ENVIRONMENTAL IMPACT EVALUATION

October 15, 2015

A. Project Identification

Combined Sewer Overflow Long Term Control Plan Norwich Department of Public Utilities Project Number: <u>14765</u>

B. Summary of Environmental Review

A CSO Long Term Control Plan dated August 17, 2012 was prepared for Norwich Public Utilities (NPU) to evaluate the impact of the Norwich CSO discharges to local rivers, and to recommend improvements to reduce or eliminate CSO discharges to the local rivers. The draft report, which recommended separation to eliminate 98% of the annual CSO discharge, was submitted to DEEP for review. During the agency review process, DEEP requested that the report recommendations should be revised to recommend full separation, to eliminate all Norwich CSOs, in keeping with DEEP's stated policy objective of eliminating all CSOs.

The revised CSO Long Term Control Plan therefore recommends complete separation of all remaining combined sewer areas of Norwich, with the separation projects to be implemented in phased approach, over a 20 year period. The separation projects providing the greatest water quality benefits would be implemented first, and re-evaluation is recommended before completion of the separation program.

If re-evaluation results in modifications to the recommended program, for example to incorporate advances in CSO technologies and techniques, or to optimize water quality benefits, it is not anticipated that any such mid-course modifications or adjustments will necessitate the drafting of a new environmental impact evaluation.

In accordance with the regulations of the Connecticut Environmental Policy Act sections 22a-1a-1 to ssa-1a-12, the findings of the environmental review are summarized below.

The agency contact for this project is:

Stela Marusin Bureau of Water Protection and Land Reuse Connecticut Department of Energy & Environmental Protection 79 Elm Street, Hartford, CT 06106-5127 860-424-3742

1. Project Description

The proposed project consists of separating the remaining combined sewer areas in Norwich in a phased approach. The recommended order for implementation is:

- a. Greenville
- **b.** Eastside (area east of the Eighth Street Bridge)
- c. Thamesville
- d. Laurel Hill
- e. Downtown Norwich

The progress and effectiveness of the separation work will be reviewed periodically over the course of the separation program.

2. Existing Conditions

Norwich is one of six communities in Connecticut that has combined sewer overflows. Most of the sewers built before 1925 were combined sewers, with a single pipe carrying both domestic sanitary sewage and stormwater. During rainfall events of sufficient intensity and duration, the capacity of the collection system is overwhelmed and excess combined sewage overflows to nearby rivers via combined sewer overflows (CSOs). The overflows were designed into the combined system to prevent sewage from backing up into basements and surcharging onto the streets, which could result in direct human contact with sewage and a public health hazard.

The areas of the Norwich wastewater collection system that are still served by combined sewers are shown in Figure 1.

Norwich has been involved in a long term program to reduce CSO overflows, primarily by implementing sewer separation. Since the mid-1970's, Norwich has reduced the number of CSO end-of-pipe discharge locations from 43 down to the current total of 14.

Table 1 shows the estimated annual CSO discharge volumes, by overflow location, for a typical year. These values were estimated based on a model of the collection system, for a typical year based on evaluation of 50 years of local rainfall data. The table also indicates the water body that the CSO discharges to, either to the tidal portion of the Shetucket River (downstream of the Greenville Dam) or the Thames River. The estimated total volume of CSO discharged from all locations during the typical year is 103 million gallons. The model projects that these activations would occur for some period of time (in some cases lasting for only a few minutes), 58 times during that typical year. All CSO discharges to the Yantic River, were eliminated through sewer separation work done by Norwich in the 1990's.

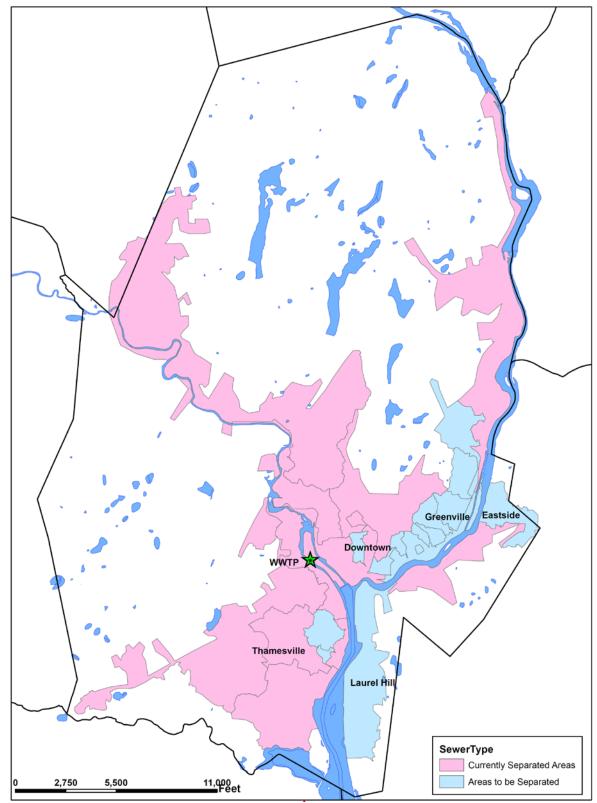


Figure 1 – Areas of Collection System to be Separated under Norwich CSO Long Term Control Plan

Receiving River	CSO No.	Location	Annual Overflow (MG/yr)	Percent of Total Overflow Volume	Calendar Days/Year in which Overflows Occur
Shetucket	25	Smith Avenue & 8th Street	8	8%	23
Shetucket	24	North Main St. & 8th St.	1.5	1%	23
Shetucket	23	352 North Main Street	26.3	25%	90
Shetucket	22	North Main Street off Hickory Street	0	0%	0
Shetucket	21	Erin Street near RR tracks	1	1%	57
Shetucket	19	North Main Street near Roath Street	4.4	4%	78
Shetucket	18	106 North Main Street	0.1	0%	1
Shetucket	29	Talman Street & Winchester Place	0.3	0%	2
Shetucket	17	Rose Alley near Pump Station	52.5	51%	58
Thames	5	So. Thames St. near Pump Station	3.3	3%	24
Thames	4	So. Thames St. off W. Thames Terr.	5.1	5%	25
Thames	31	River Avenue Extension	0.4	0%	2
Thames	32	Crown Street	0.3	0%	2
Thames	40	Shipping Street & Terminal Way	0.2	0%	1
TOTAL			103.3	100%	90
CSOs in ta	ble abov	e are listed upstream/north (top) to downstre	eam/south (bottor	m)	·

3. Purpose and Need

When the combined sewers surcharge, there is not enough capacity in the collection system to transport the peak wet weather flows to the wastewater treatment plant for treatment and disinfection. Therefore, the combined sewage that discharges through the CSOs to the Shetucket and Thames Rivers results in additional pollution of those rivers. The greatest concern in terms of impact on water quality is bacteria in the combined sewage, from domestic wastewater and stormwater sources. Elevated bacteria levels after storm events can impact the suitability of the local waterways for human contact activities such as fishing and swimming. The baseline (existing) condition, based on local rainfall patterns, flow metering and a model of the collection system, can be summarized as follows:

- Over half of the collection system overflow occurs at CSO-17, at the Rose Alley Pump Station.
- 58 rainfall events during a typical year that would cause overflows at that location.
- System-wide, the estimated total volume of combined sewage overflow for a typical year is 103 million gallons (combined stormwater and wastewater).

The purpose of this project is to eliminate CSO discharges to the local rivers, to improve water quality in the Shetucket and Thames Rivers.

4. Comparison of Alternatives

a. No Action

This is not an acceptable option because it would result in further degradation of the local rivers, and would result in negative impact on beneficial use for recreational purposes.

b. Significantly Increase Flow to the Treatment Plant via Pumping

This is not a viable option. Peak flows in the combined collection system during extreme wet weather events are far too great to pump to the wastewater treatment plant. Furthermore, even if it were feasible to convey these flows to the plant, they would overwhelm the treatment capacity of that facility.

c. Provide Treatment at Satellite Facilities, Prior to Discharge

Providing limited treatment at the CSO discharge points, for example screening and disinfection, was considered initially but was rejected as non-viable for several reasons. Disinfection at each CSO discharge would require maintaining multiple treatment facilities at unmanned locations. It would be extremely difficult to ensure adequate disinfection with flows that are unpredictable, infrequent and rapidly varying. Furthermore, using disinfectants like sodium hypochlorite on combined sewage could render it more toxic to marine life.

d. Storage Upstream, then Pump to the Plant After Storm is Over

The Rose Alley Pump Station, located downtown in the waterfront area adjacent to the Shetucket River, is the main wastewater pumping station in the Norwich wastewater collection system. Due to hydraulic limitations of the Rose Alley Pump Station and hydraulic limitations in force main between that pump station and the treatment plant, any storage would have to be located upstream of the Rose Alley Pump Station. The pump station is located on a very constrained site with significant underground utilities that would not permit construction of a large storage basin.

Storage basins further upstream in the collection system, in Greenville and in the Eastside (east of the Eighth Street Bridge) area, also were considered. However, the sizes required to provide storage for storm events with return frequency of 1 year or greater would make siting near-surface storage basins along the river highly impractical as well.

e. Selected Sewer Separation

Sewer separation typically involves constructing a new sewer parallel to the existing combined sewer, then segregating the sources. After completion of a separation project one dedicated stormwater sewer will transport runoff directly to the local receiving waters, while the other sewer will be dedicated to carrying wastewater to the wastewater treatment plant, for treatment and disinfection prior to discharge.

A part of an effective sewer separation project will be to reroute roof leaders and storm drains to the new dedicated stormwater sewer. Generally, sanitary sewers are constructed deeper than the corresponding storm sewers, in order to pick up local house service lines. For that reason they are typically more expensive to construct than new storm sewers, particularly In Norwich, where areas of rocky ledge conditions make deeper excavation more expensive. However, installing new sanitary sewers provides the advantage of a more water-tight wastewater collection system, with less groundwater infiltration and less rainwater inflow entering the pipes. That, in turn, reduces extraneous flows to the wastewater treatment plant and reduces the potential for sanitary sewer or combined sewer overflows during severe wet weather events.

In addition to the alternative of complete sewer separation, four selected separation alternatives were considered during the alternatives evaluation phase of the CSO Long Term Control Plan study. In each case a calibrated computer model of the collection system was used to evaluate the effectiveness of the alternative in controlling overflows during the design year as well as for three specific design storm events. The design storm events represented storms of 4-month, 6-month, 1-year and 2-year return frequencies.

The typical design year rainfall pattern was created by combining 12 actual, representative months of rainfall after evaluating over 50 years of historic records. Total rainfall for this typical year was 40.3 inches.

The model indicated that the three most effective selected separation alternatives evaluated (Alternatives A, B and E) would provide a very high degree of CSO control. Each would eliminate at least 98% of the annual overflow volume over a typical year, and also would prevent overflows to at least the 4-month storm event. These alternatives are summarized below.

Selected Separation Alternative A would provide separation of all combined sewer areas except downtown Norwich. The main features of this alternative are:

- Only one CSO (CSO 17 at Rose Alley) would remain;
- Model predicts overflow to between a 4-month and 6-month storm event;
- System-wide overflow reduced from 103.3 MG/yr. down to 0.9 MG/yr.;
- Requires installing 76,000 feet of new sewers; and
- Projected capital cost of \$46.7 million (2012 dollars).

Selected Separation Alternative B would provide separation of all combined areas in Norwich except the Cliff Street/Main Street section of downtown. The main features of this alternative are:

- Only one CSO (CSO 17 at Rose Alley) would remain;
- Model predicts overflow control CSO to nearly the 1-year storm event;
- System-wide overflow reduced from 103.3 MG/yr. down to 0.3 MG/yr.;
- Requires installing 80,000 feet of new sewers; and
- Projected capital cost of \$49.0 million (2012 dollars).

Selected Separation Alternative E would provide separation of all combined areas in Norwich except the Cliff Street/Main Street section of downtown; the Shipping

Street area of Thamesville; and the Laurel Hill area. The main features of this alternative are:

- Five CSO's would remain;
- Model predicts overflow control to between the 4-month and 6-month storm event;
- System-wide overflow reduced from 103.3 MG/yr. down to 2.0 MG/yr.;
- Requires installing 61,500 feet of new sewers; and
- Projected capital cost of \$40.9 million (2012 dollars).

5. Water Quality Impacts of Alternatives Considered

a. Impact of Existing Norwich CSOs on Water Quality

During earlier phases of CSO separation work done by Norwich, all CSOs on nontidal portion of the Shetucket River (upstream of Greenville Dam) and all CSOs on the Yantic River were eliminated. Therefore, the only areas impacted by the current CSOs are the Thames Rives and tidal portions of the Shetucket River.

A biological assessment of aquatic life in the vicinity of the CSO outfalls was conducted in the summer of 2007. Sediment, benthic invertebrates and 394 fish representing 16 species were collected. None of the fish exhibited tumors, lesions, deformities or other signs of environmental stress. Although quality of aquatic life varied considerably throughout the area surveyed, it appeared that the variations were attributable to differences in habitat (water depth, type of sediment, etc.) and were not related to proximity to the CSO outfalls.

An extensive water quality monitoring program was conducted in the spring and summer of 2008, to establish baseline dry weather conditions and then assess the impacts of wet weather CSO discharges on water quality. This program involved hundreds of samples, collected from 11 river monitoring stations and analyzed for water quality parameters.

The river water quality monitoring program results indicated the following:

- The Norwich CSO discharges do not have any measurable impact on the low dissolved oxygen (DO) and low pH levels observed in the lower, saline layer in Norwich Harbor on the Thames River. These problems occur even during dry weathers.
- The Norwich CSO discharges are not a significant source of nitrogen or phosphorus loading to the rivers.
- The only noticeable impact of the CSO discharges that was observed was a short-term spike in bacteria levels in the Shetucket and Thames Rivers following a wet weather event, measured downstream of the CSOs. However, levels receded rapidly following a storm event, and typically returned to background levels within 24-72 hours following a significant storm event.

 Due to bacteria loading to the Shetucket and Quinebaug Rivers upstream of Norwich from nonpoint sources, the rivers would not be able to meet water quality standards even if all Norwich CSOs were eliminated, however the Norwich CSO's (raw sewerage discharges) remain a major source of wet weather bacteria and pathogens.

b. Water Quality Impacts of Alternatives

The main water quality improvement from CSO control in Norwich will be to reduce bacterial loading to the Shetucket and Thames Rivers during and after wet weather events. As discussed above, the four finalist alternatives (complete separation and three partial separation alternatives) all would provide a very high degree of CSO reduction, 98% or greater on the basis of annual overflow volume.

The combined sewer system that currently exists in portions of Norwich conveys a portion of street runoff to the wastewater treatment plant, where it receives treatment and disinfection prior to being discharged to the harbor via the outfall. For small rainfall events, where runoff is generated but capacity of the collection system is not exceeded, the net water quality effect of the combined system is that some stormwater is captured and treated versus a completely separate system.

6. <u>Recommended Approach</u>

a. Full Sewer Separation – The Recommended Alternative

After reviewing the finalist alternatives with Connecticut DEEP, the decision was made to proceed with full sewer separation as the recommended alternative. The State of Connecticut's policy regarding CSOs is to provide complete elimination of all CSOs wherever that is considered to be an affordable viable alternative. As noted above, the magnitude of the costs for the partial separation alternatives that provide a very high degree of CSO control (above 98%) is similar to that for full separation, however do not meet long term water quality objectives.

b. Affordability Analysis

Based on a preliminary affordability analysis that was done in 2010 when the estimated project costs were approximate but not finalized, according to USEPA guidelines the projected wastewater + CSO costs were projected to be over 2.1% of median household income. Therefore, implementing the recommended CSO control program (\$53.2M, based on 2012 construction costs) would result in a "high burden" on Norwich ratepayers according to the USEPA criteria. It is assumed that Norwich would be able to utilize SRF funding to finance this project, with the SRF funding to consist of 50% and 50% low interest loans (20-year term at 2.0% interest).

c. Recommended Implementation Schedule

In view of the high financial burden that this project would have on the Norwich community and the large upcoming capital investment in the wastewater treatment plant, the sewer separation program should be implemented over a 20-year period. The highest priority areas would be done first, with the option to re-evaluate the final phase of separation as the project progresses, based on environmental

improvements, changes in regulations and new technological solutions that may emerge. Such adjustments to this plan that could occur during the implementation period and that are within the scope of the current project may not require an additional EIE.

Table 2 shows the proposed implementation schedule for the project. The proposed five-phase sewer separation program has been structured to accelerate environmental benefits at the beginning of the program. By the end of the first phase, four years after approval of the CSO Long Term Control Plan, the Greenville area separation will be completed. This is projected to eliminate at least half of the CSO discharge volume. At the end of the third phase, in year 8, over 98% of the CSO discharge volume will have been eliminated.

Table 2 – Recommended Five-Phase Implementation Plan for Norwich CSO Separation Projects

Phase No.	Area to be Separated	Pump Stations & Force Mains to be Upgraded	Years from the Approval of CSO Control Plan	Length of New Sewer (LF)	Project Cost (\$M)1	CSOs at End of Phase	Percent of Current Annual Overflow Eliminated ²	CSOs Eliminated (by No.)			
0	0 (Start of Project)					14					
1	Greenville		0-4	36,700	\$15.9	8	50-80% ³	18,19,21,22,23, 24			
2	Eastside		5-6	11,400	\$5.0	7	70-90% ³	25			
3	Thamesville		7-8	11,800	\$5.1	4	98.1%	4,5,40			
3A		Shipping St. & So. Thames St.	9-10		\$3.8						
4	Laurel Hill		11-12	15,700	\$6.8	1	99.1%	29,31,32			
4A		River Ave.	13-14		\$1.8						
Progress	Progress Assessment										
5	Downtown		16-18	10,400	\$6.4	0	100.0%	17			
5A		Rose Alley	18-20		\$8.4						
TOTAL			20	86,000	\$53.2	0	100.0%	ALL			
¹ Cost estimate based on 2012 capital costs; includes 30% construction contingency for engineering, legal and administration. ² Estimate based computer model simulations unless otherwise noted.											
	³ Anticipated range of improvement (not modeled).										

The combined sewer system areas of Norwich to be separated under this recommended phased approach are indicated on Figure 2.

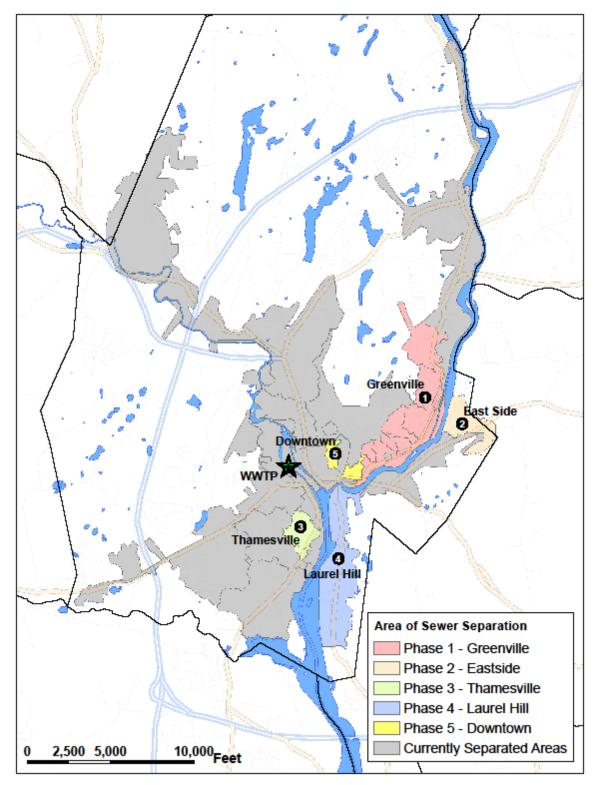


Figure 2 – Recommended Five-Phase Plan for Complete Sewer Separation in Norwich

Implementing this project in phases over a 20-year period will reduce the magnitude of construction impacts on residences and business in Norwich. This also will help

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distribute the financial burden over a greater period of time. The recommended order for implementing the phased sewer separation projects was structured to achieve the greatest benefit in terms of CSO discharge reduction closest to the start of implementation.

An InfoWorks computer model of the Norwich collection system developed under this project was used as a tool to assess how much CSO reduction could be achieved with each of the separation alternatives under consideration. The model was built based on GIS mapping of the existing wastewater collection system, and was calibrated for accuracy based on flow measurements taken throughout the system during actual rainfall events that occurred in the spring of 2008.

The calibrated model projected that the greatest immediate benefit could be realized by separating the Greenville area first. This was projected to eliminate at least half of the system-wide overflow on an annual average volume basis. This approach also would eliminate 6 of the existing 14 CSO's within the first four years of the 20-year program. For that reason, the recommended implementation plan calls for separation of Greenville in the first phase of the overall project.

This strategy of doing the most cost-effective separation work first, based on the computer model projections, was carried forward in ordering phases 2-5 of the project as well.

The sewer separation program also will include rehabilitation/upgrade of five combined sewer wastewater pumping stations (at Shipping Street, South Thames Street, River Avenue and Rose Alley) and their associated force mains. As storm flows are removed from the wastewater collection system, these pumping stations and force mains will no longer be experiencing periodic high wet weather flows. Therefore, these facilities will need to be modified to meet the changed design conditions. The pump station and force main upgrades are included in Table 2 under sub-phases 3A, 4A and 5A.

In the 15th year of the program, after the first four separation phases have been implemented, it is projected that at that over 99% of the CSO discharge volume (on an annual basis for the typical year) will have been removed.

Evaluations of the effectiveness of the ongoing CSO separation projects will be completed at significant points in the program. However, the critical long-term objective of eliminating Norwich CSOs is fundamental to the Federal Clean Water Act. Therefore, as the LTCP is periodically updated continual progress will be made towards closing all CSO discharges.

As the separation projects proceed, opportunities to provide an enhanced environmental outcome with the strategic placement of green infrastructure will be considered as part of the evaluations. It should be noted, however, that the great majority of project areas where separation work will be done are underlain by bedrock ledge and other geologic formations that generally are not conducive to the application of green infrastructure technologies.

7. Impact of Proposed Project on the Environment

a. Direct Impacts

i Air Quality

The only potential adverse air quality-related impacts related to this project would be short-term impacts that may occur during the construction phase, related to the noise and emissions of construction vehicles. To mitigate these impacts on local residents, working hours for construction would be limited by specification to comply with local requirements. Increased exhaust emissions would be minimal compared to background levels from local traffic.

Due to the nature of sewer replacement activity, there is a potential for short-term local odors during times of sewer bypassing or service connection. However, after the construction is completed, new sanitary sewers have been constructed and combined sewers have been separated, there should be fewer fugitive odors from catch basins and area drains, compared to the existing condition.

Vehicular and pedestrian traffic will be temporarily disrupted or rerouted during sewer construction activity in or adjacent to public roadways. A traffic control plan and traffic details will be required to address this in all construction contracts. Blasting may be required for deeper sewer construction in some of the areas that contain ledge. However, the contractors will be required to comply with local permitting requirements, and would be restricted to normal working hours in the middle of weekdays. There may be a short term increase in local dust particle levels in the immediate area during construction. This will be mitigated during dry periods by wetting down the dust-generating surfaces with water during construction.

ii Water Quality

The project will have a net overall positive impact on water quality in the Shetucket and Thames Rivers, by reducing the amount of sanitary sewage that enters these rivers from CSO discharges during wet weather events. The primary water quality benefit will be to reduce the amount of harmful bacteria and pathogens discharged to the rivers. This will benefit recreational use of these waterways. Secondary benefits will include reducing other pollutants to the rivers, such as solids, oxygen-depleting organics, and unwanted nutrients.

The construction activities for new sewers will generally be within existing roadways. While this could lead to some increased erosion and silt runoff during construction, the design documents will require the contractors to utilize erosion control measures such as silt fences and hay bales where needed to mitigate potential impacts.

iii Environmentally Sensitive Areas: Wetlands

No wetlands areas designated within the project areas that have been identified that would be negatively impacted by this project.

iv Environmentally Sensitive Areas: Floodplains

Although some of the construction work for new sewers would take place within the floodplain, no adverse impact on flood elevations are anticipated. Virtually all of the construction will be taking place within the right of way of existing roads. Therefore, there will be no net increase in impervious areas, and no change to existing surface contours and grading.

v Environmentally Sensitive Areas: Aquifers and Water Supply

The area of the project does not include aquifer protection areas. Furthermore, since the new sewer construction will be to replace existing sewers and pumping stations rather than to expand sewers into areas currently unserved, this project will not result in increasing demand to existing potable water supplies.

vi Historical / Archaeological Sites and National Landmarks

This project will not impact any historical or archaeological sites. Almost all of the sewer construction will be taking place within the right of way of existing public roads. If any construction is identified that will take place on a previously undisturbed site, the appropriate archaeological review will take place prior to construction.

vii Endangered Species

No known endangered species will be impacted by project construction activities.

viii Coastal Zone Management

Since the coastal zone management area includes land within 1,000 feet of the Thames River and tidal portions of the Shetucket River, some of the construction under this project will take place within the designated coastal zone area. Therefore, permit applications for work in those areas must be filed with the local planning agency, with copies also submitted to DEEP. Permits will be obtained during design, and all construction activities in those areas will comply with the conditions of the permits issued.

ix Wild and Scenic Rivers

There are no rivers that have been designated Wild and Scenic Rivers within the project area.

x Prime Farmlands

There are no known areas that have been designated as prime farmlands within the project area.

b. Indirect Impacts

No negative long-term environmental impacts on air or water quality are anticipated resulting from this project. It should not impact land development or flood patterns, and will not displace any homes or businesses.

c. Irreversible and Irretrievable Commitment of Resources

The resources that will be committed to implementing this project include the labor, energy and materials required to install new sewers and to upgrade existing wastewater pumping

stations. After construction, it should result in reduced electric power demand for wastewater pumping, and reduced labor for maintenance of existing infrastructure.

d. Unavoidable Adverse Impacts

Unavoidable adverse impacts should be limited to typical short-term consequences from sewer main construction in residential and commercial areas. That would include temporary traffic restrictions or rerouting; noise from construction vehicles; and increased sediment erosion from runoff. Steps will be taken to minimize these impacts, as noted below.

e. Mitigation of Adverse Environmental Impacts

Adverse impacts are related to construction activities. These impacts therefore will be shortterm, and can be mitigated to a large extent by including proper control measures in all construction contract documents, and enforcing these requirements.

Dust pollution can be controlled by wetting the ground surface periodically to reduce dust dispersion. Traffic disruption can be minimized by requiring a traffic control plan to re-route traffic in the impacted areas, and utilizing appropriate signage and traffic control personnel. Noise impact can be minimized by limiting construction to normal daytime working hours, and by using equipment and methods that attenuate sound. Erosion can be reduced by utilizing hay bales and silt fences in strategic areas such as around storm drains, and by promptly replanting areas where ground cover has to be removed for construction.

f. Energy Considerations

Energy consumption will increase temporarily during construction activities, due to the power required to construction vehicles and equipment, and to manufacture materials such as pipe. However, after construction is completed, ongoing energy usage for operating the wastewater collection system will decrease. After the combined sewers are separated, more stormwater runoff will flow by gravity to the local rivers instead of being pumped to and treated at the Norwich Wastewater Treatment Facility.

8. Permits, Certifications and Approvals Needed

It is anticipated that the following permits and approvals will be required for construction of this project:

- CAM (Coastal Area Management) Permit will be required for all sewer separation work within 1000 feet of the Thames and all tidal portion of the Shetucket River. This will be administered through local planning, with copies to CT DEEP for review.
- Local inland wetland permit would be required for work within 100 feet of any inland wetland, if any construction activity near wetlands is identified during design.
- CT DOT Encroachment permit will be required for any work within the right-of-way of state roads administered through CT DOT District 2 in Norwich.
- Local road opening permit for any work on Norwich roads administered through Norwich Public Works.
- Proposed construction plans must be coordinated with Norwich Planning and Zoning, in accordance with the requirements of CT General Statue 8-24.
- Local building permits will be required for pumping station upgrades that involve significant changes to pumping station buildings.
- State Flood Management CGS 25-68d.

9. <u>Summary of Agency and Public Consultations</u>

Connecticut DEEP has been consulted and kept informed throughout the CSO Long Term Control study process. Alternatives were selected for further evaluation and preliminary recommendations were revised to incorporate feedback from DEEP. The agency is supportive of the recommended plan and schedule of actions as contained in the CSO Long Term Control Plan Final Report prepared for the Norwich Public Utilities dated August 17, 2012.

Norwich Public Utilities has been committed to open communication and involvement with the community throughout the study. The public has been kept informed via the 'Community Matters' newsletter and the utility's website, which has highlighted the "Clean River, Clean Harbor, Sound Norwich" program that includes CSO control.

One example of NPU's efforts to involve the community during the study was a 2-day public outreach event in downtown Norwich on September 11-12, 2009, in connection with the popular Italian Festival. NPU staffed a booth that provided information about CSO control including CSO maps, "what is a CSO" demonstrations, information on water quality impacts based on findings of the study, and related water quality exhibits by others. The event was publicized by mailings, radio spots and press releases.

A formal public hearing on the CSO Long Term Control Plan was held in Norwich on January 22, 2013. The Plan was subsequently approved by the NPU Board on February 26, 2013.