EXETER CLIMATE-RELATED DOCUMENTS

New Hampshire Coastal Flood Risk Summary Part 1: Science and Draft Assessment (2019) and Part 2: Draft Guidance for Using Projections (2020): Part 1 is a synthesis on science around coastal impacts due to sea level rise, storm surge, groundwater rise, and freshwater flooding. Part 2 provides a tool to evaluate a projects risk tolerance level based on sea level rise, storm surge, and sea level rise induced groundwater rise.

Living Shoreline Suitability Index (2019): Tool created to identify sites that are suitable for living shoreline approaches to address erosion issues along tidal shoreline.

Tidal Culvert Assessment (2018): Tidal crossing assessment data were used to rank and prioritize sites based on structure condition, flood risk, and ecosystem health. Includes two Exeter culverts (#123-Wheelwright Creek under Portsmouth Ave and #124-Norris Brook).

Phase I and Phase II: Lincoln Street Subwatershed Nutrient Control Strategies (2018): This document builds off the WISE Report (Water Integration for the Squamscott Exeter 2015). Phase I identifies green infrastructure opportunities for the Lincoln Street subwatershed. Phase II is Outreach focused and includes a climate resiliency survey, outreach materials for various green infrastructure approaches, water trail signs and worksheet, and a draft model climate adaptation plan.

Climate Risk in the Seacoast (C-Rise) Exeter Vulnerability Assessment (2017): Modeled Sea Level Rise and Storm Surge for coastal portions of Exeter in terms of flood potential and resultant impacts on culverts, critical municipal facilities, transportation routes, natural resources, and residential structures.

The Land Conservation Priorities for the Protection of Coastal Water Resources (2016): Identified land conservation opportunity areas based on coastal water resource benefits from pollutant attenuation and removal, flood storage and risk mitigation, and public water supply

Climate Adaptation Plan for Exeter (CAPE) Report (2015): Models potential future flooding scenarios for Dam In and Dam Out conditions under Mean High High Water and Storm Surge for 10yr, 25 yr, 100 yr storm events under low and high emissions scenarios. Results include flooding depth, structure impacts, roadway flooding, and stormwater capacity

Water Integration for Squamscott Exeter (WISE) Report (2015) Evaluates a variety of nutrient control approaches which as stormwater infrastructure becomes overwhelmed by climate impacts, broader nutrient removal approaches will likely need to be relied upon. Report contains impaired rivers map (p. 351), SWAs Model Stormwater Regulations (p. 24), provides an overview of nutrient management BMPs (p. 90), quantifies annual unattenuated (untreated) nutrient loads from stormwater by land use (p. 164), BMP applications and design contraints (p. 177), develops a cost per management strategy for nutrient management (p. 195), and list of septic systems adjacent to surface waters (p. 330).

Exeter's Natural Resource Inventory (2012): Compiles co-occurrence maps of surface water, drinking water, wildlife habitat, agriculture, and forest resources which are compiled into a single Core Composite Map (Map 12) to identify priority focus areas. Also ID development potential based on

suitability (excludes conservation lands, prime/hydric soils/shoreland/wetland buffer, and floodplain areas) and develops prioritized core focus areas based on high priority conservation lands with greatest development potential.

Exeter River Geomorphic Assessment and Watershed-based Plan (2009) and Appendixes: Focuses on freshwater Little and Exeter Rivers and evaluates condition of stream channel and buffer quantified by reach, bridge and culvert assessments including organism passage, ID fluvial erosion hazard areas (areas with high likelihood of physical stream channel adjustment during flooding) and restoration/protection opportunities.

Great Bay Restoration Compendium (2006): Reviewed historical and present day distributions for multiple species and habitats and identified fresh and tidal water restoration opportunities.