## DRINKING WATER RESOURCES PROTECTION: GROUNDWATER RISE & SALTWATER INTRUSION

## **Regulation Language**

Step 1: Conduct a groundwater modeling study to delineate boundaries for a Groundwater Rise Overlay District. Utilize existing groundwater models where possible.

Step 2: Develop language for the **Groundwater Rise Overlay District**.

**I. PURPOSE**

* + - It is no longer prudent to rely upon historic environmental conditions as the basis for planning, design, and permitting. Future projections based on climate science must be utilized to the maximum extent possible.
    - To protect the quality and sustainability of current and future water supplies.
    - To identify and prioritize road and underground infrastructure that is vulnerable to premature failure and increased maintenance and repair costs from rising groundwater.
    - To identify communities vulnerable to increased flooding (basements and septic systems) as groundwater rises.
    - To ensure the protection of current and future wetland areas and preserve their functions for flood control, water quality improvement, and wildlife habitat.
    - To reduce the impacts of rising groundwater on stormwater systems.
    - To identify and reduce groundwater and surface-water quality impacts from rising groundwater and failing septic systems or the mobilization of hazardous wastes.

**II. AUTHORITY**

* + - Governing body must adopt/approve/accept the projected relative sea level rise for coastal New Hampshire as referenced in the New Hampshire Coastal Flood Risk Summary Part 1: Science.
    - Permitting authorities must require project proponents to follow the New Hampshire Coastal Flood Risk Part 2: Guidance including the guidance on the appropriate projections to use for the specific project, criticality and lifespan, and location.

**II. APPLICABILITY**

* + - The provisions of the Groundwater Rise Zone Overlay District (GWRZOD) shall apply to the district boundaries, defined as the area titled “Groundwater Rise Zone.” The GWRZOD is a zoning overlay district which imposes additional requirements and restrictions to those of the underlying district. In all cases, the more restrictive requirement(s) shall apply.
    - Groundwater Rise Zone –The GWRZ is the area where groundwater rise caused by sea level rise will occur. The magnitude of groundwater rise varies with distance from the coast, geological features, and anthropogenic conditions. The GWRZ will mark the inland-most boundary of the overlay district or can mark the inland boundary of a particular level of groundwater rise, i.e., 1 foot, 2 feet, 3 feet, etc. within the overlay district. Due to the complexities inherent in groundwater modeling and evaluation, a hydrogeologist will be required to run the groundwater model for various sea-level rise scenarios or to interpret model results.
    - Groundwater modeling should be done at a scale appropriate for the scale of the projects under consideration.