## **Table of Contents**

CHAPTER Env-Wr 100 ORGANIZATIONAL RULES	1
PART Env-Wr 101 DEFINITIONS	1
PART Env-Wr 102 DUTIES OF THE DEPARTMENT	9
PART Env-Wr 103 ACCESS TO FILES	10
CHAPTER Env-Wr 200 PROCEDURES	12
PART Env-Wr 201 PURPOSE AND APPLICABILITY	12
PART Env-Wr 202 WAIVERS	12
PART Env-Wr 203 PROCEEDINGS	15
PART Env-Wr 204 DECISION AND APPEALS	15
CHAPTER Env-Wr 300 EXISTING DAMS	16
PART Env-Wr 301 PURPOSE AND APPLICABILITY	16
PART Env-Wr 302 DAM INSPECTIONS; REPAIRS; ALTERNATIVES TO REPAIR	17
PART Env-Wr 303 REQUIREMENTS FOR EXISTING DAMS	20
PART Env-Wr 304 NON-PERMITTED EXISTING DAMS	26
CHAPTER Env-Wr 400 CONSTRUCTION OR RECONSTRUCTING A DAM	29
PART Env-Wr 401 PURPOSE AND APPLICABILITY	29
PART Env-Wr 402 APPLICATION PROCEDURES	29
PART Env-Wr 403 SPECIFIC DESIGN REQUIREMENTS	33
PART Env-Wr 404 ISSUANCE AND CONDITIONS OF PERMITS	37
PART Env-Wr 405 DAM CONSTRUCTION INSPECTIONS	40
CHAPTER Env-Wr 500 EMERGENCY ACTION PLANS	44
PART Env-Wr 501 PURPOSE AND APPLICABILITY	44
PART Env-Wr 502 BREACH ANALYSIS	45
PART Env-Wr 503 INUNDATION MAPPING	49
PART Env-Wr 504 COORDINATION WITH LOCAL COMMUNITIES	50
PART Env-Wr 505 PREPARATION AND FORMAT OF EAP DOCUMENT	51
PART Env-Wr 506 FINAL DISTRIBUTION; PUBLIC NOTICE	55
PART Env-Wr 507 TESTING AND UPDATING PROCEDURES	55
CHAPTER Env-Wr 600 REMOVAL OF DAMS	58
PART Env-Wr 601 PURPOSE AND APPLICABILITY	58
PART Env-Wr 602 DAM REMOVAL PROPOSALS	58
PART Env-Wr 603 REVIEW PROCEDURES	59
PART Env-Wr 604 APPROVAL; REPORT	60
CHAPTER Env-Wr 700 LAKE LEVEL DETERMINATIONS	61
PART Env-Wr 701 PURPOSE AND APPLICABILITY	61

PART Env-Wr 702 REQUEST; PRELIMINARY INVESTIGATION	61
PART Env-Wr 703 FURTHER INVESTIGATIONS; PUBLIC HEARING	62
PART Env-Wr 704 FINDINGS; DECISION	63
CHAPTER Env-Wr 800 ADMINISTRATIVE FINES - EXPIRED	66
CHAPTER Env-Wr 900 OFFICIAL LIST OF PUBLIC WATERS	67
PART Env-Wr 901 PURPOSE AND APPLICABILITY	67
PART Env-Wr 902 DEFINITIONS	67
PART Env-Wr 903 CONTENTS AND DETERMINATIONS	67
PART Env-Wr 904 REVIEW AND REVISION OF THE OFFICIAL LIST	70
RSA 215-A:1	77
RSA 233-A:1	
RSA 271:20, I	77
RSA 371:17	77
RSA 482:2	
RSA 482-A:16	
RSA 482-A:21	79
RSA 483-B:4. XVI	79

2

Department of Environmental Services Water Division 29 Hazen Drive, Concord, NH 0330l Tel. No. (603) 271-3406

CHAPTER Env-Wr 100 ORGANIZATIONAL RULES PART Env-Wr 101 DEFINITIONS

Env-Wr 101.01 "100-year flood" means the flood that has a one chance in 100 of being equaled or exceeded in a period of one year.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.02 "50-year flood" means the flood that has a one chance in 50 of being equaled or exceeded in a period of one year.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.03 "Acre-foot" means the volume of water that would cover one acre to a depth of one foot.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by 8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.04 "Applicant" means the person or persons filing an application to construct or reconstruct a dam.

1

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; rpld by #4491, eff 9-20-88

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.05 "Breached dam" means a dam that no longer impounds water at the level of the primary spillway or outlet structure because of a partial or full dam failure, or because a portion of the dam has been removed.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4491, eff 9-20-88; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.06 "Classification of a dam" means "classification of a dam" as defined in RSA 482:2, I, as reprinted in Appendix C.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.07 "Construction engineer" means a professional engineer, licensed in New Hampshire, who has been hired by the owner to oversee construction or reconstruction of a dam.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.08 "Controlled breach" means an opening in a dam that extends from the top of the dam to the streambed made specifically for the purpose of lowering the level of impounded water to a safe level for the dam.

<u>Source.</u> #1702, eff 1-1-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.09 "Dam" means "dam" as defined in RSA 482:2, II, as reprinted in Appendix C.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.10 "Dam in disrepair" means "dam in disrepair" as defined by RSA 482:2, V, as reprinted in Appendix C.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

<u>New.</u> #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.11 "Days" means calendar days unless otherwise specified.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.12 "Department" means the department of environmental services.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.13 "Discharge capacity" means the amount of water which can safely pass the structure through its normal discharge channels.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.14 "Emergency action plan" means "emergency action plan" as defined in RSA 482:2, VI, as reprinted in Appendix C.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.15 "Emergency condition" means:

(a) A situation has arisen at a dam which could jeopardize the integrity of the dam; or

3

(b) Failure of the dam is imminent or has occurred.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4491, eff 9-20-88; ss by #5080, eff

2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.16 "Environmentally-sensitive site" means:

- (a) A site listed and tracked by the natural heritage inventory, as maintained by the department of resources and economic development;
  - (b) A prime wetland designated pursuant to RSA 482-A:15;
  - (c) A river segment designated pursuant to RSA 483;
  - (d) A prime habitat for resident or migratory fishes, as determined by the fish and game department; or
- (e) Surface waters that support coldwater fish communities immediately downstream of a dam, as determined by the fish and game department.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by 8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.17 "Flashboards" means boards which temporarily raise the pond elevation above the permanent spillway crest and are designed to automatically fall over when the water level rises to a particular level.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.18 "Freeboard" means the vertical distance from the water surface to the lowest elevation at which water would flow over the dam at a section not designed to be overflowed.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.19 "Great pond" means a water body of 10 acres or more in its natural condition.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.20 "Height" means the vertical distance from the lowest point of natural ground on the downstream side of the dam to the highest part of the dam which would impound water.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4278, eff 6-30-87; ss by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.21 "High hazard structure" means a dam that has a high hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in probable loss of human life as a result of:

- (a) Water levels and velocities causing the structural failure of a foundation of a habitable residential structure or a commercial or industrial structure which is occupied under normal conditions;
- (b) Water levels rising above the first floor elevation of a habitable residential structure or a commercial or industrial structure which is occupied under normal conditions when the rise due to dam failure is greater than one foot;
- (c) Structural damage to an interstate highway which could render the roadway impassable or otherwise interrupt public safety services;
- (d) The release of a quantity and concentration of materials which qualify as "hazardous waste" as defined in RSA 147-A:2, VII; or
  - (e) Any other circumstance which would more likely than not cause one or more deaths.

Source. #4278, eff 6-30-87; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.22 "Inflow design flood" is the flood flow above which the incremental increase in water surface elevation downstream of the dam due to dam failure would not increase the harm or threat of harm to public safety or property downstream of the dam.

Source. #4278, eff 6-30-87; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.23 "Inland public water" as used in RSA 482:79 means any public water of 10 acres or more whose level is controlled by a dam.

Source. #4278, eff 6-30-87; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.24 "Low economic loss" means reversible environmental loss to undeveloped land or minor damage to uninhabited structures, such as storage sheds, or to sites listed or tracked by the natural heritage inventory, as maintained by the department of resources and economic development.

Source. #4278, eff 6-30-87; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.25 "Low hazard structure" means a dam that has a low hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in any of the following:

- (a) No probable loss of life;
- (b) Low economic loss;
- (c) Structural damage to a town or city road or private road accessing property other than the dam owner's which could render the road impassable or otherwise interrupt public safety services;
- (d) The release of liquid industrial, agricultural, or commercial wastes, septage, or contaminated sediment if the storage capacity is less than 2 acre-feet and is located more than 250 feet from a water body or water course; or
  - (e) Reversible environmental losses to environmentally-sensitive sites.

Source. #4278, eff 6-30-87; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.26 "Menace to public safety" as used in RSA 482:2, V and "menace to the public safety" as used in RSA 482:9, III, means that the failure or misoperation of the dam would threaten human life or public health or interrupt safety services. The term includes any low hazard, significant hazard, or high hazard dam but does not include any non-menace dam.

Source. #4278, eff 6-30-87; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.27 "Mills" means "mills" as defined by RSA 482:2, VII, as reprinted in Appendix C.

<u>Source.</u> #4278, eff 6-30-87; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.28 "Non-menace structure" means a dam that is not a menace because it is in a location and of a size that failure or misoperation of the dam would not result in probable loss of life or loss to property, provided the dam is:

- (a) Less than 6 feet in height if it has a storage capacity greater than 50 acre-feet; or
- (b) Less than 25 feet in height if it has a storage capacity of 15 to 50 acre-feet.

Source. #4278, eff 6-30-87; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05,

EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.29 "Non-permitted" means:

- (a) For a dam constructed subsequent to 1917, that a permit, order, or authorization for construction or registration by the department or a predecessor state agency responsible for such at the time has never been issued: or
  - (b) For a dam constructed prior to 1917, that the location of the dam is not on file with the department.

Source. #4278, eff 6-30-87; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.30 "Normal storage capacity" means the volume of water and material which could be impounded above the natural ground elevation, when the water level is at the elevation of the lowest free-flowing discharge structure.

Source. #4278, eff 6-30-87; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.31 "Owner" means the person or persons who own a dam.

Source. #4399, eff 4-19-88, EXPIRED 4-19-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.32 "Person" means "person" as defined by RSA 482:2, VIII, as reprinted in Appendix C.

Source. #4491, eff 9-20-88; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.33 "Plans" means engineering drawings including plan views, elevations, sections, and details.

Source. #4491, eff 9-20-88; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.34 "Reconstruction" means "reconstruction" as defined by RSA 482:2, X, as reprinted in Appendix C.

7

Source. #4491, eff 9-20-88; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.35 "Removal" means the physical elimination of a dam as governed by Env-Wr 600.

Source. #4491, eff 9-20-88; ss by #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.36 "Repair" means work on a dam that does not change the height, length or discharge capacity of the structure and that does not constitute reconstruction.

<u>Source.</u> #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.37 "Reversible environmental losses" means damage to an ecosystem which is expected to self-remediate within 5 years.

Source. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.38 "Ruins" means the remains of a dam which no longer impounds water and whose deterioration is to the extent that the original configuration can no longer be determined.

Source. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.39 "Significant hazard structure" means a dam that has a significant hazard potential because it is in a location and of a size that failure or misoperation of the dam would result in any of the following:

- (a) No probable loss of life;
- (b) Major economic loss to structures or property;
- (c) Structural damage to a Class I or II road which could render the road impassable or otherwise interrupt public safety services;
  - (d) Major environmental or public health losses, including:
    - (1) Damage to a public water system, as defined by RSA 485:1-a, XV, which will take longer than 48 hours to repair; or
    - (2) The release of liquid industrial, agricultural, or commercial wastes, septage, sewage, or contaminated sediments if the storage capacity is 2 acre-feet or more; or
    - (3) Damage to an environmentally-sensitive site that does not meet the definition of reversible environmental losses.

Source. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.40 "Specifications" means the descriptions of materials and methods of work sufficient in quantity and detail to convey the intent of the designer.

Source. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.41 "Stage" means the depth of water or elevation of water surface.

Source. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.42 "Storage capacity" means the maximum volume of water and material which could be impounded by a dam above the natural ground elevation when the water level is at:

- (a) The top of dam; or
- (b) The highest elevation which could be hydrologically attained, if this elevation is below the top of dam.

<u>Source.</u> #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.43 "Stream" means any watercourse delineated on a USGS topographic map as a dashed or solid line, or any watercourse not delineated on a USGS topographic map that flows continuously in a well-defined channel for at least 30% of the year.

Source. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

Env-Wr 101.44 "Sunny day flow" means the flow occurring in a river or stream channel during normal hydrologic conditions.

Source. #10508, eff 1-22-14

Env-Wr 101.45 "Wave run-up" means the height of water above the still water level which would be expected to occur at a dam as a result of high winds.

Source. #10508, eff 1-22-14

## PART Env-Wr 102 DUTIES OF THE DEPARTMENT

Env-Wr 102.01 <u>Summary of Duties</u>. Pursuant to its statutory authority under RSA 482, the department performs the following duties:

- (a) Enters interstate compacts for conserving and regulating flow, lessening flood damages and removing or preventing sources of pollution, pursuant to RSA 482:91;
- (b) Monitors flow by establishing and maintaining a network of stream flow gauging stations with cooperation from the United States Geological Survey, pursuant to RSA 482:85;
- (c) Constructs, maintains and operates small watershed projects with cooperation from the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS), pursuant to RSA 482:77;

- (d) When duly-authorized by the legislature, accepts, repairs, maintains, and operates certain dams, pursuant to RSA 482:48;
- (e) Makes determinations whether it will be in the public interest to grant the right to erect a dam, pursuant to RSA 482:9, V(a) and RSA 482:31;
- (f) Maintains a current list of existing dams, including their size, location, classification and owner, pursuant to RSA 482:8;
  - (g) Regulates the construction and reconstruction of dams, pursuant to RSA 482:7-11;
- (h) Makes determinations of whether dams are in disrepair and conducts follow-up proceedings, pursuant to RSA 482:11-a, RSA 482:61, and, if necessary, RSA 482:89;
  - (i) Periodically inspects dams, pursuant to RSA 482:12;
- (j) Makes determinations of public use and benefit, pursuant to RSA 482:9, V(a), RSA 482:17 and RSA 482:31;
  - (k) Grants owners of mill dams certain rights when in the public interest, pursuant to RSA 482:31;
  - (1) Makes channel improvements in the public interest, pursuant to RSA 482:1;
- (m) Makes orders, conducts hearings, subpoenas and examines under oath persons and their books, records, documents, correspondence, and accounts, as necessary to carry out its obligations, pursuant to RSA 482:87;
- (n) Adopts and enforces rules, pursuant to RSA 482:87 and enforces the statute and rules pursuant to RSA 482:89:
  - (o) Investigates the levels of inland public waters, pursuant to RSA 482:79; and
- (p) Monitors the ground water resources with the cooperation of the United States Geological Survey, pursuant to RSA 482:3, II.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-A, eff 2-21-97; ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

## PART Env-Wr 103 ACCESS TO FILES

## Env-Wr 103.01 Public Records; Access to Files.

- (a) Governmental records held by the department relating to activities under RSA 482 shall be open to public inspection unless exempt under RSA 91-A:5.
- (b) Governmental records that are available for public review may be copied pursuant to RSA 91-A:4, IV.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; #4278, eff 6-30-87; ss by #4580, eff 2-27-89; rpld by #5080, eff 2-22-91

New. #6462-A, eff 2-21-97 (formerly Env-Wr 105.01); ss by #8288, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8412, eff 8-20-05; ss by #10508, eff 1-22-14

CHAPTER Env-Wr 200 PROCEDURES
PART Env-Wr 201 PURPOSE AND APPLICABILITY

Env-Wr 201.01 Purpose.

- (a) The rules in this chapter are intended to supplement Env-C 200 and RSA 541-A in governing proceedings before the department under RSA 482. These rules shall be construed to secure a just and speedy determination of every proceeding.
- (b) The purpose of any proceeding governed by this chapter shall be to allow the department to acquire sufficient information to make a reasonable decision, and to afford persons who may be affected by decisions of the department the opportunity to present evidence and argument to the department prior to the making of that decision.

Source. #1644, eff 10-7-80; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8413, eff 8-20-05; ss by #10509, eff 1-22-14

Env-Wr 201.02 <u>Applicability</u>. These rules shall apply to all proceedings initiated under RSA 482 relative to dams and lake level determinations.

Source. #1644, eff 10-7-80; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8413, eff 8-20-05; ss by #10509, eff 1-22-14

PART Env-Wr 202 WAIVERS

Env-Wr 202.01 <u>Purpose</u>. The purpose of these waiver rules is to accommodate situations in which strict compliance with all applicable requirements specified in subtitle Env-Wr might not be necessary or in the best interests of human life, public safety, or the environment.

Source. #1644, eff 10-7-80; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8413, eff 8-20-05; ss by #10509, eff 1-22-14

Env-Wr 202.02 <u>Applicability</u>. These waiver rules shall apply to any person who is or would be directly and adversely affected by the strict application of these rules who wishes to request a waiver of the rule(s) or portion(s) thereof which so affect that person.

Source. #1644, eff 10-7-80; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8413, eff 8-20-05; ss by #10509, eff 1-22-14

Env-Wr 202.03 Waiver Request.

- (a) The person requesting the waiver(s) shall submit the request to the department in writing.
- (b) If the waiver is needed in conjunction with an application filed under Env-Wr 400, the waiver request

shall be submitted with the application or as soon thereafter as the need for the waiver is identified.

- (c) The waiver request shall contain the following information:
  - (1) A description of the dam to which the waiver request relates, including name, address, and dam number;
  - (2) A citation to the specific section(s) of the rules from which a waiver is sought;
  - (3) A complete explanation of why a waiver is being requested, including an explanation of the economic and operational consequences of complying with the rule;
  - (4) A complete explanation of any proposed alternative(s) to the rule(s) for which a waiver is sought, with appropriate supporting information;
  - (5) Whether the need for the waiver is temporary and, if so, the length of time the waiver is needed; and
  - (6) A complete explanation of how granting a waiver would be consistent with the criteria specified in Env-Wr 202.04(a).
- (d) The person requesting the waiver(s) shall sign and date the request.
- (e) The person's signature shall constitute certification that:
  - (1) The information provided is true, complete, and not misleading to the knowledge and belief of the signer; and
  - (2) The signer understands that any waiver granted based on false, incomplete, or misleading information shall be subject to revocation.

Source. #8413, eff 8-20-05; ss by #10509, eff 1-22-14

Env-Wr 202.04 Action on Waiver Request.

- (a) Subject to (b), below, the department shall grant a waiver upon determining that:
  - (1) Granting a waiver will be consistent with the intent of RSA 482;
  - (2) Human life, public safety, and the environment will be protected; and
  - (3) Any benefit to the public or the environment from strict compliance with the rule is outweighed by the economic and operational consequences of strict compliance with the rule.
- (b) No waiver shall be granted of a requirement that is prescribed by statute, unless a waiver is expressly allowed by the statute that would be waived.
- (c) The department shall issue a written decision on a request for a waiver. If the request is denied, the decision shall specify the reason(s) for the denial.
- (d) If the need for the waiver is temporary, the department shall identify the expiration date of the waiver in its written decision.
- (e) If the department determines that conditions are necessary for the criteria specified in (a), above, to be met, the department shall include such conditions as are necessary in the waiver.

Source. #10509, eff 1-22-14

#### PART Env-Wr 203 PROCEEDINGS

Env-Wr 203.01 <u>Public Hearings</u>. Any hearing held to receive public comment under the following statutory provisions shall be conducted in accordance with the provisions of Env-C 200 applicable to non-adjudicative hearings:

- (a) RSA 482:6 relative to the management and control of the outlet of a great pond;
- (b) RSA 482:9, V(a) relative to public benefit of a proposed significant hazard or high hazard dam;
- (c) RSA 482:30 relative to public benefit of a dam proposed under RSA 482:29; and
- (d) RSA 482:79 relative to lake level determinations.

Source. #1644, eff 10-7-80; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8413, eff 8-20-05; ss by #10509, eff 1-22-14

Env-Wr 203.02 <u>Permit Proceedings</u>. The processing of an application for approval to construct or reconstruct a dam shall be a non-adjudicative proceeding in accordance with RSA 541-A:29, II(a).

Source. #8413, eff 8-20-05; ss by #10509, eff 1-22-14

## PART Env-Wr 204 DECISION AND APPEALS

Env-Wr 204.01 Department Decisions.

- (a) All final department decisions under RSA 482 shall be issued in writing.
- (b) A final decision to grant a permit application shall be distributed as follows:
  - (1) Subject to Env-Wr 404.02(b), the original shall be sent to the applicant; and
  - (2) Copies shall be sent to all municipalities that were notified of the application pursuant to Env-Wr 304.03 or Env-Wr 402.07.
- (c) A final decision to deny a permit application shall be distributed as follows:
  - (1) The original shall be sent to the applicant; and
  - (2) Copies shall be sent to all municipalities that were notified of the application pursuant to Env-Wr 304.03 or Env-Wr 402.07.
- (d) Copies of a final decision in a lake level investigation shall be sent to:
  - (1) The owner of the dam that is the subject of the order;
  - (2) The person(s) who requested the investigation, if any;
  - (3) Each municipality in which the impounded water is located; and
  - (4) Each person who participated in the investigation who specifically requested to be notified of the decision.
- (e) Copies of an order issued pursuant to RSA 482:11 or RSA 482:12 shall be sent to:
  - (1) The owner of the dam that is the subject of the order; and

(2) Each municipality in which the impounded water is located.

Source. #1644, eff 10-7-80; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4336, eff 11-5-87; ss by #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (from Env-Wr 205.01); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8413, eff 8-20-05; ss by #10509, eff 1-22-14

Env-Wr 204.02 <u>Appeals</u>. Appeals of department decisions under RSA 482 shall be directed to the water council in accordance with RSA 21-O:14 and Env-WC 200.

Source. #1644, eff 10-7-80; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (from Env-Wr 205.02); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8413, eff 8-20-05; ss by #10509, eff 1-22-14

## CHAPTER Env-Wr 300 EXISTING DAMS

## PART Env-Wr 301 PURPOSE AND APPLICABILITY

Env-Wr 301.01 <u>Purpose</u>. The purpose of this chapter is to ensure that existing dams are maintained in a manner so that public health, safety, and the environment are protected.

Source. #4399, eff 4-19-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 301.02 Applicability.

- (a) Subject to (b), below, the requirements in this chapter shall apply to:
  - (1) Any structure which qualifies as a dam in accordance with RSA 482:2, II; and
  - (2) Any roadway culvert meeting the requirements of Env-Wr 301.03.
- (b) The requirements in this chapter shall apply to a dam regulated by the Federal Energy Regulatory Commission (FERC) pursuant to the Federal Power Act, 16 U.S.C. Chapter 12, Subchapter I, only when they do not conflict with rules, standards, protocols, licenses, certificates, or orders promulgated by the FERC pursuant to that authority.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4399, eff 4-19-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 301.03 <u>Roadway Culverts</u>. A roadway embankment whose culvert is set at the natural streambed shall be considered a dam if during the 25 year storm:

- (a) The water surface elevation at the culvert inlet is 6 feet or more above the water surface elevation at the culvert outlet; and
  - (b) It impounds 2 acre-feet or more of water over the crown, or top, of the culvert.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4399, eff 4-19-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## PART Env-Wr 302 DAM INSPECTIONS: REPAIRS: ALTERNATIVES TO REPAIR

Env-Wr 302.01 <u>Dam Inventory</u>. The department shall maintain an inventory of all dams in the state as to ownership, height, location, and hazard classification.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 302.02 Dam Inspections.

- (a) The department shall inspect dams in accordance with the following frequency:
  - (1) Low hazard structures shall be inspected at least once every 6 years;
  - (2) Significant hazard structures shall be inspected at least once every 4 years;
  - (3) High hazard structures shall be inspected at least once every 2 years; and
  - (4) Non-menace structures having a height of 25 feet or more or having a storage capacity of 50 acre-feet or more shall be inspected at least once every 6 years.
- (b) An individual may request the department to inspect any dam by putting such request in writing to the department.
  - (c) The written request for inspection shall include:
    - (1) The location of the dam or water body on which the dam is located;
    - (2) The name, mailing address, and daytime telephone number of the owner, if known; and
    - (3) A statement explaining why the requestor believes the dam should be inspected.
- (d) The department shall review the request and any other available information on the dam. If the department determines that public safety requires the dam to be inspected, the department shall schedule an inspection of the dam.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 302.03 Repairs Required.

(a) Subject to (c), below, if the department determines as a result of an inspection that repairs or reconstruction to a dam are needed to maintain the dam in a safe condition, it shall notify the owner in writing

of such repairs or reconstruction as are necessary and request the owner to undertake such repairs within the time period specified in the notice.

- (b) If the owner does not undertake the needed repairs or reconstruction within the time period indicated in a notice sent pursuant to (a), above, the department shall proceed under RSA 482:12 to order the owner to undertake the repairs or reconstruction.
- (c) The department shall not issue a request but instead shall directly issue an order requiring repairs or reconstruction if:
  - (1) The condition of the dam poses an imminent threat to public safety; or
  - (2) The owner of the dam has been non-responsive to department requests relating to other compliance issues.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 302.04 Alternatives to Repairing or Reconstructing a Dam.

- (a) In lieu of repairing or reconstructing a dam as required pursuant to Env-Wr 302.03, the owner may:
  - (1) Remove the dam in accordance with Env-Wr 600; or
  - (2) Breach or modify the dam in accordance with Env-Wr 302.05.
- (b) Such removal, breach, or modification shall be equivalent to complying with the repair or reconstruction order.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 302.05 Controlled Breach; Modifications to Lower Impoundment.

- (a) The owner may request approval from the department to perform a controlled breach or to modify the dam so that the impoundment is lowered to a level that is safe for the dam.
- (b) To request approval for a controlled breach or modification, the owner shall submit the following information in writing to the department:
  - (1) The name, mailing address, and daytime telephone number of the owner;
  - (2) The date of the department's order to repair or reconstruct the dam, if any, and if none, the:
    - a. Tax map and lot number of the property on which the dam is located;
    - b. Location of the dam on the applicable USGS Quadrangle map;
    - c. Name of the stream, river, or other water body on which the dam is located, if applicable;

- d. Reason(s) for the proposed breach or modification; and
- e. Hazard classification of the dam;
- (3) The amount of water currently impounded by the dam, in acre-feet;
- (4) Whether the request is for a controlled breach or other modification;
- (5) A detailed explanation of the specific work that will be performed, including anticipated flows during the work and the effect of such flows on upstream and downstream property and public safety;
- (6) The name(s), mailing address(es), and daytime telephone number(s) of the person(s) proposed to perform the work; and
- (7) A proposed schedule for the work, which shall include time for the notice and hearing required by RSA 482:13.
- (c) The department shall approve the proposed breach or modification if the department determines that:
  - (1) The proposed breach or modification will cause the structure to no longer meet the definition of a dam; and
  - (2) The work will be performed in a manner that will not cause flows that would result in property damage or threaten public safety upstream or downstream of the dam.
- (d) If the department determines that after the proposed breach or modification the structure will still meet the definition of a dam, the department shall approve the breach or modification of the dam provided that:
  - (1) The work will be performed in a manner that will not cause property damage or threaten public safety upstream or downstream of the dam;
  - (2) The threat posed to life or property after completion of the work is no more than it would have been if the work required by the department pursuant to Env-Wr 302.03 had been completed, if applicable; and
  - (3) The requirements of Env-Wr 303.11 relative to discharge capacity will be met as a result of the proposed work.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 302.06 <u>Notification to Public</u>. After receiving approval pursuant to Env-Wr 302.05, the owner shall refrain from undertaking the work until the requirements of RSA 482:13 relative to notice to municipalities and hearing have been met.

Source. #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## PART Env-Wr 303 REQUIREMENTS FOR EXISTING DAMS

Env-Wr 303.01 Annual Registration Fee.

- (a) Pursuant to RSA 482:8-a, annual registration fees for dams in the amount specified in RSA 482:8-a shall be payable to the department on January 1 of each calendar year.
- (b) The department shall send a written notice, by October 31 of each year, to each owner specifying the amount of the registration fee that shall be due.
- (c) The department shall send a second notice to each owner who fails to submit the annual registration fee by January 1. Such notice shall inform the owner that the payment is overdue and that if the owner fails to submit the registration fee within 10 days, the owner shall be subject to the penalties authorized by RSA 482:89.
- (d) Notices sent pursuant to (b) and (c), above, shall include whatever information the department has relative to the tax map and lot number of the dam and the volume and page number of the deed to the dam and to the property on which the dam is located, if different. At the time of paying the annual registration fee, the owner shall confirm or, if necessary, provide or correct the information.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-10-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 303.02 Review of Hazard Classification.

- (a) The department shall review the classification of a dam in conjunction with any inspection conducted pursuant to Env-Wr 302.02.
- (b) If the department determines that a dam no longer meets the criteria of the class to which it had been assigned, the department shall reassign the dam to the proper classification.
- (c) Upon reassigning a dam to a different classification, the department shall notify the owner in writing of:
  - (1) The new classification; and
  - (2) Any new requirements that might apply as a result of the reclassification.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 303.03 Appeal of Classification.

- (a) If the owner disagrees with the department's decision to reclassify a dam's hazard classification, the owner may request that the department reconsider the decision.
- (b) To request reconsideration, the owner shall submit a written request to the department that includes the following:
  - (1) The name, mailing address, and daytime telephone number of the owner;

- (2) The dam number assigned by the department, if known, and if not known, the location of the dam by:
  - a. Tax map and lot number of the property on which the dam is located;
  - b. Location of the dam on the applicable USGS Quadrangle map; and
  - c. Name of the stream, river, or other water body on which the dam is located, if applicable;
- (3) The results of a dam breach analysis, including routing of the flow downstream of the dam, completed in accordance with Env-Wr 502; and
- (4) An assessment of all structures potentially impacted by a dam failure, including the depth of flooding at critical structures or groups of structures.
- (c) If the department determines that the information requested in (b) is insufficient to grant the requested reconsideration, the department shall:
  - (1) Deny the request; or
  - (2) If the department believes that a favorable decision might be made if inundation mapping is provided, request the owner to provide inundation mapping completed in accordance with Env-Wr 503.01.
- (d) The department shall notify the owner of its decision in writing within 60 days of receiving complete information.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 303.04 Dam Monitoring.

- (a) The owner of a low hazard, significant hazard, or high hazard dam, or the owner's designee, shall monitor the dam in accordance with this section.
  - (b) The dam monitor shall:
    - (1) Be trained in the operation of the dam;
    - (2) Be trained to detect and assess conditions that could affect the safety of the dam:
    - (3) Have authority from the owner to operate the structure during emergency situations;
    - (4) For a significant hazard or high hazard dam, be available at the dam within 2 hours at all times; and
    - (5) For a low hazard dam, be available at the dam within 2 hours during periods of heavy precipitation, high water levels, or receipt of notification of other events that could threaten the structural integrity of the dam.
  - (c) The owner of a low hazard, significant hazard, or high hazard dam shall provide:
    - (1) A communication system between the monitor and the local communities; and

- (2) The means, materials, and equipment needed to make emergency repairs to the structure.
- (d) The owner of a significant hazard or high hazard dam also shall provide the training and equipment, including alternative power sources, necessary to operate the structure.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 303.05 Operation and Maintenance Plan.

- (a) The owner of a low hazard, significant hazard, or high hazard dam shall submit a written operation and maintenance plan for approval by the department.
  - (b) The operation and maintenance plan shall:
    - (1) Describe the seasonal control of impoundment levels;
    - (2) Describe regular maintenance activities; and
    - (3) Identify the name(s) and address(es) of the dam monitor(s) required by Env-Wr 303.04 and any other emergency contacts for operation of the dam that the owner wishes to designate.
  - (c) The department shall approve the plan if:
    - (1) The information submitted addresses the items specified in (b), above; and
    - (2) Compliance with the submitted plan will result in a dam that will be operated safely during all flow conditions and not become a dam in disrepair.
- (d) The owner shall update the operation and maintenance plan as necessary and shall submit a written update to the department within 15 days of any changes.
- (e) An owner that is required to complete an emergency action plan ("EAP") pursuant to Env-Wr 303.06 may incorporate the operation and maintenance plan as an appendix to the EAP.
- (f) The owner shall operate and maintain the dam in accordance with the approved operation and maintenance plan.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4354, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 303.06 Emergency Action Plan Required.

- (a) As required by RSA 482:11-a, the owner shall develop an emergency action plan (EAP) for any dam, the failure of which may threaten life or property.
- (b) The owner of a significant hazard or high hazard dam shall develop an EAP in accordance with Env-Wr 500.

(c) The operation and maintenance plan prepared by the owner of a low hazard dam shall constitute the EAP for that dam.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 303.07 Dam Repair and Reconstruction.

- (a) Pursuant to RSA 482:9, the owner shall not initiate, or authorize anyone else to initiate, work on a dam which qualifies as reconstruction without first obtaining a permit from the department pursuant to Env-Wr 400.
- (b) The owner may undertake repairs other than those qualifying as reconstruction without prior department approval.
- (c) An owner wishing to perform a controlled breach or otherwise modify the dam to lower the impoundment to a safe level shall proceed in accordance with Env-Wr 302.05.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; rpld by #5080, eff 2-22-91

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 303.08 Transfer of Ownership.

- (a) The owner shall provide the information specified in (b), below, to any prospective owner prior to transferring:
  - (1) Title to the dam; or
  - (2) If ownership of the dam is tied to ownership of the property, the property on which the dam is located.
  - (b) The owner shall provide the following information:
    - (1) The existence of the dam;
    - (2) The dam number assigned by the department; and
    - (3) Any letters or orders issued by the department relative to the condition of the dam.
- (c) Within 30 days of the transfer of ownership of a dam or the property on which a dam is located, the new owner shall inform the department in writing of the transfer of ownership by providing the following information:
  - (1) The name of the former owner;
  - (2) The dam number assigned by the department;
  - (3) The name, mailing address, and daytime telephone number of the new owner;
  - (4) The tax map and lot number of the dam; and

(5) The volume and page number of the deed which transferred ownership of the dam or the property on which the dam is located.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 303.09 Emergency Breach.

- (a) An owner may purposefully breach a dam without prior approval from the department only when a threat to public safety or public health exists or significant damage to public or private property is imminent.
- (b) The owner shall notify the department and the local police and fire departments prior to performing an emergency breach, if possible.
- (c) If it is not possible to notify the department and local police and fire departments prior to performing an emergency breach, the owner shall make such notification as soon as reasonably possible, but never more than one hour after the initiation of the emergency breach.
- (d) Within 30 days of performing an emergency breach, the owner shall submit an application to the department:
  - (1) To reconstruct the dam in accordance with Env-Wr 400, indicating whether the owner plans to further modify or rebuild the dam; or
  - (2) To remove the dam in accordance with Env-Wr 600.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 303.10 Other Emergency Measures.

- (a) An owner may take measures which otherwise would require a permit to reconstruct a dam, other than emergency breaches, when it is necessary to do so in order to eliminate or reduce the risk of full or partial dam failure. Emergency repairs shall be limited to temporary stabilization of the site or mitigation of the immediate threat.
- (b) The owner shall notify the department prior to taking such measures if possible but never more than 24 hours after the initiation of necessary repairs.
- (c) Within 48 hours of completing the emergency repairs, the owner shall submit a written statement to the department that explains the nature of the emergency and what corrective measures were taken.
- (d) Within 30 days of performing the emergency repairs, the owner shall submit an application to the department to reconstruct a dam in accordance with Env-Wr 400.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 303.11 Discharge Capacity.

- (a) All low hazard, significant hazard, or high hazard dams constructed prior to February 19, 1981 shall pass the flows indicated below with one foot of freeboard and without manual operations:
  - (1) Low hazard dams shall pass a 50-year flood, or at the owner's option, the site specific inflow design flood;
  - (2) Significant hazard dams shall pass the 100-year flood, or at the owner's option, the site specific inflow design flood; and

- (3) High hazard dam shall pass 250% of the 100-year flood, or at the owner's option, the site specific inflow design flood.
- (b) Dams constructed after February 19, 1981 shall pass the flow required by the administrative rules in place at the time of the dam's construction, in accordance with the classification of the dam at the time of construction.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 303.12 Meeting Discharge Capacity Requirements.

- (a) If a dam does not have adequate discharge capacity to pass the flood specified in Env-Wr 303.11 with one foot of freeboard, the owner shall submit a plan to the department to address the deficiency.
  - (b) The plan submitted pursuant to (a), above, shall:
    - (1) Specify the action to be taken, per (c), below;
    - (2) Specify the proposed timeframe for taking the action; and
    - (3) Include the results of hydrologic analyses completed pursuant to Env-Wr 403.05, assessing the floods and discharge capacity of the structure.
  - (c) The plan shall specify which of the following actions the owner intends to pursue:
    - (1) Increase the capacity of the dam to pass the flood with one foot of freeboard and without manual operations;
    - (2) Submit a stability analysis to the department showing that the dam is safe against sliding, overturning, or erosion by overtopping, as applicable, during the specified flood, using the methods outlined in "Engineering Guidelines for Evaluation of Hydropower Projects" published by the Federal Energy Regulatory Commission (FERC), Chapter 3 dated 2002 and Chapter 4 dated 1991, available as noted in Appendix B;
    - (3) Stabilize the dam so that it is safe under the specified flood conditions; or
    - (4) Modify the dam so that the hazard classification is lowered and the dam passes the appropriate flow for the new classification.
  - (d) The department shall approve the plan if the department determines that:
    - (1) The proposed action will bring the dam into compliance with Env-Wr 303.11;
    - (2) The work can be done in a way that will not:
      - a. Endanger life or property downstream of the dam; or
      - b. Cause environmental losses that are not reversible environmental losses; and
    - (3) The time frame for the work is reasonable under the circumstances, including the risk posed by the deficiency, the owner's financial resources, and the timing of the work in relation to other uses of the impounded water.
- (e) The department shall notify the owner in writing of its decision. If the plan is not approved, the notice shall specify the reason(s) for the non-approval.

(f) If work under the plan as approved constitutes reconstruction of the dam, the owner shall submit an application in accordance with Env-Wr 400.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 303.13 Request for Time Extension.

- (a) An owner may request a time extension to comply with any directive of the department issued pursuant to RSA 482:12.
  - (b) The request shall be submitted in writing to the department with the following information:
    - (1) The reason(s) why an extension is needed;
    - (2) The current status of the repairs or investigations; and
    - (3) The length of time of extension requested.
  - (c) The department shall grant the request for time extension if it determines that:
    - (1) The owner has in good faith pursued the work required by the directive;
    - (2) The owner is unable to complete the work during the time period specified;
    - (3) The current condition of the dam is such that it is not expected to fail under flow conditions anticipated during the extension; and
    - (4) The condition of the dam will not deteriorate so as to pose a threat to public safety under flow conditions anticipated during the extension.
- (d) The department shall notify the owner of the decision on the request in writing. If the department denies the request, the department shall state the reason(s) for the denial.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## PART Env-Wr 304 NON-PERMITTED EXISTING DAMS

## Env-Wr 304.01 Application to Permit Existing Dam.

- (a) When the department gains knowledge of the existence of a non-permitted dam, either by its own reconnaissance or by reports of others, it shall send a letter by certified mail to the owner of the property on which the dam is located stating the non-permitted status of the dam and the requirements with which the owner shall comply.
- (b) The department shall include with the letter an "application to permit an existing dam" and a copy of RSA 482:5.
- (c) Upon written notice from the department that an existing dam is non-permitted, the owner shall file the following information on or with, as applicable, the permit application form:
  - (1) The height and length of the dam, in feet;
  - (2) The volume and page number at the county registry of deeds of the deed to the dam and of the property on which the dam is located, if different;
  - (3) The tax map and lot number of the property on which the dam is located;

- (4) The location of the dam on the applicable USGS Quadrangle map;
- (5) The name of the stream, river, or water body on which the dam is located, if applicable;
- (6) The type and purpose of the dam;
- (7) A description of the dam foundation material;
- (8) The size of the drainage area, normal pond area, maximum pond area, normal storage capacity, and maximum storage capacity of the dam;
- (9) An operation and maintenance plan prepared as specified in Env-Wr 303.05;
- (10) Plans and specifications which shall, at a minimum, include the following:
  - a. A scaled plan view;
  - b. A scaled cross-section view of the dam through the outlet, showing elevations of pipe inlet and outlet, if applicable, watertight connections, and embankment material; and
  - c. Design and cover of embankment slopes; and
- (11) The name, address, and daytime telephone number of the owner.
- (d) The owner shall include the following with the application:
  - (1) The fee required by RSA 482:9, II; and
  - (2) A statement that the owner has legal flowage rights on all lands which will be permanently or temporarily flooded by the dam and an indication of whether those rights are fee simple ownership, a flowage easement, prescriptive rights, or mill privileges.
- (e) The owner shall sign the application and the statement required by (d)(2), above, if such statement is separate from the application.
- (f) The owner's signature shall constitute certification that the information provided is true and complete to the knowledge and belief of the owner.
- (g) The owner shall return the completed permit application within 30 days of receiving the letter sent pursuant to (a), above.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 304.02 <u>Inspection</u>. Within 30 days of receipt of the permit application, the department shall inspect the dam and area affected by the dam for conditions and factors affecting the hazard potential classification, and determine whether repair or reconstruction of the dam is required for the public safety.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 304.03 Notice to Municipality.

- (a) Pursuant to RSA 541-A:39, when the department receives an application to permit a non-permitted dam, the department shall issue a notice to the municipality in which the dam is located to invite the municipality to submit data or information pertaining to the department's assessment of the dam's potential hazard. If the department receives such correspondence within 20 days of the town's receipt of the notice, it shall consider the information in issuing a permit.
- (b) For structures that are likely to be classified as significant hazard or high hazard, the department shall notify the municipality in which the structure is located and any municipalities which could be affected by a failure of the structure of a public hearing to be held by the department in the municipality in which the dam is located or in a municipality which could be affected by a failure of the structure. At the public hearing, the owner shall present information about the dam and a draft emergency action plan, and the department shall receive comment from the public.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 304.04 <u>Issuance of Permit</u>. Subject to Env-Wr 304.05, the department shall issue a permit for the dam pursuant to RSA 482:5 if:

- (a) The application is complete, including all information required by Env-Wr 304.01;
- (b) The department has determined that the dam's condition is such that it does not pose an imminent threat to public safety; and
  - (c) Issuance of the permit is consistent with RSA 482:1.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88, EXPIRED 11-7-90

<u>New.</u> #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 304.05 Limitations on Permit Issuance.

- (a) A permit for a significant hazard or high hazard non-permitted dam built on or after July 25, 2000 shall be issued only if the dam meets the criteria established in RSA 482:9, V.
  - (b) A permit for a dam on a great pond shall be issued only in accordance with RSA 482:6.

Source. #8414, eff 8-20-0; ss by #10510, eff 1-22-14

# CHAPTER Env-Wr 400 CONSTRUCTION OR RECONSTRUCTING A DAM PART Env-Wr 401 PURPOSE AND APPLICABILITY

Env-Wr 401.01 <u>Purpose</u>. The purpose of this chapter is to implement RSA 482:9 by specifying the procedures for applying for a permit to construct or reconstruct a dam.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

<u>New.</u> #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-0; ss by #10510, eff 1-22-14

## Env-Wr 401.02 Applicability.

- (a) Subject to (b), below, the requirements in this chapter shall apply to any person who:
  - (1) Plans to construct or reconstruct a structure that qualifies as a dam pursuant to Env-Wr 301.02; or
  - (2) Has taken emergency measures as specified in Env-Wr 303.09 or Env-Wr 303.10.
- (b) The requirements in this chapter shall apply to a dam regulated by the Federal Energy Regulatory Commission (FERC) pursuant to the Federal Power Act, 16 U.S.C. Chapter 12, Subchapter I, only when they do not conflict with rules, standards, protocols, licenses, certificates, or orders promulgated by the FERC pursuant to that authority.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

<u>New.</u> #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## PART Env-Wr 402 APPLICATION PROCEDURES

## Env-Wr 402.01 Application Filing.

- (a) An application to construct a dam shall be filed by the owner(s) of the property on which the dam is proposed to be located.
- (b) An application to reconstruct a dam, including an application relative to emergency measures pursuant to Env-Wr 401.02(a)(2), shall be filed by the owner(s) of the dam.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 402.02 Content of Application.

(a) The applicant shall submit a completed "application to construct or reconstruct a dam" form to the department.

- (b) The applicant shall provide the following information on or with the form:
  - (1) The name, mailing address, and daytime telephone number of each applicant;
  - (2) The volume and page number of the deed for the property on which the dam is or is proposed to be located and, for an existing dam that was conveyed separately from the property, the volume and page number of the deed for the dam;
  - (3) The location of the existing or proposed dam on the applicable USGS Quadrangle map;
  - (4) The city/town tax map number and lot number for the property on which the dam is or is proposed to be located;
  - (5) The name of the stream, river, or other water body on which the dam is or will be located, if applicable;
  - (6) The height and length of the existing or proposed dam;
  - (7) The type and purpose of the existing or proposed dam;
  - (8) A description of the type of existing or proposed foundation material;
  - (9) The size of the drainage area, normal pond area, maximum pond area, normal storage capacity, and maximum storage capacity of the existing or proposed dam; and
  - (10) A plan and cross-section sketch of proposed dam.
- (c) The owner shall include the following with the application:
  - (1) The fee required by RSA 482:9, II; and
  - (2) A statement that the owner has legal flowage rights on all lands which will be permanently or temporarily flooded by the dam and an indication of whether those rights are fee simple ownership, a flowage easement, prescriptive rights, or mill privileges.
- (d) All forms shall be printed in ink, or typed.
- (e) The owner shall sign the application and the statement required by (c)(2), above, if such statement is separate from the application.
- (f) The owner's signature shall constitute certification that the information provided is true and complete to the knowledge and belief of the owner.
- (g) Incomplete or improperly completed forms shall be returned by the department to the applicant or applicants with a statement for the reason(s) for the return and the additional information required.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 402.03 Statutory Requirements for Certain Dams.

- (a) Pursuant to RSA 482:7, a new dam on a great pond shall not be constructed without specific authorization from the legislature.
- (b) The department shall hold a public hearing pursuant to RSA 482:30 and RSA 482:31 upon receipt of an application for construction or reconstruction of dams falling within the scope of RSA 482:17.
- (c) The public hearing shall be conducted in accordance with the provisions of Env-C 200 relative to non-adjudicative proceedings.
- (d) Pursuant to RSA 482:9, V, no permit to construct a significant hazard or high hazard dam shall be issued unless the requirements of that section are met.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 402.04 Notice to Owner.

- (a) Within 10 days of receipt of an application, the department shall provide the owner with the following:
  - (1) The dam number:
  - (2) The date of receipt of the application; and
  - (3) A statement that construction shall not commence until the department and all other appropriate state or federal agencies have granted final approval.
- (b) Within 30 days of classification by the department, the department shall provide the owner with the following:
  - (1) Design and construction requirements for the particular structure depending upon classification;
  - (2) Specific information needed for design review per Env-Wr 403 if the submitted design is lacking in particular areas; and
  - (3) For significant hazard and high hazard structures, notification that a permit will not be issued until a draft EAP has been submitted to the department for review and a public hearing held by the department in the community in which the dam is located.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 402.05 Classification Procedure.

- (a) The department shall review all new dam applications to classify the structure in accordance with Env-Wr 101.21, Env-Wr 101.25, Env-Wr 102.28, and Env-Wr 102.39.
- (b) If the owner disagrees with the department's hazard classification, the owner shall submit, for review by the department, the following:
  - (1) The results of a dam breach analysis performed in accordance with Env-Wr 502.06;

- (2) Breach routing in accordance with Env-Wr 502.07; and
- (3) Inundation mapping in accordance with Env-Wr 503.01.
- (c) The owner of a proposed dam shall meet specific requirements relative to design, construction, inspection and maintenance of the structure in accordance with the applicable provisions of Env-Wr 403.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 402.06 <u>Additional Information Required</u>. If the dam will be a low hazard, significant hazard, or high hazard structure, the owner shall submit:

- (a) Plans and specifications which shall, at a minimum, include the following:
  - (1) Scaled plan view;
  - (2) Scaled cross-sectional view of dam through the outlet, showing elevations of inlet and outlet, watertight connections, embankment material;
  - (3) Design of and cover treatment for embankment slopes;
  - (4) Gradation analysis for all soils to be used during construction;
  - (5) Compaction specifications in accordance with Env-Wr 403.02(d) and (e);
  - (6) Construction sequence; and
  - (7) For reconstruction, the plans shall be of sufficient detail to show the location of the proposed work in relation to the entire dam; and
- (b) A written operation and maintenance plan, which:
  - (1) Describes the seasonal control of impoundment levels;
  - (2) Describes regular maintenance activities; and
  - (3) Includes the name(s) and address(es) of the dam monitor(s).

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 402.07 Notice to Municipality.

- (a) Subject to (b) and (c), below, when the department receives an application to construct or reconstruct a dam, it shall issue a notice to the municipality in which the proposed dam will be located pursuant to RSA 541-A:39, to inform the municipality of the location, height and size of the impoundment of the proposed dam. The municipality may submit data or information pertinent to the department's consideration of the application. If the department receives such correspondence within 20 days of the town's receipt of the notice, it shall consider the information in issuing a permit to construct or reconstruct the dam.
- (b) When the department receives an application to construct a significant hazard or high hazard structure, the department shall send the notice to the municipality and any municipalities which could be affected by a failure of the dam, and shall include notice of a public hearing to be held by the department in the municipality in which the dam is located or in a municipality that may be affected by a failure of the dam. At the public hearing, the owner shall present information about the dam and a draft emergency action plan, and the department shall receive comment from the public.

(c) If the application is to construct a dam on a great pond, the department shall send the notice to all municipalities in which the great pond is located.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## PART Env-Wr 403 SPECIFIC DESIGN REQUIREMENTS

Env-Wr 403.01 <u>Purpose</u>. The purpose of this part is to set forth the minimum design requirements for all new dams and the minimum design requirements for the specific work proposed for reconstruction of existing dams.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 403.02 <u>Minimum Design Requirements of All Dams</u>. An application for construction of a new dam or reconstruction of an existing dam shall incorporate the following design requirements:

- (a) The embankment slopes shall be no steeper than 2.5 horizontal to 1 vertical unless a specific design for a steeper slope shows that the embankment is stable and capable of being safely maintained;
  - (b) The embankment top width shall be 6 feet or greater;
  - (c) Any earthen spillway shall be constructed in natural ground;
  - (d) Soil compaction specifications shall be shown on the plans; and
- (e) Pre-compacted lift thickness shall be compatible with the material and equipment to be used, but no greater than 12 inches in depth.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 403.03 Additional Requirements Based on Hazard Classification.

- (a) For the construction or reconstruction of a low hazard, significant hazard, or high hazard dam:
  - (1) All final plans and design documents shall be stamped by a professional engineer, licensed in the State of New Hampshire, with a minimum of 5 years of engineering experience related to the design and construction of similar dam projects, as determined by the department after a review of the engineer's resume;
  - (2) The project shall be inspected in accordance with Env-Wr 405; and
  - (3) A construction inspection plan, prepared in accordance with Env-Wr 405.04, shall accompany the application for construction or reconstruction.
- (b) A design for construction of a new low hazard, significant hazard, or high hazard dam, with the exception of dams impounding liquid industrial, agricultural, or commercial wastes, or municipal sewage, shall be equipped with a pond drain.

- (c) A design for construction of a significant hazard or high hazard dam shall also include the following:
  - (1) The results of a stability analysis of the structure for overturning, sliding, and slope failure, as applicable, including factors of safety, using the methods outlined in "Engineering Guidelines for Evaluation of Hydropower Projects" published by FERC, Chapter 3 dated 2002 and Chapter 4 dated 1991, available as noted in Appendix B;
  - (2) The results of a seepage analysis;
  - (3) The results of subsurface explorations, including, but not limited to borings and test pits; and
  - (4) A draft emergency action plan (EAP), or if an EAP has already been approved, an updated EAP, in accordance with Env-Wr 500.
- (d) A design for reconstruction of a significant hazard or high hazard dam shall include the items identified in (c), above, if the department determines that the items are applicable based on the type of work to be done.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 403.04 <u>Design Floods for New Dams</u>.

- (a) A new dam shall be designed to safely pass the flows indicated below without manual operation and with the freeboard requirements indicated:
  - (1) A non-menace structure shall pass the 50-year flood or, at the owner's option, the site-specific inflow design flood, with one foot of freeboard or, at the owner's option, freeboard equal to the effects of maximum wave run-up;
  - (2) A low hazard structure shall pass the 100-year flood or, at the owner's option, the site-specific inflow design flood, with one foot of freeboard or, at the owner's option, freeboard equal to the effects of maximum wave run-up;
  - (3) A significant hazard structure shall pass ½ of the probable maximum flood (PMF) as determined using Hydrometeorological Report No. 52 (HMR 52) from the National Oceanic and Atmospheric Administration (NOAA), 1987, available as noted in Appendix B, or the site-specific inflow design flood, with freeboard equal to the effects of maximum wave run-up; and
  - (4) A high hazard structure shall pass the PMF as determined using HMR 52, 1987, available as noted in Appendix B, or the site-specific inflow design flood, with freeboard equal to the effects of maximum wave run-up;
  - (b) Wave run-up calculations shall identify maximum wind speeds and fetch limitations.
- (c) For a significant hazard or high hazard dam, and when the option is applied for a non-menace or low hazard dam, the owner shall submit wave run-up calculations with the application.
- (d) The owner shall submit the results of calculations performed for hydrologic and hydraulic analyses pursuant to (a), above, and Env-Wr 403.05 with the application.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 403.05 <u>Hydrologic Investigations</u>.

- (a) Hydrologic investigations shall be performed on the entire contributing drainage area.
- (b) Precipitation estimates for the design flood shall be obtained from:
  - (1) NRCC Research Publication RR 93-5, Atlas of Precipitation Extremes for Northeastern United States and Southeastern Canada, 1993, available as noted in Appendix B; or
  - (2) U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration, Hydrometeorological Report No. 51, Probable Maximum Precipitation Estimates, United States East of the 105<sup>th</sup> Meridian, June 1978, available as noted in Appendix B.
- (c) Hydrologic modeling for 50-year or 100-year storms shall incorporate the following:
  - (1) The size of the drainage area;
  - (2) The shape of the drainage area;
  - (3) Antecedent moisture condition 2, as defined in the USDA NRCS National Engineering Handbook, 210-VI-NEH-630.10, July 2004, available as noted in Appendix B;
  - (4) Ground slopes:
  - (5) Soil types;
  - (6) Vegetation;
  - (7) Land use:
  - (8) Distribution of varying precipitation amounts throughout the watershed; and
  - (9) Ponds, swamps, and other factors affecting the amount and rate of runoff.
- (d) The storm duration used in the modeling shall exceed the time for water to flow from the outermost point in the system to the subject location so as to ensure that the total runoff volume will be included in the routing of the storm through the dam structure.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 403.06 References for Hydraulic Determinations.

(a) Because the engineering science of hydraulics is documented in many competent texts, most of which rely on the same basic concepts, relationships and formulas, the designer may use any text, combination of texts, or related computer software applications for the design analysis.

- (b) The department shall use one or more of the following texts in evaluating the competence of the submitted design:
  - (1) "National Engineering Handbook, Section 5, Hydraulics" by USDA NRCS, 1956, available as noted in Appendix B; or
  - (2) "Handbook of Hydraulics", Seventh Edition, 1996, available as noted in Appendix B.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 403.07 Concrete Design Criteria.

- (a) Because the design of concrete structures is documented in many competent texts, the designer may use any text, combination of texts or related computer software applications.
- (b) The department shall use one or more of the following texts in evaluating the competence of the submitted design:
  - (1) "Building Code Requirements for Structural Concrete & Commentary," ACI 318-05, American Concrete Institute, 2005, available as noted in Appendix B;
  - (2) "Design of Small Dams" by US Department of Interior, Bureau of Reclamation, third Edition, 1987, available as noted in Appendix B; or
  - (3) "National Engineering Handbook, Section 6, Structural Design", USDA NRCS, 1980, available as noted in Appendix B.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

#### Env-Wr 403.08 Steel Design Criteria.

- (a) Because the design of steel structures is documented in many competent texts, the designer may use any text, combination of texts or related computer software applications.
- (b) The department shall use one or more of the following texts in evaluating the competence of the submitted design:
  - (1) "Steel Construction Manual" by the American Institute of Steel Construction, Fourteenth Edition, 2011, available as noted in Appendix B; or
  - (2) "National Engineering Handbook, Section 6, Structural Design" USDA NRCS, 1980, available as noted in Appendix B.

Source. #8414, eff 8-20-0; ss by #10510, eff 1-22-14

## Env-Wr 403.09 Timber Design Criteria.

- (a) Because the design of timber structures is documented in many competent texts, the designer may use any text, combination of texts or related computer software applications.
- (b) The department shall use one or more of the following texts in evaluating the competence of the submitted design:
  - (1) "Timber Construction Manual" by the American Institute of Timber Construction, Fourth Edition, dated 1994, available as noted in Appendix B; or

(2) "National Engineering Handbook, Section 6, Structural Design" USDA NRCS, 1980, available as noted in Appendix B.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 403.10 Earth Embankment Design Criteria.

- (a) Because the design of earth embankments is documented in many competent texts, the designer may use any text, combination of texts or related computer software applications.
- (b) The department shall use one or more of the following texts in evaluating the competence of the submitted design:
  - (1) USDA NRCS Earth Dams and Reservoirs Technical Release 60 (TR 60), 2005, available as noted in Appendix B;
  - (2) "Design of Small Dams" U.S. Department of the Interior, Bureau of Reclamation, third edition, 1987, available as noted in Appendix B;
  - (3) ACER Technical Memorandum No. 9, "Guidelines for Controlling Seepage Along Conduits Through Embankments" by the U.S. Department of the Interior, Bureau of Reclamation, 1987, available as noted in Appendix B; or
  - (4) U.S. Department of Agriculture, NRCS Agricultural Handbook 590, 1997, available as noted in Appendix B.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## PART Env-Wr 404 ISSUANCE AND CONDITIONS OF PERMITS

## Env-Wr 404.01 Approval.

- (a) Subject to (b) through (d), below, the department shall approve an application to construct or reconstruct a dam if:
  - (1) The requirements of Env-Wr 402 and Env-Wr 403 have been met; and
  - (2) Issuance of the permit is consistent with RSA 482:1 and any other applicable provisions of RSA 482.
- (b) If the proposed dam is a significant hazard or high hazard dam, the application shall not be approved until:
  - (1) A final emergency action plan has been completed and approved in accordance with Env-Wr 505; and
  - (2) The department has determined that the dam will serve a public benefit as required by RSA 482:9, V.
- (c) If the proposed dam is a new dam on a great pond, the application shall not be approved until the owner has been granted authority by the legislature to construct or reconstruct the dam.
- (d) If the dam is proposed under RSA 482:17, the application shall not be approved until the department has determined after holding a non-adjudicative hearing in accordance with the applicable provisions of Env-C 200 that it is in the public benefit to grant the permit pursuant to RSA 482:31.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 404.02 Issuance and Recordation of Permit/Registration.

- (a) Upon review and approval of the application, the department shall issue a permit authorizing the construction or reconstruction. The permit shall include any restrictions, requirements or disclaimers as specified in Env-Wr 404.03.
- (b) The department shall send the original permit to the registry of deeds for the county in which the dam is located to be recorded.
- (c) The department shall send a copy of the permit to the owner at the time of approval. The department shall send the original permit to the owner upon receiving it back from the registry of deeds.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 404.03 <u>Conditions of Permit</u>. The following conditions shall apply to all permits to construct or reconstruct a dam:

- (a) The permit shall be valid for 2 years from the date of issuance;
- (b) Work under the permit shall be completed within 2 years unless the owner has requested and received a time extension in accordance with Env-Wr 404.04;
- (c) All work on the dam shall comply with the approved plans and specifications, subject to design changes approved and documented in accordance with Env-Wr 404.05;
  - (d) The construction engineer shall provide a final inspection report in accordance with Env-Wr 405.08;
- (e) The construction engineer shall certify to the department that the work was completed in accordance with the approved plans and specification and design intent as required by Env-Wr 405.09;
  - (f) Inspections shall be performed in accordance with the plan submitted pursuant to Env-Wr 405.04;
- (g) At least 10 days prior to commencing work, the owner shall notify the department by certified mail of the date that the work is expected to commence;
- (h) The owner shall notify the department upon completion of the work in accordance with Env-Wr 405.11(a);
- (i) If an emergency action plan is required, no liquid shall be impounded until the EAP is approved by the department.
  - (j) The owner shall maintain a current mailing address with the department;

- (k) The owner shall operate and maintain the structure in accordance with the written operation and maintenance procedures submitted in accordance with Env-Wr 402.06(b); and
- (l) The department shall include in the permit any other conditions necessary to ensure protection of public safety that are based on the specific design, site, and watershed.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-0; ss by #10510, eff 1-22-14

Env-Wr 404.04 <u>Time Extension</u>. The department shall grant a 2-year time extension to construct a dam if:

- (a) The owner requests the extension in writing prior to the permit's expiration date;
- (b) The hazard classification of the dam has not changed;
- (c) The approved plans meet current design requirements or can be amended to meet current requirements as specified in Env-Wr 404.05; and
- (d) The site is stabilized and the condition of the project is such that granting a time extension to complete the construction will not threaten human life, public safety, or the environment.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 404.05 <u>Design Changes</u>.

- (a) No changes shall be made to the plans and specifications approved by the department, either before or during construction, unless:
  - (1) The changes are approved by the design engineer; and
  - (2) The changes are approved by the department in writing.
- (b) To request a change, the owner or the owner's designee shall submit a request for the change in writing to the department, which shall include:
  - (1) The specific information regarding the requested change; and
  - (2) The reason the change is being requested.
- (c) The department shall approve the change if the overall design as revised would have been approved if it had been submitted originally.
- (d) The department shall notify the owner and the owner's designee, if applicable, of the decision on the request in writing. If the request is denied, the decision shall state the reason(s) for the denial.
- (e) If time is of the essence, the department shall convey verbal approval prior to issuing written approval.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

#### PART Env-Wr 405 DAM CONSTRUCTION INSPECTIONS

Env-Wr 405.01 <u>Purpose</u>. The purpose of this part is to set forth the requirements for dam construction inspections.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 405.02 <u>Applicability</u>. These rules shall apply to construction inspections which are required during construction and reconstruction of a low hazard, significant hazard, or high hazard dam pursuant to RSA 482:11.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

#### Env-Wr 405.03 Construction Engineer.

- (a) Prior to any work on the dam starting, the owner shall engage a construction engineer to ensure compliance with approved plans and specifications.
- (b) The construction engineer shall have a minimum of 5 years of engineering experience related to construction inspection or design of similar dam construction projects.
- (c) The owner shall submit the construction engineer's resume of related construction inspection or design experience to the department for review and approval. Department approval shall be based upon satisfaction of the criterion of (b), above.
  - (d) The construction engineer shall have ultimate responsibility for:
    - (1) The accurate completion of all inspection tasks; and
    - (2) Compliance with approved plans and specifications.
- (e) The construction engineer may assign some inspection tasks to a duly-authorized agent provided that the agent's inspection tasks are explicitly identified in the construction inspection plan described in submitted pursuant to Env-Wr 405.04.
- (f) Prior to any work on the dam starting, the construction engineer shall sign, date, and submit to the department a completed acknowledgement form provided by the department, as specified in (g), below.
  - (g) The construction engineer shall provide the following on the acknowledgement form:

- (1) The name and address of the owner of the dam;
- (2) The name of the dam and the dam's location, by town;
- (3) The dam number assigned by the department;
- (4) The construction engineer's name and professional engineer's license number;
- (5) The name and professional engineer's license number of the design engineer;
- (6) The date of the plans, specifications, supporting assumptions, and calculations reviewed by the construction engineer; and
- (7) A certification that he or she has reviewed the plans, specifications, supporting assumptions, and calculations, and understands the design and the intent of the design.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 405.04 <u>Inspections During Construction or Reconstruction</u>.

- (a) Prior to any work on the dam starting, the owner shall submit a written inspection plan to the department.
- (b) The plan required by (a) above shall contain detailed information relative, but not limited, to the following:
  - (1) Which activities shall be monitored and by whom;
  - (2) Field tests to be performed and the frequency of testing;
  - (3) Material testing requirements; and
  - (4) Documentation and reporting requirements, including inspection reports and construction progress photographs.
- (c) The department shall approve the plan if it determines that the plan is adequate to ensure that the dam will be constructed or reconstructed in accordance with the approved plans and specifications.
- (d) The department shall inform the owner of its decision on the plan in writing. If the plan is not approved, the decision shall state the reason(s) for the non-approval.
- (e) Inspections during construction or reconstruction shall be performed in accordance with the approved plan.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 405.05 <u>Work Items to be Inspected</u>. The construction engineer shall inspect, document, and photograph the following work items:

- (a) Excavation and sub-grade preparation;
- (b) Pipe placement;
- (c) Placement of graded aggregate drain materials;
- (d) Earthfill;
- (e) Cut-off construction;
- (f) Steel placement;
- (g) Final grading; and
- (h) Pouring of concrete.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 405.06 <u>Inspection Frequency</u>. The frequency of inspections for construction and reconstruction projects shall be as follows:

- (a) Low hazard dam inspections shall be as frequent as needed to ensure compliance with approved plans and specifications; and
- (b) Significant hazard and high hazard dam inspections shall be conducted continuously by on-site inspectors unless specifically exempted by the approved inspection plan for particular items of work.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 405.07 <u>No Design Changes Without Prior Approval.</u> No changes from the approved plans and specifications shall be implemented unless the change is approved in accordance with Env-Wr 404.05.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 405.08 Final Inspection Report.

- (a) The construction engineer shall submit an inspection report to the department within 30 days of the completion of the project.
  - (b) The report shall include:
    - (1) A copy of all test results;
    - (2) The construction engineer's observations of the work items specified in Env-Wr 405.05;

- (3) Representative construction progress photographs;
- (4) Documentation of department-approved changes in design;
- (5) Documentation and results of all construction inspections, including photographs;
- (6) Foundation conditions observed during excavation; and
- (7) Any other data pertinent to determining the integrity of the structure.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; rpld by #6462-B, eff 2-21-97

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 405.09 <u>Affidavit of Compliance</u>. Within 10 days of completing the project, the construction engineer shall provide the department with an affidavit of compliance indicating that the construction or reconstruction was completed in accordance with approved plans, specifications, and the intent of the design, including any design changes approved in accordance with Env-Wr 404.05.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 405.10 <u>As-built Drawings</u>. The construction engineer shall submit as-built drawings of the project to the department within 180 days of submitting the affidavit of compliance.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 405.11 Requirements Prior to Impounding.

- (a) The owner shall notify the department in writing upon the completion of construction or reconstruction of any low hazard, significant hazard, or high hazard dam and prior to filling the reservoir. The notice shall include the dam number and the location of the dam.
- (b) Within 10 working days of receipt of notice from the owner, the department shall perform a final visual inspection with the reservoir drained.
- (c) The department shall either authorize filling of the reservoir by issuance of a certificate of approval or order remedial action for noncompliance with the approved plans and specifications.
- (d) No person shall close gates or take other actions that cause the dam to impound water until the owner is authorized by the department in writing to fill the reservoir.
  - (e) The department shall authorize the owner to fill the reservoir only after the department:
    - (1) Determines that the construction was completed in accordance with the approved plans and specifications;
    - (2) Performs a final visual inspection of the dam;
    - (3) Approves the emergency action plan; and
    - (4) Receives the construction engineer's final inspection report and affidavit of compliance.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## CHAPTER Env-Wr 500 EMERGENCY ACTION PLANS PART Env-Wr 501 PURPOSE AND APPLICABILITY

Env-Wr 501.01 Purpose and Applicability.

- (a) The purpose of the rules in this chapter is to establish the requirements for an emergency action plan (EAP), whose purpose is to assist emergency responders in the event of a specific dam failure by:
  - (1) Delineating the area which could be affected;
  - (2) Providing notification procedures; and
  - (3) Identifying the responsibilities of individuals or agencies in a response.
  - (b) The owner shall prepare an EAP in accordance with these rules for:
    - (1) Any high hazard dam; and
    - (2) Any significant hazard dam, unless:
      - a. The dam is classified as a significant hazard structure only because it impounds a public water supply and the owner has submitted to the department an emergency plan for a community water system pursuant to Env-Ws 360.15 or successor rule Env-Dw 503.21; or
      - b. The dam is classified as a significant hazard structure only because it impounds liquid industrial, agricultural, or commercial waste, septage, sewage, or contaminated sediments and the owner maintains a list of emergency contact numbers as a condition of the dam's permit under RSA 485-A or RSA 485-C.
- (c) EAPs for dams subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC) shall be prepared in accordance with FERC requirements and filed with the department.
- (d) EAPs for the following U.S. Army Corps of Engineers (USACE) dams shall be prepared in accordance with USACE requirements and filed with the department:
  - (1) Franklin Falls Dam;
  - (2) Blackwater Dam;
  - (3) Hopkinton-Everett Dams;
  - (4) Edward MacDowell Dam;
  - (5) Otter Brook Dam; and
  - (6) Surrey Mountain Dam.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

#### PART Env-Wr 502 BREACH ANALYSIS

Env-Wr 502.01 When Required. Unless exempted pursuant to Env-Wr 502.02, prior to preparing an EAP the owner shall have a dam breach analysis performed in accordance with this part.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

<u>New.</u> #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 502.02 Exemption from Breach Analysis.

- (a) Subject to Env-Wr 502.03, an owner shall be exempted from the development of a breach analysis if the department determines that the hazard classification is based solely on the potential damage to one or more isolated and easily identified bridges, roadways, or other structures located below the dam, and no other damages will result from a dam breach.
  - (b) If this exemption applies to a dam, department shall:
    - (1) Notify the owner in writing of the exemption; and
    - (2) Inform the owner of the exact structures to be delineated on a simplified inundation map, as required by Env-Wr 503.02.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

#### Env-Wr 502.03 Repeal of Breach Analysis Exemption.

- (a) If downstream developments change such that additional bridges, roadways, or other structures would be affected by a dam failure and these structures are not isolated and easily identifiable, the department shall notify the owner in writing that a dam breach analysis, as described in Env-Wr 502.06, shall be required due to the new developments downstream of the dam.
  - (b) Within 90 days of notification pursuant to (a), above, the owner shall:
    - (1) Complete a breach analysis in accordance with this part; and
    - (2) Produce and distribute an inundation map in accordance with Env-Wr 503.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 502.04 Expansion of Study Area.

(a) If after approving a breach analysis the department determines that downstream development has changed such that new structures would be affected by a dam failure and the threat to these structures is not

easily identifiable, the department shall notify the owner in writing that the scope of the dam breach analysis previously performed must be expanded

- (b) Within 90 days of notification pursuant to (a), above, the owner shall:
  - (1) Expand the scope of the previously-approved breach analysis to include the newly developed area(s); and
  - (2) Produce an amended inundation map and distribute it to all EAP holders

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4580, eff 2-27-89; ss by #5080, eff 2-22-91; ss by #6462-B, eff 2-21-97; ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 502.05 <u>Breach Analysis Required Due to Reconstruction</u>. The owner shall complete a new or revised breach analysis, as applicable, to ascertain the impacts of a dam failure if:

- (a) The dam is reconstructed, resulting in a larger or higher impoundment; or
- (b) A change in the discharge capacity would result in reducing or increasing the effects of a dam failure.

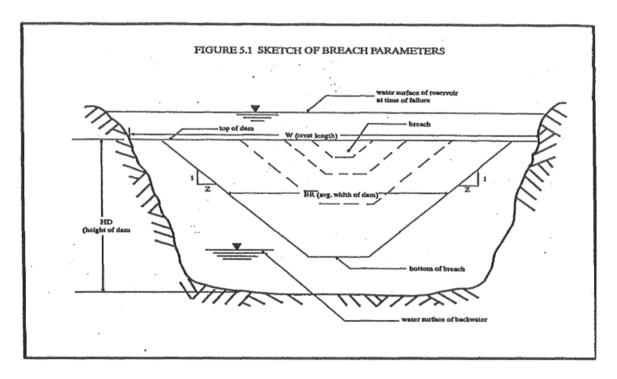
Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 502.06 Specific Requirements and Breach Parameters.

- (a) The dam breach analysis shall be performed under the direction of and stamped by a professional engineer licensed in New Hampshire and experienced in hydrology and hydraulics.
- (b) The breach parameters shall be in accordance with Table 5.1 and Figure 5.1 below, unless the department approves the use of other parameters pursuant to (c), below:

Table 5.1 <u>Dam Breach Parameters</u>

PARAMETER	TYPE OF DAM	VALUE
Average Width of	Arch	BR = Crest Length
Breach (BR)	Masonry, Gravity	BR = Width of one or more
		monoliths, usually BR ≤0.5 W
	Earth, Rockfill, Timber Crib	$HD \le BR \le 5HD$
		(usually between 2HD and 4HD)
Horizontal Component	Arch	$0 \le Z \le$ slope of valley walls
of Side Slope of Breach	Masonry, Gravity	Z = 0
(Z)	Earth, Rockfill, Timber Crib	$1/4 \le Z \le 1$
Time to Failure (TFH) in	Arch	TFH ≤ 0.1
hours	Masonry, Gravity	$0.1 \le \text{TFH} \le 0.3$
	Earthen (Engineered,	$0.1 \le \text{TFH} \le 1.0$
	Compacted) Timber Crib	
	Earthen (Non-Engineered,	$0.1 \le \text{TFH} \le 0.5$
	Poor Construction)	



- (c) The department shall allow use of different parameters due to specific dam or site conditions, if the applicant requests to use different parameters and demonstrates by clear and convincing evidence that the use of the alternative parameters would result in an accurate model and would not underestimate the effects of a dam failure.
  - (d) A dam breach flow shall be routed together with each of the following base flows:
    - (1) The sunny day flow as defined in Env-Wr 101; and
    - (2) The 100-year flood flow.
  - (e) The breach flow together with the base flows in (d), above, shall:
    - (1) Be routed downstream of the dam; and
    - (2) Include provisions to identify the number of hours or minutes from the start of a failure to the time when the river initially starts to rise and the time to reach peak stage.
- (f) Peak flow velocities also shall be determined and shown on the inundation map for critical stations such as road crossings and populated areas below the dam.
  - (g) The routing shall continue downstream until:
    - (1) The point at which the water surface elevation due to dam failure is no more than 2 feet above the non-failure conditions in areas of potential threat to life and major property damage; or
    - (2) A point upstream of the point determined pursuant to (1), above, if the owner shows that there is no longer a threat to public safety beyond that point.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 502.07 Breach Routing Methods.

- (a) The owner shall use one of the following routing methods for dam breach analysis:
  - (1) Methods and procedures used by the United States Department of Agriculture, Natural Resources Conservation Service in:
    - a. Technical Release T.R. 66 "Simplified Dam Breach Routing Procedures", 1985, available as noted in Appendix B;
    - b. Computer Program for Project Formulation Hydrology, T.R. 20, 1992, available as noted in Appendix B; and
    - c. WSP 2 Computer Program, T.R. 61, 1993, available as noted in Appendix B, which shall be used in conjunction with each other;
  - (2) Methods and procedures using the National Weather Service Dam-Break Flood Forecasting Model authored by Dr. Danny L. Fread, from the National Weather Service in Silver Springs, Maryland, dated 1987, available as noted in Appendix B; or
  - (3) Methods and procedures for dam breach simulation and routing developed by the U.S. Army Corps of Engineers' Hydrologic Engineering Center, and incorporated in HEC-RAS, version 4.1, 2010, available as noted in Appendix B.
- (b) An owner wishing to use other techniques for breach routing shall submit a written request for approval of the technique to the department for each particular site prior to using the technique. The request shall contain a description of the technique, including how the technique addresses the parameters addressed by the techniques identified in (a), above.
- (c) If the department determines that the technique can be correctly applied to the hydrologic and topographic conditions of the dam and downstream area, within the limitations and capabilities of the modeling technique, and that it will provide the detailed information required by these rules, the department shall approve the technique for use on that site and shall so notify the owner in writing.
- (d) The department shall not require previously-approved dam breach analyses that were completed using methods other than those specified in (a), above, to be reassessed using those methods, provided, however, that if an expansion of the breach analysis is required pursuant to Env-Wr 502.04, the owner shall use a technique specified in (a) or approved pursuant to (b) and (c), above.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 502.08 Downstream Dams.

- (a) When there are dams downstream located within the study area as determined by Env-Wr 502.06(g), the owner shall evaluate the effect of the breach flow on these dams.
  - (b) If a downstream dam would not be overtopped, no stability analysis of this structure shall be required.
  - (c) If a downstream dam would be overtopped by failure of the subject dam, the owner shall:
    - (1) Include the downstream dam's failure in the breach model; or
    - (2) Submit to the department the results of a stability analysis for overturning and sliding or slope failure, as applicable, including factors of safety, on the downstream dam.
- (d) If the stability analysis performed pursuant to (c)(2), above, indicates that a downstream dam is unstable during overtopping, the owner shall include the failure of the downstream dam in the breach model.

(e) If the stability analysis performed pursuant to (c)(2), above, indicates that a downstream dam is stable, its failure shall not be required to be modeled in the dam breach analysis.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 502.09 Review of Breach Analysis by Department.

- (a) The owner shall submit the following to the department for review:
  - (1) Structural and hydraulic breach assumptions and base flow criteria;
  - (2) Methods for determining base flows;
  - (3) Structural stability analyses of downstream dams, if applicable; and
  - (4) Summary of the results of the breach analysis.
- (b) The owner shall submit inundation maps prepared in accordance with Env-Wr 503 for review, by submitting draft inundation maps with the information listed in (a), above, or after receiving approval of the breach analysis.
- (c) If the information submitted pursuant to (a), above, is incomplete or the dam failure is incorrectly modeled, the department shall, within 60 days of receipt of the information, notify the owner in writing of the items which need to be addressed and the deadline for submittal of the amended analysis, which shall be 60 days from the date of the notice.
- (d) If the information submitted pursuant to (a), above, is complete and failure is correctly modeled, the department shall, within 60 days of receipt of the submitted information:
  - (1) Determine whether the sunny day failure or the 100-year flood failure represents the most critical threat to the downstream community; and
  - (2) Notify the owner in writing of which failure scenario to use in the mapping.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## PART Env-Wr 503 INUNDATION MAPPING

Env-Wr 503.01 <u>Inundation Map Requirements</u>.

- (a) The owner shall produce an inundation map to provide the local emergency responders with a tool for planning evacuation procedures.
- (b) The inundation map shall delineate the area impacted by a potential dam failure, as determined by the breach analysis required by Env-Wr 502.
  - (c) The inundation map shall meet the following criteria:
    - (1) The map shall be at a scale of 1:2,000 or of greater detail;
    - (2) Residences, commercial, and industrial structures or clusters of structures, when located in close proximity to each other, within the inundation area shall be shown on the most recent USGS topographic mapping, supplemented by locations derived from aerial photography available on the DES website, www.des.nh.gov;

- (3) Roads within the inundation area and within at least 0.5 mile from the exterior boundary of the inundation area shall be shown:
- (4) The time for the flood wave to reach critical areas, including those outlined in (2) and (3), above, including time to rise and time to peak shall be shown;
- (5) Peak flood wave velocities at critical areas shall be shown;
- (6) Peak flood wave depths shall be shown;
- (7) Political boundaries shall be shown;
- (8) The map shall indicate whether the inundation area represents a sunny day failure or a storm day failure scenario; and
- (9) The date on which the map was prepared shall be included on the map.
- (d) If the inundation map consists of 3 or more pages, the owner shall provide an index map which clearly directs the user to the appropriate map for a given area.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; rpld by #4534, eff 11-30-88

<u>New.</u> #6462-B, eff 2-21-97 (from Env-Wr 504.01); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-04; ss by #10510, eff 1-22-14

## Env-Wr 503.02 Simplified Inundation Map.

- (a) An owner who has been exempted from the requirement of a breach analysis pursuant to Env-Wr 502.02 shall submit a simplified inundation map.
- (b) The simplified inundation map shall include the elements specified in Env-Wr 503.01(a), (c)(1) (3), and (8).

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

### Env-Wr 503.03 Department Review.

- (a) The owner shall submit the inundation map to the department for review and approval prior to incorporating it into the emergency action plan.
- (b) The department shall inform the owner in writing within 60 days of receipt whether the inundation map is approved or what changes are necessary.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

#### PART Env-Wr 504 COORDINATION WITH LOCAL COMMUNITIES

#### Env-Wr 504.01 Communications with Community(ies).

- (a) Prior to finalizing the EAP, the owner shall supply all local community(ies) located within the inundation area with an inundation map to assist them in determining their response to a potential dam failure.
- (b) The owner shall discuss with the local emergency management director, or at the emergency management director's discretion, the local fire department or police department, to determine which individuals

or agencies shall be notified during an actual or impending emergency condition at the dam. These discussions shall be held with the appropriate personnel in each of the towns which could be impacted, as shown on the inundation map. If a municipality has not designated an emergency management director, the owner shall meet with the local governing body.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (from Env-Wr 505.01); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 504.02 Acknowledgment of EAP by Local Community(ies).

- (a) The owner shall request that each affected community in the inundation area sign a form acknowledging its role in the EAP.
- (b) If a community refuses to provide such statement, the owner shall notify the department certifying that a copy of the draft EAP has been delivered to the community.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (from Env-Wr 505.02); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## PART Env-Wr 505 PREPARATION AND FORMAT OF EAP DOCUMENT

## Env-Wr 505.01 Submittal of Draft EAP.

- (a) The owner shall submit a copy of the draft EAP prepared pursuant to Env-Wr 505.02 to the department for review. The draft may be submitted as unbound pages.
- (b) The department shall review the document for compliance with this chapter. Within 60 days of submittal, the department shall notify the owner in writing of its approval of the EAP or of any inadequacies.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4580, eff 2-27-89; ss by #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (formerly Env-Wr 506.01); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 505.02 Format of the EAP.

- (a) The format of the EAP shall be  $8\frac{1}{2}$  x 11 loose-leaf paper in a 3-ring binder to allow for ease of supplementation and revision as required.
  - (b) The content of the EAP shall be standardized as follows:
    - (1) Table of Contents;

- (2) Section 1, Notification flow-chart;
- (3) Section 2, Responsibilities under the EAP;
- (4) Section 3, Notification checklists;
- (5) Section 4, Preventive action; and
- (6) Appendices, including:
  - a. Appendix A, Dam and watershed description;
  - b. Appendix B, Summary of breach analysis;
  - c. Appendix C, Inundation map;
  - d. Appendix D, Monitor training and testing procedures;
  - e. Appendix E, Local evacuation procedure;
  - f. Appendix F, List of EAP holders; and
  - g. Appendix G, Documentation.
- (c) The required contents of each section or appendix shall include the information identified in Env-Wr 505.03 through Env-Wr 505.12, as applicable.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4452, eff 8-1-88; amd by #4580, eff 2-27-89; ss by #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (formerly Env-Wr 506.02); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 505.03 Notification Flow-chart.

- (a) Section 1 of the EAP shall be a chart identifying the individuals and local and state government agencies to be notified during a potential or actual emergency condition at the dam.
- (b) The notification flow-chart shall be developed in accordance with local and state emergency responders and shall conform with the community's current notification protocol.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (formerly Env-Wr 506.03); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 505.04 <u>Responsibilities</u>. Section 2 of the EAP shall describe the roles and responsibilities of each individual and local or state government agency in an emergency response.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (formerly Env-Wr 506.04); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

#### Env-Wr 505.05 Notification Checklists.

- (a) Section 3 of the EAP shall include a notification checklist for each individual and local or state government agency responsible for making calls during an emergency situation or during a test of the EAP.
- (b) The notification checklist shall include a table to be filled in by the participating individual or agency making notifications, including the name(s) of the agency(ies) or individual(s) to be contacted and the time at which the contact was made.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (formerly Env-Wr 506.05); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 505.06 Preventive Action. Section 4 of the EAP shall:

- (a) Indicate actions which the monitor shall take to correct a malfunction of the dam;
- (b) Identify the means, materials, and equipment needed to make emergency repairs to the structure;
- (c) Identify the necessary training and equipment, including alternative power sources, to operate the structure; and
- (d) Include a list of preventive and mitigative action measures to be undertaken during emergency situations.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (formerly Env-Wr 506.06); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 505.07 <u>Dam and Watershed Description</u>. Appendix A of the EAP shall include the following information:

- (a) The height and length of the dam, in feet;
- (b) The normal and maximum surface area of the impoundment, in acres;
- (c) The normal and maximum volume of the impoundment, in acre-feet;
- (d) The size of the drainage area, in square miles; and
- (e) A description of all outlet works, including the length of the spillway and a description of any gates.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (formerly Env-Wr 506.07); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 505.08 Impact of Breach. Appendix B of the EAP shall be a summary of the breach analysis, written so as to be easily understood during an actual emergency, in order to provide local emergency

responders with a brief description of the areas downstream of the dam which would be affected by a dam failure.

Source. #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (formerly Env-Wr 506.08); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 505.09 <u>Dam Monitor and Testing</u>. Appendix D of the EAP shall include:

- (a) The following information regarding the monitor(s) required by Env-Wr 303.04:
  - (1) Name, address and home and business telephone numbers;
  - (2) Type of training provided by owner; and
  - (3) Type of communication system between dam and local community; and
- (b) The following information regarding EAP testing:
  - (1) A narrative describing the testing procedures, as outlined in Env-Wr 507.01;
  - (2) A summary of the responsibilities of the owner and the roles of any individuals or state or local agencies involved in the testing; and
  - (3) The name and mailing address of the person responsible for collecting the notification checklists after testing or after an actual emergency condition.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; ss by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (formerly Env-Wr 506.09); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 505.10 <u>Local Evacuation Procedure and Recovery</u>. Appendix E shall include any evacuation and recovery plans developed by the community(ies). If the community(ies) have not developed such plans, the owner shall so indicate in this appendix.

<u>Source.</u> #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (from Env-Wr 506.10); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 505.11 <u>List of Official EAP Holders</u>. Appendix F shall be a listing of all individuals and local and state agencies holding official copies of the EAP, as follows:

- (a) The mailing addresses and telephone numbers of the local emergency responders, including police and fire departments in accordance with the town's procedures;
  - (b) The mailing addresses and telephone numbers of dispatchers for local emergency responders;
  - (c) The mailing addresses and telephone numbers of the local emergency management director(s);
- (d) The telephone number of the contact person at the New Hampshire department of safety, bureau of emergency management;

- (e) The telephone number of the contact person at the department's division of water;
- (f) The telephone number of the contact person at the New Hampshire department of safety, state police;
- (g) The names, mailing addresses, and telephone numbers of the owners of downstream dams that would be affected by a dam breach;
- (h) The telephone number of the contact person at the New Hampshire department of transportation, highway district 5, dispatch section;
- (i) If state roads would be impacted by a dam failure, the name and telephone number of the contact person at the appropriate New Hampshire department of transportation highway district office; and
- (j) The telephone number of the contact person at the New Hampshire department of safety, emergency communications section (911).

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (formerly Env-Wr 506.11); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 505.12 <u>Documentation</u>. Appendix G shall include copies of signed acknowledgement forms, as described in Env-Wr 504.02, and any correspondence relative to the EAP's development.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84; amd by #4534, eff 11-30-88; ss by #5080, eff 2-22-91; ss and moved by #6462-B, eff 2-21-97 (formerly Env-Wr 506.12); ss by #8285, INTERIM, eff 2-21-05, EXPIRES: 8-20-05; ss by #8414, eff 8-20-05; ss by #10510, eff 1-22-14

#### PART Env-Wr 506 FINAL DISTRIBUTION; PUBLIC NOTICE

Env-Wr 506.01 <u>EAP Distribution</u>. Upon receiving department approval of the draft EAP pursuant to Env-Wr 505.01, the owner shall distribute the EAP to local and state emergency response personnel who have responsibilities for implementing the EAP, as listed in Env-Wr 505.11.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 506.02 <u>Public Notice</u>. If the local community(ies) request information relative to the EAP to be given to the general public, the owner shall provide such information either by mail to all residential, industrial, and commercial buildings within the inundation area or by holding an informal meeting at a location near the dam or the inundation area.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

#### PART Env-Wr 507 TESTING AND UPDATING PROCEDURES

#### Env-Wr 507.01 Notification Test.

(a) The owner shall conduct a test of the emergency communication network within one month of approval of the EAP and every 2 years thereafter for a high hazard dam and every 4 years thereafter for a significant hazard dam.

- (b) The test shall consist of the owner making the primary contact as shown on the flow-chart and indicating that a required test of the EAP is being conducted.
- (c) The owner shall request each individual or agency contacted during the test to execute its duties relative to the notification flow-chart, complete the checklists, and return the checklists to the owner.
- (d) Within 30 days of conducting the test, the owner shall inform the department of the results of the test, indicating the time it took each individual and agency to make their notifications and whether miscommunications occurred.
- (e) The owner shall provide records of communication for each individual and agency, including time of contact and person contacted, if the notifications were not made within a 15-minute time period.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 507.02 EAP Review and Changes.

- (a) If the owner becomes aware of any changes necessary to the notification flow-chart, either as a result of the notification test or by other means, the owner shall:
  - (1) Make the changes to the notification flow-chart and in other portions of the EAP as necessary; and
  - (2) Distribute updated pages to all holders of the EAP.
- (b) The owner shall review the entire EAP annually to ensure the accuracy of the notification flow-chart and inundation areas.
  - (c) If development has occurred within the inundation area, the owner shall:
    - (1) Revise the inundation map to show the new development; and
    - (2) Distribute the updated map to all holders of the EAP.
- (d) The owner shall submit written documentation to the department that the annual review of the EAP was performed, by providing one of the following:
  - (1) A statement that the EAP was reviewed and that no changes to the EAP were necessary; or
  - (2) Any applicable sections of the EAP which required revision.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## Env-Wr 507.03 Reprinting of EAP.

- (a) The owner shall reprint the entire EAP document and distribute the pages to all holders of the EAP every 8 years, to ensure that all holders have complete and orderly copies, unless:
  - (1) No changes have been required; or
  - (2) Changes have been made only to the notification flow-chart, and copies of the updated flow-chart have been distributed to all EAP holders.
  - (b) When a reprint of the EAP is required, the owner shall:
    - (1) Send the reprint return receipt requested; or

- (2) Include forms with the mailing to be signed by the EAP holders and returned to the owner, indicating that a copy of the reprinted EAP was received.
- (c) If there have been no changes to the inundation map since the last reprint of the EAP and the owner does not include an inundation map in the mailing, the owner shall:
  - (1) Specify the date of the current inundation map; and
  - (2) Include a check-off item on the form required by (b), above, indicating the EAP holder has a copy of the current inundation map.
- (d) If an EAP holder does not have the current inundation map, the owner shall provide a copy of the map to the EAP holder upon being so notified by the EAP holder.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## CHAPTER Env-Wr 600 REMOVAL OF DAMS

#### PART Env-Wr 601 PURPOSE AND APPLICABILITY

Env-Wr 601.01 <u>Purpose</u>. The purpose of the rules in this chapter is to specify the procedures to be followed when proposing to remove a dam under the auspices of the department's river restoration program and the criteria that will be applied in reviewing such proposals.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 601.02 <u>Applicability</u>. The requirements of this part shall apply to any person who seeks to remove a dam under the auspices of the department's river restoration program.

Source. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

#### PART Env-Wr 602 DAM REMOVAL PROPOSALS

Env-Wr 602.01 Qualifying Removals.

- (a) In order to qualify as a dam removal under this chapter, the structure shall be removed:
  - (1) To at least the depth of the natural streambed elevation; and
  - (2) Subject to (b) and (c), below, to the width of the free-flowing ordinary high water mark of the river or stream in the area of the footprint of the dam from bank to bank.
- (b) The person seeking to remove a dam pursuant to this chapter may request the department to approve a narrower opening by submitting the request in writing with the following:
  - (1) The width of the free-flowing ordinary high water mark of the river or stream in the area of the footprint of the dam from bank to bank, in feet;
  - (2) The width of the proposed opening, in feet, at:
    - a. The natural streambed elevation;
    - b. The ordinary high water mark; and
    - c. The widest point of the opening, if other than the natural streambed elevation or ordinary high water mark;
  - (3) The shape of the proposed opening; and
  - (4) An explanation of how the narrower opening will meet the criteria specified in (c), below.
  - (c) The department shall approve the request for a narrower opening if the department determines that:
    - (1) The structure will no longer be considered a dam as defined in RSA 482:2, II;
    - (2) The remains of the dam between the ordinary high water marks on both sides of the river will not create a safety hazard to the public when using the river;
    - (3) The natural flow of sediment and nutrients will not be impeded; and

(4) The passage of fish and other aquatic species will not be impeded.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 602.02 <u>Dam Removal Proposal</u>. The person seeking to remove a dam shall submit:

- (a) An application for a permit as required under RSA 482-A and Env-Wt 100 et seq., including the plans and specifications required for that application; and
  - (b) An attachment to the application for dam removal projects as specified in Env-Wr 602.03.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 602.03 <u>Attachment for Dam Removal Projects</u>. The information provided on the attachment to the application for dam removal projects shall include the following:

- (a) The name, mailing address, and daytime telephone number of the applicant and, if the applicant is not the owner, the name and mailing address of the owner;
  - (b) The state dam identification number;
  - (c) The hazard classification of the dam;
  - (d) The current use of the dam;
  - (e) The height and length of the dam, in feet;
  - (f) The type of construction of the dam;
  - (g) The approximate surface area of the impoundment, in acres;
- (h) The name(s), mailing address(es), and daytime telephone number(s) of the person(s) proposed to remove the dam;
- (i) A description of the proposed methods to remove the dam, including construction sequence, so as to meet the criteria of Env-Wr 602.01 and Env-Wr 604.01(a); and
  - (i) An explanation of the purpose for removing the dam.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

<u>New.</u> #8414, eff 8-20-05; ss by #10510, eff 1-22-14

#### PART Env-Wr 603 REVIEW PROCEDURES

Env-Wr 603.01 Notification.

(a) The person proposing to remove a dam shall notify the local governing body of the municipality or municipalities in which the dam or the water body formed by the dam is located in accordance with RSA 482:13, I.

(b) The person proposing to remove the dam shall provide a copy of the notice sent pursuant to (a), above, to the department.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 603.02 Review.

- (a) Upon receiving an application to remove a dam, the department shall review the application to determine whether it is complete.
- (b) If the department determines that all of the information required by Env-Wr 602.02 or the notice required by Env-Wr 603.01(b) has not been submitted, the department shall notify the person proposing to remove the dam of what is needed to complete the application.
- (c) After receiving a complete application and after the meeting required by RSA 482:13, II has been held, the department shall review the application.

<u>Source.</u> #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## PART Env-Wr 604 APPROVAL; REPORT

Env-Wr 604.01 Dam Removal Approval.

- (a) The department shall approve the removal of the dam if the applicant:
  - (1) Proposes a dam removal project that meets the criteria of Env-Wr 602.01; and
  - (2) Demonstrates that the dam removal will be performed in a manner that:
    - a. Will not cause damage to structures downstream of the dam; and
    - b. Will not cause environmental damage that cannot self-restore within one year.
- (b) The department shall notify the applicant and the owner, if the applicant is not the owner, in writing of its decision.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 604.02 <u>Post-Removal Report</u>. Upon completion of the removal, the person removing the dam shall file with the department a written statement certifying that the removal was completed in accordance with the approved plans and specifications.

Source. #1716, eff 2-20-81; ss by #2207, eff 12-13-82; ss by #2900, eff 11-7-84, EXPIRED 11-7-90

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## CHAPTER Env-Wr 700 LAKE LEVEL DETERMINATIONS

#### PART Env-Wr 701 PURPOSE AND APPLICABILITY

Env-Wr 701.01 <u>Purpose</u>. The purpose of the rules in this chapter is to specify the procedures to be followed when a lake level investigation is conducted pursuant to RSA 482:79.

<u>Source.</u> #4278, eff 6-30-87; ss by #5662, eff 7-1-93, EXPIRED: 7-1-99

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

Env-Wr 701.02 <u>Applicability</u>. The requirements of this chapter shall apply to any lake level investigation initiated pursuant to RSA 482:79.

<u>Source.</u> #4278, eff 6-30-87; ss by #5662, eff 7-1-93, EXPIRED: 7-1-99

New. #8414, eff 8-20-05; ss by #10510, eff 1-22-14

## PART Env-Wr 702 REQUEST; PRELIMINARY INVESTIGATION

## Env-Wr 702.01 Formal Request.

- (a) A request for a lake level investigation pursuant to RSA 482:79 shall be:
  - (1) In writing; and
  - (2) Mailed or delivered to the department at the following address:

Lake Level Determination Request Department of Environmental Services Water Division 29 Hazen Drive P.O. Box 95 Concord, NH 03302-0095

- (b) The request shall state clearly the reason(s) for the request.
- (c) The request shall be signed by at least 10 property owners whose land abuts the water body whose water level is the subject of the request.

Source. #4278, eff 6-30-87; ss by #5662, eff 7-1-93, EXPIRED: 7-1-99

New. #8414, eff 8-20-05 (formerly Env-Wr 401.01); ss by #10510, eff 1-22-14

#### Env-Wr 702.02 Preliminary Investigation.

- (a) As required by RSA 482:79, the department shall commence a preliminary investigation of conditions affecting the use and enjoyment of a water body under any of the following circumstances:
  - (1) Upon receipt of a request per Env-Wr 702.01;
  - (2) Upon request of the New Hampshire attorney general; or

- (3) On its own motion, when information received by the department warrants further investigation.
- (b) The department shall investigate:
  - (1) The current and past management and control of the outlet; and
  - (2) The effects, if any, of such management and control on:
    - a. The use and enjoyment of shore property above the outlet;
    - b. Any riparian rights below the outlet; and
    - c. The use and enjoyment of the waters above and below the outlet by the public and by owners of littoral or riparian property.
- (c) Based upon the preliminary investigation, the department shall determine whether the management and control of the outlet is having a serious and adverse effect on any of the factors identified in (b)(2), above.
- (d) For purposes of the determination in (c), above, a "serious and adverse effect" means an impact that has a reasonable likelihood of interfering with the use and enjoyment of littoral or riparian property or public waters by:
  - (1) Eroding shorelines above or below the outlet;
  - (2) Flowing property that is not covered by a flowage easement;
  - (3) Interfering with access to the waters above or below the outlet;
  - (4) Causing the waters above or below the outlet to be unsuitable for navigation or recreation;
  - (5) Causing harm to aquatic or land-based habitat; or
  - (6) Any combination of (1) through (5), above.

<u>Source.</u> #4278, eff 6-30-87; ss by #5662, eff 7-1-93, EXPIRED: 7-1-99

<u>New.</u> #8414, eff 8-20-05 (formerly Env-Wr 401.02); ss by #10510, eff 1-22-14

## PART Env-Wr 703 FURTHER INVESTIGATIONS; PUBLIC HEARING

## Env-Wr 703.01 Further Investigation and Public Hearing.

- (a) If the department finds a serious and adverse effect under Env-Wr 702.02(c) and (d), the department shall conduct a further investigation.
- (b) If the department determines that a public hearing to receive information would be helpful to its further investigation, the department shall schedule and conduct the public hearing in accordance with Env-C 200 relative to non-adjudicative procedures.

Source. #4278, eff 6-30-87; ss by #5662, eff 7-1-93, EXPIRED: 7-1-99

<u>New.</u> #8414, eff 8-20-05 (formerly Env-Wr 401.03); ss by #10510, eff 1-22-14

Env-Wr 703.02 Determinations. Based on the further investigation, the department shall:

- (a) Ascertain the rights of the owner of the outlet by considering whether:
  - (1) The dam is registered with the department;
  - (2) Flowage is within any clear deeded flowage limits;
  - (3) Base flows are sufficient to accommodate downstream riparian rights;
  - (4) The operation is in accordance with any deeded rights associated with the former mill dam act, RSA 482:17 through RSA 482:41, if applicable; and
  - (5) Any other factors that are within the jurisdiction of the department under RSA 482 have been identified by the owner as affecting the rights of the owner.
- (b) Ascertain the rights of the public and owners of property above and below the outlet, by considering the following:
  - (1) Whether there is public access to the impoundment or the stream below the outlet via a government-owned access point;
  - (2) The extent to which the impoundment or the stream below the outlet is used for fishing, including whether the impoundment is stocked by the New Hampshire fish and game department;
  - (3) What range of water levels is optimum for the ecological health of the impoundment and the stream below the outlet;
  - (4) The extent to which the impoundment or the stream below the outlet is used for navigation and what range of water levels is optimum for such navigation;
  - (5) The extent to which the impoundment or the stream below the outlet is used for swimming and what range of water levels is optimum for swimming; and
  - (6) The extent to which the impoundment or the stream below the outlet is used for other recreation and range of what water levels is optimum for such other recreation.
- (c) In making its determination, the department shall consider all information and testimony presented as part of the proceeding.

<u>Source.</u> #4278, eff 6-30-87; ss by #5662, eff 7-1-93, EXPIRED: 7-1-99

New. #8414, eff 8-20-05 (formerly Env-Wr 401.03); ss by #10510, eff 1-22-14

PART Env-Wr 704 FINDINGS; DECISION

Env-Wr 704.01 <u>Findings</u>. After completing its further investigation in accordance with Env-Wr 703, the department shall prepare written findings regarding whether:

(a) The management and control of the outlet is adversely affecting the rights of owners of property above the outlet by eroding shorelines, flowing property not covered by a flowage easement, preventing access to property that is accessible only by boat, or interfering with the use and enjoyment of the water for recreational

purposes, including boating, swimming, and fishing;

- (b) The management and control of the outlet is adversely affecting the rights of owners of property below the outlet by eroding shorelines, releasing insufficient water for reasonable riparian uses, or interfering with the use and enjoyment of the water for recreational purposes, including boating, swimming, and fishing;
- (c) The management and control of the outlet is adversely affecting the rights of the public to use public waters for navigation or recreational purposes, including boating, swimming and fishing;
  - (d) The management and control of the outlet is lawful;
- (e) The benefits of the current management and control of the outlet outweigh any adverse effects that may be occurring;
- (f) Changes to the management and control of the outlet would be of benefit to the public and private interests concerned; and
- (g) Changes in the management and control of the outlet to benefit the use and enjoyment of the waters above or below the outlet by the public or by owners of property above or below the outlet would deprive the owner of the outlet or others of rights to which they are lawfully entitled.

Source. #4278, eff 6-30-87; ss by #5662, eff 7-1-93, EXPIRED: 7-1-99

New. #8414, eff 8-20-05 (formerly Env-Wr 401.04); ss by #10510, eff 1-22-14

Env-Wr 704.02 Report of Findings; Decision. Based upon its findings, the department shall:

- (a) Order no change in the management and control of the outlet if it finds that:
  - (1) The benefits of the present management and control of the outlet outweigh any adverse effects on the public and on owners of property above or below the outlet; and
  - (2) Changes in the management and control of the outlet would not be expected to produce benefits that:
    - a. Are greater than those resulting from the present management; and
    - b. Would outweigh any adverse effects of the changes;
- (b) Order changes in the management and control of the outlet if the benefits expected from the change are:
  - (1) Greater than the benefits from the present management and control of the outlet; and
  - (2) Expected to outweigh any adverse effects of the changed management and control of the outlet;
- (c) Report to the governor and council its findings, including an estimate of damages, if it finds that changes in the management and control would be of benefit to the public and private interests concerned but would deprive the owner of the outlet or others of rights to which they are lawfully entitled; or
  - (d) Report to the attorney general if the management and control of the outlet is unlawful.

<u>Source.</u> #4278, eff 6-30-87; ss by #5662, eff 7-1-93, EXPIRED: 7-1-99

<u>New.</u> #8414, eff 8-20-05 (formerly Env-Wr 401.05); ss by #10510, eff 1-22-14

## CHAPTER Env-Wr 800 ADMINISTRATIVE FINES - EXPIRED

Source. #5082, eff 2-22-91, EXPIRED: 2-22-97; Env-Wr 802.01(e) was amd by #5495, eff 10-27-92, EXPIRED: 10-27-98

## CHAPTER Env-Wr 900 OFFICIAL LIST OF PUBLIC WATERS

#### PART Env-Wr 901 PURPOSE AND APPLICABILITY

Env-Wr 901.01 <u>Purpose</u>. The purpose of these rules is to establish the procedures for the publication and maintenance of the official list of public waters required by RSA 271:20.

<u>Source:</u> #8383, eff 6-22-05; ss by #10417, eff 9-24-13; ss by #13726, eff 8-19-23

Env-Wr 901.02 <u>Applicability</u>. These rules shall apply to the creation and maintenance of the official list of public waters.

<u>Source:</u> #8383, eff 6-22-05; ss by #10417, eff 9-24-13; ss by #13726, eff 8-19-23

### PART Env-Wr 902 DEFINITIONS

Env-Wr 902.01 "Department" means the New Hampshire department of environmental services.

<u>Source:</u> #8383, eff 6-22-05; ss by #10417, eff 9-24-13; ss by #13726, eff 8-19-23

Env-Wr 902.02 "Official list" means the official list of public waters required by RSA 271:20.

<u>Source:</u> #8383, eff 6-22-05; ss by #10417, eff 9-24-13; ss by #13726, eff 8-19-23

Env-Wr 902.03 "Status" means whether a water meets one or more of the categories listed in Env-Wr 903.01 and, if so, which one(s).

<u>Source:</u> #8383, eff 6-22-05; ss by #10417, eff 9-24-13; ss by #13726, eff 8-19-23

Env-Wr 902.04 "Water" means a surface water body or water course.

<u>Source:</u> #8383, eff 6-22-05; ss by #10417, eff 9-24-13; ss by #13726, eff 8-19-23

## PART Env-Wr 903 CONTENTS AND DETERMINATIONS

Env-Wr 903.01 Waters Listed.

- (a) The official list shall include the following:
  - (1) "Great pond" as defined by RSA 4:40-a, as reprinted in Appendix B;
  - (2) "Public water" as defined in RSA 215-A:1, as reprinted in Appendix B;
  - (3) "Public bodies of water" as defined in RSA 233-A:1, as reprinted in Appendix B;
  - (4) "State-owned public waters" as described in RSA 271:20, I, as reprinted in Appendix B;
  - (5) "Public waters" as defined in RSA 371:17, as reprinted in Appendix B;

(6) "Public waters" as	defined in RSA 482-A:16	and RSA 482-A:21, as re	printed in Appendix B;

- (7) "Publicly-owned bodies of water" or "public-owned water bodies" as defined in RSA 482-A:16, as reprinted in Appendix B;
- (8) "Public waters" as defined in RSA 483-B:4, XVI, as reprinted in Appendix B;
- (9) Public tidal waters as described by the New Hampshire supreme court in <u>Purdie v. Attorney</u> <u>General</u>, 143 N.H. 661 (1999); and
- (10) Public rivers or streams as described by the New Hampshire supreme court in <u>St. Regis Paper</u> Co. v. New Hampshire Water Resources Board, 92 N.H. 164 (1942).
- (b) The official list shall indicate which statute(s) each listed water is subject to.

<u>Source:</u> #8383, eff 6-22-05; ss by #10417, eff 9-24-13; ss by #13726, eff 8-19-23

Env-Wr 903.02 <u>Determinations</u>. The department shall determine the status of water in New Hampshire based on best available evidence, including the following:

- (a) Geographical information system database sets created or maintained by:
  - (1) The department;
  - (2) The U.S.D.A. Natural Resources Conservation Service;
  - (3) The United States Geological Survey ("USGS");
  - (4) The United States Environmental Protection Agency;
  - (5) The complex systems research center of the university of New Hampshire; or
  - (6) Any combination of the above.
- (b) Current and historic USGS topographic mapping;
- (c) Other historic maps;
- (d) Historic photographs, including aerial photographs;
- (e) Depth contour mapping;
- (f) Physical evidence such as shoreline soil, slope and vegetative conditions;
- (g) Historical public uses of the water;
- (h) Historic documents from the fish and game department;
- (i) Historic documents from the department of natural and cultural resources; and
- (j) Any other data collected by the department to determine the status of a water.

<u>Source:</u> #8383, eff 6-22-05; ss by #10417, eff 9-24-13; ss by #13726, eff 8-19-23

Env-Wr 903.03 Publication of the Official List.

(a) The department shall make paper copies of the official list available at its offices.

- (b) The department shall post the official list at: Official List of Public Waters (nh.gov)
- (c) The department shall identify on the list, the date the official list was last updated.

<u>Source:</u> #8383, eff 6-22-05; ss by #10417, eff 9-24-13; ss by #13726, eff 8-19-23

### PART Env-Wr 904 REVIEW AND REVISION OF THE OFFICIAL LIST

Env-Wr 904.01 Official List Maintenance and Updates.

- (a) The department shall maintain the official list to reflect the most accurate information, as listed in Env-Wr 903.02, that becomes available.
  - (b) The department shall publish each revised official list as specified in Env-Wr 903.03.

<u>Source:</u> #8383, eff 6-22-05; ss by #10417, eff 9-24-13; ss by #13726, eff 8-19-23

Env-Wr 904.02 <u>Initiation of Investigation</u>. The department shall conduct an investigation into the listed status of a water whenever:

- (a) It receives conflicting information from credible sources regarding the status of a water; or
- (b) When requested by the attorney general.

<u>Source:</u> #8383, eff 6-22-05; ss by #10417, eff 9-24-13 (from Env-Wr 904.01); ss by #13726, eff 8-19-23

Env-Wr 904.03 Posting of Notice.

- (a) When the department initiates an investigation pursuant to Env-Wr 904.02, it shall issue a notice that identifies the following:
  - (1) The name(s) of the water and the town(s) in which the water is located;
  - (2) The current listed status of the water;
  - (3) The sources of the conflicting information and a summary of the conflict;
  - (4) The deadline for submitting factual information for consideration in its decision, which shall be no sooner than 30 days from the date the notice is issued; and
  - (5) The name, email address, and telephone number of the contact person at the department.
  - (b) The department shall post on its website and send an electronic copy of the notice to:
    - (1) The attorney general;
    - (2) The department of natural and cultural resources;
    - (3) The fish and game department;
    - (4) The department of energy;
    - (5) The department of safety;
    - (6) The department of transportation; and

(7) The governing body of each community in which the water is located.

<u>Source:</u> #8383, eff 6-22-05; ss by #10417, eff 9-24-13 (from Env-Wr 904.02); ss by #13726, eff 8-19-23

Env-Wr 904.04 <u>Time for Public Comment</u>. Any person may provide factual information pertaining to the status of the water to the department prior to the deadline specified in the notice.

<u>Source:</u> #8383, eff 6-22-05; ss by #10417, eff 9-24-13 (from Env-Wr 904.03); ss by #13726, eff 8-19-23

Env-Wr 904.05 Decision.

- (a) The department shall issue a final determination on the status of the water within 180 days of the deadline for submitting factual information established in the notice issued in accordance with Env-Wr 904.03(a).
- (b) The department shall send a copy of the decision to all who were sent a copy of the notice pursuant to Env-Wr 904.03(b).
  - (c) The department shall post a copy of the decision on the department's website.
- (d) If the decision results in a change to the official list, the department also shall revise the official list by publishing an updated list as specified in Env-Wr 903.03.

<u>Source.</u> #10417, eff 9-24-13 (from Env-Wr 904.04); ss by #13726, eff 8-19-23

# Appendix A

Rule Section(s)	State Statute(s) Implemented	
Env-Wr 101	RSA 482	
Env-Wr 102	RSA 482	
Env-Wr 103	RSA 482; RSA 91-A:4	
Env-Wr 201	RSA 482:1 et seq.; RSA 541-A:16, I(b)	
Env-Wr 202	RSA 541-A:16, I(b); RSA 541-A:22, IV	
Env-Wr 203	RSA 482:6; RSA 482:9, V(a); RSA 482:30; RSA 482:79; RSA 541-A:16,	
LIIV- VVI 203	I(b)	
Env-Wr 204	RSA 482:1 et seq.; RSA 541-A:16, I(b)	
Env-Wr 301	RSA 482:1; RSA 482:2; RSA 482:87	
Env-Wr 302	RSA 482:5; RSA 482:11-a; RSA 482:12; RSA 482:87	
Env-Wr 303	RSA 482:5; RSA 482:8-a; RSA 482:11-a; RSA 482:12; RSA 482:87	
Env-Wr 304	RSA 482:5; RSA 482:87	
Env-Wr 401	RSA 482:1; RSA 482:7; RSA 482:9 – 11-a; RSA 482:29 – 31; RSA 482:87	
Env-Wr 402	RSA 482:1; RSA 482:7; RSA 482:9 – 11-a; RSA 482:29 – 31; RSA 482:87	
Env-Wr 403	RSA 482:1; RSA 482:7; RSA 482:9 – 11-a; RSA 482:29 – 31; RSA 482:87	
Env-Wr 404	RSA 482:1; RSA 482:7; RSA 482:9 – 11-a; RSA 482:29 – 31; RSA 482:87	
Env-Wr 405	RSA 482:1; RSA 482:7; RSA 482:9 – 11-a; RSA 482:29 – 31; RSA 482:87	
Env-Wr 501	RSA 482:1; RSA 482:11-a; RSA 482:12; RSA 482:87	
Env-Wr 501	RSA 482:1; RSA 482:11-a; RSA 482:12; RSA 482:87	
Env-Wr 502 Env-Wr 503	RSA 482:1; RSA 482:11-a; RSA 482:12; RSA 482:87	
Env-Wr 503	RSA 482:1; RSA 482:11-a; RSA 482:12; RSA 482:87	
Env-Wr 504 Env-Wr 505	RSA 482:1; RSA 482:11-a; RSA 482:12; RSA 482:87	
Env-Wr 505	RSA 482:1; RSA 482:11-a; RSA 482:12; RSA 482:87	
Env-Wr 500	RSA 482:1; RSA 482:11-a; RSA 482:12; RSA 482:87	
Eliv-W1 507	KSA 402.1, KSA 402.11-a, KSA 402.12, KSA 402.07	
Env-Wr 601	RSA 482:1; RSA 482:2; RSA 482:87	
Env-Wr 602	RSA 482:1; RSA 482:2; RSA 482:87	
Env-Wr 603	RSA 482:1; RSA 482:2; RSA 482:87	
Env-Wr 604	RSA 482:1; RSA 482:2; RSA 482:87	
Env-Wr 701	RSA 482:1; RSA 482:4; RSA 482:79-83; RSA 482:87	
Env-Wr 702	RSA 482:1; RSA 482:4; RSA 482:79-83; RSA 482:87	
Env-Wr 703	RSA 482:1; RSA 482:4; RSA 482:79-83; RSA 482:87	
Env-Wr 900	RSA 271:20, II	

**Appendix B: Incorporation by Reference Information** 

Rule	Title (Date)	Obtain at:
Env-Wr 303.12(c)(2)	"Engineering Guidelines for	Federal Energy Regulatory Commission
Env-Wr 403.03(c)(1)	Evaluation of Hydropower	888 First Street, N.E.
	Projects", Chapter 3 (2002)	Washington, DC 20426
	and Chapter 4 (1991)	(202)-502-8700
		Download at no cost from:
		http://www.ferc.gov/industries/hydropower/safety/gui
		delines/eng-guide.asp
Env-Wr 403.04(a)(3)	Hydrometeorological	National Oceanic and Atmospheric Administration
Env-Wr 403.04(a)(4)	Report No. 52, Application	(NOAA)
	of Probable Maximum Precipitation Estimates -	Hydrometeorological Design Studies Center, W/OHD12
	United States East of the	Office of Hydrologic Development
	105th Meridian (1987)	National Weather Service/NOAA
	, ,	1325 East-West Highway
		Silver Spring, MD 20910-3283
		Download at no cost from:
		http://www.nws.noaa.gov/oh/hdsc/PMP_documents/
		HMR52.pdf
Env-Wr	Research Publication RR	Northeast Regional Climate Center
403.05(b)(1)	93-5, Atlas of Precipitation	1123 Bradfield Hall
	Extremes for Northeastern	Cornell University
	United States and	Ithaca, NY 14853-1901
	Southeastern Canada (1993)	(607) 255-1751
		Download at no cost from:
		http://www.nrcc.cornell.edu/reports/RR_93-5.pdf
Env-Wr	Hydrometeorological	NOAA Hydrometeorological Design Studies Center,
403.05(b)(2)	Report No. 51, Probable	W/OHD12
	Maximum Precipitation	Office of Hydrologic Development
	Estimates, United States	National Weather Service/NOAA
	East of the 105 <sup>th</sup> Meridian (1978)	1325 East-West Highway Silver Spring, MD 20910-3283
	(1770)	511 of 5pting, 1415 20710-5205
		Download at no cost from:
		http://www.nws.noaa.gov/oh/hdsc/PMP_documents/
		HMR51.pdf

Rule	Title (Date)	Obtain at:
		USDA-Natural Resources Conservation Service (NRCS) 451 West Street Amherst, MA 01002-2995
Env-Wr 403.05(c)(3)	USDA NRCS National Engineering Handbook, 210-VI-NEH-630.10 (2004)	Download at no cost from: <a href="http://directives.sc.egov.usda.gov/viewerFS.aspx?hid">http://directives.sc.egov.usda.gov/viewerFS.aspx?hid</a> =21422
Env-Wr 403.06(b)(1)	"National Engineering Handbook, Section 5, Hydraulics" (1956)	Download at no cost from: <a href="http://directives.sc.egov.usda.gov/viewerFS.aspx?hid">http://directives.sc.egov.usda.gov/viewerFS.aspx?hid</a> <a href="mailto:=21435">=21435</a>
Env-Wr 403.06(b)(2)	"Handbook of Hydraulics", Seventh Edition, (1996)	McGraw-Hill Education 860 Taylor Station Road Blacklick, OH 43004 (877) 833-5524
		Purchase for \$110 at: http://www.mhprofessional.com/product.php?isbn=00 70072477
Env-Wr 403.07(b)(1)	ACI 318-05, "Building Code Requirements for Structural Concrete & Commentary" (2005)	American Concrete Institute 38800 Country Club Dr. Farmington Hills, MI 48331-3439 (248)-848-3700
		Purchase from Portland Cement Association (\$65) at: http://www.cement.org/bookstore/profile.asp?id=866
Env-Wr 403.07(b)(2) Env-Wr 403.10(b)(2)	"Design of Small Dams", Third Edition (1987)	U.S. Department of Interior, Bureau of Reclamation 1849 C Street NW Washington DC 20240-0001 202-513-0501
		Download at no cost from: http://www.usbr.gov/pmts/hydraulics_lab/pubs/manua ls/SmallDams.pdf
Env-Wr 403.07(b)(3) Env-Wr 403.08(b)(2)	"National Engineering Handbook, Section 6, Structural Design" (1980)	USDA-NRCS 451 West Street Amherst, MA 01002-2995
Env-Wr 403.09(b)(2)		Download at no cost from: http://directives.sc.egov.usda.gov/viewerFS.aspx?id= 3882

Rule	Title (Date)	Obtain at:
Env-Wr 403.08(b)(1)	"Steel Construction Manual", Fourteenth Edition (2011)	American Institute of Steel Construction One East Wacker Drive Suite 700 Chicago, IL 60601-1802 (312) 670-2400
		Purchase (\$350 for non-members, \$175 for members) from <a href="http://www.aisc.org/store/p-1578-steel-construction-manual-14th-ed-third-printing-hardbound.aspx">http://www.aisc.org/store/p-1578-steel-construction-manual-14th-ed-third-printing-hardbound.aspx</a>
Env-Wr 403.09(b)(1)	"Timber Construction Manual", Fourth Edition (1994)	American Institute of Timber Construction 7012 S. Revere Parkway, Suite 140 Englewood, CO 80112 (303) 792-9559
		Purchase (\$75) from: http://www.amazon.com/Timber-Construction- Manual-Fourth-Edition/dp/B004STZFMW
Env-Wr 403.10(b)(1)	Earth Dams and Reservoirs, T.R. 60 (2005)	USDA, NRCS 451 West Street Amherst, MA 01002-2995
		Download at no cost from: <a href="http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044542.pdf">http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1044542.pdf</a>
Env-Wr 403.10(b)(3)	ACER Technical Memorandum No. 9, "Guidelines for Controlling Seepage Along Conduits Through Embankments" (1987)	N.H. Dept. of Environmental Services Public Information Center 29 Hazen Drive Concord NH 03301 603-271-3503
		Download at no cost from: <a href="http://des.nh.gov/organization/divisions/water/dam/documents/rule_ref_book.pdf">http://des.nh.gov/organization/divisions/water/dam/documents/rule_ref_book.pdf</a>
Env-Wr 403.10(b)(4)	Agricultural Handbook 590, Ponds – Planning, Design and Construction (1997)	USDA, NRCS 451 West Street Amherst, MA 01002-2995
		Download at no cost from: <a href="http://usda.mannlib.cornell.edu/usda/nass/general/ah/a">http://usda.mannlib.cornell.edu/usda/nass/general/ah/a</a> <a href="http://usda.mannlib.cornell.edu/usda/nass/general/ah/a">http://usda.mannlib.cornell.edu/usda/nass/general/ah/a</a>

Rule	Title (Date)	Obtain at:
Env-Wr	Technical Release T.R. 66	USDA, NRCS
502.07(a)(1)a	"Simplified Dam Breach	451 West Street
	Routing Procedures" (1985)	Amherst, MA 01002-2995
Env-Wr	Computer Program for	
502.07(a)(1)b	Project Formulation	Download at no cost from:
	Hydrology, T.R. 20 (1992)	http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/n
Env-Wr	WSP 2 Computer Program,	ational/water/manage/hydrology/?cid=stelprdb104292
502.07(a)(1)c	T.R. 61 (1993)	2
Env-Wr 502.07(a)(2)	National Weather Service	NOAA, National Weather Service
	Dam-Break Flood	Office of Hydrologic Development
	Forecasting Model (1987)	1325 East West Highway
		Silver Spring MD 20910
		Download at no cost from:
		http://www.nws.noaa.gov/oh/hrl/hsmb/docs/hydraulic
		s/papers_before_2009/hl_149.pdf
Env-Wr 502.07(a)(3)	HEC-RAS, version 4.1	U.S. Army Corps of Engineers
	(2010)	Institute for Water Resources
		Hydrologic Engineering Center
		609 Second Street
		Davis, CA 95616
		(530) 756-1104
		Download at no cost from:
		http://www.hec.usace.army.mil/software/hec-ras/

## **Appendix C: Statutory Definitions**

## RSA 4:40-a

The governor and council, upon petition and upon recommendation of the department of environmental services, and after consultation with the fish and game commission and such other state agencies as may be involved, may, for such consideration as they deem just, convey sand and gravel which is on the bed of any navigable water or great pond, in accordance with the provisions of this subdivision. For the purposes of this section great pond is defined as a public water of more than 10 acres.

#### RSA 215-A:1

XI. "Public water " means any public body of water as defined by RSA 271:20 which has been frozen over and is sufficient to hold any person or vehicle, whatsoever. Such public waters shall be deemed a public way and any violation shall be treated as if it took place on land.

## RSA 233-A:1

V. "Public bodies of water" means public waters as defined in RSA 271:20 and any impoundment of a stream, lake, pond, or tidal or marine waters of 10 acres or more, or any other body of water owned by the state or by a state agency or department.

#### RSA 271:20, I

I. All natural bodies of fresh water situated entirely in the state having an area of 10 acres or more are stateowned public waters, and are held in trust by the state for public use; and no corporation or individual shall have or exercise in any such body of water any rights or privileges not common to all citizens of this state; provided, however, the state retains its existing jurisdiction over those bodies of water located on the borders of the state over which it has exercised such jurisdiction.

## RSA 371:17

Whenever it is necessary, in order to meet the reasonable requirements of service to the public, that any public utility should construct a pipeline, cable, or conduit, or a line of poles or towers and wires and fixtures thereon, over, under or across any of the public waters of this state, or over, under or across any of the land owned by this state, modify a previously licensed installation, or license a previously constructed installation, it shall apply to the department of energy for a license to construct and maintain the same. For the purposes of this section, "public waters" are defined to be all ponds of more than 10 acres, tidewater bodies, and such streams or portions thereof as the department of energy may prescribe. Every corporation and individual desiring to cross any public water or land for any purpose herein defined shall apply to the department of energy for a license in the same manner prescribed for a public utility. The department of energy may condition any license issued under this paragraph in any manner necessary to assure that the license may be exercised without substantially affecting the public rights in public waters or state-owned lands. Using a non-adjudicative process, the department of energy may reject incomplete or improperly filed applications, and shall, also using non-adjudicative process, issue or deny the license within 90 days of receiving a complete application and all information subsequently requested of an applicant.

## RSA 482:2

- I. "Classification of a dam" means the potential hazard classification placed on a dam by the department based on the potential threat to life and the potential extent of property damage in the event of accidental damage to, or failure of, the dam structure. The classifications shall be "non-menace," "low hazard potential," "significant hazard potential," or "high hazard potential."
- II. (a) "Dam" means any artificial barrier, including appurtenant works, which impounds or diverts water and which has a height of 6 feet or more, or is located at the outlet of a great pond. A roadway culvert shall not be considered a dam if its invert is at the natural bed of the water course, it has adequate discharge capacity, and it does not impound water under normal circumstances. Artificial barriers which create surface impoundments for liquid industrial or liquid commercial wastes, septage, or sewage, regardless of height or storage capacity, shall be considered dams.
- (b) An artificial barrier at a storm water detention basin, which impounds 0.5 acre-foot or less of water during normal conditions, shall not be considered a dam unless its height is 10 feet or greater or its maximum storage is 6 acre-feet or greater.
- V. "Dam in disrepair" means a dam which is a menace to public safety and is incapable of safely impounding flood waters to its crest, or is incapable of maintaining a reasonably constant level of waters impounded, or is one which does not contain adequate gates and sluiceways to provide for the holding or controlled discharge of waters impounded.
- VI. "Emergency action plan" means a written document delineating a prescribed sequence of actions to be taken by a dam owner to inform the authorities and others downstream of an impending or actual sudden release of water caused by an accident to, or failure of, the dam. This plan shall be developed in consultation with local officials and notification of the plan shall be given to the general public who would be affected by a sudden release of water caused by an accident or other failure of the dam. The plan shall be kept on file with the local emergency management director and other local officials as deemed appropriate by the department.
- VII. "Mills" shall include both manufacturing plants and plants at which electric power is generated for public distribution or for the operation of mills, railroads or public utilities.
- VIII. "Person" means any individual, partnership, association, corporation, company, organization or legal entity of any kind.
- X. "Reconstruction" means:
- (a) A change in the height, length, or discharge capacity of the structure;
- (b) Restoring a breached dam or one in ruins;
- (c) Modification of flashboards which either increases their height or increases the headwater elevation at which the flashboards will fail; or
- (d) A change in the structural configuration of a dam.

## RSA 482-A:16

No person shall place or cause to be placed any fill in any area below the mean high water level of any public waters or below the artificially-created high water level of publicly-owned bodies of water in this state with the intent or with the effect of creating or forming filled land adjacent to such bodies of water,

except as provided in this subdivision. For the purposes of this subdivision, "public waters" means all natural ponds of more than 10 acres, and "publicly-owned bodies of water" or "public-owned water bodies" means those bodies of water whose artificial high water level is maintained by the state's exercise of its flowage rights on these ponds. The provisions of this subdivision shall not apply to such minor improvements of shorelines as the department, by rules adopted by the commissioner under RSA 541-A, may allow.

#### RSA 482-A:21

- I. No person shall excavate, remove, or dredge any bank, flat, marsh, swamp, or lake bed that lies below the natural mean high water level of any public waters of this state, except as provided in this subdivision. For the purposes of this subdivision, "public waters" are defined as all natural ponds of more than 10 acres. Upon the request of the owner of land abutting any public waters, the division shall determine the natural mean high water level of the abutting public water.
- II. The provisions of this subdivision shall not apply to:
  - (a) Any land above the natural mean high water level of public waters.
  - (b) Any land below any artificially created high water level of any body of water.
  - (c) Projects classified as minor or minimum impact under rules adopted by the commissioner under RSA 482-A:11 which exclusively involve excavation or dredging within a great pond, and no other associated major project activities requiring a permit pursuant to RSA 482-A.

## RSA 483-B:4, XVI

## XVI. "Public waters" shall include:

- (a) All lakes, ponds, and artificial impoundments greater than 10 acres in size.
- (b) Coastal waters, being all waters subject to the ebb and flow of the tide, including the Great Bay Estuary and the associated tidal rivers.
- (c) Rivers, meaning all year-round flowing waters of fourth order or higher and all rivers and river segments designated as protected under RSA 483:15. Stream order shall be determined using the New Hampshire hydrography dataset archived by the geographically referenced analysis and information transfer system (GRANIT) at the complex systems research center of the university of New Hampshire, and developed by GRANIT in collaboration with the department of environmental services. A listing of the streams of fourth order and higher shall be prepared and periodically updated by the GRANIT at the complex systems research center of the university of New Hampshire and delivered to the commissioner 30 days after the effective date of this subparagraph.