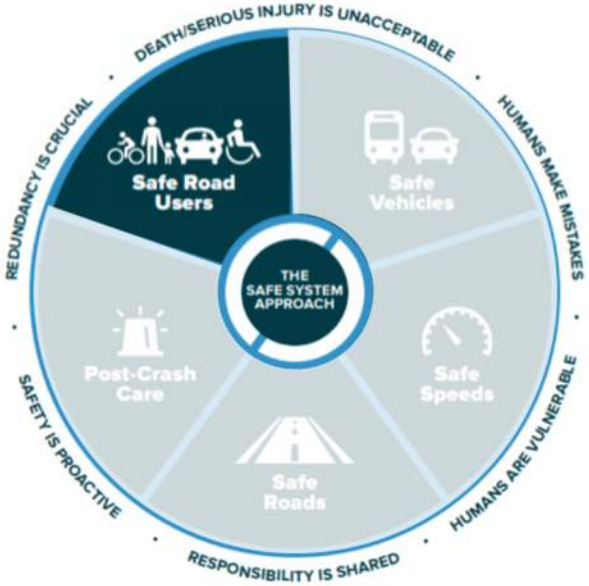
01 Enhance pedestrian and bicyclist safety along the high injury network.

02 Identify, adopt, and encourage the use of best practices.

03 Develop a series of programs intended to provide technical assistance to local entities.

- 15% of all HIN on state owned roadways
- 85% of all HIN on locally owned roadways
- 65% of severe crashes on locally owned roads
- 44% of all VRU crashes were within 2,000 feet of a school
- Severe VRU crashes commonly occur in transition zones approaching community centers

SAFE ROAD USERS



04 Educate State, external partners, and the public about the needs of Vulnerable Road Users.

- 45% of bicyclist fatalities were not wearing a helmet
- 20% of pedestrian fatalities were impaired
- 65% of severe crashes on local roads
- 30% of fatalities were 65+ years old

DATA IMPROVEMENTS

05 Improve data collection, data analysis and data accessibility/transparency.

- 14% of crashes were listed as unknown severity

FUTURE INVESTMENTS

06 Invest in pedestrian and bicycle safety.

- $178 Million in Average Annual Comprehensive crash Cost over six-year study period
- 48% of segments within the HIN is located within historically disadvantaged communities
- 12% of New Hampshire population lives outside of a 30 minute service area of hospital

NEXT STEPS

- VRU Safety Assessment linked to Strategic Highway Safety Plan
  - Five-year cycle with SHSP: next update 2027
- Comply with VRU Special Rule
- Provide data to guide VRU investments

QUESTIONS?

Michael Dugas
mdugas@gpinet.com

Nicole Rogers
nrogers@gpinet.com

Follow Along with Today's Presentation …

1. Scroll to "*Water Quality-related Procedures and Construction Special Provisions & Attentions*"

2. Open "*ACEC Winter Technical Meeting Water Quality Presentation – February 2, 2024*"

New Hampshire DOT
Department of Transportation

Water Quality Procedures & Implementation for Efficient Permitting with NHDES and Consistency in Construction

February 2, 2024

Kevin Nyhan
Administrator
Bureau of Environment

New Hampshire DOT
Department of Transportation

ENV 1: Environmental Policy

Env 1-1 Disposition of Historic Bridges

ENV 1-2 Env. Doc. for State Projects

ENV 1-3 LCHIP Coord.

ENV 1-4 CLS Program Coord.

ENV 1-5 LWCF Coord.

ENV 1-6 GASB-49

ENV 1-7 Cult. Res. MOAs

ENV 1-8 Env. Permit Delegation

Env 1-9 Alteration of Terrain

ENV 1-10 NHF&G Coord.

ENV 1-11 Environmental Commitments

ENV 1-12 USCG Coord.

ENV 1-13 CZMA Coord.

ENV 1-14 Mixing Zones

ENV 1-15 Stream Diversions

ENV 1-16 EC Plans

ENV 1-17 Use of Flocculent for WQ (next)

New Hampshire DOT Department of Transportation

New faces/interpretations at DES

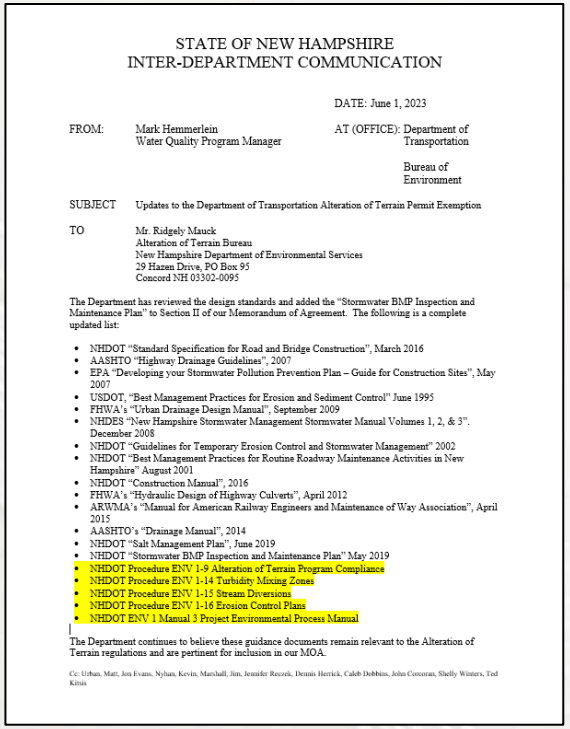
- Numerous new faces in new roles at DES
  - Phil Trowbridge – LRM Program Manager (3 yrs)
  - Ted Diers – Water Division, Assistant Director (2 yr)
  - Darlene Forst – Wetlands Bureau Administrator (3 yr)
  - Courtney Lockwood – LRM Legal Counsel (2 yr)
  - Erin Holmes – Watershed Mgmt. Bureau Administrator (2 yr)
  - Kevin Thatcher – Alteration of Terrain Engineer (1 mo)
  - Mike Schlosser – Alteration of Terrain Supervisor (1 mo)
- Enabled a fresh look at regulatory reforms
- Focus on statutory areas of jurisdiction

- BUT… places a little more scrutiny on us

New Hampshire DOT Department of Transportation

Why more scrutiny?

- Clarifying and memorializing where:
  - Wetlands jurisdiction STOPS, and where
  - AOT jurisdiction BEGINS, and where
  - Shoreland jurisdiction BEGINS, and where
  - Watershed jurisdiction BEGINS.
- What does substantial equivalency mean…
- Federal partners reliance on NHDOT implementing concepts of erosion and sediment controls…
- Having approved procedures helps!



STATE OF NEW HAMPSHIRE
INTER-DEPARTMENT COMMUNICATION

DATE: June 1, 2023

FROM: Mark Hemmerlein
Water Quality Program Manager

AT (OFFICE): Department of Transportation
Bureau of Environment

SUBJECT Updates to the Department of Transportation Alteration of Terrain Permit Exemption

TO Mr. Ridgely Mauck
Alteration of Terrain Bureau
New Hampshire Department of Environmental Services
29 Hazen Drive, PO Box 95
Concord NH 03302-0095

The Department has reviewed the design standards and added the "Stormwater BMP Inspection and Maintenance Plan" to Section II of our Memorandum of Agreement. The following is a complete updated list:

- NHDOT "Standard Specification for Road and Bridge Construction", March 2016
- AASHTO "Highway Drainage Guidelines", 2007
- EPA "Developing your Stormwater Pollution Prevention Plan – Guide for Construction Sites", May 2007
- USDOT, "Best Management Practices for Erosion and Sediment Control" June 1995
- FHWA's "Urban Drainage Design Manual", September 2009
- NHDES "New Hampshire Stormwater Management Stormwater Manual Volumes 1, 2, & 3". December 2008
- NHDOT "Guidelines for Temporary Erosion Control and Stormwater Management" 2002
- NHDOT "Best Management Practices for Routine Roadway Maintenance Activities in New Hampshire" August 2001
- NHDOT "Construction Manual", 2016
- FHWA's "Hydraulic Design of Highway Culverts", April 2012
- ARWMA's "Manual for American Railway Engineers and Maintenance of Way Association", April 2015
- AASHTO's "Drainage Manual", 2014
- NHDOT "Salt Management Plan", June 2019
- NHDOT "Stormwater BMP Inspection and Maintenance Plan" May 2019
- NHDOT Procedure ENV 1-9 Alteration of Terrain Program Compliance
- NHDOT Procedure ENV 1-14 Turbidity Mixing Zones
- NHDOT Procedure ENV 1-15 Stream Diversions
- NHDOT Procedure ENV 1-16 Erosion Control Plans
- NHDOT ENV 1 Manual 3 Project Environmental Process Manual

The Department continues to believe these guidance documents remain relevant to the Alteration of Terrain regulations and are pertinent for inclusion in our MOA.

Cc: Urban, Matt, Jon Evans, Nyhan, Kevin, Marshall, Jim, Jennifer Reczek, Dennis Herrick, Caleb Dobbins, John Corcoran, Shelly Winters, Ted Kitsis

New Hampshire DOT
Department of Transportation

Water Quality Procedures

- Socialize permitting requirements
- Adhere to WQ and Wetlands rules
- Set water quality expectati
- Develop consiste
- Streamlin gn
- R paperwork by “front
  approvals
  - ilitate efficient construction
    - Save time and money in construction

We are treating these procedures as internal to DOT. DES will still need to make its own determinations based on the submittals received, especially under "unusual circumstances". That being said, we think the procedures are good. Knowing that DOT will be following these procedures will be helpful for our permitting decisions. Thanks for the collaboration.

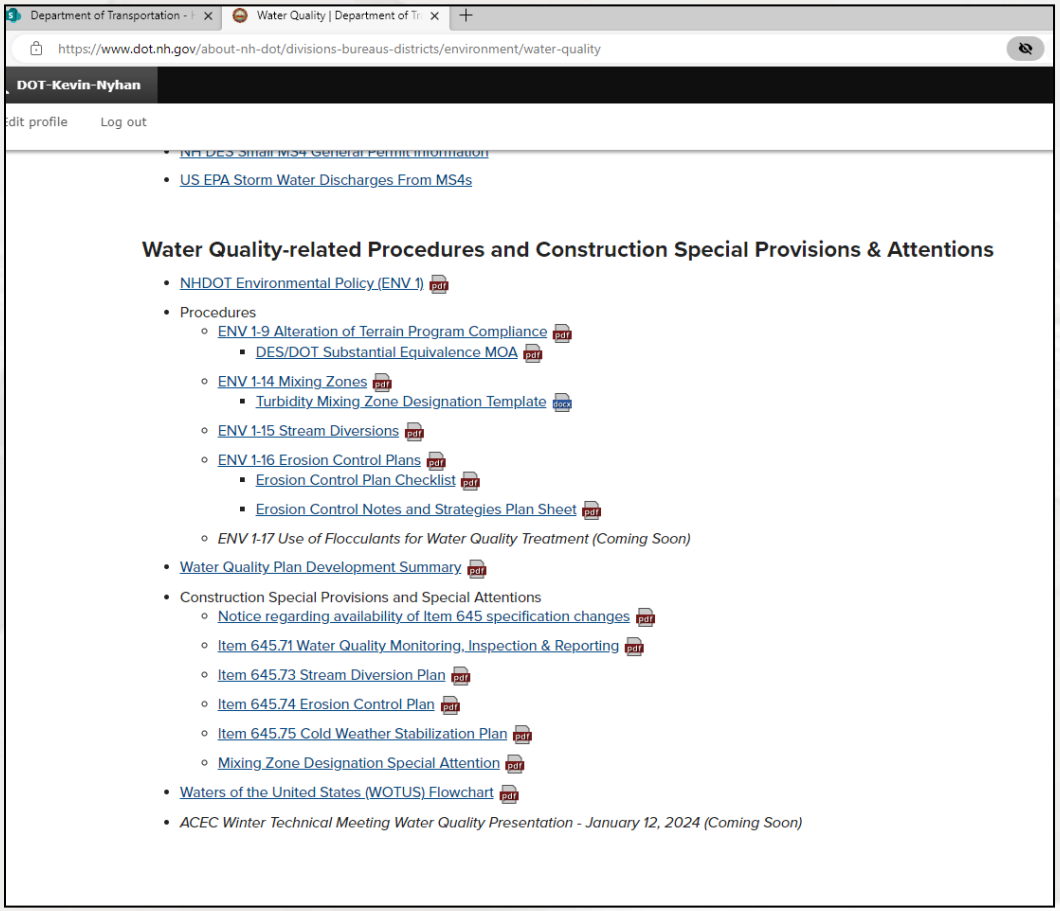
New Hampshire DOT Department of Transportation

Start to Finish…

- Environmental Policy ENV 1
- **Water quality procedures finalized in SOS**
  - NHDES
  - NHDOT
- Specifications updates for implementation
  - NHDES
  - AGC
  - ACEC
  - NHDOT Construction Bureau
  - NHDOT Specifications section
  - NHDOT/AGC Specifications Committee
- **Finalized specifications**
- Implementation

New Hampshire DOT Department of Transportation

Bureau of Environment Webpage

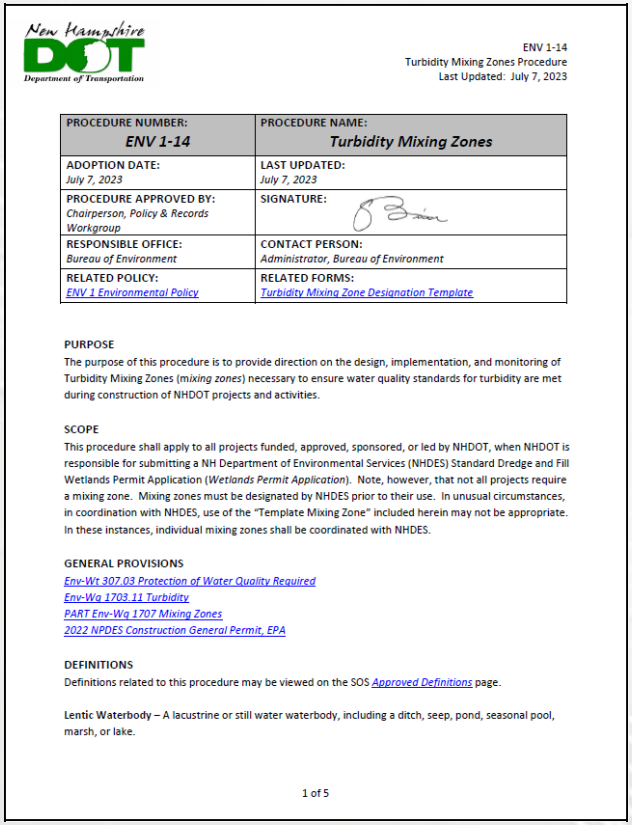


https://www.dot.nh.gov/about-nh-dot/divisions-bureaus-districts/environment/water-quality

New Hampshire DOT Department of Transportation

ENV 1-14 Turbidity Mixing Zones

- Establish repeatable, permittable standards that adhere to the Mixing Zone rules (Part Env-Wq 1707)
- Provide construction flexibility
- Template Mixing Zone
- Designation of Mixing Zones
- Submit with permit applications
- Designated by Watershed Management Bureau



New Hampshire DOT
Department of Transportation

ENV 1-14
Turbidity Mixing Zones Procedure
Last Updated: July 7, 2023

PROCEDURE NUMBER: ENV 1-14	PROCEDURE NAME: Turbidity Mixing Zones
ADOPTION DATE: July 7, 2023	LAST UPDATED: July 7, 2023
PROCEDURE APPROVED BY: Chairperson, Policy & Records Workgroup	SIGNATURE:
RESPONSIBLE OFFICE: Bureau of Environment	CONTACT PERSON: Administrator, Bureau of Environment
RELATED POLICY: ENV 1 Environmental Policy	RELATED FORMS: Turbidity Mixing Zone Designation Template

PURPOSE

The purpose of this procedure is to provide direction on the design, implementation, and monitoring of Turbidity Mixing Zones (*mixing zones*) necessary to ensure water quality standards for turbidity are met during construction of NHDOT projects and activities.

SCOPE

This procedure shall apply to all projects funded, approved, sponsored, or led by NHDOT, when NHDOT is responsible for submitting a NH Department of Environmental Services (NHDES) Standard Dredge and Fill Wetlands Permit Application (*Wetlands Permit Application*). Note, however, that not all projects require a mixing zone. Mixing zones must be designated by NHDES prior to their use. In unusual circumstances, in coordination with NHDES, use of the "Template Mixing Zone" included herein may not be appropriate. In these instances, individual mixing zones shall be coordinated with NHDES.

GENERAL PROVISIONS

Env-Wt 307.03 Protection of Water Quality Required
Env-Wq 1703.11 Turbidity
PART Env-Wq 1707 Mixing Zones
2022 NPDES Construction General Permit, EPA

DEFINITIONS

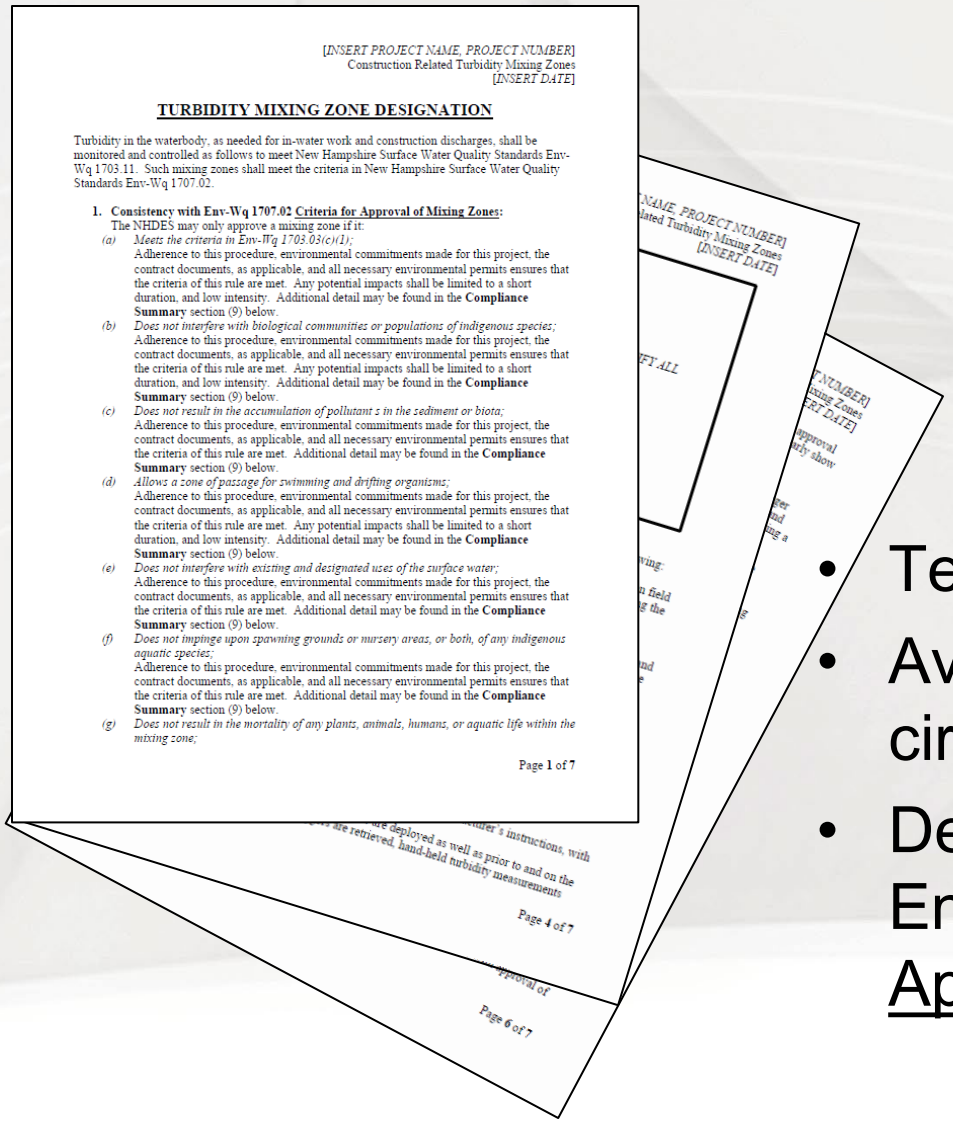
Definitions related to this procedure may be viewed on the SOS Approved Definitions page.

Lentic Waterbody – A lacustrine or still water waterbody, including a ditch, seep, pond, seasonal pool, marsh, or lake.

1 of 5

New Hampshire DOT
Department of Transportation

ENV 1-14 Turbidity Mixing Zones



[INSERT PROJECT NAME, PROJECT NUMBER]
Construction Related Turbidity Mixing Zones
[INSERT DATE]

TURBIDITY MIXING ZONE DESIGNATION

Turbidity in the waterbody, as needed for in-water work and construction discharges, shall be monitored and controlled as follows to meet New Hampshire Surface Water Quality Standards Env-Wq 1703.11. Such mixing zones shall meet the criteria in New Hampshire Surface Water Quality Standards Env-Wq 1707.02.

1. **Consistency with Env-Wq 1707.02 Criteria for Approval of Mixing Zones:**
The NHDES may only approve a mixing zone if it:

(a) *Meets the criteria in Env-Wq 1703.03(c)(1);*
Adherence to this procedure, environmental commitments made for this project, the contract documents, as applicable, and all necessary environmental permits ensures that the criteria of this rule are met. Any potential impacts shall be limited to a short duration, and low intensity. Additional detail may be found in the **Compliance Summary** section (9) below.

(b) *Does not interfere with biological communities or populations of indigenous species;*
Adherence to this procedure, environmental commitments made for this project, the contract documents, as applicable, and all necessary environmental permits ensures that the criteria of this rule are met. Any potential impacts shall be limited to a short duration, and low intensity. Additional detail may be found in the **Compliance Summary** section (9) below.

(c) *Does not result in the accumulation of pollutant s in the sediment or biota;*
Adherence to this procedure, environmental commitments made for this project, the contract documents, as applicable, and all necessary environmental permits ensures that the criteria of this rule are met. Additional detail may be found in the **Compliance Summary** section (9) below.

(d) *Allows a zone of passage for swimming and drifting organisms;*
Adherence to this procedure, environmental commitments made for this project, the contract documents, as applicable, and all necessary environmental permits ensures that the criteria of this rule are met. Any potential impacts shall be limited to a short duration, and low intensity. Additional detail may be found in the **Compliance Summary** section (9) below.

(e) *Does not interfere with existing and designated uses of the surface water;*
Adherence to this procedure, environmental commitments made for this project, the contract documents, as applicable, and all necessary environmental permits ensures that the criteria of this rule are met. Additional detail may be found in the **Compliance Summary** section (9) below.

(f) *Does not impinge upon spawning grounds or nursery areas, or both, of any indigenous aquatic species;*
Adherence to this procedure, environmental commitments made for this project, the contract documents, as applicable, and all necessary environmental permits ensures that the criteria of this rule are met. Additional detail may be found in the **Compliance Summary** section (9) below.

(g) *Does not result in the mortality of any plants, animals, humans, or aquatic life within the mixing zone;*

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- Template Turbidity Mixing Zone
- Available in all but unusual circumstances
- Demonstrates compliance with Env-Wq 1707.02 Criteria for Approval of Mixing Zones

New Hampshire DOT
Department of Transportation

Env-Wt 527.05(a)

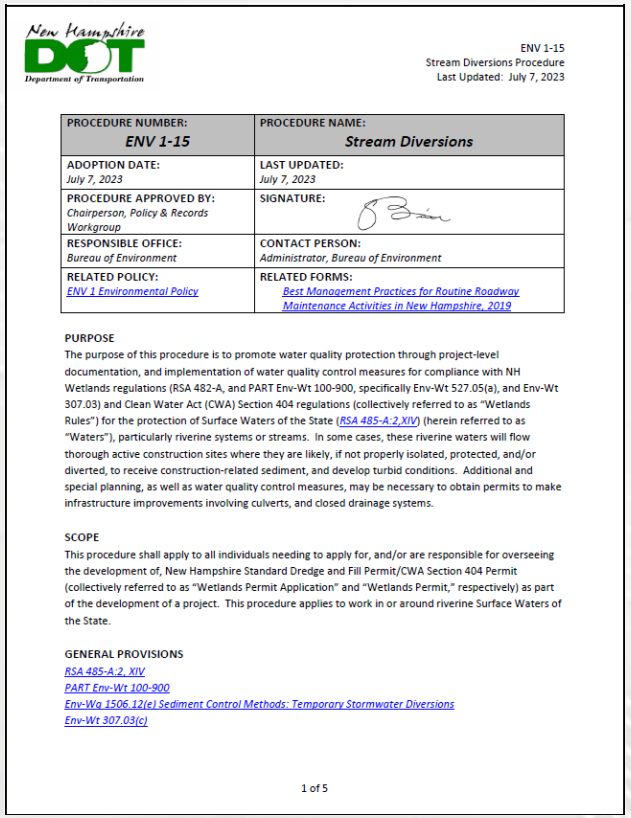
Construction Requirements for Public Highway Projects

The permit shall be contingent on review and approval by the department [of Environmental Services] of **final** stream diversion and erosion control plans that detail the timing and method of stream flow diversion during construction and show temporary siltation, erosion, and turbidity control measures to be implemented;

New Hampshire DOT Department of Transportation

ENV 1-15 Stream Diversions

- Complies with Env-Wt 527.05(a)
- Establishes repeatable standards for when DES needs individual stream diversion approval
- New terms:
  - Unimpacted Riverine Waters of the State (URS)
  - Routine Roadway Qualifying Activity (RQA)
  - Stream Diversion (SD)
- No more “Clean Water Bypass”
- Up front flexibility
- Still need permits (this doesn’t replace that)



New Hampshire DOT
Department of Transportation

ENV 1-15
Stream Diversions Procedure
Last Updated: July 7, 2023

PROCEDURE NUMBER: ENV 1-15	PROCEDURE NAME: Stream Diversions
ADOPTION DATE: July 7, 2023	LAST UPDATED: July 7, 2023
PROCEDURE APPROVED BY: Chairperson, Policy & Records Workgroup	SIGNATURE:
RESPONSIBLE OFFICE: Bureau of Environment	CONTACT PERSON: Administrator, Bureau of Environment
RELATED POLICY: ENV 1 Environmental Policy	RELATED FORMS: Best Management Practices for Routine Roadway Maintenance Activities in New Hampshire, 2019

PURPOSE

The purpose of this procedure is to promote water quality protection through project-level documentation, and implementation of water quality control measures for compliance with NH Wetlands regulations (RSA 482-A, and PART Env-Wt 100-900, specifically Env-Wt 527.05(a), and Env-Wt 307.03) and Clean Water Act (CWA) Section 404 regulations (collectively referred to as “Wetlands Rules”) for the protection of Surface Waters of the State (RSA 485-A:2,XIV) (herein referred to as “Waters”), particularly riverine systems or streams. In some cases, these riverine waters will flow thorough active construction sites where they are likely, if not properly isolated, protected, and/or diverted, to receive construction-related sediment, and develop turbid conditions. Additional and special planning, as well as water quality control measures, may be necessary to obtain permits to make infrastructure improvements involving culverts, and closed drainage systems.

SCOPE

This procedure shall apply to all individuals needing to apply for, and/or are responsible for overseeing the development of, New Hampshire Standard Dredge and Fill Permit/CWA Section 404 Permit (collectively referred to as “Wetlands Permit Application” and “Wetlands Permit,” respectively) as part of the development of a project. This procedure applies to work in or around riverine Surface Waters of the State.

GENERAL PROVISIONS

RSA 485-A:2, XIV
PART Env-Wt 100-900
Env-Wq 1506.12(e) Sediment Control Methods: Temporary Stormwater Diversions
Env-Wt 307.03(c)

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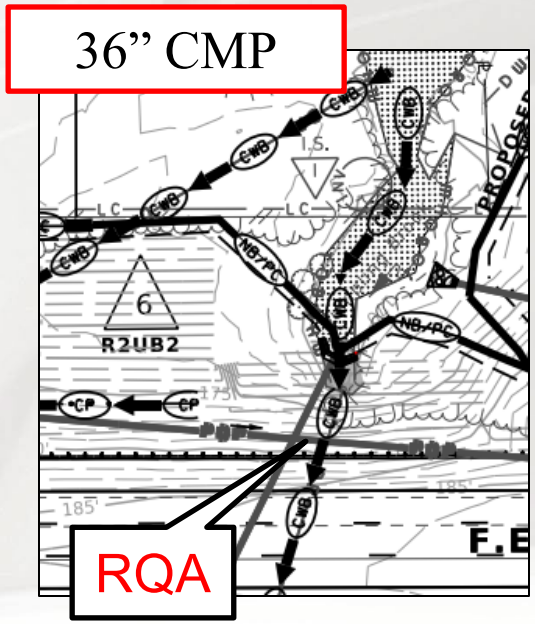
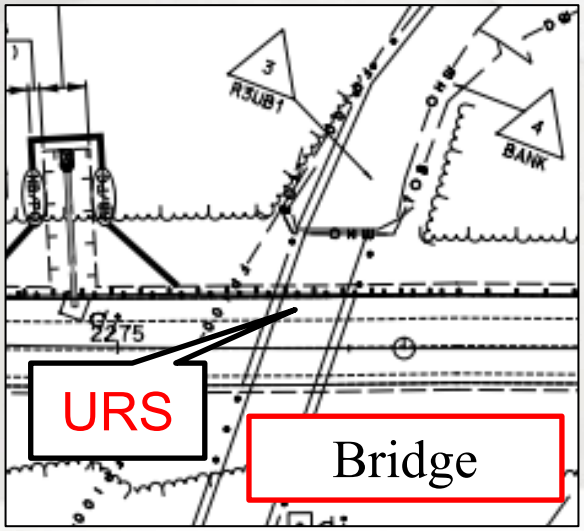
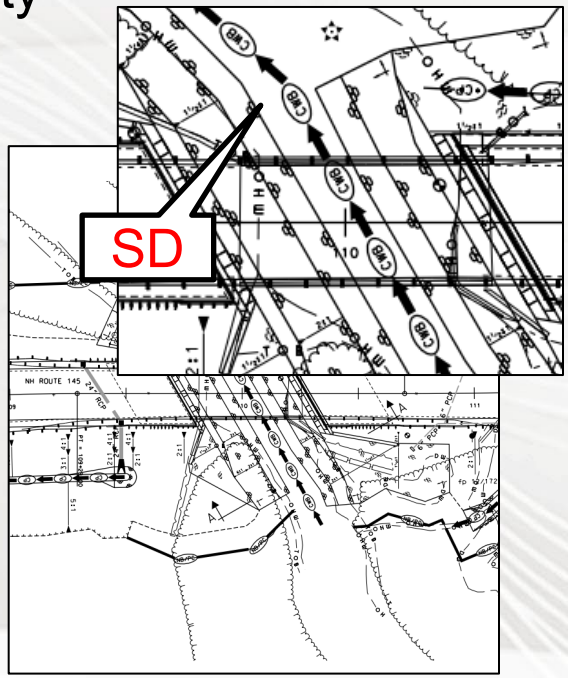
New Hampshire DOT
Department of Transportation

Plan Detail Changes

- New plan details and terminology
  - URS – Unimpacted Riverine Waters of the State
  - RQA – Routine Roadway Qualifying Activity
  - SD – Stream Diversion

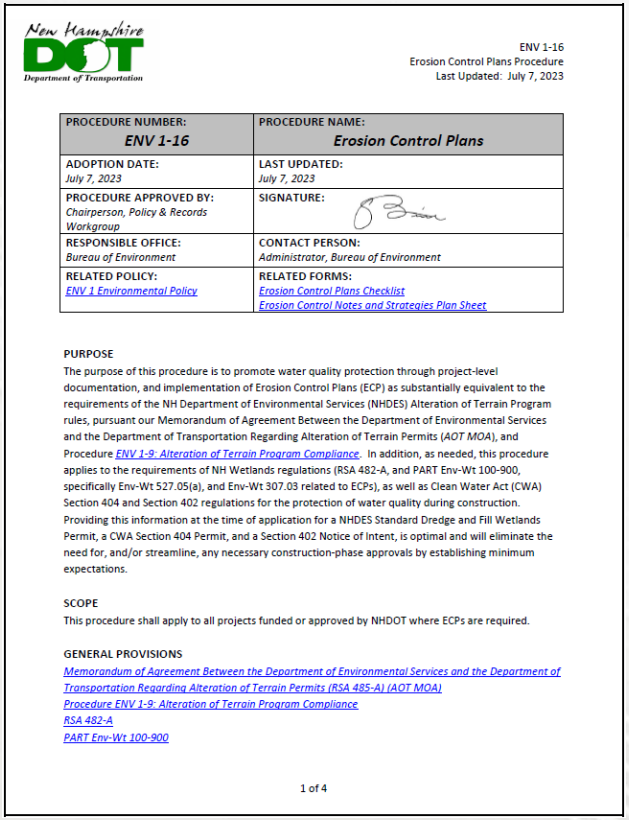






ENV 1-16 Erosion Control Plans

- Complies with Env-Wt 527.05(a)
- Establish repeatable standards
- Merges multiple program expectations
- Design-phase approval with permit application
- Erosion Control Plan Checklist
- No (or limited) DES construction phase approvals
- Fewer RFMIs



New Hampshire DOT
Department of Transportation

ENV 1-16
Erosion Control Plans Procedure
Last Updated: July 7, 2023

PROCEDURE NUMBER: ENV 1-16	PROCEDURE NAME: Erosion Control Plans
ADOPTION DATE: July 7, 2023	LAST UPDATED: July 7, 2023
PROCEDURE APPROVED BY: Chairperson, Policy & Records Workgroup	SIGNATURE:
RESPONSIBLE OFFICE: Bureau of Environment	CONTACT PERSON: Administrator, Bureau of Environment
RELATED POLICY: ENV 1 Environmental Policy	RELATED FORMS: Erosion Control Plans Checklist; Erosion Control Notes and Strategies Plan Sheet

PURPOSE

The purpose of this procedure is to promote water quality protection through project-level documentation, and implementation of Erosion Control Plans (ECP) as substantially equivalent to the requirements of the NH Department of Environmental Services (NHDES) Alteration of Terrain Program rules, pursuant our Memorandum of Agreement Between the Department of Environmental Services and the Department of Transportation Regarding Alteration of Terrain Permits (*AOT MOA*), and Procedure *ENV 1-9: Alteration of Terrain Program Compliance*. In addition, as needed, this procedure applies to the requirements of NH Wetlands regulations (RSA 482-A, and PART Env-Wt 100-900, specifically Env-Wt 527.05(a), and Env-Wt 307.03 related to ECPs), as well as Clean Water Act (CWA) Section 404 and Section 402 regulations for the protection of water quality during construction. Providing this information at the time of application for a NHDES Standard Dredge and Fill Wetlands Permit, a CWA Section 404 Permit, and a Section 402 Notice of Intent, is optimal and will eliminate the need for, and/or streamline, any necessary construction-phase approvals by establishing minimum expectations.

SCOPE

This procedure shall apply to all projects funded or approved by NHDOT where ECPs are required.

GENERAL PROVISIONS

Memorandum of Agreement Between the Department of Environmental Services and the Department of Transportation Regarding Alteration of Terrain Permits (RSA 485-A) (AOT MOA)
Procedure ENV 1-9: Alteration of Terrain Program Compliance
RSA 482-A
PART Env-Wt 100-900

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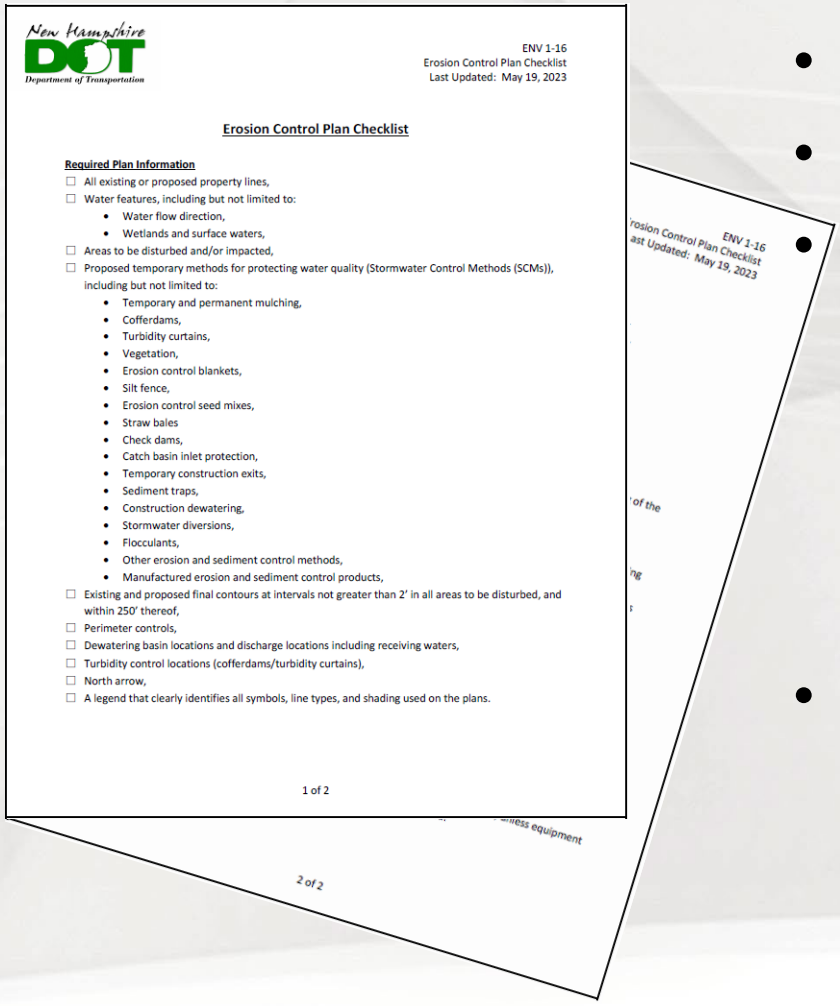
New Hampshire DOT
Department of Transportation

ENV 1-16 Erosion Control Plans



New Hampshire DOT
Department of Transportation

ENV 1-16
Erosion Control Plan Checklist
Last Updated: May 19, 2023

Erosion Control Plan Checklist

Required Plan Information

- ☐ All existing or proposed property lines,
- ☐ Water features, including but not limited to:
  - Water flow direction,
  - Wetlands and surface waters,
- ☐ Areas to be disturbed and/or impacted,
- ☐ Proposed temporary methods for protecting water quality (Stormwater Control Methods (SCMs)), including but not limited to:
  - Temporary and permanent mulching,
  - Cofferdams,
  - Turbidity curtains,
  - Vegetation,
  - Erosion control blankets,
  - Silt fence,
  - Erosion control seed mixes,
  - Straw bales
  - Check dams,
  - Catch basin inlet protection,
  - Temporary construction exits,
  - Sediment traps,
  - Construction dewatering,
  - Stormwater diversions,
  - Flocculants,
  - Other erosion and sediment control methods,
  - Manufactured erosion and sediment control products,
- ☐ Existing and proposed final contours at intervals not greater than 2' in all areas to be disturbed, and within 250' thereof,
- ☐ Perimeter controls,
- ☐ Dewatering basin locations and discharge locations including receiving waters,
- ☐ Turbidity control locations (cofferdams/turbidity curtains),
- ☐ North arrow,
- ☐ A legend that clearly identifies all symbols, line types, and shading used on the plans.

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- Included in permit applications
- Basis for the SWPPP
- Included in contract documents either:
  - Completed
  - With needed items highlighted (when not available in design) for contractor preparation and submittal
- Revised "Strategies Sheet" to "Erosion Control Notes and Strategies"

New Hampshire DOT
Department of Transportation

ENV 1-16 Erosion Control Plans

EROSION CONTROL NOTES AND STRATEGIES

1. Erosion Control/Stormwater Control Selection, Sequencing and Maintenance
   - 1.1. Comply with RSA 485-A:17 Terrain Alteration.
   - 1.2. Install and maintain all erosion control/stormwater controls in accordance with the New Hampshire Stormwater Management Manual, Volume 3, Erosion and Sediment Controls During Construction, December 2008 (BMP Manual), available from the NH Department of Environmental Services (NHDES).
   - 1.3. Install erosion control/stormwater control measures prior to the start of work and in accordance with the manufacturer's recommendations.
   - 1.4. Select erosion control/stormwater control measures based on the size and nature of the project and physical characteristics of the site, including slope, soil type, vegetative cover, and proximity to jurisdictional areas,
   - 1.5. Install perimeter controls prior to earth disturbing activities.
   - 1.6. Install stormwater treatment ponds and drainage swales before rough grading the site,
   - 1.7. Clean, replace, and augment stormwater control measures and infiltration basins as necessary to prevent sedimentation beyond project limits throughout the project duration,
   - 1.8. Inspect erosion and sediment control measures in accordance with Section 645 of the specifications, weekly, and within 24 hours (during normal work hours), of any storm event greater than 0.25 inches of rain in a 24-hour period.
   - 1.9. Contain stockpiles with temporary perimeter controls. Protect inactive soil stockpiles with soil stabilization measures (temporary erosion control seed mix and mulch, soil binder) or cover them with anchored tarps. If the stockpile is to remain undisturbed for more than 14 days, mulch the stockpile.
   - 1.10. Maintain temporary erosion and stormwater control measures in place until the area has been permanently stabilized.
   - 1.11. An area is considered stable if one of the following has occurred:
     - Base course gravels have been installed in areas to be paved;
     - A minimum of 85% vegetative growth has been established;
     - A minimum of 3"of non-erosive material such as stone or rip-rap has been installed;
     - Temporary slope stabilization has been properly installed (see Table 1);
   - 1.12. Direct runoff to temporary practices until permanent stormwater infrastructure is constructed and stabilized.
   - 1.13. Use temporary mulching, permanent mulching, temporary vegetative cover, and permanent vegetative cover to reduce the need for dust control. Use mechanical sweepers on paved surfaces where necessary to prevent dust buildup. Apply water, or other dust inhibiting agents or tackifiers.
   - 1.14. Plan activities to account for sensitive site conditions
     - Sequence construction to limit the duration and area of exposed soils.
     - Clearly flag areas to be protected in the field and provide construction barrier to prevent trafficking outside of work areas.
     - Protect and maximize existing native vegetation and natural forest buffers between construction activities and sensitive areas.
     - When work is undertaken in a flowing watercourse, implement stream flow diversion methods prior to any excavation or filling activity.
   - 1.15. Utilize storm drain inlet protection to prevent sediment from entering a storm drainage system prior to the permanent stabilization of the contributing disturbed area.
   - 1.16. Use care to ensure that sediments do not enter any existing catch basins during construction. Place temporary inlet protection at inlets in areas of soil disturbance that are subject to sedimentation.
   - 1.17. Construct, stabilize, and maintain temporary and permanent ditches in a manner that will minimize scour. Direct temporary and permanent ditches to drain to sediment basins or stormwater collection areas.
   - 1.18. Supplement channel protection measures with perimeter control measures when ditch lines occur at the bottom of long fill slopes. Install the perimeter controls on the fill slope to minimize the potential for fill slope sediment deposits in the ditch line.
   - 1.19. Divert sediment laden water away from drainage inlet structures to the extent possible.
   - 1.20. Install sediment barriers and sediment traps at drainage inlets to prevent sediment from entering the drainage system.
   - 1.21. Clean catch basins, drainage pipes, and culverts if significant sediment is deposited.
   - 1.22. Construct and stabilize dewatering infiltration basins prior to any excavation that may require dewatering.
   - 1.23. Place and stabilize temporary sediment basins or traps at locations where concentrated flow (channels and pipes) discharge to the surrounding environment from areas of unstabilized earth disturbing activities.
   - 1.24. Stabilize, to appropriate anticipated velocities, conveyance channels or pumping systems needed to convey construction stormwater to basins and discharge locations prior to use.
   - 1.25. Size temporary sediment basins to contain the 2-year, 24 hour storm event.
   - 1.26. Size temporary sediment traps to contain 3,600 cubic feet of storage for each acre of drainage area.
   - 1.27. Construct detention basins to accommodate the 2-year, 24-hour storm event.
2. Construction Planning
   - 2.1. Divert off site runoff or clean water away from the construction activities to reduce the volume that needs to be treated on site.
   - 2.2. Divert storm runoff from upslope drainage areas away from disturbed areas, slopes and around active work areas to a stabilized outlet location.
   - 2.3. Construct impermeable barriers, as necessary, to collect or divert concentrated flows from work or disturbed areas,
   - 2.4. Locate staging areas and stockpiles outside of wetlands jurisdiction,
   - 2.5. Do not store, maintain, or repair mobile heavy equipment in wetlands, unless equipment cannot be practicably removed and secondary containment is provided.
   - 2.6. Provide a water truck to control excessive dust, at the discretion of the Contract Administrator;
3. Site Stabilization
   - 3.1. Stabilize all areas of unstabilized soil as soon as practicable, but no later than 45 days after initial disturbance.
   - 3.2. Limit unstabilized soil to a maximum of 5 acres unless documentation is provided that demonstrates that cuts and fills are such that 5 acres is unreasonable.
   - 3.3. Use erosion control seed mix in all inactive construction areas that will not be permanently seeded within two weeks of disturbance and prior to September 15th of any given year in order to achieve vegetative stabilization prior to the end of the growing season.
   - 3.4. Apply, and reapply as necessary, soil tackifiers in accordance with the manufacturer's specifications to minimize soil and mulch loss until permanent vegetation is established.
   - 3.5. Stabilize basins, ditches and swales prior to directing runoff to them,
   - 3.6. Stabilize roadway and parking areas within 72 hours of achieving finished grade.
   - 3.7. Stabilize cut and fill slopes within 72 hours of achieving finished grade,
   - 3.8. When temporarily stabilizing soils and slopes, utilize the techniques outlined in Table 1.
   - 3.9. Stabilize all areas that can be stabilized prior to opening up new areas to construction activities.
   - 3.10. Utilize Table 1 when selecting temporary soil stabilization measures.
   - 3.11. Divert off-site water through the project in an appropriate manner so as not to disturb the upstream or downstream soils, vegetation or hydrology beyond the permitted area.
   - 3.12. Install and maintain construction exits anywhere traffic leaves a construction site onto a public right-of-way.
   - 3.13. Sweep all construction related debris and soil from the adjacent paved roadways, as necessary.
4. Slope Protection
   - 4.1. Intercept and divert storm runoff from upslope drainage areas away from unprotected and newly established areas and slopes to a stabilized outlet or conveyance.
   - 4.2. Consider how groundwater seepage on cut slopes may impact slope stability and incorporate appropriate measures to minimize erosion.
   - 4.3. Convey storm water down the slope in a stabilized channel or slope drain.
   - 4.4. The outer face of the fill slope should be in a loose, ruffled condition prior to turf establishment,
5. Winter Construction
   - 5.1. To minimize erosion and sedimentation impacts, limit the extent and duration of winter excavation and earthwork activities. The maximum amount of disturbed earth shall not exceed a total of 5 acres from May 1st through November 30th, or exceed one acre during winter months, unless the contractor demonstrates to the Department that the additional area of disturbance is necessary to meet the contractor's Critical Path Method (CPM) schedule, and the contractor has adequate resources available to ensure that environmental requirements will be met,
   - 5.2. Construction performed any time between November 30th and May 1st of any year is considered winter construction. During winter construction:
     - Stabilize all proposed vegetation areas which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, in accordance with Table 1.
     - Stabilize all ditches or swales which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, in accordance with Table 1.
     - Protect incomplete road surfaces, where base course gravels have not been installed, and where work has stopped for the season after November 30th, in accordance with Table 1.
     - Unless a winter construction plan has been approved by NHDOT, conduct winter excavation and earthwork such that no more than 1 acre of the project is without stabilization an any one time.
6. Wildlife Protection Measures
   - 6.1. Report all observations of threatened and endangered species on the project site to the Department's Bureau of Environment by phone at 603-271-3226 or by email at Bureau1@dot.nh.gov, indicating in the subject line the project name, number, and that a threatened/endangered species was found.
   - 6.2. Photograph the observed species and nearby elements of habitat or areas of land disturbance and provide them to the Department's Bureau of Environment at the above email address,
   - 6.3. In the event that a threatened or endangered species is observed on the project during work, the species shall not be disturbed, handled, or harmed prior to receiving direction from the Bureau of Environment,
   - 6.4. Utilize wildlife friendly erosion control methods when:
     - Erosion control blankets are used,
     - A protected species or habitat is documented,
     - The proposed work is in or adjacent to a priority resource area, and/or when specifically requested by NHB or NHF&G

GUIDANCE ON SELECTING TEMPORARY SOIL STABILIZATION MEASURES
TABLE 1

APPLICATION AREAS	DRY MULCH METHODS				HYDRAULICALLY APPLIED MULCHES[2]				ROLLED EROSION CONTROL BLANKETS[3]			
	HMT	WC	SG	CB	HM	SMM	BFM	FRM	SNSB	DNSB	DNSCB	DNCB
SLOPES[1]												
STEEPER THAN 2:1	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES
2:1 SLOPE	YES1	YES1	YES	YES	NO	NO	YES	YES	NO	YES	YES	YES
3:1 SLOPE	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	NO
4:1 SLOPE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
WINTER STABILIZATION	4T/AC	YES	YES	YES	NO	NO	YES	YES	YES	YES	YES	YES
CHANNELS												
LOW FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES
HIGH FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES

ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE
HMT	HAY MULCH & TACK	HM	HYDRAULIC MULCH	SNSB	SINGLE NET STRAW BLANKET
WC	WOOD CHIPS	SMM	STABILIZED MULCH MATRIX	DNSB	DOUBLE NET STRAW BLANKET
SG	STUMP GRINDINGS	BFM	BONDED FIBER MATRIX	DNSCB	2 NET STRAW-COCONUT BLANKET
CB	COMPOST BLANKET	FRM	FIBER REINFORCED MEDIUM	DNCB	2 NET COCONUT BLANKET

NOTES:
1. All slope stabilization options assume a slope length ≤ 10 times the horizontal distance component of the slope, in feet,
2. Do not apply products containing polyacrylamide (PAM) directly to, or within 100 feet of any surface water without NHDES approval,
3. Install all methods in Table 1 per the manufacturer's recommendation for time of year and steepness of slope,

STATE OF NEW HAMPSHIRE
DESIGN MANUAL
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS

	REVISION DATE	SIGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
erosstrat•ce	XX-XX-XX	erosstrat•ce	12345	1	1

New Hampshire DOT
Department of Transportation

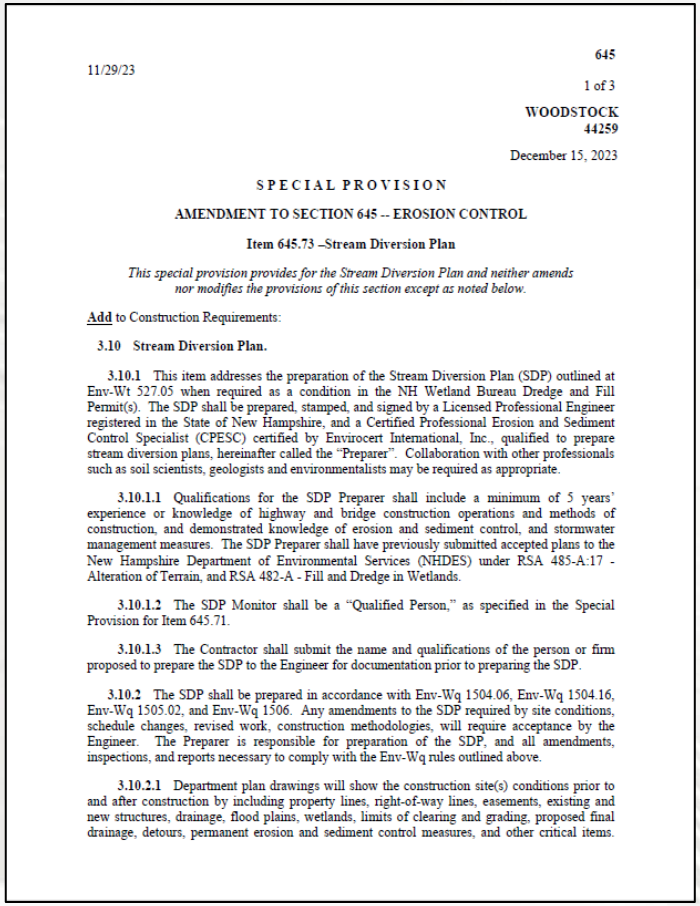
Construction

- Clarify monitoring pay item(s)
- Communicate changes to facilitate construction
- AGC Environment Subcommittee
- Specifications Committee (November approval)
- Special Provisions & Special Attentions
  - Cold Weather Site Stabilization Plan (Item 645.75)
  - Construction Related Turbidity Mixing Zone Plan (SA)
  - Erosion Control Plan (Item 645.74)
  - *Flocculent Assisted Sedimentation Plan (Item 645.853)*
  - Stormwater Pollution Prevention Plan (SWPPP) (Item 645.7)
  - Stream Diversion Plan (Item 645.73)
  - Water Quality Monitoring, Inspection and Reporting (Item 645.71)

New Hampshire DOT Department of Transportation

Stream Diversion Plan

	Stream Diversion Plan Env-Wt 527.05(a) ENV 1-15 Item 645.73
Pre-Construction Development	Developed by NHDOT and Included in the NHDES Wetlands Permit Application.
Pre-Construction Plan Approval	NHDES Wetlands Permit and Stream Diversion Plan will be included as a Special Attention in the proposal.
Construction Phase Plan Approval	Stream Diversion Plan will be developed by the Contractor and paid for by NHDOT through a Special Provision. NHDOT will seek approval from NHDES Wetlands Bureau.
Construction Phase Plan Modifications	Developed by the Contractor. NHDOT will seek approval from NHDES Wetlands Bureau.



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11/29/23

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WOODSTOCK
44259

December 15, 2023

SPECIAL PROVISION

AMENDMENT TO SECTION 645 -- EROSION CONTROL

Item 645.73 –Stream Diversion Plan

This special provision provides for the Stream Diversion Plan and neither amends nor modifies the provisions of this section except as noted below.

Add to Construction Requirements:

3.10 Stream Diversion Plan.

3.10.1 This item addresses the preparation of the Stream Diversion Plan (SDP) outlined at Env-Wt 527.05 when required as a condition in the NH Wetland Bureau Dredge and Fill Permit(s). The SDP shall be prepared, stamped, and signed by a Licensed Professional Engineer registered in the State of New Hampshire, and a Certified Professional Erosion and Sediment Control Specialist (CPESC) certified by Envirocert International, Inc., qualified to prepare stream diversion plans, hereinafter called the "Preparer". Collaboration with other professionals such as soil scientists, geologists and environmentalists may be required as appropriate.

3.10.1.1 Qualifications for the SDP Preparer shall include a minimum of 5 years' experience or knowledge of highway and bridge construction operations and methods of construction, and demonstrated knowledge of erosion and sediment control, and stormwater management measures. The SDP Preparer shall have previously submitted accepted plans to the New Hampshire Department of Environmental Services (NHDES) under RSA 485-A:17 - Alteration of Terrain, and RSA 482-A - Fill and Dredge in Wetlands.

3.10.1.2 The SDP Monitor shall be a "Qualified Person," as specified in the Special Provision for Item 645.71.

3.10.1.3 The Contractor shall submit the name and qualifications of the person or firm proposed to prepare the SDP to the Engineer for documentation prior to preparing the SDP.

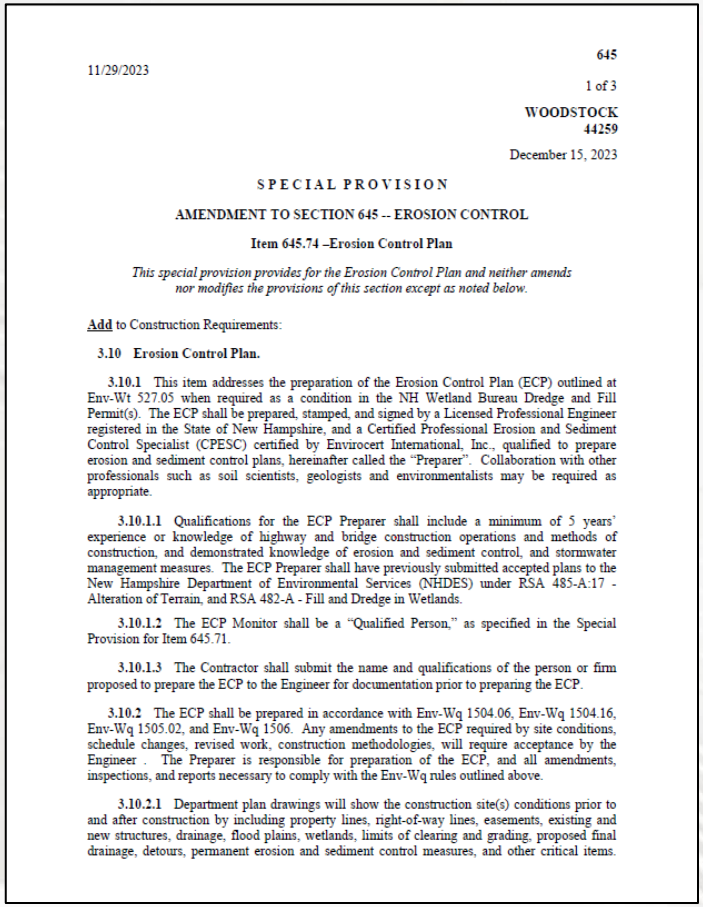
3.10.2 The SDP shall be prepared in accordance with Env-Wq 1504.06, Env-Wq 1504.16, Env-Wq 1505.02, and Env-Wq 1506. Any amendments to the SDP required by site conditions, schedule changes, revised work, construction methodologies, will require acceptance by the Engineer. The Preparer is responsible for preparation of the SDP, and all amendments, inspections, and reports necessary to comply with the Env-Wq rules outlined above.

3.10.2.1 Department plan drawings will show the construction site(s) conditions prior to and after construction by including property lines, right-of-way lines, easements, existing and new structures, drainage, flood plains, wetlands, limits of clearing and grading, proposed final drainage, detours, permanent erosion and sediment control measures, and other critical items.

New Hampshire DOT
Department of Transportation

Erosion Control Plan

	Erosion Control Plan Env-Wt 527.05(a) ENV 1-16 Item 645.74
Pre-Construction Development	Developed by NHDOT and Included in the NHDES Wetlands Permit Application.
Pre-Construction Plan Approval	NHDES Wetlands Permit and Erosion Control Plan will be included as a Special Attention in the proposal.
Construction Phase Plan Approval	Erosion Control Plan will be developed by the Contractor and paid for by NHDOT through a Special Provision. NHDOT will seek approval from NHDES Wetlands Bureau.
Construction Phase Plan Modifications	Developed by the Contractor. NHDOT will seek approval from NHDES Wetlands Bureau.



11/29/2023

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1 of 3

WOODSTOCK
44259

December 15, 2023

SPECIAL PROVISION

AMENDMENT TO SECTION 645 -- EROSION CONTROL

Item 645.74 –Erosion Control Plan

This special provision provides for the Erosion Control Plan and neither amends nor modifies the provisions of this section except as noted below.

Add to Construction Requirements:

3.10 Erosion Control Plan.

3.10.1 This item addresses the preparation of the Erosion Control Plan (ECP) outlined at Env-Wt 527.05 when required as a condition in the NH Wetland Bureau Dredge and Fill Permit(s). The ECP shall be prepared, stamped, and signed by a Licensed Professional Engineer registered in the State of New Hampshire, and a Certified Professional Erosion and Sediment Control Specialist (CPESC) certified by Envirocert International, Inc., qualified to prepare erosion and sediment control plans, hereinafter called the "Preparer". Collaboration with other professionals such as soil scientists, geologists and environmentalists may be required as appropriate.

3.10.1.1 Qualifications for the ECP Preparer shall include a minimum of 5 years' experience or knowledge of highway and bridge construction operations and methods of construction, and demonstrated knowledge of erosion and sediment control, and stormwater management measures. The ECP Preparer shall have previously submitted accepted plans to the New Hampshire Department of Environmental Services (NHDES) under RSA 485-A:17 - Alteration of Terrain, and RSA 482-A - Fill and Dredge in Wetlands.

3.10.1.2 The ECP Monitor shall be a "Qualified Person," as specified in the Special Provision for Item 645.71.

3.10.1.3 The Contractor shall submit the name and qualifications of the person or firm proposed to prepare the ECP to the Engineer for documentation prior to preparing the ECP.

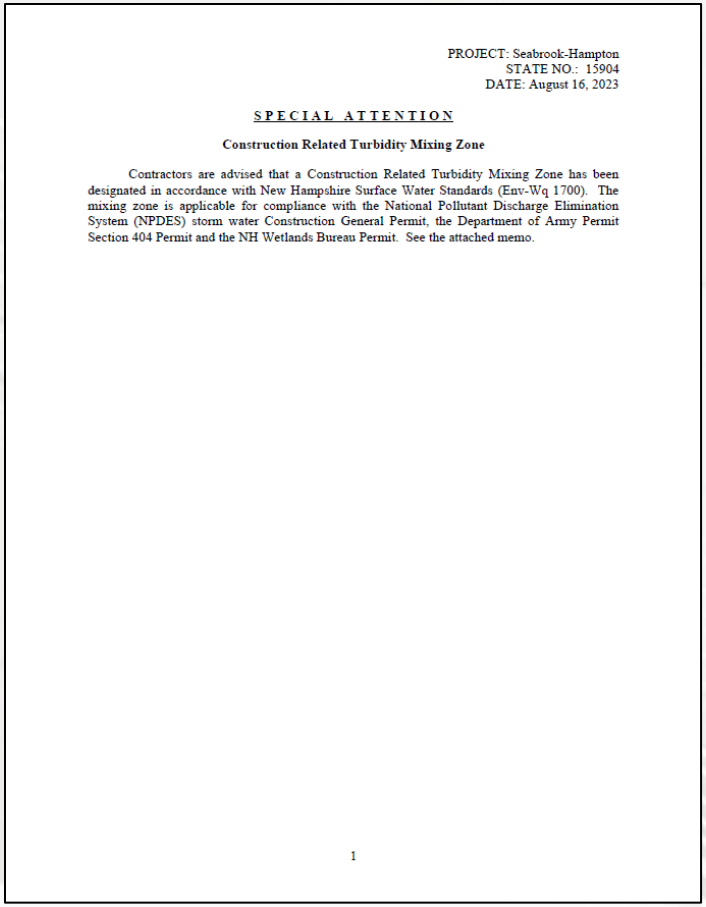
3.10.2 The ECP shall be prepared in accordance with Env-Wq 1504.06, Env-Wq 1504.16, Env-Wq 1505.02, and Env-Wq 1506. Any amendments to the ECP required by site conditions, schedule changes, revised work, construction methodologies, will require acceptance by the Engineer . The Preparer is responsible for preparation of the ECP, and all amendments, inspections, and reports necessary to comply with the Env-Wq rules outlined above.

3.10.2.1 Department plan drawings will show the construction site(s) conditions prior to and after construction by including property lines, right-of-way lines, easements, existing and new structures, drainage, flood plains, wetlands, limits of clearing and grading, proposed final drainage, detours, permanent erosion and sediment control measures, and other critical items.

New Hampshire DOT
Department of Transportation

Turbidity Mixing Zone Plan

	Construction Related Turbidity Mixing Zones Plan Env-Wq 1703.11 ENV 1-14 No Item
Pre-Construction Development	Developed by NHDOT and Included in the NHDES Wetlands Permit Application.
Pre-Construction Plan Approval	Special Attention with a designation memo ("approval") from NHDES Watershed Management Bureau included in the Proposal.
Construction Phase Plan Approval	N/A
Construction Phase Plan Modifications	N/A



PROJECT: Seabrook-Hampton
STATE NO.: 15904
DATE: August 16, 2023

SPECIAL ATTENTION

Construction Related Turbidity Mixing Zone

Contractors are advised that a Construction Related Turbidity Mixing Zone has been designated in accordance with New Hampshire Surface Water Standards (Env-Wq 1700). The mixing zone is applicable for compliance with the National Pollutant Discharge Elimination System (NPDES) storm water Construction General Permit, the Department of Army Permit Section 404 Permit and the NH Wetlands Bureau Permit. See the attached memo.

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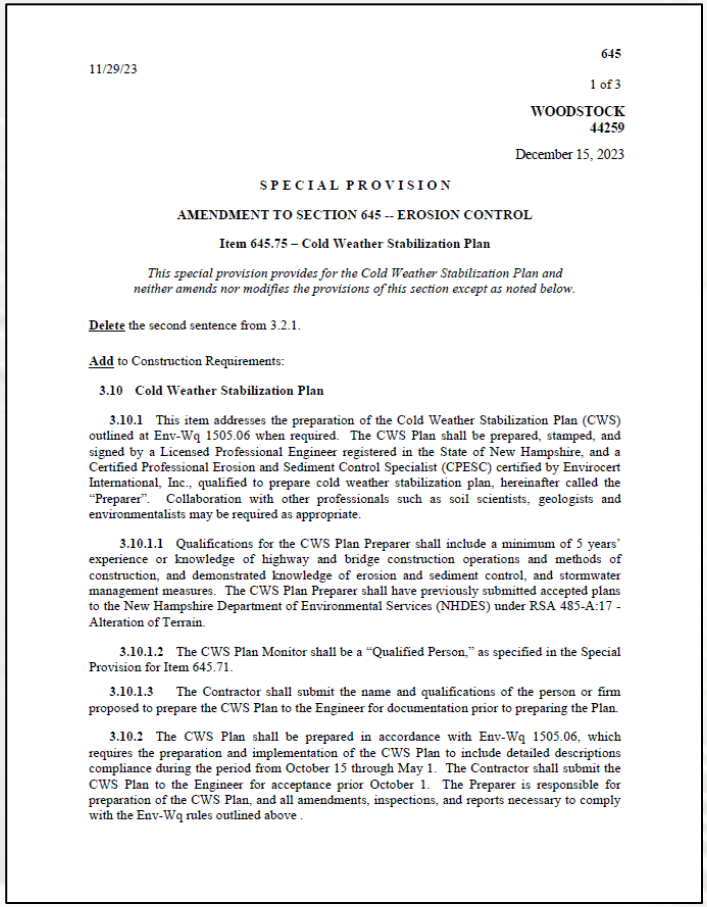
New Hampshire DOT Department of Transportation

Cold Weather Stabilization Plan

	Cold Weather Stabilization Plan Env-Wq 1505.06 Erosion Control Notes & Strategies Item 645.75
Pre-Construction Development	None. Included in the Proposal as a Special Provision for Contractor development.
Pre-Construction Plan Approval	N/A
Construction Phase Plan Approval	Cold Weather Site Stabilization Plan will be developed, for NHDOT approval, by the Contractor, for each winter season, and paid for by NHDOT through a Special Provision.
Construction Phase Plan Modifications	Developed by the Contractor and approved by NHDOT.



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11/29/23

1 of 3

WOODSTOCK
44259

December 15, 2023

SPECIAL PROVISION

AMENDMENT TO SECTION 645 -- EROSION CONTROL

Item 645.75 – Cold Weather Stabilization Plan

This special provision provides for the Cold Weather Stabilization Plan and neither amends nor modifies the provisions of this section except as noted below.

Delete the second sentence from 3.2.1.

Add to Construction Requirements:

3.10 Cold Weather Stabilization Plan

3.10.1 This item addresses the preparation of the Cold Weather Stabilization Plan (CWS) outlined at Env-Wq 1505.06 when required. The CWS Plan shall be prepared, stamped, and signed by a Licensed Professional Engineer registered in the State of New Hampshire, and a Certified Professional Erosion and Sediment Control Specialist (CPESC) certified by Envirocert International, Inc., qualified to prepare cold weather stabilization plan, hereinafter called the "Preparer". Collaboration with other professionals such as soil scientists, geologists and environmentalists may be required as appropriate.

3.10.1.1 Qualifications for the CWS Plan Preparer shall include a minimum of 5 years' experience or knowledge of highway and bridge construction operations and methods of construction, and demonstrated knowledge of erosion and sediment control, and stormwater management measures. The CWS Plan Preparer shall have previously submitted accepted plans to the New Hampshire Department of Environmental Services (NHDES) under RSA 485-A:17 - Alteration of Terrain.

3.10.1.2 The CWS Plan Monitor shall be a "Qualified Person," as specified in the Special Provision for Item 645.71.

3.10.1.3 The Contractor shall submit the name and qualifications of the person or firm proposed to prepare the CWS Plan to the Engineer for documentation prior to preparing the Plan.

3.10.2 The CWS Plan shall be prepared in accordance with Env-Wq 1505.06, which requires the preparation and implementation of the CWS Plan to include detailed descriptions compliance during the period from October 15 through May 1. The Contractor shall submit the CWS Plan to the Engineer for acceptance prior October 1. The Preparer is responsible for preparation of the CWS Plan, and all amendments, inspections, and reports necessary to comply with the Env-Wq rules outlined above .

New Hampshire DOT
Department of Transportation

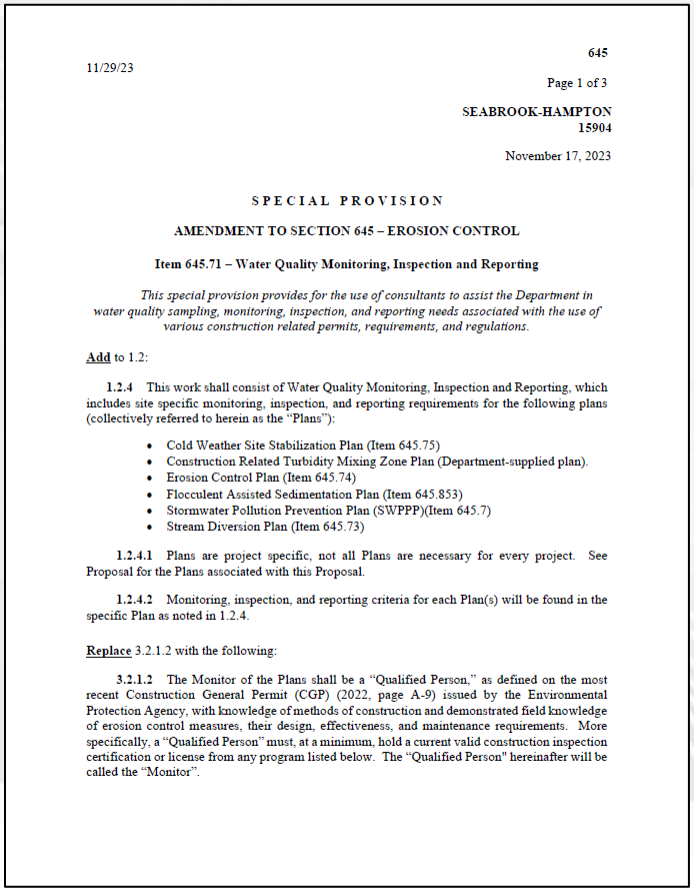
SWPPP

	Storm Water Pollution Prevention Plan (SWPPP) EPA CGP Item 645.7
Pre-Construction Development	None. Special Attention included in the Proposal for Contractor development and includes base information (Erosion Control Plan).
Pre-Construction Plan Approval	N/A
Construction Phase Plan Approval	SWPPP developed by the Contractor and paid by NHDOT through a Standard Specification. Permit used (General Permit) is granted by EPA to NHDOT and the Contractor through a NOI.

New Hampshire DOT
Department of Transportation

Water Quality Monitoring, Inspection and Reporting (Item 645.71)

- Consolidates water quality monitoring in one place and one item
- Proposal lays out the project-specific plans
- Monitoring criteria laid out in each plan item
- Redefines “qualified person” for DOT projects



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SEABROOK-HAMPTON
15904

November 17, 2023

SPECIAL PROVISION

AMENDMENT TO SECTION 645 – EROSION CONTROL

Item 645.71 – Water Quality Monitoring, Inspection and Reporting

This special provision provides for the use of consultants to assist the Department in water quality sampling, monitoring, inspection, and reporting needs associated with the use of various construction related permits, requirements, and regulations.

Add to 1.2:

1.2.4 This work shall consist of Water Quality Monitoring, Inspection and Reporting, which includes site specific monitoring, inspection, and reporting requirements for the following plans (collectively referred to herein as the "Plans"):

- Cold Weather Site Stabilization Plan (Item 645.75)
- Construction Related Turbidity Mixing Zone Plan (Department-supplied plan).
- Erosion Control Plan (Item 645.74)
- Flocculent Assisted Sedimentation Plan (Item 645.853)
- Stormwater Pollution Prevention Plan (SWPPP)(Item 645.7)
- Stream Diversion Plan (Item 645.73)

1.2.4.1 Plans are project specific, not all Plans are necessary for every project. See Proposal for the Plans associated with this Proposal.

1.2.4.2 Monitoring, inspection, and reporting criteria for each Plan(s) will be found in the specific Plan as noted in 1.2.4.

Replace 3.2.1.2 with the following:

3.2.1.2 The Monitor of the Plans shall be a "Qualified Person," as defined on the most recent Construction General Permit (CGP) (2022, page A-9) issued by the Environmental Protection Agency, with knowledge of methods of construction and demonstrated field knowledge of erosion control measures, their design, effectiveness, and maintenance requirements. More specifically, a "Qualified Person" must, at a minimum, hold a current valid construction inspection certification or license from any program listed below. The "Qualified Person" hereinafter will be called the "Monitor".

New Hampshire DOT
Department of Transportation

NEW
Revised Definition of Waters of the United States (WOTUS)

- Waters which are:
  - Currently used, or were used in the past, or that may be susceptible to use in interstate commerce including all tidal waters
  - Interstate waters and the territorial seas
  - Tributaries to these waters that are “relatively permanent”
  - Intrastate lakes and ponds
- Wetlands adjacent to:
  - The waters identified above
  - Relatively permanent, standing or flowing waters <u>with a continuous surface connection to those waters</u>

New Hampshire DOT Department of Transportation

NEW
Revised Definition of Waters of the United States (WOTUS)

- WOTUS are NOT:
  - Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water
  - Artificial lakes and ponds created by excavating dry land to collect and retain water (settling basins)
  - Swales and erosional features (gullies and small washes)

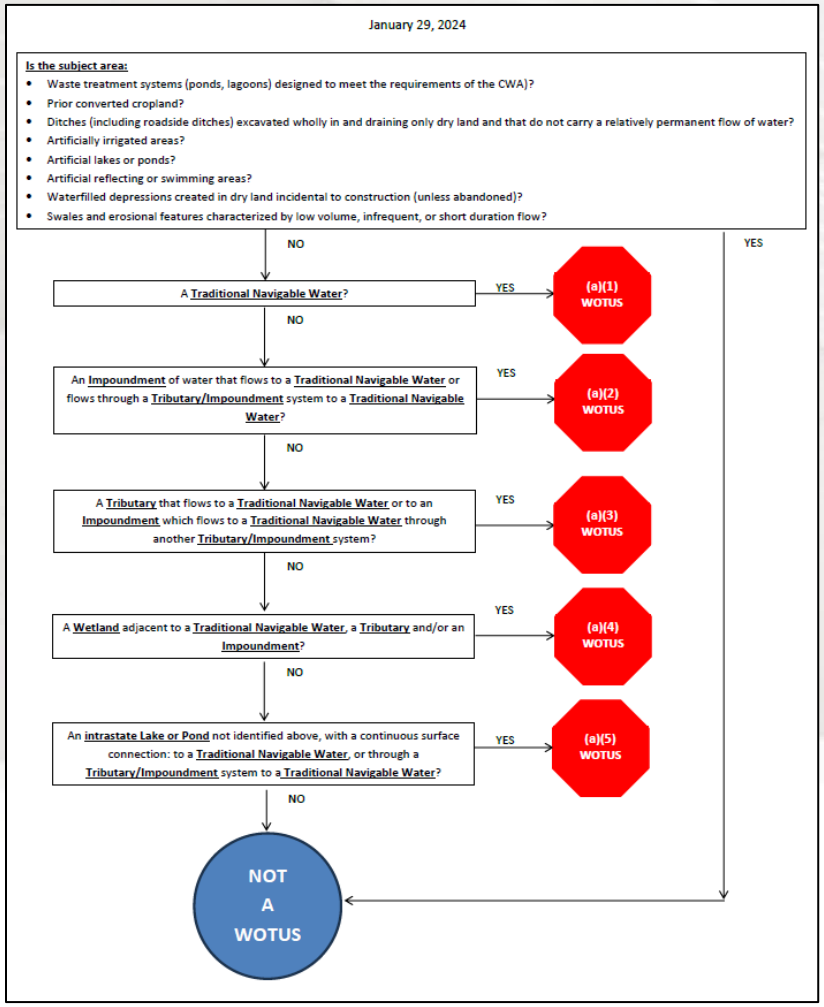
New Hampshire DOT Department of Transportation

NEW
Revised Definition of Waters of the United States (WOTUS)

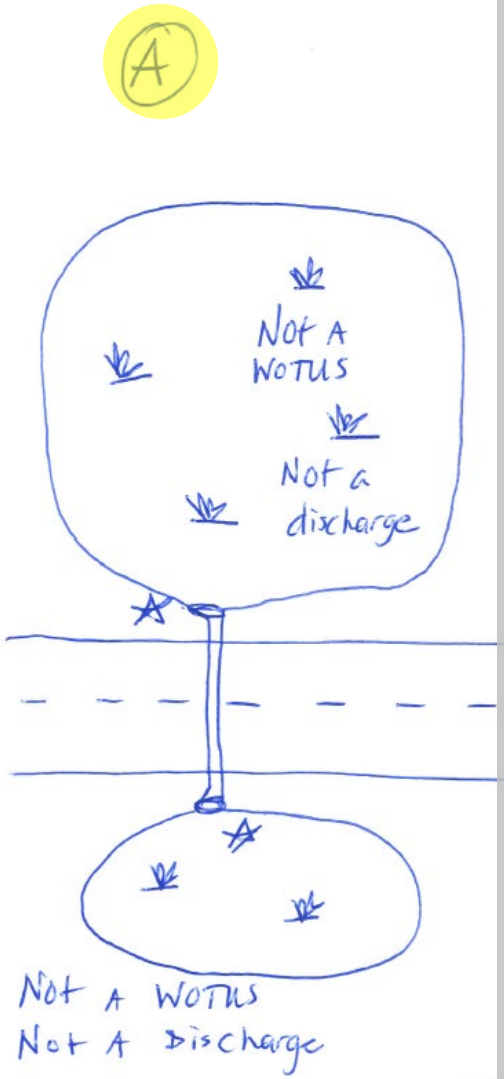
- DES Wetlands Impacts/Impact Plans
  - No changes to DES impacts
  - No changes to State/NH wetland mitigation
- ACOE Wetlands Impacts/Impact Plans
  - Reduces the number of Federally jurisdictional wetlands (called out in plans)
  - Reduces the Federal wetland mitigation requirements (lower threshold)
- EPA CGP
  - Fewer discharge points for monitoring for SWPPP compliance

New Hampshire DOT Department of Transportation

NEW
Revised Definition of Waters of the United States (WOTUS)

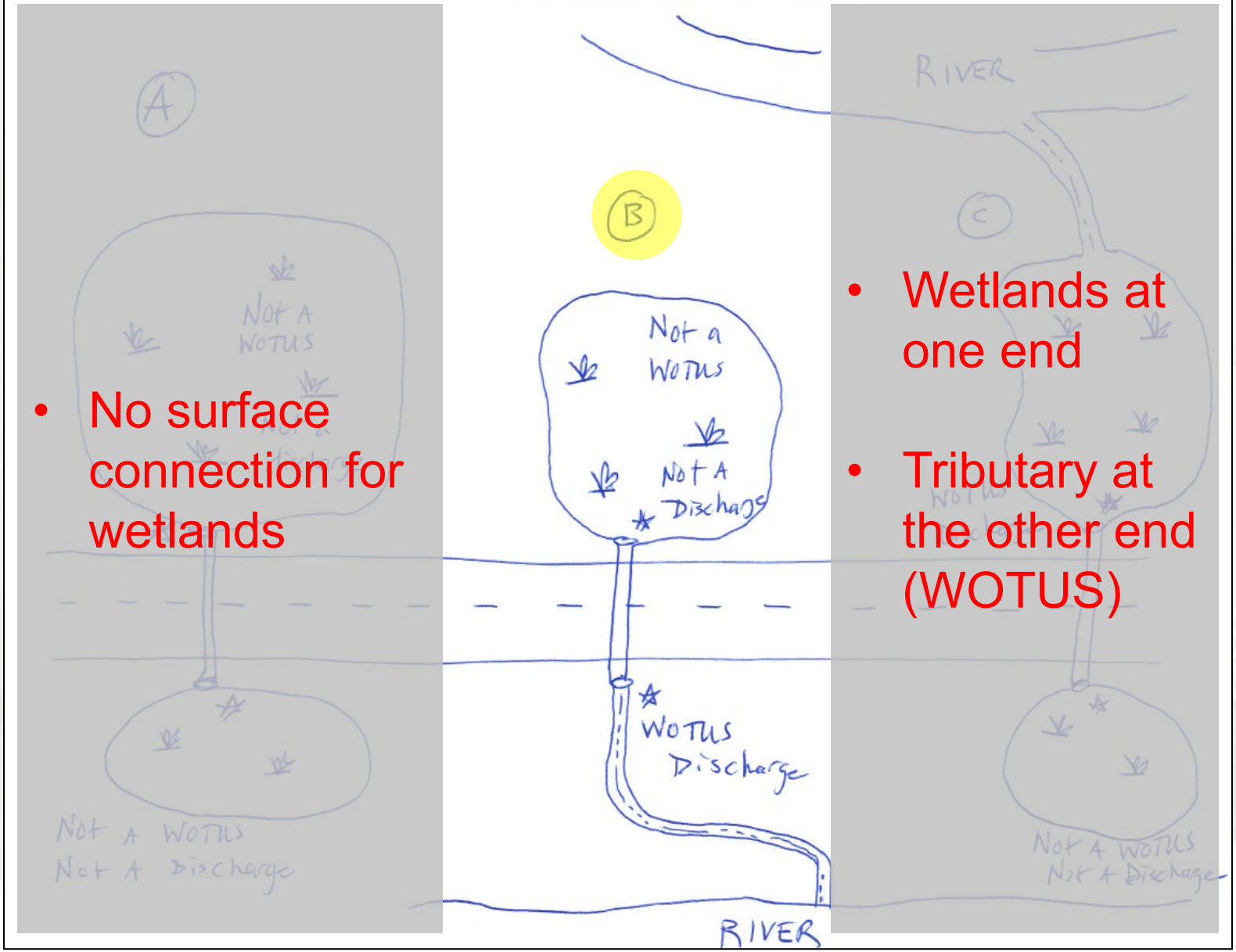


New Hampshire DOT
Department of Transportation



- Wetlands at each end
- Not adjacent to:
  - Navigable waters
  - Interstate waters
  - Tributaries
  - Intrastate lakes and ponds

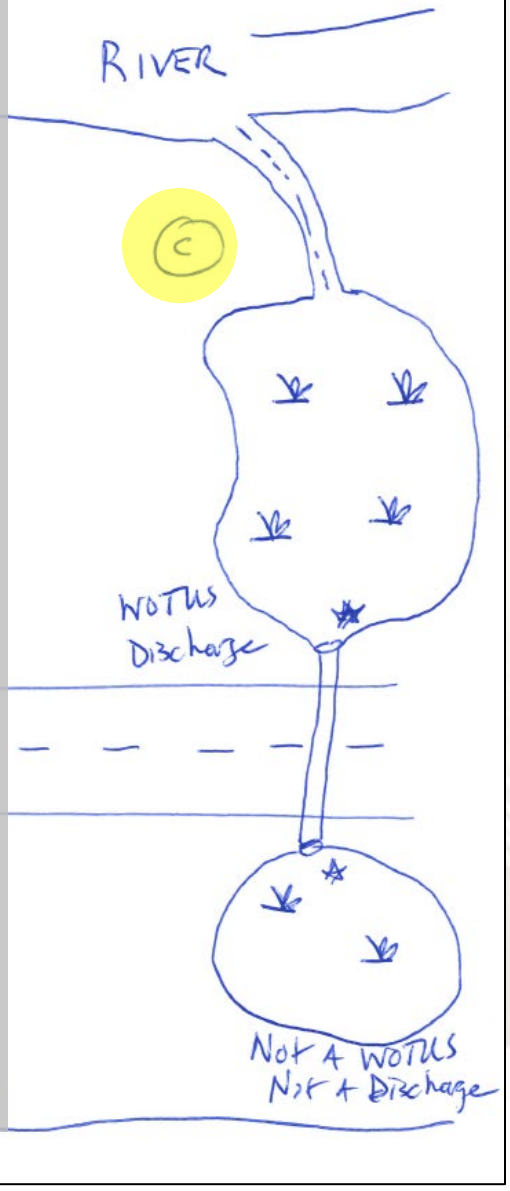
- No surface connection for wetlands



- Wetlands at one end
- Tributary at the other end (WOTUS)

New Hampshire DOT
Department of Transportation

- Wetlands at each end
- One wetland with a surface connection to a WOTUS so it is a WOTUS
  - One wetland not adjacent to:
    - Navigable waters
    - Interstate waters
    - Tributaries
    - Intrastate lakes and po



New Hampshire DOT
Department of Transportation

NEW
Revised Definition of Waters of the United States (WOTUS)

- Design phase determinations
- Can be very challenging as rules are nuanced
- Reduces the number of CGP discharge point subject to EPA requirements
- Does not reduce the obligation to implement erosion controls, etc. at these locations
- Still state jurisdictional wetlands

New Hampshire DOT
Department of Transportation

New Hampshire DOT
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