WETLANDS PROTECTION REGULATIONS ADOPTED PURSUANT TO SECTION X OF THE CODE OF ORDINANCES — CHAPTER 6.5: ENVIRONMENT — ARTICLE II: WETLANDS



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1. Purpose & Authority

Under authority vested in the City of Newburyport Conservation Commission (Commission) by the Newburyport Code of Ordinances, Chapter 6.5 "Environment" Article II "Wetlands," said Commission hereby adopts these Wetland Protection Regulations (Regulations). The purpose of these Regulations is not to reiterate definitions, provisions or procedures already provided in Article II of Chapter 6.5 of the Newburyport Code of Ordinances (Ordinance), but rather to expand upon said Ordinance by defining additional terms not inconsistent with the Ordinance, identify more detailed performance standards for work within or adjacent to wetland resource areas protected by the Ordinance, and provide for plan and submission requirements and fees for all

applications. All provisions of said Ordinance are hereby incorporated in these Regulations by reference.

The portions of these Regulations requiring the payment of consultant fees are promulgated under the concurrent authority of M.G.L. Chapter 44 §53G.

2. Definitions

Except as otherwise provided in the Ordinance or Regulations, the definitions of terms in this Ordinance shall be as set forth in the Wetlands Protection Act (M.G.L. Ch. 131 §40) (WPA) and Regulations (310 CMR 10.00).

The following definitions shall apply to terms used in both the Ordinance and these Regulations:

<u>Abutter</u> shall mean those property owners whose land abuts the subject land described in a plan subject to Commission review including those across a traveled way, across a body of water, in another municipality and any property within 100 feet of the subject parcel(s).

Agriculture shall refer to the definition as provided by G.L. Ch. 128 §1A.

<u>Amendment</u> means a change in the project that the Commission deems of sufficient magnitude to require the imposition of additional conditions to ensure adequate protection of resource areas and interests covered under the Ordinance and these Regulations.

<u>A-Zones</u> (Flood Hazard Zones) – Areas subject to a 1% or greater chance of flooding in any given year and that are not subject to wave heights in excess of three feet.

<u>AO Zone</u> – Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between one and three feet. Average flood depths derived from detailed hydraulic analyses are shown in this zone. Mandatory flood insurance purchase requirements and floodplain management standards apply.

<u>Bank</u> shall mean the land area which normally abuts and confines a water body; the lower boundary being the mean annual low flow level, and the upper boundary being the first observable break in the slope or the mean annual flood level, whichever is higher.

<u>Base Flood Elevation (BFE)</u> means the elevation shown on the FEMA Flood Insurance Rate Map (FIRM) for Special Flood Hazard Areas that indicates the water surface elevation resulting from a flood that has a one percent chance of equaling or exceeding that level in any given year (sometimes referred to as the 100-year storm).

<u>Coastal High Hazard Area (V-Zone)</u> – means an area of special flood hazard extending from offshore to the inland limit of a *Primary Frontal Dune* along an open coast and any other area subject to high velocity wave action from storms or seismic sources.

<u>Critical Area</u>: shall mean Outstanding Resource Waters as designated in 314 CMR 4.00, Special Resource Waters as designated in 314 CMR 4.00: *Massachusetts Surface Water Quality Standards*, recharge areas

for public water supplies as defined in 310 CMR 22.02: *Definitions (Zone Is, Zone IIs, and Interim Wellhead Protection Areas for groundwater sources and Zone As for surface water sources)*, bathing beaches as defined in 105 CMR 445.000: *Minimum Standards for Bathing Beaches (State Sanitary Code: Chapter VI*I), cold-water fisheries and shellfish growing areas.

<u>Determination</u> shall refer to a Determination of Applicability (DOA) issued through a Request for Determination (RDA) application.

<u>Extended Drought</u> shall coincide with an "Advisory" or more severe drought as declared by the Massachusetts Drought Management Task Force in accordance with a statewide drought management plan.

<u>FEMA Flood Map</u> – This refers to the current FEMA flood map (or *FIRM*) in effect. At present, the current flood maps in use for Plum Island are the *CDM Maps* and maps submitted to the city by FEMA in 2007, showing the *Primary Frontal Dune* (PFD). Once the newly revised FEMA maps are approved and accepted (target date: June/July 2011) they will replace previous FEMA and *CDM Maps*.

<u>FIRM</u> – Flood Insurance Rate Map. This is the official flood map for a community, which delineates both the special hazard zones and the risk premium zones applicable to the community.

Growing Season means the entire period from March 15th to October 15th.

<u>Habitable Living Space</u> – this is the finished areas of a house or building in which ceilings are at least seven feet. It does not include porches (even if screened), garages, sheds, basements and attics but does include kitchens, bathrooms, hallways and three-season porches.

<u>Highest Existing Ground Elevation</u> – the highest natural elevation of the ground surface, prior to construction, adjacent to the proposed foundation of a structure or the highest grade within the vicinity of the footprint of the proposed structure as determined by the Conservation Commission.

<u>Impervious surfaces</u> include areas covered by man-made alterations or structures that inhibit the infiltration of precipitation and surface water to the ground, including buildings, hard structures, macadam, stone and other similar materials.

<u>Lowest Horizontal Structural Member</u> – the <u>bottom</u> of the lowest structural member (i.e., beam, joist or other horizontal member) that supports a house, shed, deck, etc.

Notice of Intent (NOI) – is an application for work performed in any wetland resource area (includes barrier beaches and dunes) to determine whether or not the project may be conditioned so that it will have no adverse effect on the resource areas according to the Massachusetts Wetlands Protection Act and its regulations and the Newburyport Wetlands Ordinance. Once the Commission reviews the *Notice of Intent* through the public hearing process, and determines that the project can be conditioned to protect the resource areas, it issues an *Order of Conditions* permit.

Orders shall collectively refer to Orders of Conditions and Orders of Resource Area Delineation.

<u>Person</u> shall mean any individual, group of individuals, association, partnership, corporation, company, business organization, trust, estate, the Commonwealth or political subdivision thereof to the extent subject to city ordinances, administrative agency, public or quasi-public corporation or body, this municipality, and any other legal entity, its legal representatives, agents, or assigns.

<u>Permit</u> shall collectively refer to Letter Permits, Determinations, Orders, and Emergency Certifications.

<u>Pond</u> shall follow the definition of 310 CMR 10.04 except that the size threshold of 10,000 square feet shall not apply.

<u>Primary Frontal Dune (PFD)</u> – means a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to erosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope.

<u>Rare Species</u> shall include, without limitation, all vertebrate and invertebrate animals and all plant species listed as endangered, threatened, or of special concern by the Massachusetts Division of Fisheries and Wildlife, regardless whether the site in which they occur has been previously identified by the Division.

Rare Species Habitat means those areas providing habitat for species of wildlife and/or plants listed as endangered, threatened or of special concern by the Massachusetts Division of Fisheries and Wildlife regardless of whether the site in which they occur has been previously identified by the Division.

<u>Recreation</u> means passive recreation activities that do not conflict with or diminish other wetland values and functions. Examples include, without limitation, bird watching, nature studies, walking, hiking, kayaking and canoeing. An examples of an activity that is <u>not</u> included in this definition is, without limitation, use of motorized vehicles.

<u>Special Flood Hazard Area (SFHA)</u> – is the land in the flood plain subject to a 1 percent or greater chance of flooding in any given year (100 year storm). This includes all "A" and "V" Zones.

<u>Structures</u> include, but are not limited to, buildings, foundations and footings associated with buildings, footings, pilings, impervious pads or sonotubes associated with porches, patios, decks and house additions.

<u>Velocity Zones (including V-, VE-, and Va-30)</u> are those portions of LSCSF which are coastal high hazard areas or areas of special flood hazard extending from the mean low water line to the inland limit within the 100 year floodplain that have been determined by FEMA to wave run heights in excess of three feet or subject to high-velocity wave run-up or wave-induced erosion.

<u>Wildlife Habitat</u> means those areas subject to the Ordinance which, due to their plant community composition and structure, hydrologic regime or other characteristics, provide food, shelter, migratory or over-wintering areas or breeding areas for wildlife.

<u>LSCSF</u> means land subject to any inundation caused by coastal storms up to and including that resulting in a 100 year flood as designated by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), surge of record, or flood of record, whichever is greater. One hundred year flood (or base flood as it is also referred to) means the flood having a one percent chance of being equaled or exceeded in any given year. The seaward limit is mean low water.

<u>AO-Zones</u> are those portions of LSCSF which are subject to inundation by moving water (usually sheet flow on sloping terrain) where average depths are between one and three feet. In Massachusetts, coastal AO-zones are commonly associated with `overwash' and generally border on the landward side of V-zones.

<u>A-zones (including A-, AE-, A1-30 & and A99)</u> are those portions of LSCSF which are subject to inundation by types of 100 year flooding where stillwater flooding predominates.

<u>AH-zones</u> are those portions of LSCSF which are subject to shallow flooding, usually ponding resulting from overwash, where average water depths are between one and three feet.

<u>Overwash</u> is that portion of storm wave uprush that carries over the crest of a berm, dune, or manmade structure, often depositing sediment or other storm laden material.

<u>Relative Sea Level Rise</u> is level by which the ocean rises relative to the land at a particular location. In contrast, absolute sea level change refers to the height of the ocean surface above the center of the earth, without regard to whether nearby land is rising or falling. This indicator presents trends in sea level based on measurements from tide gauges and from satellites that orbit the Earth.

<u>Ten Year Flood Plain</u> or 10% floodplain means the floodplain that is at or below the 10-year flood elevation, that is, the area which has a minimum statistical probability of one in ten of being flooded in any given year.

Additional terms used within these Regulations shall be as defined in the Ordinance (Article II of Chapter 6.5 of the Newburyport Code of Ordinances), which is incorporated herein by reference.

3. Regulated Activities

Activities subject to regulation under these Regulations shall be as defined in Section 6.5-27 of the Ordinance (Article II of Chapter 6.5 of the Newburyport Code of Ordinances), which is incorporated herein by reference.

Activities Outside the Areas Subject to Protection under Chapter 6.5 Article II and the Buffer Zone: Any activity proposed or undertaken outside the areas specified as Resource Areas under Chapter 6.5-27 (B) and outside the Buffer Zone is not subject to regulation under Chapter 6.5 Article II and does not require the filing of a Notice of Intent unless and until that activity either: (1) proposes to discharge stormwater to or may otherwise likely alter a wetland resource area or Buffer Zone located within a "critical area;" or (2) actually alters a Resource Area protected by the Ordinance or it's Buffer Zone. In the event that the issuing authority determines that such activity proposes to alter, is likely to alter, or has in fact altered a Resource Area or Buffer Zone, it may require the filing of a Notice of Intent and/or issuance of an Enforcement Order and shall impose such conditions on the activity or any portion thereof as it deems necessary to contribute to the protection of the interests identified in the Newburyport Wetlands Protection Ordinance (Chapter 6.5, Article II).

4. Exemptions

The following exemptions shall apply, provided that all such work on the Barrier Beach (Plum Island) shall be in compliance with Section 6.5-28, subsection B of the Newburyport Wetlands Protection Ordinance:

- A. The following activities may be permitted, at the discretion of the Commission under an Order of Conditions or Determination of Applicability, within a wetland resource area or buffer zone (including the 25 foot No Disturb Zone) other than a vernal pool and it's buffer zone, provided that: the applicant has demonstrated to the satisfaction of the Commission that: (1) no other reasonable alternatives with less potential impact exist, (2) there are no adverse impacts to other Wetland Resource Areas, and (3) all potential impacts have been minimized to the greatest extent practicable and appropriate mitigation is provided:
 - 1. Construction of a roadway or driveway of the minimum width acceptable to the Conservation Commission that is necessary to provide access to the upland portion of a property when no other access to such upland is available as a matter of right.
- B. The following activities may be permitted, at the discretion of the Commission under an Order of Conditions or Determination of Applicability, within a resource area or buffer zone (including the 25 foot No Disturb Zone), when such area is associated with a constructed stormwater management system (such as a swale or detention basin) that has been determined by a professional wetland scientist to include jurisdictional Wetland Resource Area(s), provided that: the applicant has demonstrated to the satisfaction of the Commission that: (1) no other reasonable alternatives with less potential impact exist, (2) there are no adverse impacts to other Wetland Resource Areas, and (3) all potential impacts have been minimized to the greatest extent practicable and appropriate mitigation is provided.:
 - 1. Construction and maintenance of a new or existing stormwater management system, provided that: (1) it is designed to meet the Massachusetts DEP Stormwater Management Regulations and the Newburyport Stormwater Ordinance; (2) it will have no adverse impact on the functions of the existing stormwater management system, and (3) it is designed to protect and/or enhance the functions and values of the buffer zone to the maximum extent possible.
 - 2. <u>Utilities and Roads</u>: The applications and permits required by this Ordinance shall not be required for:
 - (a) Maintaining, repairing, or replacing, but not substantially changing or enlarging, an existing and lawfully located structure or facility used in the service of the public to provide electric, gas, water, telephone, telegraph, or other telecommunication services, provided that notice has been given to the Commission prior to commencement of work, and provided that the work conforms to any performance standards and design specifications in regulations adopted by the Commission.

- (b) Maintaining and repairing existing and lawfully located existing roads (excluding bridges and culverts) provided that:
 - i. There is no increase in impervious surface;
 - ii. There is no additional alteration of resource areas;
 - iii. Written notice has been given to the Conservation Commission 14 days prior to commencement of work; and
 - iv. Erosion and sedimentation controls are used as necessary.
- 3. Stormwater Management Systems: The applications and permits required by this Ordinance shall not be required for maintenance of a stormwater control structure or system in existence at the time of adoption of this Ordinance or of one approved in accordance with the Stormwater Management Standards, as provided in the Massachusetts Stormwater Policy. This exemption shall apply provided that the work to maintain the stormwater management system is limited to maintenance and that said work utilizes best practical measures to avoid and minimize impacts to wetland resource areas outside of the footprint of the stormwater management system. Such stormwater management systems may include wetland resource areas created solely for the purpose of stormwater management and approved under an Order of Conditions.

For all other Exemptions, refer to Section 6.5-29 of the Newburyport Wetlands Protection Ordinance.

5. General Application Requirements & Procedures

- **A.** Requirements for All Applications. The following are requirements that apply to all formal applications including a Request for Determination (RDA), a Notice of Intent (NOI), an Abbreviated Notices of Resource Area Delineation (ANRAD), and an Abbreviated Notices of Intent (ANOI). Additional requirements for applications are specified in subsequent sections of these Regulations.
 - 1. **Time Periods.** All time periods in these Regulations shall follow those defined in the WPA Regulations (310 CMR 10.00). Periods of ten days or less shall be computed using business days only. In the case of a determination or order, such period shall commence on the first day after the date of issuance and shall end at the close of business on the tenth business day thereafter. All other time periods shall be computed on the basis of calendar days, unless the last day falls on a Saturday, Sunday or legal holiday, in which case the last day shall be the next business day following.
 - 2. Submission.

<u>Paper Copies:</u> Two (2) hard copies (1 original and 1 copy) of the application and accompanying plans, narrative and other supporting materials, together with a check for the applicable filing fee, shall be sent by certified mail or delivered by hand to the Conservation Commission, Planning Department, City Hall, 60 Pleasant Street, Newburyport, MA 01950. Copies should be double-sided on recycled paper (at least 30% post-consumer content). Do not include plastic covers on submissions. In order

to be considered at a public meeting or hearing the initial application and any subsequent submissions must be received by the Commission at least ten (12) business days prior to the applicable meeting or hearing.

Digital Copies: All application materials must be submitted in digital PDF format (in as small file sizes as possible). It is required that the application materials are submitted as a **single pdf document**, rather than in separate pieces, unless specifically agreed to by the Conservation Administrator. For example, DEP forms, narratives, plans, photographs, etc. should all be scanned together and submitted as a single pdf.

- 3. **Review.** Upon receipt of an application, the Commission or its Agent will determine, within two (2) business days, if the application meets the minimum submission requirements identified in this Section. Those applications that do not meet the minimum submission requirements will not be accepted until the necessary information is provided. In addition, the Commission or its Agent reserve the right to reject or deny any applications when there is an outstanding Order of Conditions on the property that has not been issued a full Certificate of Compliance.
- 4. **Site Inspection Requirements.** If requested by the Commission, the following delineation staking shall be installed by the applicant at the project site for inspection purposes:
 - Staking of all corners of any new structures or additions.
 - Staking of property boundaries, if required by the Commission.
 - Staking of all No-Disturbance Zones.
 - Staking of Flood Zone boundaries.
 - Numbered flagging of wetlands by a professional wetlands scientist.

Resource area boundary delineations shall be reviewed only between April 1 and December 1 of each year. Delineations may be reviewed at the sole discretion of the Commission or its agents between December 1st and April 1st, and shall be reviewed only when site conditions are such that the Commission or its agents believe they can adequately review the relevant resource area indicators (e.g., soils, vegetation, topography, and hydrology).

- **B.** Additional Requirements for Requests for Determination of Applicability. Any person or persons who desire a Determination as to whether the WPA or the Ordinance applies to an area, or work to be performed in an area, shall submit a written Request for Determination of Applicability to the Commission in accordance with Section VI of the Ordinance.
 - 1. **Abutter Notification.** If the Commission or its agents determine that the proposed work is likely to have an impact on properties other than that of the applicant, notification to abutters shall be provided in the manner required for Notices of Intent.
 - 2. *General Plan Requirements.* In addition to and in conformance with the requirements of 310 CMR 10.00, the following shall be submitted:

- An 8 ½" x 11" copy of the USGS quadrangle map, or other locus map, with the area circled showing the location of the project.
- A plan of sufficient size and scale that completely and accurately depicts the
 existing conditions and structures on the site, the proposed project, and all of
 the resource areas and associated buffer zones located on the site.
- 3. **Public Meeting.** The Commission shall hold a public meeting to consider the Request for Determination of Applicability and shall issue a written Determination within twenty-one (21) days upon receipt of such Request unless continuances are required. Prior to making a Determination, the Commission may require the submission of additional information deemed pertinent to the Determination. The Commission may continue the public meeting in the following instances:
 - (a) With the consent of the applicant, to an agreed-upon date which shall be announced at the meeting, or
 - (b) Without the consent of the applicant, to a specified date for the reasons stated at the meeting, including but not limited to additional information required from the applicant or others.
- C. Additional Requirements for Notices of Intent. Any person who desires review of a Notice of Intent (NOI), an Abbreviated Notice of Intent (ANOI) or an Abbreviated Notice of Resource Delineation (ANRAD) shall file with the Commission, plans and specifications as required under M.G.L. Chapter 131, §40 and as further defined below. In order to demonstrate full compliance with the Ordinance and these Regulations, the applicant has the burden of proof to completely describe the site, the work, and its effect on resource areas and the values and interests they protect. The applicant is obligated to demonstrate that the work subject to regulation under the Ordinance and these Regulations can be carried out in a manner that meets all applicable performance standards and results in no significant or cumulative adverse impact to the wetland resource areas in question.

Applicants are urged to retain the services of a qualified, experienced, professional consultant when filing a NOI, ANOI or ANRAD. Submission of incomplete or inadequate information or a failure to meet the burden of proof may result in delays and continuations in the review and approval procedure and could result in a denial prohibiting the proposed work.

The following requirements shall apply to submittal of all NOI, ANOI or ANRAD applications:

1. **Abutter Notification Requirements.** At the same time the applicant submits an application to the Commission, the applicant shall give written notice thereof, by certified mail (return receipt requested), certificates of mailing, or by hand delivery, to all abutters at their mailing addresses shown on the most recent applicable tax list of the assessors, including owners of land directly opposite on any public or private street or way, and abutters to the abutters within 100 feet of the property line of the applicant, including any in another municipality or across a body of water. The notice shall state a brief description of the project or other proposal and the date of any Commission hearing or meeting date if known. The notice to abutters also shall include a copy of the application or request, with plans, or shall state where copies

may be examined and obtained by abutters. An affidavit of the person providing such notice, with a copy of the notice mailed or delivered, shall be filed with the Commission.

- 2. **Narrative and supporting documentation.** A narrative shall be included with all NOI or ANOI applications describing the proposed work in detail, including mitigation measures, work sequence, erosion controls, proposed duration of work and any other information that is pertinent to the Commission's review of the project. The narrative should also address how the project will meet the performance standards of all affected resource areas.
- 3. **Plan Requirements.** One of the two paper plan copies required for the application may be 11" x 17" and one shall be full-sized, unless otherwise agreed to by the Conservation Administrator.
- 4. Plans shall include the following:
 - (a) All site plans shall include a title block, with:
 - (i.) the name of the project;
 - (ii.) the location of the project;
 - (iii.) the name of the company or persons(s) who prepared the drawings;
 - (iv.) the date prepared, with the latest revision date.
 - (b) A legend defining all symbols used on the plan.
 - (c) Drawings shall be stamped and signed by a Registered Professional Civil Engineer or Registered Professional Land Surveyor of the Commonwealth of Massachusetts or other state unless otherwise directed by the Commission or its Agent. For certain projects, including but not limited to additions to existing structures, the Commission may accept plans not drawn by a surveyor or civil engineer when these plans utilize a stamped plan as a "base map". In this case, the "base map" shall also be submitted or referenced.
 - (d) Site plans shall be submitted at a scale of 1"=10', 1"=20', or 1" = 40' unless otherwise directed by the Commission or its Agent. Sheet size should be a maximum of 24" x 36." Additional plans with greater or lesser detail may also be required if such plans would provide valuable information to the Commission in its review. The Commission may allow plans at a different scale for large properties or unique circumstances.
 - (e) Plans depicting proposed drainage systems and/or a subsurface sewage disposal system must be stamped by a Registered Professional Civil Engineer of the Commonwealth or other state.
 - (f) If the applicant has submitted or anticipates submitting plans for the subject property to any other City Board, he/she shall notify the Commission or its agents of the submittal and, if directed, submit copies of those plans to the Commission.
 - (g) Property boundaries and abutters from the most recent information on record at the Assessor's Office.
 - (h) Existing and proposed contours at at least two-foot intervals throughout the entire plan and the source for any datum used to establish these contours. The

- Commission may require contours at one-foot intervals for projects in certain locations, such as the Business Park and Plum Island.
- (i) All existing natural and man-made features including tree lines, rock outcrops, stonewalls, fence lines, driveways, parking lots, cart roads, foot paths, overhead and underground utilities, and drainage structures.
- (j) The location of all surface water supplies, wells, and septic systems on the property, and on abutting properties, within 100' of proposed work.
- (k) Elevations of all natural and man-made drainage structures, waterways, and wetlands (as defined by the WPA and the Ordinance).
- (l) All wetland resource areas including all buffer zone areas and No-Disturbance Zones.
- (m) All erosion and sedimentation control measures and the limits of work.
- (n) Elevation views of any proposed structures, including, but not limited to, buildings, additions, decks, piers, sheds. Elevations for projects on the barrier beach (Plum Island) shall reference a vertical geodetic datum (e.g., NGVD 29, NAVD 88) and include a side elevation showing the lowest horizontal structural member. Use of NAVD 88 is preferred.
- (o) First floor elevation for any proposed dwelling in the 100-year floodplain using the same vertical datum (NGVD 29 or NAVD 88) as the most recent FEMA Flood Maps.
- (p) Flag numbers of all field delineated wetland resource areas.
- (q) 100 year flood elevations of all natural and man-made waterways and water bodies as determined from the FEMA Flood Insurance Rate Maps and Flood Boundary and Floodway Maps. Where the floodplain of wetlands and water bodies has not been mapped by FEMA, hydrologic and calculations may be required, prepared by a registered professional engineer to determine the boundary of the 10 and 100-year floodplain.
- (r) Hydrologic calculations showing the full-flow capacity and velocity of all water courses, open and only sometimes closed channels, and storm drains flowing into, on and out of the property if subject to WPA stormwater regulations or the City of Newburyport's Stormwater Management Ordinance or its regulations.
- (s) Vegetated areas including large trees (6"+ dbh), beach grass and other coastal plant life, planting areas, both natural and cultivated—both existing and proposed.
- (t) Location of proposed fill or spoils stockpile area(s) on site, if applicable.
- (u) Location of staging areas, if applicable.
- (v) Location of proposed snow stockpile area(s), if applicable.
- 5. **Stormwater Calculations:** If stormwater calculations are required, they shall be based on the following rainfall data (shown in Table 1 below adapted from the Northeast Regional Climate Center, as of February 2022) *or* the most current data from the Northeast Regional Climate Center (NRCC) and Natural Resources Conservation Service (NRCS), whichever represents the highest rainfall predictions

Table 1. Rainfall Data

Storm Event in Years	Inches per 24 hours	
2	3.19	
10	4.89	
25	6.24	
50	7.51	
100	9.05	

Submit only one (1) printed copy of the Stormwater Calculations (if required) and send one (1) electronic version (e.g., PDF) to the Commission or its Agent either by email or on CD for distribution to the Commission. Once the calculations have been finalized, applicants will be required to submit one final printed and electronic copy.

- 6. **Public Hearings.** The Commission shall hold a public hearing to consider the NOI, ANOI or ANRAD. Prior to issuing an Order of Conditions (OOC) or Order of Resource Area Delineation (ORAD) the Commission may require the submission of additional information deemed pertinent to the application. The Commission may continue the public hearing in the following instances:
 - (a) With the consent of the applicant, to an agreed-upon date which shall be announced at the meeting, or
 - (b) Without the consent of the applicant, to a specified date for the reasons stated at the meeting, including but not limited to additional information required from the applicant or others.
- 7. **Orders of Conditions.** The Order of Conditions shall impose such conditions as are necessary to meet the requirements and performance standards set forth in Sections 6 and 8 of these regulations and such additional conditions as are necessary for the protection of the interests identified in the Ordinance. The Order shall prohibit any work or any portion thereof that cannot be conditioned to meet such standards. The Order may impose conditions on work outside Protected Resource Areas when, in the opinion of the Commission, (1) such work will have or is likely to have a direct impact on a Resource Area by virtue of changes in the characteristics of storm drainage discharged to that Area from the property, or (2) such work is integrally connected with work to be undertaken within a Resource Area or Buffer Zone and the only practical way to protect the interests of the Ordinance is to regulate the project as a whole.
- **D.** Requests for Certificates of Compliance. A Request for a Certificates of Compliance shall be made in the same manner and within the same timeframes as required by the WPA and its regulations.

6. Plum Island Requirements and Procedures

A. Project (Site) Plans for a Notice of Intent

- 1. Site Plans for *Notices of Intent* on Plum Island must follow the Requirements listed in Section 5 (C) on Page 6 of these Regulations. In addition, Notices of Intent for projects on Plum Island must include the following: (see exceptions below.) Plans should include, at a minimum the following:
- 2. Note specifying vertical datum used (e.g., NGVD, NAVD88);
- 3. Boundaries of A and V Flood Zones (including AO, if present). The project site should be located on the latest available FEMA maps as well as from the Assessor's map. The FEMA maps are available in the Conservation Administrator's office. The project plan should indicate the flood zone(s) as determined from these maps and the delineation of any wetland resources on the property.
- 4. Elevation (side) view of the proposed structure showing the *Lowest Horizontal Structural Member* of the proposed (or revised) structure, noting its elevation in relation to the *Base Flood Elevation (BFE)* if determined, and its elevation in relationship to the *Highest Existing Ground Elevation* (if BFE is not determined or it is higher than the BFE). Elevations should be based on NGVD29 or NAVD88. At the discretion of the Commission, the elevation of the proposed structure in relation to projected sea level rise elevation(s) may also be required. See Section 8 (E) Land Subject to Coastal Storm Flowage.
- 5. Clearly show existing conditions, including grades, all structures, driveways, walkways, sheds and all vegetation, preferably with a legend identifying the plant species;
- 6. Clearly show proposed conditions with <u>all</u> of the items listed in the above bullet point plus any additional items. Show any proposed plant mitigation areas with species and square footage. Note the proposed materials for driveways, walkways and beneath covered structures (e.g., carport);
- 7. Location and type of piles, if applicable;
- 8. Location and size of Utility Shaft;
- 9. Location of dumpsters, equipment storage, etc. for construction purposes (All should be located in an un-vegetated area, preferably on an existing driveway or disturbed area.)

B. The 25%/50% rule

This rule is used to determine when an existing building should be placed on pilings. This rule is a compromise between the desirability of having all houses on Plum Island built on pilings and the practicality for smaller projects. The intent is that if a project is large enough, then the building should be placed on pilings. Note that a project must stay below the thresholds of <u>both</u> the 25% and 50% rules in order to avoid being placed on pilings.

¹ May be waived for small projects with consent from the Conservation Commission or its Administrator. Wetlands Protection Regulations (9/6/12,

The 25%/50% rule does **not** apply if:

1. the building is already completely on pilings, or is proposed to be completely on pilings where the *Lowest Horizontal Structural Member* will be at least two feet above *BFE* or the *Highest Existing Ground Elevation*, whichever is higher.

or

2. if property lies outside of the FEMA V or AO flood zones and a Licensed Engineer certifies that an existing portion of the solid foundation will not require modifications to support the proposed building (other than new pilings exterior to the existing footprint), in which case the existing portion of the solid foundation may remain. The certification must state that <u>no</u> additional supports (lally columns or other) will be required for the proposed modifications/additions.

However, a building **must** be raised on pilings if:

50% or more of the exterior walls of an existing building have been removed, or are proposed to be removed or will not be used as exterior walls (i.e., including but not limited to encasing an existing wall within a new exterior wall) and a new roof will be constructed, or is proposed to be constructed.

1. Determining space for the 25% rule (square footage)

The Newburyport Wetlands Ordinance refers to a 25% or more increase in square-footage as one of the triggers for placing an entire house on pilings. The Commission is no longer basing this on a volume computation as described in the previous *Guidelines for Plum Island Applications* (July 5, 2004), but is now basing this calculation on the total square-footage of *Habitable Living Space*.

Habitable Living Space does not include porches (even if screened), garages, sheds, basements and attics but <u>does</u> include kitchens, bathrooms, hallways and three-season porches with ceiling heights of at least seven feet.

For example, if an existing house with a solid foundation currently has 2,000 square feet of living space and the applicant proposes to build an addition on the side of the house that will add 500 or more square feet of living space, then the entire structure must be raised on pilings. The applicant should show, in writing, what components went into the calculations and reference specific plans when presenting the calculations.

2. Determining cost for the 50% rule (value of structure)

When a proposal is for expanding the size of an existing house or for a renovation of an existing house, the applicant should present either:

a. A licensed Appraiser's valuation of the existing house (structure only) and the same licensed Appraiser's valuation of the proposed house. Both evaluations should be signed by the appraiser and both should reference the specific plans from which the evaluations were made. The evaluations should include a letter

from the Appraiser explaining the methodology used in making the evaluations.

Or:

b. The assessed value of the house (structure only) from the Assessor's office and a cost estimate from a licensed Builder for the proposed work. The proposed work should include the cost of any demolition and removal of debris. The cost estimate, signed by the licensed Builder should reference a specific plan.

Appraisals and cost estimates do not include house-hold appliances and other non-permanent fixtures.

The applicant should be aware at the time of filing that any unforeseen problems with an existing or proposed structure may affect the appraised value or cost estimates which could require a new filing and require that the house be placed on pilings. If such a problem is found during demolition or construction, it should be reported immediately to the Commission or its Administrator, so that it can be determined if a new filing is necessary.

In order to adequately evaluate the appraisals and cost estimates required above the Commission may, at its discretion, require a peer review, to be paid for by the Applicant, as specified in Section 12: Employment of Outside Consultants.

D. Elevation above flood level and elevation above ground level

The first floor of a building should be two feet above *BFE* (if determined) or the *Highest Existing Ground Elevation*, whichever is higher, as defined by the latest available FEMA flood maps. The two foot elevation must be measured from the bottom of the *Lowest Horizontal Structural Member*.

E. Fences

In order to allow for the lateral movement of sand on the island, any proposed fence must be at least 80% open for the first two feet above grade and at least 50% open above two feet. The percent openness shall be determined as viewed from a point in front of and perpendicular to the fence (e.g., no shadow-box style is allowed). The openness shall be uniform across each fence section as described above. Plans should show where the fence is to be located and should denote locations of fence posts. Plans should show a diagram or photograph of a typical section of the fencing to be used.

If more than 10[JGI]% of an existing non-compliant fence is to be repaired, the entire fence must be brought into compliance.

F. Lattice and other enclosures

Any proposed lattice or other enclosures (e.g., wooden slats) around pilings of a proposed building or deck, if approved by the Commission, must be at least three feet above grade and at least 50% uniformly open to allow for the free movement of sand. Any lattice work should be within the footprint of the building. Plans should show a diagram or photograph of a typical section of the lattice to be used.

G. Driveways, walk-ways, stairway landings, parking and patio areas

Any proposed driveway, walk-way, stairway landing, parking area or patio may be constructed *only* with gravel, crushed stone or shells. Pavers, pervious or otherwise are not allowed. No more than 6 inches of sand should be excavated for construction of these areas and excavated sand must remain on site. Linpac (or similar) may no longer be used as a base or as the surface of the driveway since it eventually creates a hard surface.

The lateral limits of these areas may be surrounded by timber or stone measuring no more than four inches by six inches.

The size of any driveway or parking area should be kept to a minimum.

Repairs to existing non-compliant driveways are at the discretion of the Commission. (Enlargement of such driveways is not allowed.)

Pavers, pervious or otherwise, **are not allowed**. Crushed stone, shell or pea stone should be used instead.

H. In-ground structures

In-ground structures which may be permitted, determined on a site-by-site basis, are:

Concrete pads: Concrete pads supporting stairs, gas tanks, etc. may be allowed, but should be limited to the minimum required size.

Utility shafts (for houses on pilings): A utility shaft may be no larger than 3.5 feet per side, measured from the exterior of the walls, and should meet all FEMA building standards.

In-ground structures which are **not permitted** include, but are not limited to:

- In-ground cisterns
- In-ground swimming pools
- New solid foundations
- Retaining walls
- Footings (not allowed per Mass Building Code 780 CMR 120.G, Appendix G).
 Footings include sonotubes or other poured in-ground structures. (Driven piles should be used instead.)

I. Decks

Construction of a new deck or increasing the footprint of an existing deck (any modification involving work in or on the ground) will require the filing of an *RDA*.

If the project involves the expansion of an existing deck, the new portion must be elevated at least two feet above *BFE* (if determined) or, two feet above the *Highest Existing Ground Elevation* whichever is higher.

Repair or replacement of decking boards of an existing non-compliant deck may be permitted through a sign-off by the Conservation Administrator. If any structural changes are being made, then an *RDA* <u>must</u> be filed.

Depending upon the scope of the project, the Commission may require an *NOI* to be filed.

I. Sheds

Within the V and AO zones, sheds must be elevated at least two feet above *BFE* (if determined) or, two feet above the *Highest Existing Ground Elevation*, whichever is higher, unless otherwise permitted by the Conservation Commission.

Outside the V and AO zones, sheds may be elevated to a minimum of 1 foot above grade.

In all cases, sheds must be securely anchored to the ground so that they will not be carried off site or become a hazard during flooding events.

K. Garages

The Commission will consider proposed garages on a case-by-case basis, in order to ensure that the performance standards for "Coastal Dunes" are met—specifically those set forth in 310 CMR 10.28(4):

Notwithstanding the provisions of 310 CMR 10.28(3), when a building already exists upon a coastal dune, a project accessory to the existing building may be permitted, provided that such work, using the best commercially available measures, minimizes the adverse effect on the coastal dune caused by the impacts listed in 310 CMR 10.28 (3)(b) through 10.28(3)(e). Such an accessory project may include, but is not limited to, a small shed or a small parking area for residences. It shall not include coastal engineering structures.

If the Commission determines that an applicant can show that a garage can meet all of the performance standards for barrier beaches and coastal dunes, it may permit a garage. Any garage, however, must be constructed two feet above *BFE* (if determined) or the *Highest Existing Ground Elevation*, whichever is higher, as any other structure.

L. Exterior work - roofing

The Conservation Administrator may sign off on a building permit for removal and replacement of roofing material – such as roofing shingles.

If the rafters or sheathing need replacement and that replacement is going to be in the same configuration/silhouette as the existing rafters and sheathing, the applicant may file an *RDA*. Otherwise the applicant should file an *NOI*.

Under no circumstance shall materials or debris be placed on dunes or naturally vegetated areas (e.g., beach grass). All debris resulting from the project shall be disposed of in dumpsters or containers and removed the property as soon as possible.

M. Exterior work - siding

The Conservation Administrator may sign off on a building permit for removal and replacement of existing windows, doors and siding. This does not include removal/replacement of building sheathing or structural elements.

Under no circumstance shall materials or debris be placed on dunes or naturally vegetated areas (e.g., beach grass). All debris resulting from the project must be disposed of in dumpsters or containers and removed the property as soon as possible.

N. Interior work

If the proposed interior work does not include any structural changes that would affect the foundation, the Conservation Administrator may sign off on a Building Permit. If any interior <u>structural</u> changes are proposed, and those changes require the addition of piles or columns of any sort, a *Notice of Intent* must be filed.

As with exterior work, under no circumstance shall materials or debris be placed on dunes or naturally vegetated areas (e.g., beach grass).

O. Landscaping

New sod and seeded lawns are not permitted.

The Commission encourages the use of native plants that are indigenous to the dune environment. Consult with the Conservation Administrator for more information.

Replacing native coastal dune vegetation is **not** permitted without a sign-off from the Conservation Administrator or a wetlands permit.

Landscaping may require either an *RDA* or *NOI*, depending on the extent of the work. Check with the Conservation Administrator as to what, if any, permit will be required.

P. Boardwalks and walkways

In general, walkways and paths should be kept to a minimum.

Crushed stone and gravel may be used in appropriate areas (such as a driveway)

Elevated walkways may be allowed but will require either an *RDA* or an *NOI*.

Wooden (or composite) roll-out type walkways are allowed but must be removed by Nov 1 of each year and shall not be put back down until April 1.

Q. Mitigation

All project mitigation must be performed onsite, unless otherwise permitted by the Conservation Commission.

7. Administrative Fees

Administrative fees are payable at the time of application and are non-refundable. The administrative fees shall be calculated by the applicant according to the most recent *Conservation Commission Fee Schedule* which indicates all fees for filing (both DEP & Commission), advertisement, abutter notification. Consultant Review fees (if applicable to the project) are described in Section 12. Projects where the City of Newburyport is the applicant are exempt from filing and consultant review fees, but the City must pay for the cost of advertising and abutter notification for public hearings as required by the WPA, the Ordinance and these Regulations. Fees required under this local Wetlands Protection Ordinance and Regulations are in addition to and separate from those fees required by the Commonwealth of Massachusetts, the Department of Environmental Protection (DEP) or other agencies.

8. Additional Performance Standards for Wetland Resource Areas

Except as otherwise provided in the Ordinance or these Regulations, the performance standards for work within wetlands resource areas and buffer zones shall be as set forth in the Wetlands Protection Act (M.G.L. Chapter 131 §40) and Regulations (310 CMR 10.00).

A. Buffer Zone

1. **Preamble**

Buffer Zones are significant to the values and interests identified for the specific resource areas on which they border as identified in Section I of the Ordinance, these Regulations and 310 CMR 10.01 (2).

Activities undertaken in close proximity to these resource areas have a high likelihood of adverse impact, either immediately, as a consequence of construction, or over time, as a consequence of daily operation or existence of the activities. These adverse impacts from construction and use can include, without limitation, erosion, siltation, loss of groundwater recharge, poor water quality, and loss of wildlife and wildlife habitat.

Buffer Zones are considered resource areas, as they perform vital functions in protecting the values and interests of the Ordinance and their abutting resource areas in the following ways:

- (a) *Temperature.* Shade and cover provided by vegetation can influence water temperature in resource areas.
- (b) Sediments and Other Contaminants. Buffer Zones filter sediments and other contaminants including pesticides, heavy metals, bacteria, and oil and grease from vehicles from surface runoff. Buffer Zones also prevent erosion in resource areas and preclude any activity or development that could increase sediment or contaminant loading.

- (c) *Nutrients (Nitrogen and Phosphorous).* Buffer Zones reduce nutrient inputs into resource areas by:
 - (i) filtering sediment-bound nutrients from surface runoff,
 - (ii) removing nutrients from groundwater by uptake in vegetation and by de-nitrification, and by
 - (iii) precluding any activity or development which could increase nutrient loading.
- (d) *Stream Flow Maintenance.* Buffer Zones can store water and help maintain stream base flow and provide water quality benefits during low flow periods.
- (e) Water Quality and Runoff. Vegetative cover and soils within the Buffer Zone filter runoff, thus protecting water quality within the resource area. The vegetation and soils may also slow surface runoff, thereby permitting infiltration of precipitation, thus maintaining the hydrologic regime to which the resource area is adapted. Vegetative cover, soils, and topography may help to control the surface and groundwater regime in the resource area in a Buffer Zone even where drainage is not towards a resource area.
- (f) Wildlife and Wildlife Habitat. The vegetated uplands adjacent to wetlands constitute one of the richest zones for aquatic organisms, mammals, birds, and amphibians because they provide shade and cover; food; shelter; and breeding habitat. Construction and other activities and alterations within Buffer Zones can harm resources areas through siltation, regrading, compaction of soil, and loss of vegetation and pervious ground. Following construction or other alterations, use and maintenance of an altered Buffer Zone frequently degrades this resource and adjacent resource areas as a result of the deposition of lawn and yard debris, increased volume and velocity of stormwater runoff, nutrient loading, habitat degradation, and increased temperatures.

2. Definition, Critical Characteristics and Boundaries

The Buffer Zone is that resource area which extends one hundred feet (100') horizontally from the edge of those wetland resource areas identified below. These include:

- (a.) Bordering Vegetated Wetland;
- (b.) Isolated Vegetated Wetland as defined in Section 8(C) of these Regulations;
- (c.) Bank, beach, fresh or salt water marsh, wet meadow, bog, or swamp;
- (d.) Any creek, river, brook, stream (perennial or intermittent), pond or lake

It is possible that the Buffer Zone resource area will overlap in some instances (e.g., Riverfront Area and Land Subject to Flooding).

The Buffer Zone contains a 25-Foot No-Disturbance Zone which is that portion of the Buffer Zone which extends twenty-five (25) feet horizontally from the edge of those wetland resource areas identified in Sections 8(A)(2)(a through d). Disturbance of any kind is prohibited within this 25-Foot No-Disturbance Zone including but not

limited to grading, landscaping, vegetation removal, pruning, cutting, filling, excavation, roadway construction and /or driveway construction.

The Buffer Zone does not apply to the "Vernal Pool Habitat" resource area which is a No-Disturbance zone in its entirety as defined in Section 8(B) of these Regulations.

3. **Presumptions of Significance**

Where a proposed activity involves the removing, filling, dredging, or altering of a Buffer Zone, the Commission shall presume that protection of the Buffer Zone as a resource area is significant to the values and interests of the resource area(s) which it abuts. This presumption may be overcome by presenting clear and convincing evidence demonstrating that the Buffer Zone does not play a role in the protection of said interests. In the event that the Commission determines that the presumption has been overcome, it shall make a written determination to this effect setting forth its grounds.

4. Performance Standards

The following standards apply to the Buffer Zone of all the resource areas identified in Sections 8(A)(2)(a through d) of these Regulations:

- (a.) 25-Foot No-Disturbance Zone. Except as otherwise provided in these Regulations, no activity is permitted within 25 feet of the delineated edge of the above-mentioned wetland resource areas as defined in Section 8(A)(2)(a through d). The Commission has adopted this standard because the alteration of land immediately adjacent to a wetland or water body is likely to result in the alteration of the wetland itself. Alterations typically result from extension of lawns, depositing/dumping of yard waste, over-grading, siltation, extension of impervious areas, deposition of construction debris, unregulated filling, and clearing of vegetation, all of which is prohibited.
- (b.) No-Disturbance Zone Demarcation. To maintain the perpetual integrity of the No-Disturbance Zone and to ensure that there will be no encroachments into this Zone by the applicant or future owners of the subject property, the Commission may require the No-Disturbance Zone to be marked on the ground, at the applicant's expense, with permanent markers. These markers shall be made of weather resistant material (e.g., granite, or concrete), and the Commission shall determine their number, size and location. The Commission may require one or more of these markers to bear, on their upland side, writing (i.e. permanent plaque or engraving) that shall read "No Disturbance Beyond This Point By Order of the Newburyport Conservation Commission."
- (c.) Limit on scope of alteration. In addition to complying with the above setbacks, the total disturbance to the Buffer Zone by any project or projects cumulatively shall not exceed twenty percent (20%) of the Buffer Zone existing on the project site (e.g., if a project site has a total of 100 square feet of Buffer Zone and Project "A" disturbs 20 square feet of that Buffer Zone, any subsequent development of that site will have to avoid *any* disturbance of the Buffer Zone).

- (d.) Minor activities in the outer 75 feet of the Buffer Zone. Minor activities that are proposed within the outer 75 feet of the Buffer Zone (25 feet or more from the delineated edge of the wetland resource) may be allowed through a "Letter Permit" at the discretion of the Commission's agent. Minor activities are those that in the judgment of the Commission's agent or the Commission will not have an impact on the resource area.
- (e.) Activities prohibited in the Buffer Zone. Underground fuel storage tanks and other structures or facilities for the storage of gasoline, oil, or other fuels or hazardous materials located outside of any dwelling or building shall not be located in any Buffer Zone.
- (f.) Additional conditions. For work in the Buffer Zone, the Commission may impose conditions to protect the adjacent resource area. The potential for adverse impacts to resource areas from work in the buffer zone may increase with the extent of the work and the proximity to the resource area. The Commission may consider the characteristics of the buffer zone, such as the presence of steep slopes, which may increase the potential for adverse impacts on resource areas. Conditions may include limitations on the scope and location of work in the buffer zone as necessary to avoid adverse impact on resource areas. The Commission may require erosion and sedimentation controls during construction, a clear plan of work, and the preservation or addition of natural vegetation adjacent to the resource area and/or other measures commensurate with the scope and location of the work within the Buffer Zone.

B. Vernal Pool Habitat

1. **Preamble**

Vernal Pool Habitat is significant to the protection of wildlife and wildlife habitat including rare plant and animal habitat. Vernal pools also present educational opportunities given their rich biodiversity and are often used in classrooms to study local wetland species.

Vernal Pools constitute a unique and increasingly rare type of wetland that is inhabited by many species of wildlife, some of which are totally dependent on vernal pools and their associated habitat for their survival. Areas in the immediate vicinity of the Vernal Pool provide these species with important non-breeding habitat functions, such as migratory pathways, feeding, shelter, and over-wintering sites.

Many other species utilize Vernal Pool Habitat for breeding and non-breeding functions, although they are not restricted to this type of wetland. The protection of Vernal Pool Habitat is essential for the survival of wildlife species that depend on this unique and threatened resource.

2. Definitions, Critical Characteristics and Boundaries

A vernal pool is typically a confined basin or depression which, at least in most years, holds water for a minimum of two continuous months during the spring and/or summer, contains at least 200 cubic feet of water at some time during most years, is free of adult predatory fish populations, and provides essential breeding and rearing habitat functions for amphibian, reptile or other vernal pool community species. Under this Ordinance, a vernal pool shall meet the certification criteria of the Massachusetts Natural Heritage and Endangered Species (NHESP) Program as outlined in the NHESP Guidelines for the Certification of Vernal Pool Habitat, March 2009, or successor guidelines. The boundary of the Vernal Pool Habitat shall be two-hundred feet (200') horizontally outward from the mean annual high-water line defining the depression or basin and shall not include lawns, gardens, landscaped areas, driveways or structures in existence or proposed under a plan approved by the Commission at the time of adoption of the Ordinance.

The Vernal Pool Habitat need not be located within another wetland resource area, or be certified as a vernal pool by the Massachusetts NHESP (or any other state or local agency) to be eligible for protection under the Ordinance and these Regulations; however, vernal pools certified by the Massachusetts NHESP-are assumed to be vernal pools and are therefore protected under the Ordinance and these Regulations.

The entire Vernal Pool Habitat as defined above is considered a No-Disturbance Zone as set forth below in Section 8(B)(5)(c).

3. Timing of Evidence Collection

Many of the indicators of Vernal Pool Habitat are seasonal. For example, certain salamander egg clusters are only found between late March and late May. Wood Frog chorusing only occurs between late March and late May, and then typically at night. Consequently, failure to find evidence of breeding must be tied explicitly to those periods during which the evidence is most likely to be available.

Accordingly, in the case of challenges to the presumption of Vernal Pool Habitat, the Commission may require that the determination be postponed until the appropriate time period consistent with the evidence being presented. The Commission may also require its own site visits or opinions of qualified wildlife consultants as necessary to confirm the evidence.

4. **Presumptions of Significance.**

Where a proposed activity involves the removing, filling, dredging, or altering of Vernal Pool Habitat, the Commission shall presume that the Vernal Pool Habitat is significant to the protection of wildlife and wildlife habitat and rare plant and animal habitat. This presumption may be rebutted by clear and convincing evidence that the Vernal Pool Habitat does not play a role in the protection of said interests. In the event that the presumption is deemed by the Commission to have been overcome, the Commission shall make a written determination to this effect, setting forth its grounds.

5. General Performance Standards

When the presumptions set forth in Section 8(B)(4) of these Regulations is not overcome, the following standards shall apply to the Vernal Pool Habitat:

- (a) The entire Vernal Pool Habitat is considered to be a No-Disturbance Zone. Disturbance of any kind is prohibited within this zone including but not limited to grading or changing the drainage patterns; landscaping; disturbing the soil, humus layer and/or leaf litter at any time of the year; vegetation removal; the placement of sediments, brush clippings or other fill; pruning; cutting; filling; excavating, roadway construction and/or driveway construction. The extent and location of this No-Disturbance Zone is subject to change based on the results of a biological and/or habitat evaluation, which may be required to determine the migratory pathways and other important habitat usage of Vernal Pool Habitat breeders.
- (b) 100-foot Septic System Setback. Components of subsurface sewage disposal systems shall not be permitted within 100 feet of the delineated edge of a Vernal Pool Habitat or the delineated edge of the encompassing wetland resource area (if present).
- (c) No-Disturbance Zone Demarcation. To maintain the perpetual integrity of the Vernal Pool Habitat and to ensure that there will be no encroachments into this Zone by the applicant or future owners of the subject property, the Commission may require the Vernal Pool Habitat to be marked on the ground, at the applicant's expense, with permanent markers. These markers shall be made of weather resistant material (i.e. granite or concrete), and the Commission shall determine their number, location and size. The Commission may require one or more of these markers to bear, on their upland side, writing (i.e. a permanent plaque or engraving) that shall read "No Disturbance Beyond This Point By Order of the Newburyport Conservation Commission".
- (d) *Migratory Pathway of Vernal Pool Breeders*. Work shall not be allowed that destroys or obstructs the migratory pathways of vernal pool breeding species as determined by a biological and/or habitat evaluation.

C. Isolated Vegetated Wetlands

1. Preamble

Isolated Vegetated Wetlands are likely to be significant to the same values and interests identified in CMR 10.55 (1) that are supported by Bordering Vegetated Wetlands, as well as the additional values and interests identified in the Ordinance and these Regulations. These interests include: protection of private and public water supply, protection of groundwater, flood control, storm damage prevention, prevention of pollution, protection of fisheries, wildlife and wildlife habitat, protection of water quality, erosion and sedimentation control, protection of rare species habitat including rare plant and animal species.

Isolated Vegetated Wetlands provide critical fish and wildlife habitat. Isolated vegetated wetlands can provide critical vernal pool habitat and rare species habitat.

Wetland vegetation provides shade that moderates water temperatures important to fish life. Vegetated wetlands that are always wet or that are flooded by adjacent water bodies and waterways provide food, breeding habitat and cover for fish. Fish populations in the larval stage are particularly dependent upon food provided by these wetlands since they provide large quantities of microscopic plant and animal food material. Wetland vegetation provides habitat for a wide variety of insects, reptiles, amphibians, mammals and birds. The degree of isolation from human-caused disturbances is a desirable feature of a vegetated wetland, which is a critical characteristic for the protection of wildlife. Many of these, particularly insects, are food sources for fish.

2. Definition, Critical Characteristics, and Boundary

Isolated Vegetated Wetlands protected under the Ordinance are freshwater wetlands, of at least 1,000 square feet in area that do not border on creeks, rivers, streams, ponds or lakes. The types of Isolated Vegetated Wetlands include wet meadows, marshes, swamps and bogs. Detention or retention basins created for the purpose of stormwater management are *not* considered Isolated Vegetated Wetlands under the ordinance and these Regulations.

In addition to the minimum size requirement, Isolated Vegetated Wetlands must also meet the definition of Bordering Vegetated Wetlands (310 CMR 10.55(2)) with the exception that these wetlands do not border any creeks, rivers, streams, ponds, lakes or other water bodies.

The boundaries of Isolated Vegetated Wetlands are the same as those for Bordering Vegetated Wetlands as defined in 310 CMR 10.55 (2)(c).

3. Presumptions of Significance

Where a proposed activity involves the removing, filling, dredging, or altering of an Isolated Vegetated Wetland, the Commission shall presume that the Isolated Vegetated Wetland is significant to the values and interests specified in Section 8(C) of these Regulations. This presumption may be rebutted by clear and convincing evidence that the Isolated Vegetated Wetland does not play a role in the protection of said interests. In the event that the presumption is found by the Commission to have been overcome, it shall make a written determination to this effect, setting forth its grounds.

4. Performance Standards

Isolated Vegetated Wetlands are protected to the same extent as Bordering Vegetated Wetlands, as set forth in 310 CMR 10.55 (2). When the presumption set forth in Section 8(C)(3) of these Regulations is not overcome, any proposed work in the Isolated Vegetated Wetlands shall not destroy or otherwise impair any portion of said area. The following standards apply to Isolated Vegetated Wetlands:

Any alteration of any Isolated Vegetated Wetland shall be treated under the standards for Bordering Vegetated Wetlands under the WPA (G.L. Ch. 131 §40) and its regulations (310 CMR 10.00).

D. *Intermittent Stream* (including segments upgradient of other state protected resource areas)

1. Preamble

Intermittent Streams are likely to be significant to storm damage prevention, flood control, ground water protection, wildlife and wildlife habitat, water quality, fisheries, and recreation and educational values. During spring, summer, and fall these streams disperse snowmelt and storm runoff across the landscape thereby preventing dangerous volumes and flows from spilling over roadways and property. This broad dispersal also allows for larger volumes of water to infiltrate into the ground, recharging groundwater supplies.

Intermittent streams are an essential source of food and water for wildlife, and are often the only source of water in higher elevations. The moist soils that border intermittent streams are significantly richer in herbs and flowering/fruiting plants the base trophic level of food than surrounding upland areas.

During all seasons, but especially in winter and spring, intermittent streams act as essential corridors for animal movement when food is scarce. Some animals, such as pickerel frogs and eastern spotted newts, rely heavily on intermittent streams for movement.

For these reasons, the upland areas surrounding intermittent streams are heavily utilized by wildlife for living space, breeding, feeding, migrating, dispersal, and security. Accordingly, the Ordinance and these Regulations protect intermittent streams of all forms and the adjacent Buffer Zone (100 feet) of the outer boundary of those streams.

2. Definition, Critical Characteristics, and Boundary

The term "intermittent stream" shall mean a body of running water, including brooks and creeks, which moves in a definite channel in the ground due to a hydraulic gradient, and which flows part of the year within, into or out of an Area Subject to Protection under the WPA. A portion of an intermittent stream may flow through a culvert or beneath a bridge. Such a body of running water which does not flow throughout the year is an intermittent stream <u>including</u> that portion upgradient of all bogs, swamps, vegetated wetlands, wet meadows and marshes. An Intermittent Stream does not have a Riverfront Area but does have an associated 100-foot Buffer Zone.

The outer boundary of an intermittent stream is the first observable break in slope or mean annual high water, which ever is higher.

3. Presumptions of Significance

Where a proposed activity involves the removing, filling, dredging or altering an area within 100 feet of an intermittent stream, the Commission shall presume that this buffer zone is potentially significant to the values specified in the Section 8(D)(1), and the Commission shall have the authority to prohibit or to place conditions on such

activity. This presumption is rebuttable and may be overcome upon a clear showing that proposed activity in the buffer zone will not adversely impact any Resource Area. In the event that the presumption is deemed to have been overcome, the Commission shall make a written determination to this effect, setting forth its grounds.

4. Performance Standards

Any proposed work in the Buffer Zone shall not destroy or otherwise impair any portion of an intermittent stream.

For work in the Buffer Zone of an intermittent stream subject to review, the Commission may impose conditions to protect the adjacent resource area. The potential for adverse impacts to resource areas from work in the buffer zone may increase with the extent of the work and the proximity to the resource area. The Commission may consider the characteristics of the buffer zone such as the presence of steep slopes, which may increase the potential for adverse impacts on resource areas. Conditions may include limitations on the scope and location of work in the buffer zone as necessary to avoid adverse impact on resource areas. The Commission may require erosion and sedimentation controls during construction, a clear plan of work, and the preservation of natural vegetation adjacent to the resource area and/or other measures commensurate with the scope and location of the work within the buffer zone.

E. Land Subject to Coastal Storm Flowage (LSC SF)

1. Definition, Critical Characteristics and Boundary

Land Subject to Coastal Storm Flowage is land subject to any inundation caused by coastal storms up to and including that resulting in a 100-year flood, surge of record, or flood of record, whichever is greater. The 100-year flood (or base flood to which it is also referred) means the flood having a one percent chance of being equaled or exceeded in any given year. The seaward limit of land subject to coastal storm flowage is mean low water.

(a) The topography, soil characteristics (i.e. composition, size, shape & density of material), vegetation, potential for erosion, and permeability allow for the dissipation of storm wave energy and, therefore, are the physical characteristics of land subject to coastal storm flowage which are critical to the protection of the statutory interests of flood control and storm damage prevention. In addition, for areas in AH-zones that are subject to ponding or A-zones that are hydraulically constricted areas, the ability to store a volume of flood water is a critical characteristic. Hydraulically constricted A-zones are those in which the base flood elevation is lower on the landward side of the constriction.

- (b) In addition to the above cited critical characteristics, the proximity of floodplain areas to water bodies and other wetland resources, makes them critical to prevention of pollution of these abutting resource areas.
- (c) Plant community composition and proximity to other wetland resource areas are critical to the protection of wildlife habitat.
- (d) In order to protect existing wetland resource interests, the geographic extent/area of the resource must be maintained. Thus, in order to maintain the ability of a resource area to migrate landward in response to relative sea level rise without loss of area the critical characteristics of land subject to coastal storm flowage are topography; frequency; depth and duration of inundation; and proximity to a wetland resource.

2. Presumptions of Significance; Findings

Where a project involves removing, dredging, filling or altering of Land subject to coastal storm flowage the Commission shall presume that said area is significant to storm damage prevention, flood control, the protection of wildlife (including fisheries & shellfish) and its habitat, the prevention of pollution, as well as erosion and sedimentation control.

The presumptions may be overcome only upon a showing of a preponderance of the credible evidence that the subject property is not significant to one or more of the stated interests or that the proposed activity and resulting alteration will not have an adverse impact on the protected interests. Due to the immediate proximity of land subject to coastal storm flowage to the ocean and other coastal waterways, these areas are positioned to be significantly impacted by relative sea level rise. Projected sea level rise should therefore be considered in determining the impacts of any proposed activity.

(a) Storm Damage Prevention & Flood Control

Velocity zones and AO-zones of Land Subject to Coastal Storm Flowage are areas which are subject to hazardous flooding, wave impact, and, in some cases, significant rates of erosion as a result of storm wave impact and scour. V- and AO-zones in coastal areas are generally subject to repeated storm damage which can result in loss of life and property, increasing public expenditures for storm recovery activities, historic taxpayer subsidies for flood insurance and disaster relief, and increased risks for personnel involved in emergency relief programs. Alteration of land surfaces in A-zones could change drainage characteristics that could cause increased flood damage on adjacent properties.

The topography, soil characteristics (e.g. composition, size, density, and shape of soil materials), vegetation, potential for erosion and permeability of the land surface within V- and AO-zones are critical characteristics which determine how effective an area is in dissipating wave energy and in protecting areas within and landward of these zones from storm damage and flooding. The more gentle and permeable a seaward-sloping land surface is, the more effective that land surface is at reducing the height and velocity of incoming storm waves. Wave energy may be expended in eroding and transporting materials comprising the land surface within the V and AO-zones, as well as by percolation or the downward movement of the stormwater through more permeable land surfaces, thereby lessening the effects of backrush, scour and erosion. Development in V- and AO-zones poses environmental problems since construction and development activities can impair or destroy those characteristics cited above which are critical to the stated interests.

Dredging or the removal of materials within V- and AO-zones acts to increase the landward velocity and height of storm waves, thereby allowing storm waves to break further inland and to impact upland and wetland resource areas which might not otherwise be impacted. Filling and the placement of solid fill structures within V- and AO-zones may cause the refraction, diffraction and/or reflection of waves, thereby forcing wave energy onto adjacent properties, natural resources, and public or private ways potentially resulting in otherwise avoidable storm damage. When struck with storm waves, solid structures within V- and AO-zones also may increase localized rates of erosion and scour. In some cases, the placement of fill in hydraulically constricted portions of the coastal floodplain may increase flood levels in conjunction with heavy rainfall events. The placement of fill in AH zones, where ponding occurs generally as a result of overwash in coastal floodplains, may increase flood levels on the subject and adjacent properties above pre-fill flood levels.

(b) Protection of Wildlife and Wildlife Habitat

Certain portions of land subject to coastal storm flowage are significant to the protection of wildlife and wildlife habitat, except for those portions which have been so extensively altered by human activity that their important wildlife habitat functions have been effectively eliminated.

Coastal floodplain areas are often low-lying areas that are ecologically transitional areas between marine/estuarine ecosystems and upland areas. Resource areas within the floodplain are often important habitats for a large variety of wildlife species. For example, salt marshes provide habitat for many crustaceans and mollusks and serve as critical nursery areas for numerous fin fish species which in turn provide food for those species

higher-up in the food chain (e.g. herons, osprey, mink and raccoon). These resource areas provide important over-wintering and stopover areas for many species of waterfowl. Areas of coastal floodplains adjacent to other wetland resource areas provide important wildlife functions, such as nesting and roosting habitat, and also serve as wildlife corridors connecting coastal zone resources with freshwater wetland resources. In addition, these adjacent areas within the coastal floodplain serve as transitional zones which are needed to protect the coastal wetland resource's ability to provide essential habitats.

(c) Prevention of Pollution, Erosion and Sedimentation Control

Certain portions of land subject to coastal storm flowage are significant to the prevention of pollution. These significant pollution prevention areas include all areas within the 100 year floodplain that are within 100 feet of any other coastal or freshwater resource areas. These areas can mitigate adverse effects associated with human disturbance and pollutants. Natural or relatively undisturbed coastal floodplains can reduce erosion and sedimentation, and in a vegetated state can prevent pollutants contained in surface runoff from directly entering waterways and other wetland areas during flood events. While erosion of stream banks and shorelines is an important natural process, the design and management of activities in the floodplain should aim to avoid excessive erosion due to human-induced activities.

(d) Relative Sea Level Rise Considerations

Sea level rise is the relative rise in elevation of the sea surface over time. Sea level rise is caused by: 1) physical expansion of ocean water whose temperature is increasing globally over time; 2) melting of glaciers and ice caps; 3) melting of the Greenland and Antarctic ice sheets; and, in Massachusetts, 4) the subsidence of the tectonic plate on which the land mass rests. Sea level rise may cause greater risk to human safety and development, increased risk to urban infrastructure, greater and more frequent coastal inundation, elevated storm surge flooding levels, salt water intrusion to water wells, aquifers and septic systems, loss of coastal recreational resources, increased coastal erosion, and loss of coastal habitats and resources.

Those portions of coastal floodplains which are immediately landward of salt marshes, coastal beaches, barrier beaches, coastal dunes or coastal banks require special protection as they are likely to be in a state of transition as the entire complex of coastal wetland resources gradually moves landward due to rising relative sea levels. Relative sea levels will continue to rise and will result in inundation of more landward areas. Prediction models from

various sources estimate a wide variety of scenarios for 21st century global seal level rise ranging anywhere from 0.4 feet on the lower end to 10.5 feet on the upper end of the range (*Climate Ready Boston, Climate Change and Sea Level Rise Projections for Boston, The Boston Research Advisory Group (BRAG) Report, June 1, 2016.*). Assuming global carbon emissions remain on their current trajectory, the BRAG Report suggests a likely range of 3.2 feet to 7.4 feet of sea level rise by the year 2100.

It is prudent to consider sea level rise, even if only at lower end estimates, in a developed coastal environment. As sea level rises, the shoreline may retreat further inland and coastal areas will become inundated more frequently by storm as well as tidal activity. Consequently, coastal populations, infrastructure and ecosystems will be affected by increased flooding, storm surges, saltwater intrusion and coastal erosion.

Development activities carried out within the transitional areas of coastal floodplains will be subject to increased storm damage and may interfere with the natural landward migration of the adjacent coastal resource areas. Any construction in the floodplain will alter the land surface and will often cause unanticipated adverse impacts to both the developed and natural environments. Flooding is a natural event whose adverse impacts are exacerbated by human development. Therefore, maintaining transitional coastal areas in their natural state and requiring setbacks to the maximum extent practicable in developed areas, is necessary in order to preserve the beneficial functions of the coastal floodplain as well as to prevent harm to the coastal wetland resource areas and the interests of the Ordinance.

3. Performance Standards

When the Commission determines that **Land Subject to Coastal Storm Flowage (A, AO, AH and/or V-Zones)** overlays other resource areas listed in these Regulations, the applicable performance standards for each resource area shall be independently as well as collectively applied and the project shall be appropriately conditioned to protect all stated interests. When Land Subject to Coastal Storm Flowage (A, AO, AH and/or V-Zones) is significant to the interests of flood control and storm damage prevention, or any other interest in Section 2 above, the following performance standards shall apply:

- (a) Any activity shall not have an adverse effect by increasing the elevation or velocity of flood waters or by increasing flows due to a change in drainage or flowage characteristics (e.g. change in direction) on the subject site, adjacent properties, or any public or private way.
- (b) Relative sea level rise and the landward migration of resource areas in response to relative sea level rise shall be incorporated into the design and

construction of structures and other activities proposed in Land Subject to Coastal Storm Flowage.

- (i) At a minimum, for activities proposed in A and V-Zones, a rate of relative sea level rise in Massachusetts of **40 inches by the year 2070** shall be incorporated into the project design and construction. (40 inches of SLR by 2070 was selected because it is consistent with both the National Oceanic and Atmospheric Administration's (NOAA's) and the BRAG Report's likely SLR scenarios, is the basis for the City of Boston's neighborhood coastal resilience plans and was adopted by the Boston Planning and Development Agency as part of their "Coastal Flood Resilience Design Guidelines" in 2019);
- (c) When the **AH-Zone** (or an **A-Zone** which is hydraulically constricted) is significant to the interests of flood control or storm damage prevention, the following additional performance standards shall apply:
 - (i) A proposed activity shall not result in flood damage due to filling which causes lateral displacement of flood waters that, in the judgment of the Commission, would otherwise be confined within said area, unless,
 - (ii) Compensatory storage is provided for all flood storage volume that will be lost as the result of a proposed project within this area when, in the judgment of the Commission, said loss will cause an increase or contribute incrementally to an increase in the horizontal extent and level of flood waters. Compensatory flood storage shall mean a volume not previously used for flood storage and shall be incrementally equal to the theoretical volume of flood water at each elevation, up to and including the 100 year flood elevation, which would be displaced by the proposed activity. Compensatory flood storage shall be provided within the same general area as the lost area and must maintain or create an unrestricted hydraulic connection within said area.
- (d) When Land Subject to Coastal Storm Flowage is significant to wildlife and their habitat a proposed activity shall not impair the capacity of those portions of Land Subject to Coastal Storm Flowage to provide important wildlife habitat functions. Alterations may be permitted only if they will have no adverse effect on wildlife and their habitat.
- (e) When Land Subject to Coastal Storm Flowage is significant to the prevention of pollution there shall be no adverse effects to the critical characteristic of this area to remove suspended solids and other contaminants from runoff before entering into other wetland resource areas.

- (f) The following activities proposed within **velocity zones (V-Zones)** of Land Subject to Coastal Storm Flowage are likely to have an adverse effect on the protected interests and are therefore prohibited (unless the applicant proves with a preponderance of credible evidence that the proposed activity and resultant alteration will not have an adverse effect on said interests):
 - (i) Construction or placement of new structures, including buildings, sheds, garages, additions, and substantial improvements to existing structures supported on a solid foundation or proposed below the base flood elevation plus two (2) feet;
 - (ii) New parallel/shear walls or vertical walls for existing structures;
 - (iii) Impermeable paving for new roads, driveways and parking lots;
 - (iv) New or proposed expansions of coastal engineering structures;
 - (v) New or expanded septic systems;
 - (vi) New or expanded stormwater management systems/discharges;
 - (vii) New or expanded utilities;
 - (viii) New underground storage tanks; and
 - (ix) New activities and uses that change the physical characteristics of the land through draining, excavating, dredging, dumping, filling, removing vegetation, removing or transferring loam, peat, sand, soil or other material substance which will reduce the natural storage capacity of the land, interfere with the landward migration of coastal resources in response to sea level rise, interfere with the natural drainage/tidal patterns of any watercourse, or degrade the water quality of surface or groundwater.
- (g) A proposed activity within a velocity zone of a beach or coastal bank shall not destroy or otherwise impair the function of any portion of said landform and/or shall not have an adverse effect on adjacent wetland resources. Activities and their ancillary uses in velocity zones which result in alteration to vegetative cover, interruptions in the supply of sediment to other wetland resources, and/or changes to the form or volume of a dune or beach will have an adverse effect on said landform's ability to provide storm damage prevention and flood control and are therefore prohibited.

These activities include, but are not limited to:

- (i) Construction of new structures, including buildings, sheds, garages, additions, and substantial improvements to existing structures;
- (ii) Foundations other than open pilings or columns;
- (iii) New or proposed expansions of roads, driveways, parking lots, impermeable paving for existing unpaved roads, driveways or parking lots;
- (iv) New or proposed expansions of coastal engineering structures;
- (v) New or expanded septic systems;
- (vi) New or expanded stormwater management systems/discharges;

- (vii) New or expanded utilities;
- (viii) New underground storage tanks; and
- (ix) New activities and uses that change the physical characteristics of the land through draining, excavating, dredging, dumping, filling, removing vegetation, removing or transferring loam, peat, sand, soil or other material substance which will reduce the natural storage capacity of the land, interfere with the landward migration of coastal resources in response to sea level rise, interfere with the natural drainage/tidal patterns of any watercourse, or degrade the water quality of surface or groundwater.
- (h) The following activities proposed within the **AO-zone** of a beach or coastal bank of Land Subject to Coastal Storm Flowage are likely to have an adverse effect on the protected interests and are therefore prohibited (unless the applicant proves with a preponderance of credible evidence that the proposed activity and resultant alteration will not have an adverse effect on said interests):
 - (i) Construction of new structures, including buildings, sheds, garages, additions, and substantial improvements to existing structures supported on a solid foundation or proposed below the base flood elevation plus one (1) foot or three (3) feet above the highest adjacent ground elevation (whichever is higher);
 - (ii) New parallel walls/shear walls, vertical walls or breakaway walls, foundation piers, grade beams, or foundation/structural slabs for existing structures;
 - (iii) New or proposed expansions of roads, driveways, parking lots, or impermeable paving for existing unpaved roads, driveways or parking lots:
 - (iv) New or proposed expansions of coastal engineering structures;
 - (v) New or expanded septic systems;
 - (vi) New or expanded stormwater management systems/discharges;
 - (vii) New or expanded utilities;
 - (viii) New underground storage tanks; and
 - (ix) New activities and uses that change the physical characteristics of the land through draining, excavating, dredging, dumping, filling, removing vegetation, removing or transferring loam, peat, sand, soil or other material substance which will reduce the natural storage capacity of the land, interfere with the landward migration of coastal resources in response to sea level rise, interfere with the natural drainage/tidal patterns of any watercourse, or degrade the water quality of surface or groundwater.
- (i) Notwithstanding the provisions of (a) (h) above, the Commission may permit the following activities provided that the applicant demonstrates, to the satisfaction of the Commission, that best available measures are utilized to minimize adverse effects on all critical characteristics of Land Subject to Coastal Storm Flowage, and

provided that all other performance standards for underlying resource areas are met:

- (i) Beach and bank nourishment and restoration projects, including fencing, native plantings and other devices designed to increase stabilization and decrease erosion;
- (ii) Pedestrian walkways for public shoreline access and non-motorized use;
- (iii) Elevated decks or walkways with appropriate height and spacing between planks to allow sufficient sunlight and precipitation penetration;
- (iv) Boat launching facilities, navigational aids, piers, docks, wharves, dolphins, float stops;
- (v) Improvements necessary to maintain or improve the structural integrity/stability of existing coastal engineering structures;
- (vi) A project which will restore, rehabilitate or create a salt marsh or freshwater wetland;
- (vii) Projects that are approved, in writing, or conducted by the Division of Marine Fisheries that are specifically intended to increase the productivity of land containing shellfish, including aquaculture, or to maintain or enhance marine fisheries; and
- (viii) Projects that are approved, in writing, or conducted by the Division of Fisheries and Wildlife that are specifically intended to enhance or increase wildlife habitat.
- (ix) Projects designed to protect critical public infrastructure from storm surge and sea level rise.

9. Variances & Mitigation

A. Variance Requirements. The Commission may, in its discretion, grant variances from the specifically identified requirements of the Ordinance and these Regulations when it finds, after opportunity for a hearing, that that the requirements of Section 6.5-30 of the Wetlands Protection Ordinance have been met and that avoidance, minimization and mitigation have been employed to the maximum extent feasible.

For purposes of this Section and Section 6.5-30 of the Wetlands Protection Ordinance, "conditions or alternatives" shall not be considered unreasonable (i) because they are more costly than other available conditions or alternatives or because they result in more cost than would be the case if the proposed activity is completed without complying with the requirements of the Ordinance; (ii) if they result in reducing the size or scope of the proposed activity or changing its location or (iii) if they result in the proposed activity having less visual appeal. Compliance with the setbacks and other dimensional requirements of local zoning shall not be solely used as the justification for issuance of a variance.

- **B.** *Variance Requests.* Requests for variances shall be made in writing and submitted with the Notice of Intent application. The request shall include, at a minimum, the information required in Section 6.5-30 of the Ordinance and identification of all provisions of the Ordinance and these Regulations from which variance is requested.
- **C**. **Action by the Commission on Variance Requests.** The Applicant shall have the burden of proving, to the satisfaction of the Commission, that all of the variance requirements listed in this Section have been satisfied.

The Commission may impose conditions, safeguards, and limitations in a variance to protect further the values and interests protected by the Ordinance or the intent or purpose of the Ordinance.

D. *Mitigation.* In cases where a variance is granted, the Commission shall require mitigation measures to be implemented to offset potential impacts to the wetland resource areas. The mitigation must maintain or improve the natural capacity of a resource area to achieve the values and interests protected by the Ordinance. The mitigation shall be commensurate with the scope of the project's impacts and shall be implemented to offset potential impacts to wetland resource areas.

In its discretion, the Commission may require that mitigation be implemented and demonstrated to be functioning before alterations permitted by the variance may implemented.

The Commission strongly discourages any plan that requires resource replication as scientific reviews conclude that for the most part replications fail to reproduce the range of values – in quantity and quality – of the wetlands they ostensibly replace. Alteration may be allowed when said areas are replaced or restored according to the following criteria:

- 1. Wetlands replacement must be at least a 2:1 ratio (replicated wetland to altered wetland).
- 2. Replicated wetlands shall be made contiguous to existing wetlands unless the applicant is able to demonstrate that another location (adjacent to other resource areas) would have a greater ability to protect the interests of the WPA and the Ordinance.
- 3. Replicated areas must be constructed prior to other construction activity on site. The applicant shall have the burden of proving where this requirement may not be appropriate to the interests of the WPA and the Ordinance in certain instances.
- 4. Wetland soils from the altered wetland shall be excavated and kept intact to the greatest extent possible and used for the replicated wetland when these soils are suitable for such purpose.
- 5. A combination of natural re-seeding, transplanting, and new plantings shall be used to re-establish a vegetated community and structural diversity similar to the disturbed area.

- 6. At least 75% of the surface area of the replicated area must be established with native wetland plant species within two (2) growing seasons. If this condition is not met, the applicant must propose and implement corrective steps to be approved by the Commission.
- 7. Colonization of invasive species must be documented and controlled. Evidence of the spread of invasive species within a replication area shall require the development and implementation of a management/control plan.
- 8. A qualified wetland scientist chosen by the Commission, and hired at the applicant's expense shall monitor replicated wetlands twice a year and submit written reports to the Commission (May and October unless otherwise required by the Commission).
- 9. Any replication or restoration work that creates a resource area on abutting properties shall require an easement from the abutting property owner covering the full extension of the resource area on that property prior to commencement of the work.
- 10. All project mitigation must be performed onsite, unless otherwise permitted by the Conservation Commission.

E. Additional Reasons for Denial of a Variance

When the Commission finds that issuance of a variance will not provide for adequate protection of resource areas either directly or cumulatively, it may deny such a request. Whether a variance is issued is at the sole discretion of the Commission. For purposes of providing the applicant the opportunity to redesign a project, the Commission may vote on denial of a variance separately from the application as a whole. The following list includes, but is not limited to, some reasons for denial:

- 1. The cumulative alteration of wetlands on the property and contiguous land of the same owner (now or previously) exceeds five thousand (5000) square feet or five (5%) percent (whichever is less); *or*
- 2. The proposal is for direct discharges of stormwater to a wetland or waterbody/way, or stormwater detention/retention in a wetland or waterbody/way; *or*
- 3. Alternatives exist which, although more costly to the applicant or resulting in less economic gain, result in significantly less or no alteration to resource areas; *or*
- 4. The judgment of the Commission is that the mitigation proposed is insufficient, or unproven, to protect the values and interests of the Ordinance.

10. Performance Guarantees

In accordance with Section 6.5-37 of the Ordinance, the Commission may require funds in an escrow account or the posting of a bond for certain project elements when (without limitation):

- **A.** They believe there to be a higher than average risk of impacts during construction;
- **B.** A project is so large that if the project were to be left unfinished adverse impacts would likely result:

C. There are direct impacts to isolated or bordering vegetated wetlands that require restoration or mitigation.

11. Enforcement

- A. Violations. When the Commission determines that an activity has occurred or is occurring in violation of the Ordinance or a permit issued thereunder, the Commission may issue an Enforcement Order, or take any other action authorized by law. It shall be a violation of the Ordinance and these Regulations to (a) fail to comply with or to observe the terms or conditions in any permit; (b) fail to complete work described in any permit if the work may have an adverse impact on a resource area; (c) fail to obtain a permit before conducting any activity subject to regulation under the Ordinance and these Regulations; (d) cause, suffer or allow any illegal work or activity; (e) fail to comply with an Enforcement Order or; (f) fail or refuse to remove illegal fill or to restore any illegally altered area to its previous condition. Each day or portion thereof that any of the foregoing violations continue or unauthorized fill or other alteration remains in place shall constitute a separate offense. Each provision of the Ordinance, these Regulations, Enforcement Order or Violation Notice violated shall constitute a separate offense.
- **B.** *Form of Order.* An Enforcement Order issued by the Commission shall be signed by a majority of the Commission. In a situation requiring immediate action, an Enforcement Order may be signed by a single member or agent of the Commission if said Order is ratified by a majority of the members at the next scheduled meeting of the Commission.
- **C. Request for Hearing.** Any person aggrieved by the issuance of an Enforcement Order may request a hearing by making a written request delivered to the office of the Commission within seven (7) days of the receipt of the Enforcement Order.
- **D.** *Fines.* The Commission or its Agent may impose fines of up to \$300 per day in accordance with M.G.L. c. 40, §21D, the Ordinance and these Regulations for violation of any provisions of the Ordinance, these Regulations or administrative orders issued thereunder.

12. Employment of Outside Consultants

- A. **Purpose.** As provided by M.G.L. Chapter 44 §53G, the Commission may impose reasonable fees for the employment of outside consultants engaged by the Commission for specific expert services when such services are deemed necessary by the Commission to make a final decision on a permit application submitted to the Commission pursuant to the requirements of the Wetlands Protection Act, the Ordinance, the Conservation Commission Act (M.G.L. Chapter 40 §8C), or any other state or municipal statute, ordinance or regulation, as the same may be amended or enacted from time to time. The Commission may also impose fees for other consultant services related to application review, permit conditioning or monitoring, under any of the above-referenced laws or regulations.
- **B.** *Special Account.* Funds collected from applicants pursuant to this regulation shall be deposited with the city treasurer who shall establish a special account for this purpose.

Expenditures from the special account may be made at the direction of the Commission without further appropriation as provided in M.G.L. Chapter 44 §53G and shall be made only in connection with a specific project or projects for which a consultant fee has been collected from the applicant. Expenditures of accrued interest, if any, may also be made for these purposes.

- C. Consultant Services. Specific consultant services procured by the Commission pursuant to this regulation include but are not limited to resource area survey and delineation, analysis of resource area values, hydrogeologic and drainage analysis, impacts on municipal conservation lands, and environmental or land use law. Services may also include on-site monitoring during construction, or other services related to a project which are deemed necessary by the Commission. The consultant shall be selected by, and report only to, the Commission and/or its Agent.
- **D. Notice of Selection.** The Commission shall give written notice to the applicant of the selection of an outside consultant. Such notice shall state the identity of the consultant, the amount of the fee to be charged to the applicant, and a request for payment of said fee in its entirety. Such notice shall be deemed to have been given on the date it is mailed or delivered.
- **E.** Payment of Fee. The fee in its entirety must be received by the Commission prior to the commencement of consulting services. The Commission may request additional consultant fees if necessary review requires a larger expenditure than originally anticipated or new information requires additional consultant services. Failure by the applicant to pay the consultant fee specified by the Commission within ten (10) business days of the request for payment, or the applicant's refusal to make payment, shall constitute cause for the Commission to deny the permit application, or issue an adverse determination or order, based on lack of sufficient information to evaluate whether the project meets applicable performance standards under the WPA, under the Ordinance or under regulations promulgated pursuant to either. A denial for lack of information may be based solely on the lack of the third party consultant review identified as necessary by the Commission. The Commission shall specify in its denial the nature of the information lacking which its chosen consultant would have been expected to provide; i.e. the questions the Commission required to be answered.
- F. Appeals. The applicant may appeal the Commission's selection of an outside consultant to the City Council, which may only reject the outside consultant selected by the Commission on a finding that either (i) the consultant has a conflict of interest or (ii) the consultant does not possess the minimum required qualifications. The minimum qualifications shall consist of either an educational degree or three or more years of practice in the field at issue or a related field. Such an appeal must be in writing and delivered to the City Council, with a copy to be delivered contemporaneously to the Commission, so as to be received by both within ten (10) days of the date of the Notice of Selection described in Section (d) above. The required time limit, if any, for the Commission's action on the applicant's permit application, shall be stayed for the duration of any appeal under this Section (f).
- **G. Return of Unexpended Fees.** When the Commission's review of a project is completed and a permit is issued or denied, any balance in the special account attributable to that project, including any unexpended interest earned thereon, shall be returned to the applicant, or the

applicant's successor in interest, within thirty (30) days. Upon the applicant's request, a report of fees paid by the applicant and expenditure thereof by the Commission shall be made available to the applicant or the applicant's successor in interest. Any person or entity claiming to be an applicant's successor in interest shall provide the Commission with appropriate documentation as proof.

13. Effective Date & Amendments

- **A.** These Regulations shall become effective after notice and public hearing and an affirmative vote of adoption by a majority of the Newburyport Conservation Commission, and the filing of such Regulations with the City Clerk.
- **B.** The provisions of these Regulations shall apply to all work performed after the effective date with the exception of:
 - 1. Any structure or use lawfully in existence or lawfully begun prior to the effective date;
 - 2. Any structure or use which is subject of a submitted Notice of Intent (NOI), the original NOI for which was filed prior to the effective date; or
 - 3. At the discretion of the Commission, a structure or use for which any extensions or amendments to any existing Order of Conditions may now or hereafter be issued, the original Notice of Intent for which was filed prior to the effective date.
- **C.** Notwithstanding the above, enforcement provisions as set forth in Section 9 of these Regulations shall apply to violations of any permit in effect or under consideration, on, before or after the effective date of these Regulations.

14. Severability

The invalidity of any section or provision of these Regulations shall not invalidate any other section or provision thereof, nor shall it invalidate any permit, approval or determination which previously has been issued.

Appendix A

Newburyport Wetlands Protection Regulations Local Administrative Fee Schedule

Local administrative fees are payable at the time of application and are non-refundable. The administrative fees shall be calculated by the project applicant according to the schedule listed below. City projects are exempt from fees.

These fees are in addition to and separate from those fees required by the Commonwealth of Massachusetts, the Department of Environmental Protection (DEP) or other agencies. See

http://www.mass.gov/dep/water/approvals/wwforms.htm#noi for DEP Wetland permit forms and instructions, and

http://www.mass.gov/dep/water/approvals/wwforms.htm#appendix for DEP Wetland Fee Transmittal Forms.

Public Notice Fee: Whenever an application requires the placement of a legal ad in the local newspaper to provide notice of a public hearing (RDA, NOI, Amended NOI, ANRAD, ANOI) the applicant shall pay the City a fee of \$175 for placement of the legal ad with the Newburyport Daily News. The check shall be made out to the City of Newburyport.

The following local administrative fees shall be applied:

1. Request for Determination of Applicability (RDA)

For an RDA submitted under the Newburyport Wetlands Protection Ordinance, there shall be a charge of \$100.00 to be submitted with the RDA application (This does not include the additional \$175.00 for placement of the Newspaper Ad).

2. Abbreviated of Notice of Resource Area Delineation (ANRAD)

For an ANRAD's submitted under the Newburyport Wetlands Protection Ordinance there shall a fee of \$25.00 for each 100 linear feet of resource area to be reviewed by the Commission, not to exceed \$1,000.00.

3. Notice of Intent (NOI) or Abbreviated Notice of Intent (ANOI)

For NOI's and ANOI's submitted under the Newburyport Wetlands Protection Ordinance there shall be a fee for each activity under review by the Commission as follows (This does not include the additional \$175.00 for placement of the Newspaper Ad):

Category 1 - \$50.00 for each activity

Category 2 - \$150.00 for each activity

Category 3 - \$300.00 for each activity

Category 4 - \$500.00 for each activity

Category 5 - \$1.00/linear foot, not less than \$100.00 or more than \$1,000.00

Category 6 - \$1.00/linear foot, no more than \$100.00 for single family home or \$1,000.00 for all other activities

Note: the above categories are defined in the *Category Activities and Fees* section of the Mass. DEP *Instructions for Completing Application, WPA Form 3 – Notice of Intent. See* http://www.mass.gov/dep/water/approvals/wwforms.htm#noi

4. Order of Conditions (OOC)

<u>Modification/Amendment</u> - A fee of **\$50.00** shall be charged for the first requested modification and/or amendment as well as an additional **\$25.00** for each additional modification and/or amendment (for example: 1^{st} modification/amendment = \$50.00, 2^{nd} = \$75.00, 3^{rd} = \$100.00, 4^{th} = \$125.00) (This does not include the additional \$175.00 for placement of the Newspaper Ad).

<u>Certificate of Compliance</u> (COC) - A fee of **\$25.00** shall be charged for a request for a Certificate of Compliance for an Order of Conditions that has *not yet expired*. If the first request has been denied, there shall be a charge of **\$50.00** for each additional request.

A fee of **\$100.00** shall be charged for a request for Certificate of Compliance for an *expired* Order of Conditions. If the first request has been denied, there shall be a charge of **\$50.00** for each additional request.

<u>Extension Permit</u> - A fee of **\$50.00** shall be charged for each request for an Extension Permit of an Order of Conditions.

5. Emergency Certification

A fee of **\$100.00** shall be charged for each request for an Emergency Certification.

6. Violation/Enforcement Order

A fee of \$50 shall be charged for each Notice of Violation or Enforcement Order ratified by the Conservation Commission. This Administrative Fee is separate and apart from any other fees or fines that may be charged for the violation under the Wetlands Protection Act or the Newburyport Wetlands Protection Ordinance.

7. Letter Permit

A fee of **\$25.00** shall be charged for each Letter Permit Application.

Online Resources

The following resources are available as hyperlinks in Word versions of this document. An electronic version of this document are available on the Newburyport Conservation Commission webpage at:

www.cityofnewburyport.com/Planning/ConservationPage.html

Documents

City of Newburyport Wetlands Ordinance, adopted June 2012

Massachusetts Wetlands Protection Act Regulations, 310 CMR 10.00

Part A (regulations): PDF 590 KB

Part B (appendices): PDF 369 KB

Massachusetts Wetlands Protection Act Forms and Instructions

http://www.mass.gov/dep/water/approvals/wwforms.htm#noi

Massachusetts Wetlands Protection Act Fee Transmittal Forms

http://www.mass.gov/dep/water/approvals/wwforms.htm#appendix

Massachusetts Building Code (<u>www.mass.gov/Eeops/docs/dps/inf/780CMR-1/780120a.pdf</u> -- search for: **780 CMR 120.G**)

Websites

Coastal Zone Management StormSmart Coasts Program

Coastal Zone Management Coastal Landscaping Guide

Massachusetts Department of Environmental Protection