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January 23, 2008

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
5th NOTICE OF PROJECT CHANGE

PROJECT NAME : Long-Term Control Plan
PROJECT MUNICIPALITY : Lowell
PROJECT WATERSHED : Merrimack
EOEA NUMBER : 12059
PROJECT PROPONENT : City of Lowell
DATE NOTICED IN MONITOR : December 10, 2007

This Certificate on the 5th Notice of Project Change (NPC 5) will serve to revise the original ENF Certificate and Certificates on the NPCs previously issued for this project. Pursuant to the Massachusetts Environmental Policy Act (G. L., c. 30, ss. 61-62H) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I determine that this project **continues to require** the preparation of a Final Environmental Impact Report (FEIR). The proponent has requested a Phase I Waiver to allow an additional phase of the project to proceed, and to comply with an Administrative Order (AO) requiring compliance with the U.S. Environmental Protection Agency's (USEPA), pending the preparation of a Long Term Control Plan//Environmental Impact Report (EIR) for the project. The Phase I Waiver Request was presented within the Notice of Project Change submittal (NPC). In a Draft Record of Decision (DROD), also issued today, I have proposed to **grant** a Phase I Waiver with conditions allowing the proposed project to proceed while the FEIR for the Long Term Plan is being prepared.

Project Description

The City of Lowell's existing sewer system provides wastewater collection and treatment to sanitary and stormwater flows from the City of Lowell. The system is comprised of approximately 220 miles of sanitary and combined sewers, pumping stations, and flood control pumping stations, 9 Combined Sewer Overflow structures (CSOs), 4 main interceptors, and a Waste Water Treatment Facility (WWTF) with a designed secondary treatment capacity of 52 million gallons per day (mgd). Seven CSOs discharge to the Merrimack River, 1 CSO discharges to the Concord River, and 1 CSO discharges to Beaver Brook during storm events.

CSO discharges from the City of Lowell continue to cause violations of water quality standards even in the absence of other pollutant sources and discharges. The City of Lowell's Draft Long-Term CSO Control Plan indicates that the City currently discharges a total of 352 million gallons per year (mgpy) of untreated combined sewer overflow to the Merrimack River (94.5 mgpy), the Concord River (202 mgpy), and to Beaver Brook (55 mgpy).

The project involves the development and implementation of a Long-Term Control Plan (LTCP) to address the impacts associated with the control and abatement of the City of Lowell's combined sewer overflows (CSO) within the City of Lowell's sewer system. The City of Lowell entered into a 1988 Consent Decree with the United States Environmental Protection Agency (EPA) and the Department of Environmental Protection (MassDEP) which requires Lowell to abate its CSO discharges and to bring the City's combined sewer system into compliance with the City of Lowell's National Pollutant Discharge Elimination System (NPDES) Permit, and applicable state water quality standards. The USEPA issued an Administrative Order (AO) to the City of Lowell in June 2003 to proceed immediately with the design and construction of specific components of the LTCP including the sewer separation of portions of the combined sewer system in the Warren Street CSO drainage basin, prior to the completion of the final LTCP and the MEPA EIR process. To date, the City of Lowell has completed numerous CSO abatement projects in accordance with the June 2003 AO. This NPC project would enable the City proponent to continue to comply with the EPA's AO requirements.

Project History

The City of Lowell filed an Environmental Notification Form (ENF) in October 1999 for the development of a long term plan for the control of CSOs for the City of Lowell with a specific focus on nine locations where CSOs discharge to the Concord and Merrimack Rivers and Beaver Brook which have been found to cause or contribute to violations of water quality standards. The City requested a Phase I Waiver to allow the City to proceed with the proposed Humphries Brook sewer separation designed to remove inflow from a large drainage area tributary to Humphries Brook. The scope of the DEIR, established in the ENF Certificate issued November 29, 1999 requested the DEIR to include a description of the City of Lowell's existing CSO system, to identify and analyze available CSO control and abatement alternatives and assess their respective costs and benefits, and to recommend a specific long term CSO control and abatement plan that will meet federal and MassDEP CSO policies and guidelines, within the City's financial capability limits.

In the DEIR filed with the MEPA Office in March 2002, the City described its preferred alternative Long Term Control Plan (LTCP) for CSO control including the implementation of a number of CSO abatement projects over a ten year period, with a total estimated cost of \$23 million dollars, which will result in the reduction of the average annual CSO volume from 352 million gallons per day (MGD) to 277 MGD. The preferred alternative was described as best addressing both wet weather water quality improvements and the need for in-system remedies and included:

- construction and operation of remote CSO diversion facilities;
- upgrades to the existing wastewater treatment plant to increase wet weather capacity;
- sewer separation in the Varnum Avenue area;
- improvements to the Tildon Street CSO facility;
- providing in-line storage at or near the Beaver Brook CSO facility;
- implementation of phases of the NPDES II Stormwater Management Program;
- participation in the Merrimack Study; and,
- annual commitments to limited sewer separation and infiltration/inflow (I/I) removal projects.

In subsequent negotiations with the regulatory agencies, the City agreed to further modify the “preferred” alternative to a Phase I CSO control plan to include:

- construction and operation of remote CSO diversion facilities;
- upgrades to the existing wastewater treatment plant to increase wet weather capacity;
- \$40 million in sewer separation work in the Warren St. CSO area;
- implementation of phases of the NPDES II Stormwater Management Program; and,
- participation in the Merrimack Study;

In February 2001, the City of Lowell submitted a Notice of Project Change (NPC 1) to install a new stormwater collection system in the Varnum Street area, and to construct modifications to the existing Wastewater Treatment Facility (WWTF), prior to the completion of the EIR. A Final Record of Decision (ROD) was Secretary’s Certificate on the NPC was issued in March 2001. According to the proponent, these projects have been completed. A second NPC, (NPC 2) was submitted to the MEPA Office in September 2003 to modify the Merrimack, Tildon Street, Read Street, and Beaver Brook CSO diversion structures to increase their respective wet weather flow capacity, and to construct improvements to the grit handling facilities at the Lowell WWTF. The City also proposed to install new sewers along Sparks Street.

These projects have also been completed. In July 2005, the proponent submitted a third NPC (NPC 3) to the MEPA Office to install new sewer separation and storm drains in the Gorham Street South, Newhall Street South and Weed Street drainage areas which comprise a portion of the Warren Street CSO Basin. The NPC 3 submittal also included the construction of sewer separation in the Sixth Avenue and Emery Avenue local drainage area which comprises a portion of the tributary to the Beaver Brook CSO Diversion Structure, and which was delegated as a CSO priority by the city after preparation of the LTCP, and subsequently approved by MassDEP. An ROD was issued for the third NPC was issued in August 2005. The Sixth/Emery Avenue and the Weed Street drainage systems are being constructed and should be completed in 2008-2009.

On December 23, 2006, the proponent submitted a fourth NPC (NPC 4) to construct new stormwater drains and sewer pipe (Sewer Separation) in the Wellman Street and Industrial Avenue drainage area which is located within the Warren Street CSO Basin. The Warren Street CSO Basin Sewer Separation work was presented as a component of the City of Lowell's overall Long Term Control Plan/EIR submittal to the MEPA Office in October 1999. The City of Lowell proposes to mitigate combined sewer overflows by installing approximately 19,000 lf of new drain pipe and sewer pipe mostly within the City's existing roadway right-of-ways, which will result in separation of the storm drains and sewers in the project area. A portion of the new drainage system involves the cross-country construction of approximately 1,650 lf of drain pipe (60"– 66" diameter pipe) to convey stormwater flows from the drainage basin in a southeasterly direction to a new headwall outfall structure that will discharge directly to the River Meadow Brook. The new sewer system will also involve the cross-country construction of approximately 1,600 lf of new sewer pipe from Wellman Street north to Newell Street. A small segment of the City's proposed sewer separation project (approximately 1,100 lf of new 12" sewer pipe) will be privately constructed as part of a redevelopment proposal (EOEA #13943) for a 26.83-acre parcel of property located at 790 Chelmsford Street in Lowell. The Secretary issued a Record of Decision (ROD) for the NPC 4 submittal on February 8, 2007. According to the proponent, bidding for the Wellman Street drainage area work, the subject of the July 2005 NPC, is expected to be completed in 2009-2010.

Fifth Notice of Project Change

Pursuant to Section 11.11 of the MEPA Regulations, the proponent has submitted this fifth NPC (NPC 5) to construct new stormwater drains and sewer pipe (Sewer Separation) in the Lincoln Street East and Lincoln Street West drainage areas located within the Warren Street CSO Basin. This Warren Street CSO Basin Sewer Separation work was presented as a component of the City of Lowell's overall Long Term Control Plan/EIR submittal to the MEPA Office in October 1999.

This City of Lowell proposes to mitigate combined sewer overflows by installing a total of approximately 40,000 lf of new 60" drain pipe and sewer pipe mostly within the City's existing roadway right-of-ways, which will result in separation of the storm drains and sewers in the project area. The Lincoln Street East portion of the proposed new drainage system will involve the construction of approximately 17,500 lf of sewer pipe, and storm drain pipe which will convey stormwater flows from the Lincoln Street East 180-acre drainage basin to a new to a new headwall and reinforced concrete pipe outfall structure to be located off Tanner Street that will discharge directly to the River Meadow Brook. The Lincoln Street West portion of the project will involve the construction of approximately 23,500 lf of sewer pipe and storm drain pipe that will convey stormwater flows from the 250-acre Lincoln Street West drainage basin to a new headwall and reinforced concrete pipe outfall structure to be that will discharge directly to the River Meadow Brook. The proposed sewer separation work will involve the cross-country construction of approximately 450 lf of new storm drain pipe.

Jurisdiction

The project activities described in this 5th NPC may require a Section 401 Water Quality Certification from MassDEP. The proponent is seeking SRF financial assistance from MassDEP. The project may be required to comply with the US EPA's National Pollutant Discharge Elimination System (NPDES) General Permit for stormwater discharges. The project may also require a US Army Corps of Engineers General Permit and a Chapter 91 Waterways License from MassDEP for the proposed construction of the River Meadow Brook outfall. The project will require an Order of Conditions from the Lowell Conservation Commission (LCC) for proposed work located within resource areas and buffer zones (and hence a Superseding Order from MassDEP if the local Order were appealed). Because the proponent is seeking funding from the Commonwealth, MEPA jurisdiction extends to all aspects of the project that may have significant environmental impacts. In this case, MEPA jurisdiction exists over land alteration, wetlands, water quality, and wastewater management issues.

Wetlands

As described in the NPC 5 submittal, the City's construction of the proposed two new River Meadow Brook headwall outfall structures will result in impacts to approximately 80 lf of inland bank, 1,950 sf of Riverfront Area and 700 sf of Bordering Land Subject to flooding. As described in the NPC submittal, the City has committed to restore impacted areas to pre-construction conditions.

Construction Period Impacts

The proponent should employ measure to minimize to the maximum extent practicable, construction period impacts, including: impacts from earth moving/blasting, impacts to vegetation, potential impacts from erosion and sedimentation, traffic impacts on adjacent roadways, and impacts to adjacent land uses. The proponent should also require its contractors to retrofit diesel-powered equipment with emissions controls, such as particulate filters or traps, and use low-sulfur diesel fuel. The proponent should also commit to specific TDM measures that can be implemented during construction.

Mitigation

The proponent should forward to the MEPA Office for the file an updated summary of all mitigation to which the proponent has committed, and/or completed as part of the LTCP project.

Final Environmental Impact Report (FEIR/Recommended LTCP Plan

The proponent's Preferred Alternative LCTP, described in the previously reviewed DEIR, is considered by EPA and MassDEP to be the first phase ("Phase I") of a long-term plan. The City of Lowell is proceeding with the Phase I CSO abatement work in accordance with the existing AO. I note that the City of Lowell is required to complete Phase I in 2011 according to the schedule agreed to by USEPA and MassDEP. According to the comments received from MassDEP, the City has committed more than \$50,000,000.00 toward CSO abatement projects in Phase I. MassDEP and EPA will evaluate the level of total CSO reductions achieved as a result of the City's Phase I project work. MassDEP and EPA will require the proponent to design a Final LTCP to include any/all proposed Phase II improvements that may be required to provide the highest feasible level of control based on the costs and benefits and financial feasibility of higher levels of CSO control to achieve compliance with the federal Clean Water Act and MassDEP's Water Quality Standards. The City of Lowell's final Long-Term CSO Control Plan must meet the standards of U.S. EPA's National CSO Policy and MassDEP's CSO regulations. MassDEP and USEPA will be meeting with the City of Lowell to discuss the development of a Phase II scope of work and schedule for the implementation of Phase II of the City's LTCP.

As a condition of my granting the City's request for a Phase I Waiver to proceed with the work described in the 5th NPC submittal, I will require the City of Lowell to provide the MEPA Office with an LTCP progress report pertaining to the City's Phase I CSO abatement work, and the City's development of a Phase II scope of work and a proposed schedule for the implementation of the Phase II LTCP.

January 23, 2008
DATE



Ian A. Bowles, Secretary

Comments received:

12/17/07	Camp, Dresser & McKee, Inc.
01/03/08	Massachusetts Department of Environmental Protection (MassDEP) – NERO
01/11/08	Northern Middlesex Council of Governments (NMCOG)

5th NPC #12059
IAB/NCZ/ncz