OFFICE OF THE
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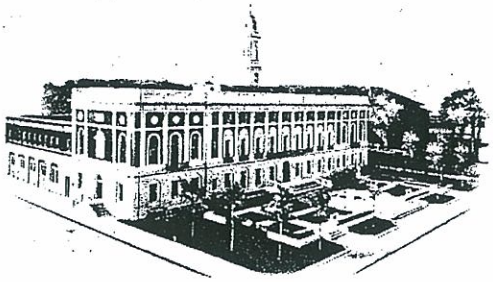

THE CITY OF WATERBURY
Bureau of Water

21 EAST AURORA STREET WATERBURY, CONNECTICUT 06708

August 21, 2007

First Light Power Resources
One Corporate Center
20 Church Street
Hartford, CT 06103
Attention: Cynthia Vodopivec, P.E.

Dear Ms. Vodopivec,

I was pleased to meet with you on August 9th regarding First Light Power Resources proposed electric generating facility at 725 Bank Street in Waterbury. A recent hydrant flow test at the site found a flow of 1,425 Gallons Per Minute (GPM). As I told you at the meeting, the Bureau of Water will have no problem providing the facility with water. Even on peak water demand days the water at this site will well exceed the facility's maximum demand of 320 GPM.

I you have any questions or need any more information, please give me a call at (203) 574-8250.

Sincerely,

Kenneth R. Skov

Kenneth R. Skov
Superintendent of Water

WATER RESOURCES ANALYSIS

Waterbury Generation, LLC
c/o FirstLight Power Resources Services, LLC
Waterbury, Connecticut

Prepared for

Waterbury Generation, LLC
c/o FirstLight Power Resources Services, LLC
20 Church Street
Hartford, CT 06103

Prepared by

T R C
Lowell, Massachusetts

September 27, 2007

TRC Project No. 151501

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A. INTRODUCTION

The proposed nominal 96 megawatt (MW) Waterbury Generation, LLC power plant (the Project or Facility) will include a GE LMS100 gas turbine equipped with an inlet air evaporative cooler and a mechanical draft cooling tower. The proposed Facility will need approximately 0.44 million gallons per day (MGD) of water (summer conditions) for cooling, air pollution control, laboratory sinks and restrooms. The proposed water source for this Project is the City of Waterbury Water Supply System. Figures 1 and 2 show the location of the proposed Facility. A preliminary water balance schematic for the Waterbury Generation, LLC Facility is provided as Figure 3.

The following sections provide a summary of the water resource conditions for the Facility, the municipal water supply system source, and area water supply systems. The anticipated impacts and mitigation of this Project on these resources are presented.

The proposed water source for the power production at this Facility is the existing City of Waterbury Water Supply System. Water for power production is primarily needed for cooling tower makeup, air pollution control (water injection for nitrogen oxides (NO_x) control), and the inlet air evaporative cooler. Potable water needs for the Project will also be met by the City water supply system. The following presents a summary of the water resource conditions for the Project site, the municipal water supply system source, and area water supply systems.

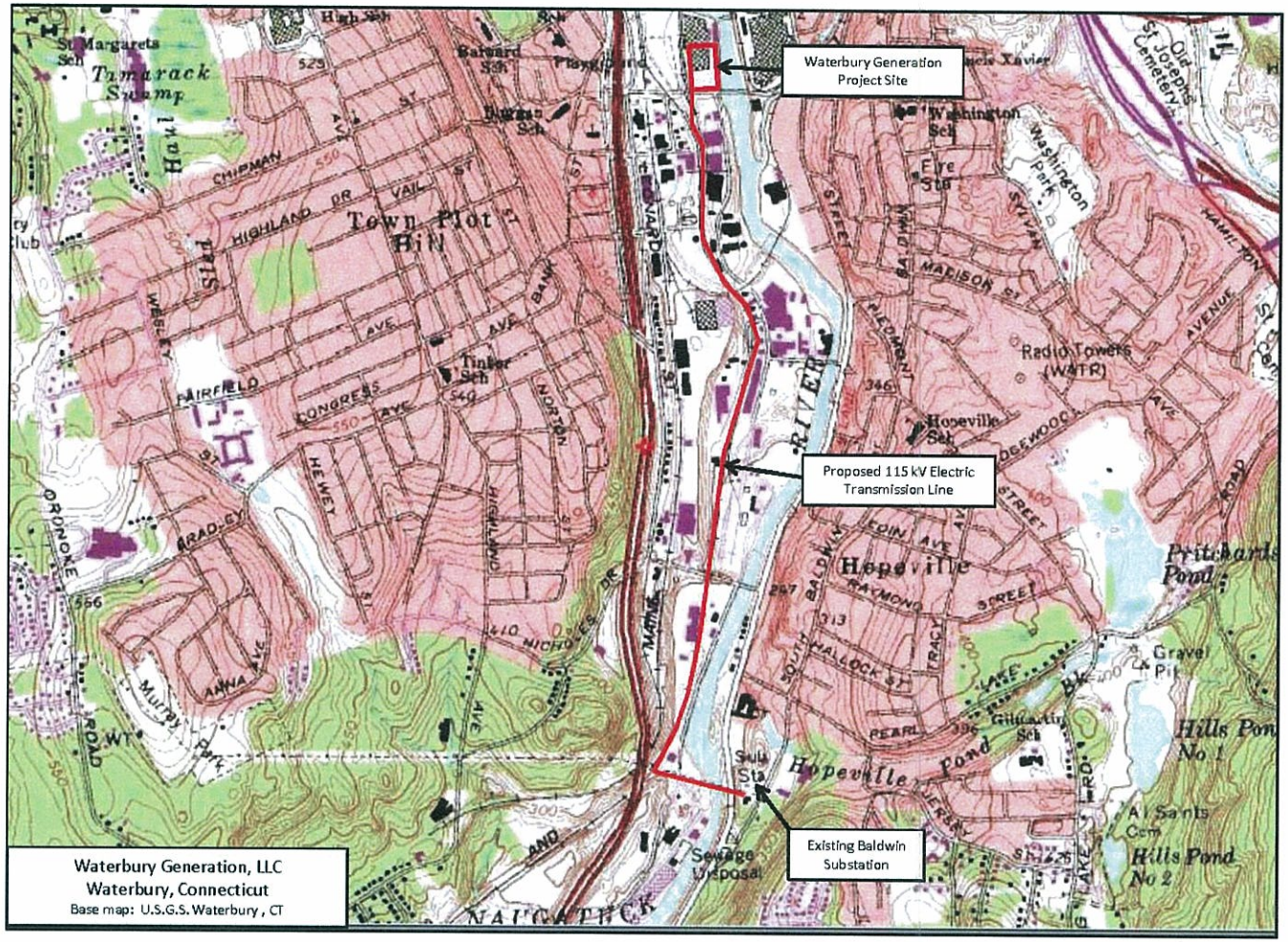

Figure 1: Location of Facility, Waterbury Generation, LLC

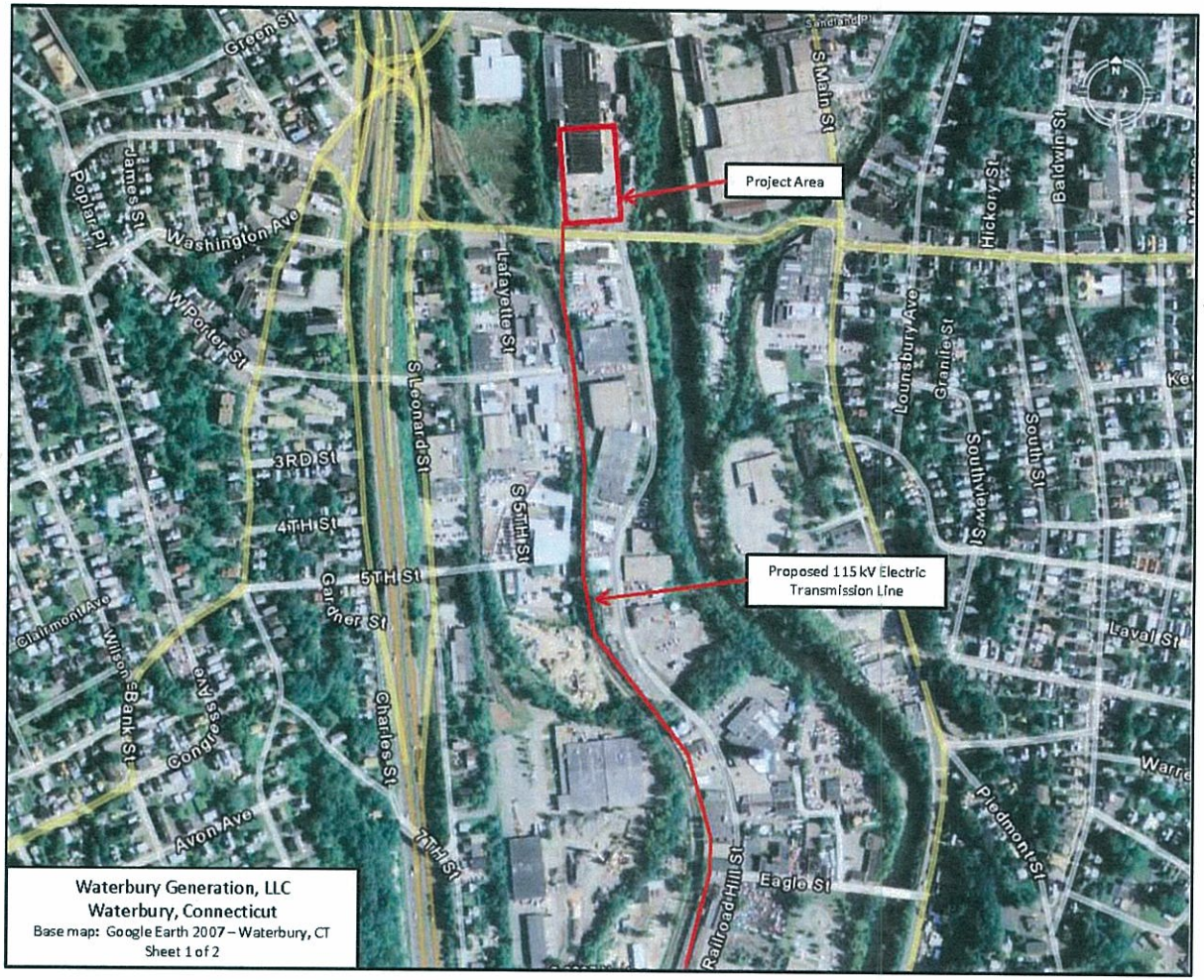

Figure 2: Site Map, Waterbury Generation, LLC

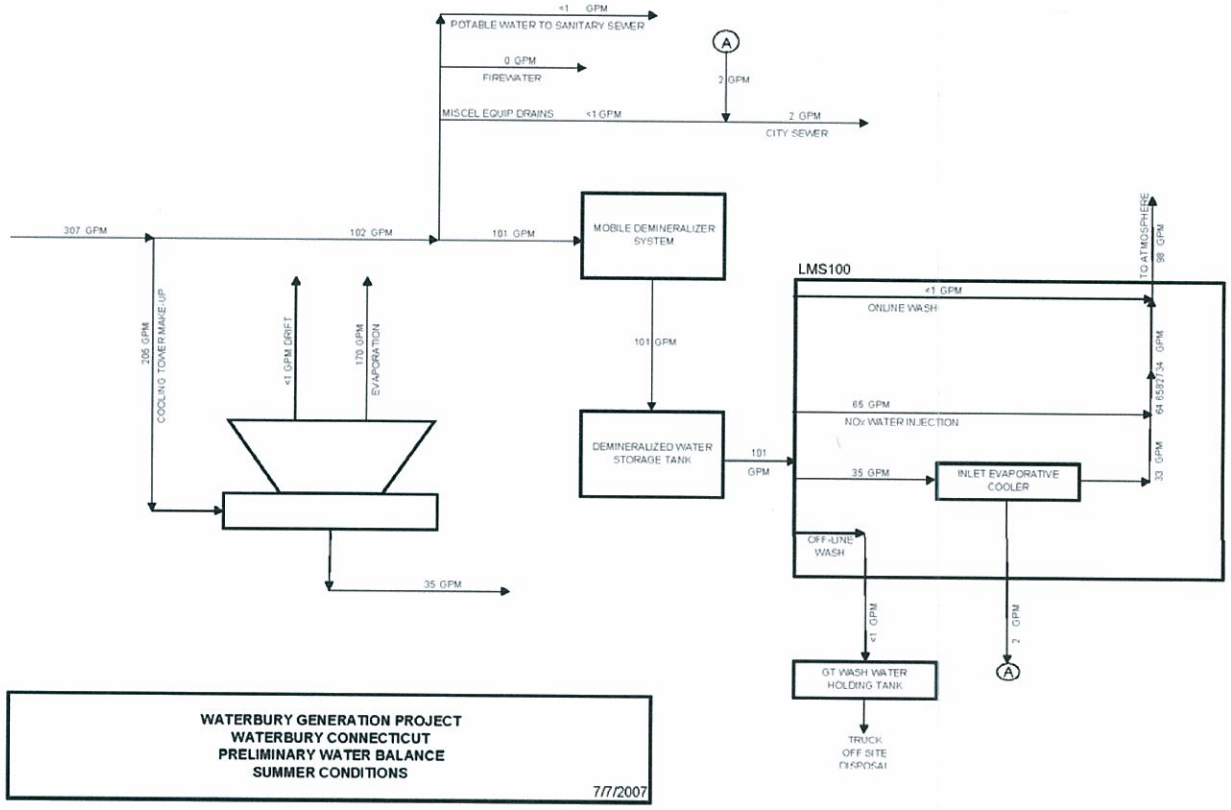

Figure 3: Preliminary Water Balance Schematic, Waterbury Generation, LLC

The anticipated impacts and mitigation of this Project on these resources are presented.

B. SURFACE WATER

1. Present Conditions

a Naugatuck River

The Project site is located within the Naugatuck River Basin (Subregional Drainage Basin No. 6900) of the Housatonic major basin. The Naugatuck River travels through 12 towns and runs through New Haven and Litchfield counties. It extends 39 miles from its beginnings in Norfolk to its confluence with the Housatonic River in Derby, CT. The Housatonic River originates near Pittsfield, MA and flows south for approximately 150 miles through western Massachusetts and Connecticut before entering Long Island Sound at Stratford and Milford, CT. Figure 4 shows the Housatonic Major Drainage Basin, the Naugatuck Regional Drainage Basin, and the Waterbury Subbasin of the Naugatuck River.

The Naugatuck basin drains a total area of 310 square miles[1]. It is a rapidly flowing stream for most of its length, consisting primarily of riffles and pools. Exceptions are several relatively short reaches, which have been deepened by dredging activities or are impounded behind low dams. Average annual stream

[1] Gregorski, R., A Brief History of the Restoration of the Naugatuck River and its Tributaries (1967-2007). Naugatuck River Watershed Association. January 2007.

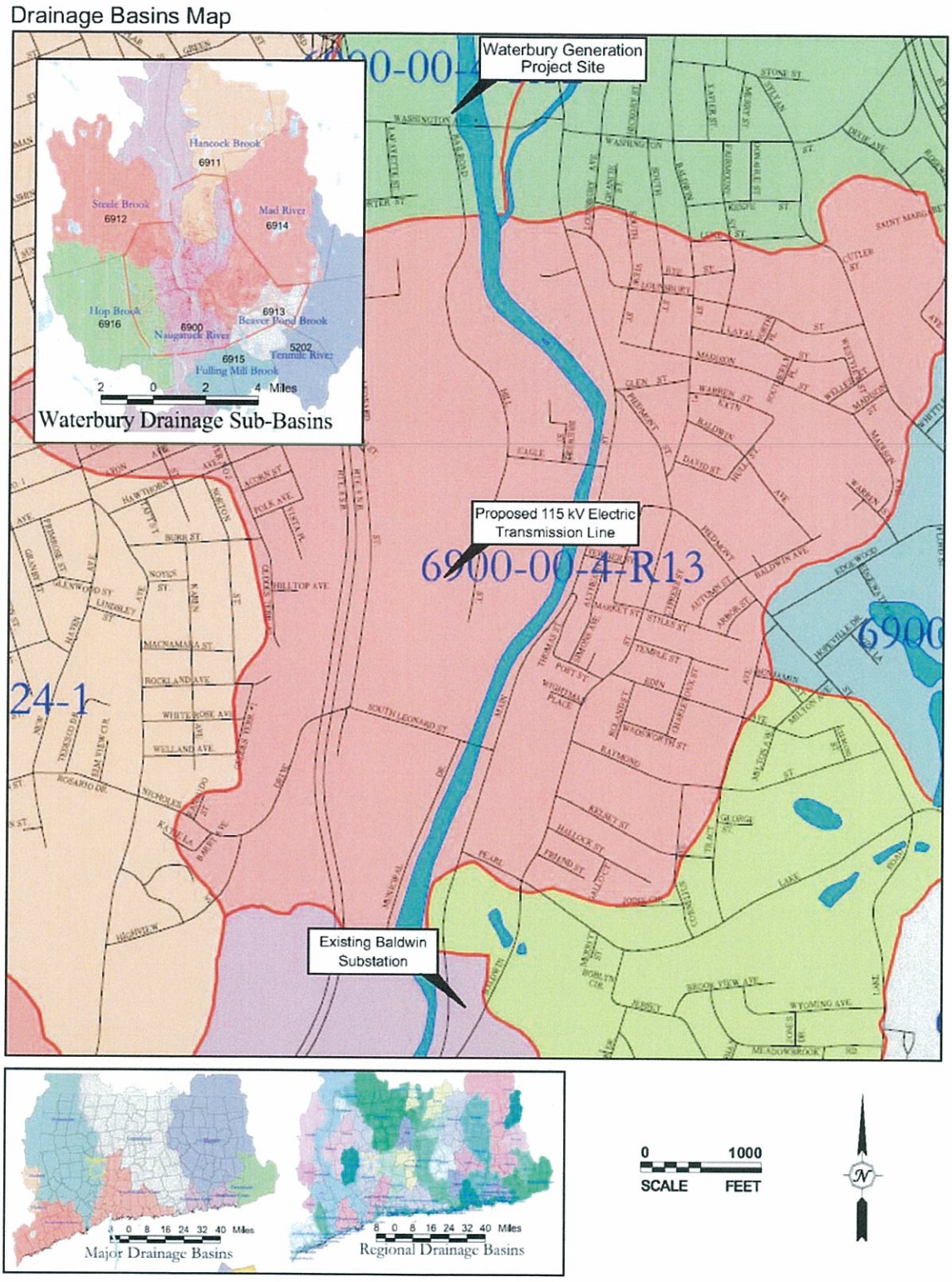

Figure 4: Naugatuck River Drainage SubBasin in Waterbury, CT

flow at the mouth of the river in Derby is approximately 560 cubic feet per second (cfs). Dry weather minimum flows are on the order of 80 cfs.

Stream flow in the Naugatuck River is affected by registered and permitted diversion withdrawals and wastewater discharges to the river from publicly owned wastewater treatment plants and industrial discharges. No surface water diversions from the Naugatuck are currently registered or permitted within the City of Waterbury. One industrial facility in Waterbury is permitted to discharge to the Naugatuck (Seidel, Inc., NPDES Permit CT0026808). In addition, the Waterbury Sewage treatment facility discharges to the Naugatuck River at an average flow rate of 27 MGD.

The estimated[2] "low flow" of the Naugatuck River at the nearest USGS discharge monitoring station, located 5.45 miles upstream from the proposed site (USGS Station Number 01208049) is 17.17 cfs (or 127.06 gallons/second). In 2003, discrete discharge measurements at this station (this is not a continuous gauging station) ranged from 65.9 cfs to 301 cfs[3]. The "low flow" is the "7Q10" flow which is defined as the lowest average flow over a seven day period which is likely to occur once in a ten year period. Stream flows are reportedly greater than this value about 99 percent of the time in Connecticut streams.

[2] *Total Maximum Daily Load Analysis for the Upper Naugatuck River, Thomaston, CT.* Connecticut Department of Environmental Protection, August 17, 2005.
[3] *Water Resources Data, Connecticut , Water Year 2003*, USGS, March 2004.

The location of the proposed Facility lies within the 500-year flood plain[4] of the Naugatuck River. Due to the steep gradient of the main stem of the Naugatuck River and the many short, steep tributaries, runoff from precipitation is rapid and the river is prone to floods. The record flood occurred in 1955 resulting in significant loss of life and property. In the years following the 1955 flood, the U.S. Army Corps of Engineers undertook extensive flood control projects in the basin. A large flood control dam was constructed on the main stem of the river at Thomaston and six additional flood control dams were constructed on tributaries for a total capacity of 77,000 acre feet. Five local flood control projects were also constructed, resulting in extensive steam channel modifications in the cities of Torrington, Waterbury, Ansonia and Derby.

b Surface Water Quality

The Naugatuck River has been classified by DEP in the location of the site as a Category 5 Impaired Waterbody[5]. This designation refers to waters impaired according to Section 303(d) of the Clean Water Act. TMDLs[6] may be required. The Category 5 designation has been applied to the entire length of the Naugatuck River. The segment including the Project site (waterbody segment CT6900-00-03) is regarded to have low priority impaired use as a habitat for fish, other aquatic life, and wildlife. The source of this impairment includes municipal point

[4] Community Resource Inventory Online. Data layer from Connecticut DEP GIS data (http://dep.state.ct.us/gis/).
[5] 2006 Connecticut Waterbodies Not Meeting Water Quality Standards, Connecticut DEP.
[6] A TMDL or Total Maximum Daily Load is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. TMDL analyses and other management plans may be required to bring waterbodies into compliance with Water Quality Standards.

source discharges, urban stormwater, industrial point source discharges, and sanitary sewer overflows. This segment also has impaired quality of recreation use related to Escherichia coli contamination from urban stormwater and sanitary sewer flows. Future mitigation of the recreational impairment is regarded to be a high priority.

The water quality has shown significant improvement over the past several decades. Once considered one of the most polluted rivers in Connecticut, investments in dam removal and municipal wastewater treatment upgrades have led to significant improvements.

2. Impacts and Mitigation

The Project proposes to use water from the existing municipal water supply system. The Facility is expected to use an average of an estimated 307 GPM (0.442 MGD) of water for power production during summer conditions. This water demand includes water for air pollution control, power augmentation, and evaporative cooling. In addition, a minimal amount of water will be used by the Facility for domestic uses (e.g., sanitary, drinking) and irrigation. A summary of the estimated water demands for the Project is provided in Figure 3. The City of Waterbury's water supply system currently has sufficient excess capacity to meet the process water and potable water demands (see Section E).

The Facility site layout was based on careful consideration of the area water resources including wetlands, surface water, and ground water. The proposed layout avoids and minimizes direct impacts on wetlands systems. Several precautions will be taken to protect surface and ground water from impacts due to construction and operation. Not only has the Project been designed to prevent impacts to surface and ground water, but both Stormwater Pollution Prevention Plans (SPPPs) and a Spill Prevention Control and Countermeasure (SPCC) plan will be developed to address Facility-specific potential concerns during construction and operation.

Stormwater will be appropriately controlled and managed at the site to protect surface and ground waters of the State from pollution. Stormwater discharge general permits will be obtained from DEP for both the construction activities and industrial activities associated with the operation of the Facility. As part of these permits, SPPPs will be developed to address stormwater pollution during the construction and operation of the Facility. Erosion and Sedimentation Control Plans will also be developed for this Project. These plans will be prepared in accordance with good engineering practices and include descriptions of Project-specific best management practices.

A SPCC plan will also be developed for the Facility consistent with federal Oil Pollution Prevention regulations (40 CFR Part 112) and the wastewater discharge permitting requirements of Section 22a-430-4(c)(10) of the Regulations of Connecticut State Agencies (RCSA). The SPCC plan will provide a description of the measures planned at this Facility to prevent and control unplanned releases during the storage, collection, transfer, transport, treatment, loading, and unloading of all toxic or hazardous substances, oil, process wastewaters, and any other chemicals.

C. WASTEWATER

1. Present Conditions

The area in which the Project site is located is served by a sewer system operated by the City of Waterbury. The Waterbury Water Pollution Control Facility (WPCF) is located on the western bank of the Naugatuck River, approximately 1.4 miles downstream from of the site. The advanced nitrification/denitrification facility is permitted for a design flow rate of 27.05 MGD with a peak capacity of 50 MGD. Improvements to the WPCF were completed in 2000. Additional sewer system improvements have been undertaken pursuant to a $350,000 penalty imposed by U.S. Environmental Protection Agency (EPA) in 2002. The facility also provides high rate primary treatment and sodium hypochlorite disinfection of peak storm flows up to 83 MGD, eliminating untreated flows to the river.

There are 57 permitted wastewater discharges to the Naugatuck River. Of the 57 discharges, eight are from municipal sewage treatment plants. Approximately 49 are industrial discharges, 28 of which are treated process wastes. The remainder consists of non-contact cooling waters. Of the 28 treated process wastewater discharges, nine required the use of toxicity testing methods for development. Within the City of Waterbury, there are two NPDES-permitted discharges, Seidel, Inc. and the Waterbury WPCF.

The Facility wastewater will be discharged to existing sewer lines that date to the former industrial use of the site. The sewer lines have sufficient capacity for the wastewater discharge from the Facility.

2. Impacts and Mitigation

Wastewater from the Project will be discharged to the existing municipal sanitary sewer system for collection and treatment at the City of Waterbury WPCF. Expected wastewater discharges will include water from domestic uses (sanitary) and minor miscellaneous discharges (e.g., pump seal water, condensate). All such regulated wastewater discharges to the Waterbury WPCF will be permitted by DEP and effluent limitations will be established under the discharge permit. It is estimated that the Facility will discharge an average of less than 2 gallons per minute (gpm, approximately 3,000 gallons per day (gpd)) of sanitary and miscellaneous minor wastewater.

Given the estimated wastewater discharge from the Facility and the excess capacity of the Waterbury WPCF, there is sufficient treatment capacity at this plant for the treatment of this wastewater. In addition, any regulated wastewater discharge to the WPCF will be permitted through DEP and the conditions of the permit will regulate the discharge activities. If, during the detailed design of the Project, it is determined that there is insufficient excess capacity in the existing sewer lines between the Facility and the WPCF, the connecting pipes will be upgraded.

The Project will minimize water use and associated wastewater discharge through the recirculation of the cooling water and the off-site regeneration of the deioninzation water treatment system, thus eliminating the on-site generation of water treatment system backwash discharges to the WPCF. Some of the wastewater generated by the Facility (e.g., drainage) will pass through an oil/water separator to minimize the potential for oil releases in the wastewater discharge. All regulated wastewater discharges to the WPCF will be monitored under a DEP wastewater discharge permit and will also be in compliance with City of Waterbury sewer discharge requirements.

D. GROUND WATER

1. Present Conditions

a. Ground Water Hydrology

Generally accepted hydrogeologic principles and regional ground water flow information indicate that the ground water in the immediate vicinity of the site flows to the east and discharges to the Naugatuck River.

Several private industrial water supply wells are located within several miles of the proposed site. Water Diversion Registrations with the Connecticut Inland Water Resources Division include Timex Corporation, Connecticut Light and Power Company, and Bristol Babcock, Inc. None of the permitted flow rates exceed 0.65 MGD.

Areas to the east and west of the river basin area in Waterbury are overlain primarily by till consisting of a nonsorted, nonstratified deposits of clay, silt, sand, gravel, and boulders mixed in various proportions. Areas of exposed bedrock are also present in these areas.

b. Ground Water Quality

The Project site lies within an area classified by DEP as having a GB ground water classification[7]. A GB ground water designation indicates that the ground water is within a highly urbanized area of intense industrial activity and where

[7] Community Resource Inventory (CRI). http://clear.uconn.edu/projects/cri/index.htm. Data layer from Connecticut DEP GIS data (http://dep.state.ct.us/gis/).

public water supply is available. The ground water may not be suitable for direct human consumption without treatment due to waste discharges, spills or leaks of chemicals or land use impacts. The goal is to prevent further degradation by preventing any additional discharges which would cause irreversible contamination. Designated uses of GB water include industrial process and cooling waters and baseflow for hydraulically-connected surface water bodies.

The chemical quality of ground water in the Naugatuck River basin under natural conditions is generally good. Concentrations of iron and manganese in the ground water are generally low although locally they may exceed 0.3 milligram per liter (mg/l) iron and 0.05 mg/l manganese (the Safe Drinking Water Standard Secondary Maximum Contaminant Levels (i.e., for taste, odor, color) established by EPA) and may be objectionable for domestic and industrial use.

2. Impacts and Mitigation

The Project proposes to use water from the existing municipal water supply system. The Facility is expected to use an average of approximately 0.44 MGD of water for power production (summer conditions) which includes water for air pollution control, power augmentation, and evaporative cooling. In addition, a minimal amount of water will be used for domestic uses (e.g., sanitary, drinking) and irrigation. A summary of the estimated water usage during summer months is provided in Figure 3.

The discharge of sanitary and minor miscellaneous wastewater from the Facility to the Naugatuck River via the Waterbury WPCF will have a beneficial impact on the flows in the reach of the Naugatuck River adjacent to the Facility and WPCF. An estimated 3,000 gpd of treated wastewater will be discharged to the Naugatuck River via the Waterbury WPCF. The resulting increased flow to this portion of the Naugatuck River during periods of low flow will likely be beneficial to this natural resource.

The Facility site layout was based on careful consideration of the area water resources including wetlands, surface water, and ground water. The proposed layout avoids and minimizes direct impacts on wetlands systems. Several precautions will be taken to protect surface and ground water from impacts due to construction and operation. Not only has the Project been designed to prevent impacts to surface and ground water, but both Stormwater Pollution Prevention Plans (SPPPs) and a Spill Prevention Control and Countermeasure (SPCC) plan will be developed to address Facility-specific potential concerns during construction and operation.

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E. PUBLIC WATER SUPPLIES

The City of Waterbury has the largest city-owned water system in the State. It encompasses 7,000 acres of City-owned watershed and has sufficient capacity to service 200,000 people. The system consists of two inactive and five active reservoirs with a total capacity of 7.54 billion gallons of water. The water treatment plant was completed in 1987 at a cost of approximately $35.0 million. Average consumption for fiscal year 2002 was 15.1 MGD; total capacity of the system is 38.0 MGD. The system serves customers located in Waterbury and neighboring communities and is a self-supporting enterprise fund of the City.

1. History

In 1893, Waterbury obtained from the Connecticut legislature a Special Act authorizing the city to take as much water as its inhabitants might require from "any and all brooks, rivers, ponds, lakes, and reservoirs" within Litchfield and New Haven Counties. Waterbury thereafter built two reservoirs in the basin of Branch Brook, which feeds into the Naugatuck within the basin of which Waterbury lies. Then, in 1917, Waterbury undertook to import water from the Shepaug River. Although the Shepaug is in a different watershed, it required only a seven-and-a-half mile long tunnel to bring the water from the Shepaug into Waterbury's existing reservoirs.

The Shepaug diversion took place within the Town of Washington in Litchfield County. A "town" in Connecticut is like a township in many other states, including within its territorial limits a large, and in the 1920s, undeveloped area—including the place on which eventually two dams were to be built and the withdrawals were to take place. Although Washington had a much smaller population than Waterbury at the time, the town sought to persuade the legislature to repeal the 1893 Special Act. Rather than risk a vote in the legislature, Waterbury chose to negotiate an agreement in 1921 with Washington whereby Washington agreed to withdraw its bill and Waterbury agreed to certain limits on its withdrawals from the Shepaug. In the 1921 contract, Waterbury promised not to reduce the flow of the Shepaug River below the dam to less than 1.5 MGD between May 1 and November 1 of each year.

Waterbury also agreed to not to divert any water from the Shepaug "at any time when the distributing reservoirs into which the city aqueduct shall convey [Shepaug] water … are full and overflowing." Finally, Waterbury agreed that it would only divert Shepaug water to the extant as "may be required to supply the actual needs of the customers of said City and to maintain the storage in its potable water supply reservoirs." The contract did not define what was meant by a "distributing reservoir" or what, if anything, limited the potential users of City water who would count as "customers."

Pursuant to this contract, Waterbury built the Shepaug Dam, completed in 1933. Waterbury then constructed the Pitch Reservoir, completed in 1943, to receive the Shepaug water. Finally, in 1963, Waterbury completed the Cairns Dam on the Shepaug River to enlarge its withdrawals from that river. That water also went into the Pitch Reservoir. Waterbury did release 1.5 MGD down the Shepaug, and more when it was available.

Over the 70 years after the contract was signed, Waterbury saw its mill and other factories close as jobs shifted to the southern states or overseas. As Waterbury's tax base eroded, the City undertook to cover some of the costs of its water system by selling water to neighboring communities, including Wolcott, Middlebury, and Watertown. Furthermore, the need to comply with federal standards regarding potable water required Waterbury to construct a new treatment plant. Waterbury completed the new plant in 1988. The plant was located below the Pitch

Reservoir and another of the Branch Brook reservoirs, but above the largest one of those reservoirs—the Wigwam Reservoir. In order to avoid the costs of pumping water from the Wigwam Reservoir up to the treatment plant, Waterbury simply substituted Shepaug water (which could reach the plant through gravity flow) for the water formerly taken from the Wigwam reservoir. Waterbury also used water from the Pitch Reservoir to drive turbines to pump water up to the higher elevations in the service area, further necessitating the keeping of the Pitch Reservoir full at all times. As a result, Waterbury usually no longer had a surplus above the 1.5 MGD promised in the 1921 contract and on occasion did not even release that amount.

Because Waterbury owned so much land along the Shepaug both above and below its reservoirs, the riparian areas of the upper regions of the Shepaug basin had remained almost entirely undeveloped. Some miles below Waterbury's dams, however, the river flow through the town center of Washington had impaired water quality. The town leaders, and several groups of town residents and others interested in the preservation of the natural environment in the Shepaug basin, began to demand that Waterbury not take any water from the Shepaug until the resources available from the Branch Brook basin—most pointedly the water in the Wigwam Reservoir—was exhausted. They also began to challenge the whole scheme of diversion of water from the Shepaug as a violation of the public trust in the waters of the State.

During 1999 and 2000, a dispute between Waterbury, Washington, and others was presented to the Superior Court for Litchfield County. The City of Waterbury and the towns of Middlebury, Watertown, and Wolcott, came to be designated as plaintiffs seeking a declaratory judgment in favor of Waterbury's right to continue its withdrawals from the Shepaug. The towns of Washington and Roxbury, the Roxbury Land Trust, the Shepaug River Association, the Steep Rock Association, and the Connecticut Fund for the Environment appeared as defendants and counterclaimants, seeking to enjoin most of Waterbury's withdrawals from the Shepaug.

On July 2, 2002 the Connecticut Supreme Court decided the case of *City of Waterbury vs. Town of Washington,* 2002 WL 1340982 (Connecticut Law Journal, 2002). The court found that the City's conduct in running its water system resulted in some measure of impairment to the Shepaug River and ordered primarily equitable, non-monetary relief in the form of additional water releases to the Shepaug River below the dam. Enabling the ordered water releases would have required some modifications to the dam and to the operations of the City's water system.

2. Present Conditions

The historical and projected water demands served by the Waterbury Water Supply System are summarized in Table 1.

TABLE 1:

HISTORIC AND PROJECTED WATER DEMANDS[8]

Year	Residential Use (MGD)	Commercial/ industrial use (MGD)	Other Use (MGD)	Total Average Day (MGD)	Maximum Day(MGD)
2002	7.49	2.31	5.33	15.13	22.4
2003	8.22	2.37	5.53	16.12	20.9
2003	8.45	2.07	5.78	16.3	25.8
2005	8.41	2.04	5.01	15.46	20.3
2006	8.44	2.08	5.06	15.58	20.4
Projected					
2011	8.8	2.3	5.5	16.6	24.9
2020	8.9	2.4	5.4	16.7	25.1
2050	9	2.5	6	17.5	26.3

The City of Waterbury obtains water from a system of reservoirs located in the Shepaug Watershed and the West Branch Watershed (see Figure 5). The flow schematic provided as Figure 6 describes the flows from the reservoirs through the aqueducts and pipelines into the city water treatment plant and the Waterbury water distribution system.

Utilizing the active supply sources identified in Table 2, the 99% safe yield of Waterbury's water supply system has been calculated to be 27.0 MGD. The safe yield for the Waterbury Supply System was calculated in the August 2007 Water

[8] From *Water Supply Plan, City of Waterbury Connecticut Bureau of Water,* prepared by Raold Haestad, Inc., August 2007. Table VI-1.

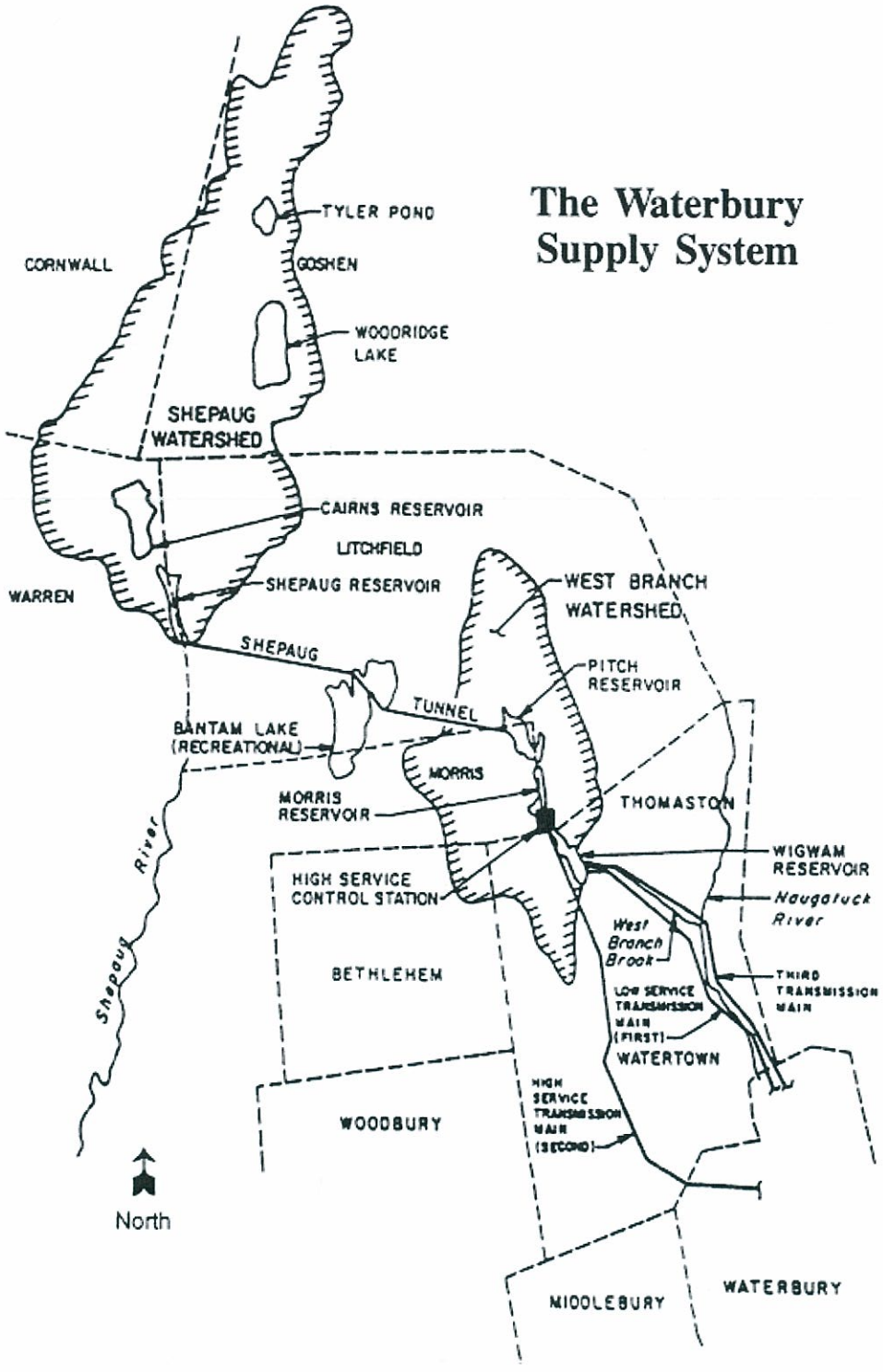

Figure 5: System of Reservoirs Supplying Waterbury

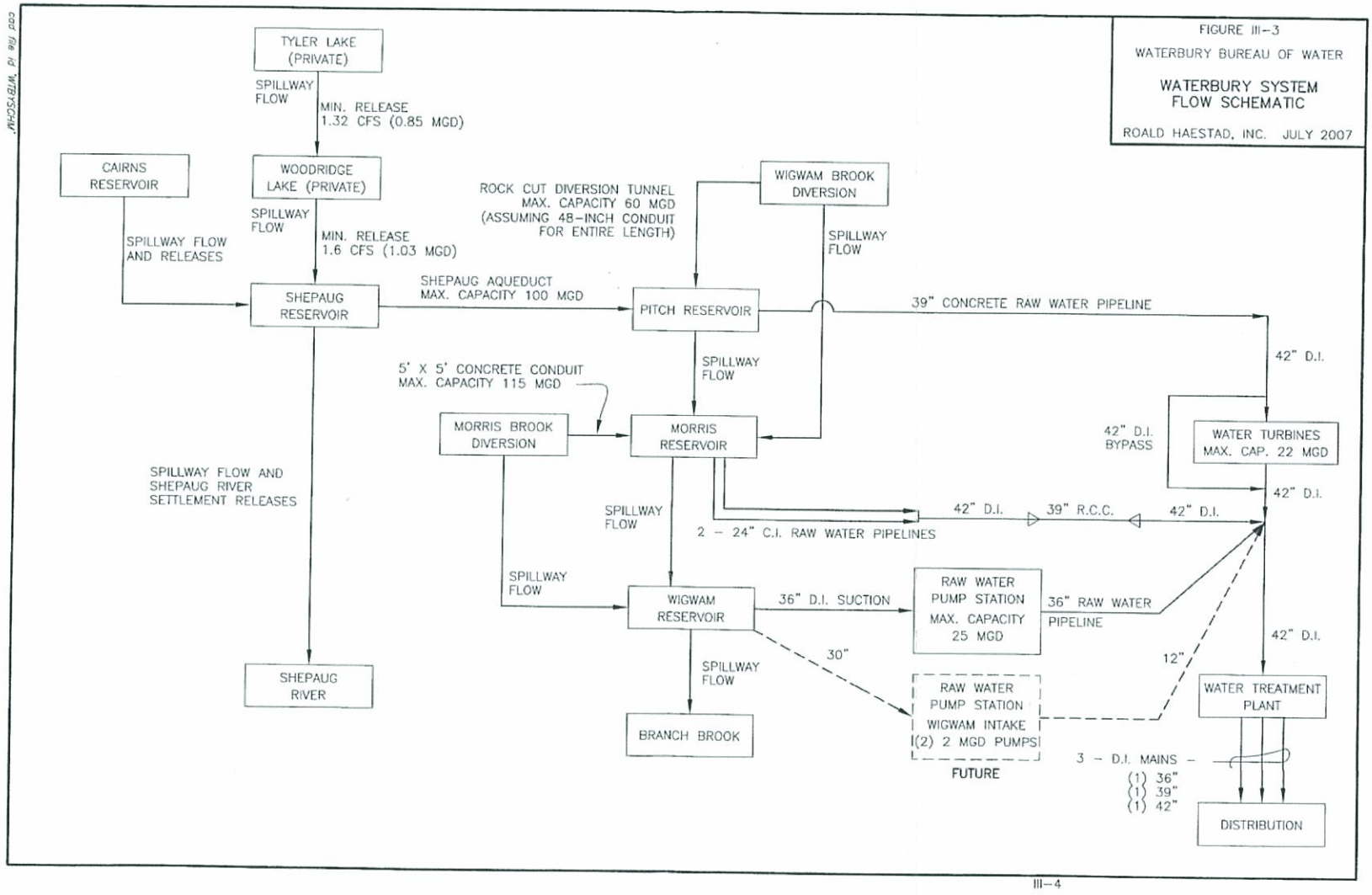

Figure 6: Waterbury System Flow Schematic

TABLE 2:
WATERBURY REGISTERED DIVERSIONS

WATER SOURCE	WITHDRAWAL CAPACITY (MGD)[9]
Interconnections:	
Interconnection Waterbury to Walcott (Waterbury and Town of Walcott)	0.19
Watertown Fire District Interconnection (Waterbury Water Bureau)	Not specified
Watertown Water/Sewer Interconnection (Waterbury Water Bureau)	Not specified
Town of Middlebury Interconnection (Waterbury Water Bureau)	Not specified
Hillcrest Fire District Interconnection (Waterbury Water Bureau)	Not specified
CWCO Thomaston Interconnection (Waterbury Water Bureau)	0.864
Surface Water Diversions:	
Cairns Reservoir, Upper Shepaug (Waterbury Water Bureau)	30.0
Morris Reservoir (Waterbury Water Bureau)	25.0
Pitch Reservoir (Waterbury Water Bureau)	20.0
Shepaug Reservoir (Waterbury Water Bureau)	30.0
Wigwam Reservoir (Waterbury Water Bureau)	25.4

Supply Plan (Raold Haestad, 2007) using the Statistical Analysis of Time Series (STATS) method developed by the U.S. Army Corps of Engineers. Stream flow adjustment factors were calculated using the ratio of the average stream flow with

[9] Source: Water Diversion Permits, Connecticut DEP, Inland Water Resources Division, January 2006.

a 1 in 100-year frequency to the average unadjusted stream flow over the period from full to empty for the reservoir systems. The computed draft rate from this simulation is referred to as the 99% safe yield.

3. Impacts and Mitigation

The water needs of the Project during the summer months are estimated at 0.44 MGD (307 gpm) and will be met by the City of Waterbury's existing water supply system. The City of Waterbury's water supply system currently has sufficient excess capacity to meet the process water and potable water demands of the Project. The existing water supply and delivery system should also be sufficient in the event of an emergency, because the Facility is located near two water main feeds. Using the active supply sources, the 99% safe yield of Waterbury's supply system is 27.0 MGD. Given that this water supply system has a current average demand of approximately 15.6 MGD and a projected average demand of 17.5 MGD in the year 2050, there is an excess water capacity of approximately 10 MGD. Therefore, the City's existing potable water supply is sufficient to meet the current and future process and potable water demands of the City and this Project and will not be adversely impacted.

References

Community Resource Inventory (CRI). http://clear.uconn.edu/projects/cri/index.htm. Data layer from Connecticut DEP GIS data (http://dep.state.ct.us/gis/).

Connecticut Department of Environmental Protection, *Total Maximum Daily Load Analysis for the Upper Naugatuck River, Thomaston, CT.* August 17, 2005.

Connecticut DEP, 2006 Connecticut Waterbodies Not Meeting Water Quality Standards.

Connecticut DEP, Inland Water Resources Division, Water Diversion Permits, January 2006.

Connecticut DEP, Inland Water Resources Division, Water Diversion Registratoins, January 2006.

Connecticut Law Journal, *City of Waterbury et. al.. v Town of Washington et. al (SC 16509)*, July 2, 2002.

Dellapenna, Prof. Joseph W., Waterbury's "Water War", Villanova University School of Law, http://www.wrb.state.ri.us/wapacmeetings/waterrights/waterwar.pdf

Gregorski, R., A Brief History of the Restoration of the Naugatuck River and its Tributaries (1967-2007). Naugatuck River Watershed Association. January 2007.

Raold Haestad, Inc., *Water Supply Plan, City of Waterbury Connecticut Bureau of Water,* August 2007.

USEPA Total Maximum Daily Loads, List of Impaired Waters. Connecticut. http://iaspub.epa.gov/tmdl/waters_list.control?huc=01100005&impairment=BACTERIA&p_cycle=2004

USEPA, NPDES Permits in New England: Connecticut, http://epa.gov/region1/npdes/ct.html , Updated September 11, 2007.

USGS, Peak-Flow Frequency Estimates for U.S. Geological Survey Streamflow-Gauging Stations in Connecticut. 2003.

USGS, *Water Resources Data, Connecticut, Water Year 2003*, March 2004.