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COMMONWEALTH OF MASSACHUSETTS
 EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 Central Regional Office, 627 Main Street, Worcester, MA 01608

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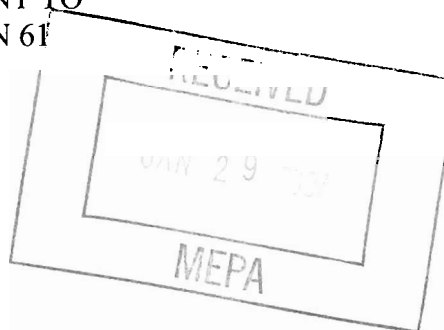
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MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
 SECTION 61 FINDING PURSUANT TO
 M.G.L. CHAPTER 30, SECTION 61

PROJECT NAME: Fruit Street WWTF
PROJECT LOCATION: Hopkinton, MA
PROJECT PROPONENT: Town of Hopkinton
EOEA NUMBER: #13092



The following Section 61 Findings for the proposed Fruit Street Waste Water Treatment Facility (WWTF) in Hopkinton, Massachusetts have been prepared to comply with the requirements of Massachusetts General Laws Chapter 30, Section 61. Under M.G.L. c.30, s.61, State agencies and authorities are required to review, evaluate, and determine the impacts on the natural environment of all works, projects, or activities conducted by them and to undertake all feasible means and measures to minimize and prevent damage to the environment. As part of any determination made, this law requires that state agencies and authorities issue a "finding" describing any impacts of the project and certifying that all feasible measures have been undertaken to either avoid or minimize these impacts.

I. PROJECT DESCRIPTION

The WWTF and all associated structures are proposed to be constructed on the eastern portion of the Fruit Street property. The initial Fruit Street WWTF and associated groundwater disposal areas would encompass approximately 5.75 acres of land out of a total 257 acres on the site, and approximately 15 acres at full build-out. The project also includes the following construction components; a sewer conduit, a package treatment facility, and two leach fields. The WWTF will be designed to remove conventional pollutants (BOD and TSS) and to significantly reduce the amount of total nitrogen and phosphorous levels in the WWTF effluent prior to groundwater discharge.

This project will allow for treatment and disposal of wastewater generated from areas within the Town of Hopkinton where existing onsite disposal systems have been determined inadequate. The following is a summary of the major treatment components of the Fruit Street WWTF:

- Wastewater Treatment Facility Control and Process Building;
- One influent flow metering structure;
- Two primary clarifiers with scum collection;
- Four membrane bio-reactor secondary treatment process systems;
- One sodium bicarbonate (NaHCO_3) chemical feed system to provide supplemental alkalinity to the bio-reactor system if needed;
- One chemical feed system for phosphorous reduction;
- Effluent pumping;
- Two sludge-holding tanks with mechanical mixing and decant equipment;
- Two ultraviolet disinfection units providing final treatment prior to disposal via the groundwater discharge;
- WWTF effluent piping to two groundwater discharge sites
- Two groundwater discharge sites for final WWTF effluent disposal; and
- Odor control system to treat odorous air exhausted from the primary clarifiers, sequencing batch reactors, sludge holding tanks, and the sludge pumping truck.

An Environmental Notification Form (ENF) was prepared and submitted, pursuant to M.G.L. c. 30, Section 61 and 62A-H of the Massachusetts Environmental Policy Act (MEPA), to the Executive Office of Environmental Affairs (EOEA) on August 1, 2003. The Secretary of Environmental Affairs issued two certificates on the ENF on September 22, 2003. The first certificate established a special review procedure to guide MEPA review of the project. The second certificate issued an ENF required for the preparation and filing of a Single Environmental Impact Report (SEIR). The SEIR was filed on November 15, 2004. The Secretary issued a certificate requiring submittal of a Supplemental SEIR (SSEIR) for certain aspects of the Master Plan. The SSEIR was filed on October 8, 2005 and received a certificate on November 14, 2005. This certificate required the filing of a second SSEIR to clarify certain aspects of the Fruit Street project and present different alternatives to the proposed master plan. The second SSEIR was filed on January 17, 2006 and received a certificate from the Secretary on March 3, 2006. A Notice of Project Change (NPC), which provided detailed information on the proposed WWTF located at Fruit Street, was filed in June 2006.

The Massachusetts Department of Environmental Protection (MassDEP) has reviewed and commented on the above MEPA submissions and has considered the comments of various parties on the MEPA process in connection with the permit application submitted by the proponent. This Section 61 finding is based upon the information disclosed and discussed in the MEPA review process.

II. PROJECT IMPACTS AND MITIGATION MEASURES

The proposed WWTF and associated discharge bed areas deals mainly with potential temporary impacts associated with the construction of the WWTF building and associated structures as well as the initial discharge bed to service 100,000 gallons per day (gpd). At full build out, the WWTF will be retrofitted to accommodate the additional flow capacity. The initial building is designed to be expanded in the future up to 350,000 gpd within the current footprint.

There is potential impact to a wetland area on the roadway from the recreation field to the WWTF. This roadway follows a pre-existing path utilized by the former gravel operations and is not virginal land. Additionally, the force main route traveling to the Fruit Street site may also impact existing wetland buffer area, but will follow in the currently existing paved roadway areas and not involve any virginal cross-country routes. The surface surrounding the WWTF will be gravel packed roadway so as not to be an impervious surface. This will eliminate any environmental impact at this location and allow for water infiltration surrounding the facility from precipitation. The Town will work with the Conservation Commission to determine any filing protocols necessary during the final design phase.

The Town prepared a Water Master Plan dated May 2003 and completed a Comprehensive Wastewater Management Plan (CWMP) and Final Environmental Impact Report (FEIR), approved by MEPA on January 28, 2005. The potential impact of the wastewater discharge at the Fruit Street sites to Whitehall Brook was addressed and evaluated as a result of comments received through the Fruit Street Master Plan and CWMP/FEIR process. The proposed flows of the treated wastewater effluent will be very small compared to flood flows in Whitehall Brook and would not be expected to raise water levels significantly. The discharge of highly treated effluent at Fruit Street will recharge the aquifer at the point of stress, which is Whitehall Brook. Whitehall Brook is the sub-basin of the Concord Basin from which the Town's major wells, Nos.1, 2 and 3 at Fruit Street withdraw. The proposed discharge of up to 350,000 gpd of highly treated effluent will not affect the stream gauge set in Lowell by the state, but will be taken into account by MassDEP when calculating mitigation measures from the State's Water Management Policy for Permit and Amendment Applications and 5-Year Reviews, dated April 2, 2004.

As part of the public comment process of not only the Fruit Street Master Plan, but also, the CWMP/FEIR, the most prevalent issues commented on and addressed on the WWTF include the following:

Water Supply Protection

The final effluent will be closely monitored under the State's Groundwater Discharge Permit process. The final effluent will be in conformance to the State's Guidelines, with an additional level of treatment for phosphorous as a direct result of comments received through the CWMP/FEIR process. Monitoring wells will be installed at the appropriate locations to provide an additional level of security to not only the well source, but the surrounding wetlands as well. Base levels of water quality testing within the Brook itself have been done. Additional measures of protection in the final WWTF design include:

- Redundancy of equipment in case of failure
- Ability to shut down facility in case of emergency
- Auxiliary generator in case of power failure
- Groundwater monitoring wells

The Town adopted a Water Resources Overlay Protection District (WROPD) at Annual Town Meeting on May 2, 2006 that further serves to protect the drinking water supply at this location. The WROPD delineates the Zone I, II and III areas in Town.

The drinking water plan will always take precedence over any other. The Town will develop an emergency plan for both the WWTF as well as the groundwater discharge. Precautions such as

the ability to shut off discharge should a problem arise will be included in the final design of the WWTF.

The Town has worked and will continue to work very closely with MassDEP's Drinking Water Program in conjunction with MassDEP's Bureau of Resource Protection to coordinate all water and wastewater plans. The goal of this plan is to continue to provide Hopkinton with not only the very best quality, but also drinking water for decades to come.

Secondary Growth Impacts

As part of the CWMP/FEIR process, secondary growth impacts were addressed under Executive Order 385. The goal of the CWMP/FEIR was to provide the Town with a long-term solution for those areas unable to sustain with their current on-site wastewater disposal systems. The CWMP/FEIR was undertaken with a State-approved methodology of looking at the State Land Use Codes as the precursor for properties. The CWMP/FEIR recommended that the Town review its current Sewer By-Laws in order to provide the protection needed before the implementation of any new infrastructure in Town. The CWMP/FEIR has clearly defined and targeted need areas in order to prevent unwanted sprawl. Included in the CWMP/FEIR recommendation are the following items:

- Review of the Current Sewer Use Rules and Regulations and Construction Standards
- Development of a Cost Recovery Plan
- Review of Current Sewer User Charge System
- Review of Sewer System Expansion Control Policy
- Review of Sewer System Staffing and Operations Plan
- Development of a Septage Management Plan
- Water Conservation Program
- Establishment of Flow and Geographic-Based Sewer Districts

Sustainable, smart growth can be achieved if the Town follows the recommendations put forth in this document as well as the CWMP/FEIR.

Facility Design and Permitting Process

The Town completed a Preliminary Design Report (PDR) in April 2006. The PDR presented an evaluation of various treatment technologies available to achieve the discharge limits as identified in the CWMP/FEIR and a recommended design that was developed to address the following project goals as identified by the Town:

- Meet highly treated discharge limits, as per MassDEP regulations, including reduced nitrogen and phosphorus levels;
- Design the facilities to minimize construction costs and operational costs;
- Provide facilities with minimal maintenance and labor requirements;
- Provide the minimum facilities required to treat 0.10 MGD (million gallons per day) to meet the discharge limits during this phase of facilities planning;
- Capture and treat odors from the new WWTF;
- Provide a low impact facility in terms of odors, noise and aesthetics to help ensure community acceptance;
- Optimize use of the existing site (Town owned property located off of Fruit Street);
- Provide for future expansion on the Fruit Street Site to treat a future average daily flow of 0.35 MGD; and

- Consider what facilities may be required to provide for gray water re-use of the treated effluent at other Town owned facilities planned for development at the Fruit Street Site.

Other project specific design considerations and assumptions that have been incorporated in the preliminary design include:

- No septage receiving. Septage receiving can be a significant source of odors as well as cause process upsets due to its higher strength than domestic wastewater. The CWMP/FEIR recommended the Town implement and administer a Septage Management Plan, with septage from Hopkinton transported to a licensed receiving facility;
- Industrial sources located within the Phase 6 Sewer Service Area will provide pre-treatment prior to discharge to the wastewater collection system;
- Wastewater received at the WWTF will be characteristic of typical domestic wastewater of medium strength;
Oil and grease are not an operational problem at the Wood Street Pump Station and therefore are not expected to be an issue at the WWTF. Any oil and grease issues that may present themselves in the future will be addressed through Sewer Use Regulations and an inspection program by the Town;
- No on-site sludge processing. Sludge processing will add additional capital expense to the project, can be a significant source of odors, and is generally labor intensive. Sludge will be trucked off-site at a liquid concentration of about 2.5 percent solids; and
- Typical WWTF odor causing constituents and levels were used to design the proposed odor control system. Since the odor control systems need to be available as part of the WWTF design, field monitoring data typically gathered to fine tune an odor control design is not feasible. However, since no unique wastes are expected from the collection system, a design based on typical WWTF odor generation levels should be sufficient to meet the project goals.

Update on Infiltration and Inflow (I/I) Program

The Town recently completed a Sewer System Evaluation Survey, June 2006. This Report will serve to assist the Town in identifying areas in need of rehabilitation in its sewer system in order to remove infiltration and inflow and to repair defective pipe and manholes.

The Town completed an I/I Study beginning in the fall of 2004 through the summer of 2005. This Study identified areas of concern and recommended follow-up, thus the June 2006 Report. Methods utilized in the 2006 Study included the following:

- House-to-house surveys
- Flow Isolation
- Manhole Inspections

As a result of the June 2006 Study, areas of concern have been identified and the Town is in the process of reviewing the necessary actions to implement the recommendations contained in the Report.

WWTF Effluent Reuse

The final WWTF effluent will be of reuse quality before being discharged into the ground. The potential for any of the proposed land uses on site to utilize the effluent for irrigation, toilet flushing, etc. will be high because of the final effluent quality. It will be up to the specific

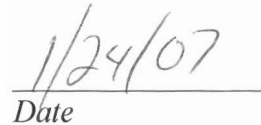
project proponent of proposed Fruit Street projects (i.e. School Department, Affordable housing Committee, etc.) to work with the Department of Public Works in order to take advantage of reuse supplied by the WWTF.

III. FINDINGS

MassDEP hereby finds that, with the implementation of the mitigation measures described above, all practicable means and measures will be taken to avoid minimize adverse impacts in the areas noted above to the proposed project. It does not relieve the proponent from complying with additional MEPA requirements when applying for permits from other applicable Departments or Agencies. Appropriate and more detailed conditions will be included in the Groundwater Discharge Permit issued by MassDEP that will describe more fully and assure the implementation of the mitigation measures described in this finding.



Paul R. Anderson
MEPA Coordinator
MassDEP – Central Region



Date