York Sewer District

Special District Addendum

to the

York County, Maine

Hazard Mitigation Plan 2022

May 2026 Draft

Executive Summary

The York Sewer District is a quasi-governmental entity serving the community of York, Maine, located wholly within York County. The district provides essential wastewater management services to residents and businesses within the Town of York.

The district operates critical wastewater infrastructure including a wastewater treatment facility (WWTF) at 21 Bay Haven Road; approximately 44.6 miles of gravity sewer, 3.6 miles of low-pressure sewer, and 3.2 miles of force main; 140 E/One-style low-pressure pump stations; and 12 district-owned pump stations concentrated in the York Village and York Beach service areas. The WWTF is rated for a 3.0 million gallon per day monthly average flow and a 7.5 million gallon per day peak instantaneous flow. Recent and recurring hazard indicators already documented by the district include historical flash flooding at the Long Beach Pump Station, including during the Mother’s Day Storm of 2006, historical flooding around the Short Sands Pump Station and adjacent parking/beach area, frequent storm-related utility outages, and the exposure of multiple coastal and low-lying assets to sea level rise, coastal flooding, and hurricane storm surge. Due to York's coastal location, the district's infrastructure faces heightened exposure to coastal flooding, hurricane storm surge, sea level rise, and severe coastal storms with intense winds and wave action.

This Special District Addendum formally adopts the York County Hazard Mitigation Plan 2022 and documents the district's participation in hazard mitigation planning. By adopting this addendum, the York Sewer District becomes eligible for FEMA hazard mitigation assistance programs, enabling the district to implement projects that reduce the long-term risk to critical wastewater infrastructure from natural hazards, particularly those associated with York's coastal environment.

Planning Process

This Special District Addendum was prepared through coordination between the York Sewer District and the York County Emergency Management Agency (York County EMA). The planning process included the following activities:

The York County EMA reviewed the York County Hazard Mitigation Plan 2022 to identify hazards applicable to the Town of York and the York Sewer District's service area. Staff assessed the district's vulnerability to identified hazards, with particular attention to coastal hazards given York's Atlantic Ocean frontage and coordinated with district representatives to gather information on critical assets, capabilities, and mitigation priorities.

The York Sewer District participated in the planning process through its designated representative, Phil Tucker, Chief Utility Officer (CUO). Mr. Tucker provided information on the district's critical infrastructure, verified the applicability of hazards identified in the York County plan, and confirmed the district's mitigation goals and priorities.

The York Sewer District Board of Trustees formally demonstrated its commitment to hazard mitigation planning by voting on July 9, 2025 to adopt a resolution supporting the York County Hazard Mitigation Plan.

District coordination for this draft addendum occurred during March 2026 and included direct review of district planning documents and follow-up coordination with the district CUO. Coordination between York County EMA and Phil Tucker, CUO, included email correspondence on March 3, 2026, March 10, 2026, and March 13, 2026, as well as telephone discussions on March 11, 2026, March 19, 2026, and April 2, 2026. These coordination efforts were used to confirm critical assets, refine hazard applicability, and validate mitigation priorities.

In addition, the District's Board of Trustees reviewed and discussed the addendum at its April 8, 2026, meeting as part of the District's planning and adoption process.

The district's August 2023 Climate Adaptation Plan, March 2023 Fiscal Sustainability Plan, and December 2023 Sanitary Sewer Master Plan were used as the principal technical references supporting this addendum.

The addendum development process utilized the York County Hazard Mitigation Plan 2022 as the primary resource for hazard identification and risk assessment. Additional resources consulted include:
• FEMA Special District Addendum Tool and guidance
• Maine Emergency Management Agency (MEMA) special district addendum guidance
• Maine Geological Survey coastal flooding and sea level rise data for York

Public Participation

This draft addendum has been made available for public review in coordination with the York County Hazard Mitigation Plan update process and the York Sewer District adoption process. The draft was posted at the district office and on the district website from April 9, 2026, through May 13, 2026, in accordance with established board procedures, with a public comment period provided from April 9, 2026 through May 13, 2026. A public hearing was held on May 13, 2026. Notice of the availability of the draft

and the opportunity for public comment was provided in conjunction with district communications and meeting postings.

Public input received during the comment period was documented and reviewed by the District. [INSERT SUMMARY OF COMMENTS RECEIVED, OR STATE “No substantive public comments were received during the comment period.”]. Any substantive comments have been incorporated as appropriate into this addendum. All comments and responses will be retained as part of the District’s plan maintenance records.

Following FEMA Approval Pending Adoption, the District will provide notice of the board meeting at which adoption of the addendum will be considered, and the public will have an additional opportunity to provide comment prior to final local adoption.

Risk Assessment

The York Sewer District has reviewed the risk assessment contained in the York County Hazard Mitigation Plan 2022 and validates that the profiled hazards remain applicable to district facilities and operations. The district’s 2023 Climate Adaptation Plan, 2023 Fiscal Sustainability Plan, and 2023 Sanitary Sewer Master Plan confirm that coastal flooding, storm surge, sea level rise, severe storms, power outages, inflow and infiltration, and access constraints remain material risks to critical wastewater assets. Historical flooding observations at Long Beach and Short Sands, together with mapped exposure of the WWTF and several pump stations to the FEMA floodplain and Maine Geological Survey storm surge scenarios, reinforce rather than diminish the current risk assessment.

Applicable Hazards

The following hazards profiled in the York County Hazard Mitigation Plan 2022 are applicable to the York Sewer District based on the district's coastal location within the Town of York:

- Coastal Flooding (storm surge, wave action, sea level rise)
- Hurricane Storm Surge and Tropical Storms
- Coastal Erosion and Landslide
- Flooding (riverine, flash flood, ice jam, urban runoff)
- Severe Fall/Winter Storms (ice storms, snowstorms, nor'easters with enhanced coastal wind velocities)
- Severe Spring/Summer Storms (thunderstorms, high winds, lightning, hail, coastal storms)

District Vulnerabilities

Coastal Flooding Vulnerability:

York's location on the Atlantic Ocean creates significant coastal flooding vulnerability for the York Sewer District. Coastal flooding results from the combination of storm surge, high astronomical tides, heavy rainfall, and wave action. The Maine Geological Survey estimates that sea level along Maine's coast has risen approximately 7.5 inches since

1912, with the rate nearly doubling over the past 30 years. By 2050, Maine is projected to experience a 15-fold increase in coastal flooding. As sea levels rise, storms that historically had a 1% annual chance of occurrence (100-year storm) will occur with 10% annual probability (10-year storm), dramatically increasing the frequency and severity of coastal flooding impacts.

Wastewater infrastructure in coastal locations is highly vulnerable to flooding, which can inundate treatment facilities and pumping stations, overwhelm collection systems through saltwater intrusion and excessive inflow and infiltration, damage electrical and mechanical equipment, corrode infrastructure from saltwater exposure, and cause system backups that release untreated sewage into coastal waters. For York Sewer District, this vulnerability is direct and documented. The WWTF parcel has a FEMA base flood elevation of 15 feet and site grades ranging from approximately 10 to 18 feet, with the Bay Haven Road entrance and northern portion of the site vulnerable to inundation during a 100-year flood event and during Category 1 and 2 hurricane storm surge scenarios. Three district pump stations—Long Beach, Short Sands, and Spring Pond—are located within the FEMA 100-year floodplain, and Lobster Cove and York River Farms are close enough to be affected by higher water scenarios. Long Beach and Short Sands are the district's highest coastal resiliency priorities because both stations are in low-elevation coastal settings, protect densely developed and high-visibility beach areas, and are essential to avoiding sewer backups, public health impacts, and water quality degradation in areas central to York's economy and tourism.

Hurricane Storm Surge and Tropical Storm Vulnerability:

York County experiences a significant tropical storm approximately once every three to four years and a hurricane about once every 12 years on average. Hurricane storm surge, which pushes water toward shore with tremendous force, can increase mean water levels by 15 feet or more when combined with normal tides. The district's 2023 climate adaptation analysis determined that the northern portion of the WWTF site is vulnerable to storm surge, that Long Beach Pump Station may experience up to 3 feet of flooding during a Category 1 hurricane and 3 to 6 feet during a Category 2 hurricane, and that Short Sands Pump Station may experience 3 to 6 feet of flooding during a Category 2 hurricane. Even where total structural failure is avoided, surge conditions can flood access routes, damage transformers and standby power equipment, disable electrical and control systems, and delay emergency response in the precise locations where uninterrupted sewer service is most important to public health and environmental protection.

Coastal Erosion Vulnerability:

Coastal erosion, accelerated by wave action, storm events, and sea level rise, threatens infrastructure stability in shoreline areas. Erosion can undermine foundations of coastal facilities, expose and damage buried collection lines and force mains, create access challenges for maintenance and emergency response, and result in catastrophic infrastructure failure if erosion progresses unchecked. Nor'easters, which occur more frequently than hurricanes, generate powerful wave action that causes significant erosion along York's coastline. The district's Climate Adaptation Plan specifically notes that sewers along the York River, adjacent to the beach between Route 103 and the

Stage Neck Road area, could be at risk from increased soil erosion resulting from more frequent large and intense storms. This risk is especially important because coastal collection infrastructure failures can be difficult to access and repair during the same events that create the underlying damage.

Severe Fall/Winter Storm Vulnerability (Enhanced Coastal Impacts):

York County experiences approximately seven severe winter storms each season, with at least one especially damaging storm every 10 years. Coastal locations like York experience significantly stronger winds during nor'easters and winter storms due to fetch (the unobstructed distance wind can blow across open ocean toward shore). These enhanced wind velocities, combined with storm surge and wave action, create compounded impacts that inland areas do not experience. Severe winter storms cause prolonged power outages lasting days or weeks. Without backup power, wastewater pumping operations cease, leading to system backups and potential overflow situations that pose public health and environmental risks. Ice accumulation damages above-ground infrastructure and impedes access for maintenance and emergency response. The district's critical dependence on electrical power for pumping operations creates significant vulnerability to winter storm impacts.

Severe Spring/Summer Storm Vulnerability (Enhanced Coastal Impacts):

Thunderstorms, high winds, and lightning strikes pose risks to wastewater infrastructure. Coastal areas experience stronger wind velocities during summer storms due to sea breezes and lack of wind breaks. Lightning can damage electrical systems and control equipment. Heavy rainfall can overwhelm collection systems and increase inflow and infiltration. Since 2012, 26% of summer storm events in York County resulted in property damage, with coastal flooding being particularly costly. Coastal storms combine heavy rain with storm surge, creating dual flooding threats. Power outages from storm damage affect pumping operations and can lead to service disruptions.

Riverine and Flash Flooding Vulnerability:

In addition to coastal flooding, York experiences flooding from riverine sources, flash floods, ice jams, and urban runoff. The Town of York has frontage on tidal rivers including the York River, which creates combined tidal and riverine flooding risk. Spring flooding from snowmelt combined with rainfall is common, and increasingly intense precipitation events associated with climate change have increased extreme flooding frequency. Urban areas with impervious surfaces experience rapid runoff that can overwhelm collection systems. District facilities with documented floodplain exposure include the WWTF site and the Long Beach, Short Sands, and Spring Pond pump stations. The Route 103 Pump Station has also experienced localized ponding associated with a blocked nearby catch basin, and the Long Beach Pump Station has experienced flash flooding from intense storms. In addition to direct damage, riverine and urban flooding reduce access to pump stations and increase inflow and infiltration into the collection system, reducing available hydraulic capacity during emergencies.

Wildfire/Drought Vulnerability:

Although wildfire and drought are profiled in the York County Hazard Mitigation Plan 2022, after review and consideration, these hazards have been omitted since neither presents significant direct risk to the district's infrastructure. The District's exposure to these hazards is primarily indirect, such as potential power outages from wildfire-related incidents or reduced flows during extended drought, both of which are managed through the District's routine operations and maintenance programs. Neither hazard poses a direct threat to the District that would be addressed through hazard mitigation actions under this plan.

Asset Vulnerability

The following identifies critical assets of the York Sewer District and their vulnerabilities to profiled hazards:

Asset	Location	Vulnerable To	Problem Statement
Wastewater Treatment Facility (WWTF)	21 Bay Haven Road, York	Coastal flooding, hurricane storm surge, severe storms, sea level rise	The WWTF is the district's central treatment asset. The site has a FEMA base flood elevation of 15 feet, site grades from about 10 to 18 feet, and vulnerable access from Bay Haven Road. The northern half of the site may be inundated during 100-year and Category 1/2 storm surge events, and flooding of utility transformers could interrupt operations.
Long Beach Pump Station	111 Long Beach Avenue / Railroad Avenue Extension, York	Coastal flooding, flash flooding, hurricane storm surge, sea level rise	This is located within the FEMA flood zone and is one of the district's most critical regional pump stations, with an existing capacity of 6,000 gpm and multiple upstream service areas. It has documented flooding history, including the Mother's Day Storm of

			2006. The building finished floor is about elevation 11 and the standby generator about elevation 11.5, both below resilient design targets for critical equipment. Failure would threaten upstream pump stations, nearby businesses and residences, and beach water quality.
Short Sands Pump Station	14 Ocean Avenue, York	Coastal flooding, hurricane storm surge, severe storms, limited site access	Short Sands is located within a FEMA flood zone and serves a dense coastal and commercial/tourism area where sewer interruption would have immediate public health, environmental, and economic consequences. Historical flooding has occurred around the beach and parking lot. Pumps, controls, and VFDs are located below or at the mapped flood elevation, and the generator is at approximately the 100-year flood elevation, leaving the station highly exposed during coastal storm events.
Route 103 (Barrell Mill) Pump Station	11 Lilac Lane, York	Riverine flooding, severe storms, wind/blowdown	This station is a major inland conveyance node with assumed existing capacity of 2,500 gpm and it receives flow from York Village and several upstream pump station

			service areas. Although direct coastal flood risk is lower than at Long Beach and Short Sands, outage or access failure at this site could cause systemwide conveyance impacts. Aging process piping and reliance on uninterrupted access make this a critical secondary mitigation priority.
Coastal Collection System and Low-Lying Manholes	Long Beach, Short Sands, York River corridor, and other low-lying service areas	Coastal flooding, riverine flooding, erosion, severe storms	The district's collection system includes low-lying pipes, force mains, and manholes subject to floodwater intrusion, erosion, and access constraints. The district has already identified the need for continued flood-proofed manhole covers and targeted sewer renewal work in the Long Beach and Short Sands sewersheds. Damage or surcharge in these areas can contribute to backups, sanitary sewer overflows, and water quality impacts in sensitive coastal receiving waters.

The assets listed above represent the district's highest-priority facilities for hazard mitigation planning based on criticality, flood exposure, consequence of failure, and the district's 2023 planning documents. In addition to these assets, the district operates 12 district-owned pump stations systemwide, all with radio-based alarming and several with standby power. Long Beach and Short Sands remain the district's two highest coastal mitigation priorities because they combine documented flood exposure, high consequence of failure, and direct importance to public health, environmental protection, and York's coastal economy.

Mitigation Strategy

The York Sewer District validates that the mitigation strategy outlined in the York County Hazard Mitigation Plan 2022 remains accurate and relevant to the district's operations and mission.

Goals

The York Sewer District adopts the goals outlined in the York County Hazard Mitigation Plan 2022. These goals support the district's commitment to protecting critical wastewater infrastructure and ensuring continuity of essential services during and after natural disaster events.

Mitigation Actions

The following mitigation actions have been identified to address the district's vulnerabilities to profiled hazards. Actions are prioritized based on risk reduction potential, cost-effectiveness, and protection of critical infrastructure, with particular emphasis on coastal hazard resilience.

Mitigation Action 1 – Long Beach Pump Station Flood Mitigation and Critical Equipment Protection

Description: Design and construct a flood-resilient upgrade for the Long Beach Pump Station to protect critical equipment from 100-year flooding, future sea level rise, and Category 1 and 2 hurricane storm surges. The project should evaluate and implement flood barriers or flood doors at building openings, maintain the current submersible pump configuration, provide a watertight wet well hatch, protect the generator, control panels, and electrical equipment to at least 3 feet above the preliminary FEMA base flood elevation, and coordinate with the serving utility regarding transformer flood exposure. Because Long Beach is a regional pump station serving multiple upstream areas, this project provides high value systemwide risk reduction.

Priority: High

Responsible Department: York Sewer District Chief Utility Officer, Board of Trustees, consulting engineer, and operations staff

Timeframe: Near term; advance design and funding immediately, with construction as soon as grant funding is secured

Potential Funding: FEMA BRIC, FEMA Hazard Mitigation Assistance, Maine DEP / SRF, Congressional Earmarks, district capital reserves, and other state/federal resiliency funding

Cost/Benefit: Very high benefit. Protects one of the district’s most critical coastal pump stations, reduces risk of upstream system disruption, protects nearby beach and commercial areas, and helps avoid sewage backups, water quality impacts, emergency pumping costs, and prolonged post-storm outages.

Hazards Addressed: Coastal flooding, flash flooding, hurricane storm surge, sea level rise, severe storms, and utility power outage.

Mitigation Action 2 – Short Sands Pump Station Flood Mitigation and Equipment Resiliency Upgrade

Description: Design and construct flood mitigation improvements for the Short Sands Pump Station to reduce exposure of pumps, controls, VFDs, and standby power to coastal flooding. Measures should include evaluating conversion to or retention of submersible pumping equipment as appropriate, installing flood barriers or flood doors at exterior openings, elevating the generator, control panels, and electrical equipment to at least 3 feet above the preliminary FEMA base flood elevation, and implementing temporary sandbag protection and flood response procedures until permanent improvements are completed. Because Short Sands is located in an intensely developed coastal and visitor-serving area, a station outage would have immediate public health, environmental, and economic consequences.
Priority: High
Responsible Department: York Sewer District Chief Utility Officer, Board of Trustees, consulting engineer, and operations staff
Timeframe: Near term; pursue grant funding and design in the current planning cycle, followed by phased construction
Potential Funding: FEMA BRIC, FEMA Hazard Mitigation Assistance, Maine DEP / SRF, district capital reserves, and other coastal resiliency funding
Cost/Benefit: Very high benefit. Reduces risk to a coastal station with documented historic flooding, protects a high-visibility beach/commercial area, and reduces likelihood of emergency bypassing, sewage backup, and water quality degradation near Short Sands.
Hazards Addressed: Coastal flooding, hurricane storm surge, severe storms, sea level rise, utility power outage, and access disruption

Mitigation Action 3 – WWTF Site, Access, and Flood Resiliency Improvements

Description: Advance targeted WWTF resiliency improvements identified in the Climate Adaptation Plan and Fiscal Sustainability Plan. This includes protecting critical site access, coordinating with the serving utility about transformer flood exposure, completing flood resiliency and hydraulic evaluations for vulnerable low-elevation process areas, integrating flood protection into future building upgrades, and maintaining an extreme-weather response plan that addresses accessibility, temporary pumping, backup power, and flood response procedures.
Priority: High
Responsible Department: York Sewer District Chief Utility Officer, operations staff, Board of Trustees, and consulting engineer
Timeframe: 0–5 years for planning and operational measures; phased implementation with future capital projects
Potential Funding: FEMA BRIC, FEMA Hazard Mitigation Assistance, Maine DEP / SRF, district capital reserves, and future capital financing
Cost/Benefit: High benefit. Protects the district’s sole treatment facility and improves continuity of service for the entire wastewater system during major coastal and inland storm events.
Hazards Addressed: Coastal flooding, storm surge, sea level rise, severe storms, flash flooding, and utility power outage

Mitigation Action 4 – Coastal Collection System, Manhole, and Sewershed Hardening

Description: Continue and expand the district's manhole floodproofing, sewer renewal, and CMOM-based inspection program in low-lying and flood-prone areas, with emphasis on the Long Beach and Short Sands sewersheds and other coastal corridors vulnerable to inflow/infiltration, erosion, and access limitations. Improvements include flood-proof hinged covers, targeted renewal of aging or defective pipe segments, and prioritization of repairs where coastal flooding or erosion could damage critical collection assets.
Priority: Medium-High
Responsible Department: York Sewer District Chief Utility Officer, operations staff, and Board of Trustees
Timeframe: Ongoing; integrate into annual CIP, sewer renewal, and wet-weather operations planning
Potential Funding: District capital reserves, Maine DEP / SRF, FEMA hazard mitigation funding where eligible, and other infrastructure grants
Cost/Benefit: High benefit over time. Incremental collection system hardening reduces inflow/infiltration, preserves conveyance capacity during storms, and lowers the probability of backups and overflows in environmentally sensitive coastal locations.
Hazards Addressed: Coastal flooding, riverine flooding, erosion, severe storms, and inflow/infiltration

Plan Maintenance and Update

The York Sewer District will participate in the plan maintenance processes described in the York County Hazard Mitigation Plan 2022. The district commits to the following:

Monitoring and Evaluation:

The district will monitor progress on mitigation actions identified in this addendum and will evaluate the effectiveness of implemented measures. Progress on mitigation actions will be reviewed annually and documented to demonstrate advancement toward goals.

Plan Updates:

The district will participate in the five-year update cycle for the York County Hazard Mitigation Plan. District representatives will review and update this addendum to reflect changes in development, infrastructure improvements, completed mitigation actions, new vulnerabilities, and changing hazard conditions, particularly evolving coastal hazards related to sea level rise and climate change.

Integration into Planning Mechanisms:

The York Sewer District will integrate mitigation actions from this addendum into the district's capital improvement planning, budgeting processes, asset management activities, climate adaptation planning, fiscal sustainability planning, sewer master planning, and operational planning. The district will seek opportunities to implement mitigation measures as part of routine infrastructure improvements, targeted coastal

resiliency projects, system expansion planning, and annual wet-weather and emergency preparedness activities.

Plan Adoption

The York Sewer District will formally adopt this Special District Addendum through an adoption resolution signed by the district's board of trustees or governing body following FEMA approval.

The adoption resolution is included on the following page. Signatures will be obtained after FEMA provides Approval Pending Adoption (APA) notification, as revisions may be required to achieve approval.

IMPORTANT - DO NOT SIGN YET

This adoption resolution is included for reference and record-keeping purposes only.

DO NOT obtain signatures at this time. The resolution must only be signed AFTER:

1. Draft addendum is submitted to MEMA for review
2. MEMA comments are addressed
3. Final addendum is submitted to FEMA for approval
4. **FEMA issues Approval Pending Adoption (APA) status**

York County EMA will notify you when it is time to obtain signatures. Signing before FEMA approval may require re-signing if revisions are needed.

Adoption Resolution
(FOR REFERENCE ONLY - DO NOT SIGN)

Adopting the York Sewer District Annex Amendment to the York County, Maine Hazard Mitigation Plan 2022

WHEREAS the York Sewer District recognizes the threat that natural hazards pose to people and property within York, York County, Maine, FEMA Region 1; and

WHEREAS the York Sewer District has prepared a multi-hazard mitigation plan, hereby known as the March 2026 Amendment to the York County, Maine Hazard Mitigation Plan 2022, which includes the York Sewer District Annex, in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, as amended; and the National Dam Safety Program Act, as amended; and

WHEREAS the March 2026 amendment to the York County, Maine Hazard Mitigation Plan 2022 identified mitigation goals and actions to reduce or eliminate long-term risk to

people and property in York, York County, Maine, FEMA Region 1 from the impacts of future hazards and disasters; and

WHEREAS adoption by the York Sewer District demonstrates its commitment to hazard mitigation and achieving the goals outlined in the March 2026 York County, Maine Hazard Mitigation Plan 2022 Amendment.

NOW THEREFORE, BE IT RESOLVED BY THE YORK SEWER DISTRICT, THAT:

Section 1. In accordance with York Sewer District bylaws, the York Sewer District adopts the March 2026 Amendment to the York County, Maine Hazard Mitigation Plan 2022. While content related to York Sewer District may require revisions to meet the plan approval requirements, changes occurring after adoption, until plan expiration will not require York Sewer District to re-adopt any further iterations of the plan. Subsequent plan updates following the approval period for this plan will require separate adoption resolutions.

Authorizing Signatures -- York Sewer District

Bob Hoyt	Chairman	May 13, 2026
Wayne McIntire	Vice Chairman	May 13, 2026
Barry Davis	Treasurer	May 13, 2026
Nicholas Donis	Clerk	May 13, 2026
Robert Knowles	Trustee	May 13, 2026