FEDERAL ENVIRONMENTAL ASSESSMENT

AND

CONNECTICUT ENVIRONMENTAL IMPACT EVALUATION

Prepared and Submitted Pursuant to the Code of Federal Regulations Title 23, Part771,
Sections 119 and 135 (23 CFR 771.119 and CFR 771.135) and
Sections 22a-1a-1-12, inclusive, of the Regulations of Connecticut State Agencies

PUBLIC WATER SUPPLY SYSTEM EXPANSION AND REGIONAL INTERCONNECTION

Middlebury, Connecticut

Federal Environmental Protection Agency

State of Connecticut Department of Environmental Protection

June 2007
Revised December 2007

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List of Abbreviations

ADD	Average Day Demand
AWC	Aquarion Water Company
BMP	Best Management Practices
C&D	State Conservation and Development Policies Plan for Connecticut
CCCT	Connecticut Commission on Culture and Tourism
CEPA	Connecticut Environmental Policy Act
CGS	Connecticut General Statutes
CNVR	Central Naugatuck Valley Region
CO	Carbon monoxide
COGCNV	Council of Governments of Central Naugatuck Valley
CWC	Connecticut Water Company
DEP	Connecticut Department of Environmental Protection
DOT	Connecticut Department of Transportation
DPH	Connecticut Department of Public Health
DPUC	Connecticut Department of Public Utility Control
EIE	Environmental Impact Evaluation
EMT	Emergency Medical Technician
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
GPM	Gallons per Minute
HVWC	Heritage Village Water Company
IWC	Intermittent Water Course
MRT	Medical Response Technician
MCH	Middlebury Convalescent Home
MCHD	Middlebury Center Historic District
MMADD	Maximum Month Average Day Demand
MDD	Maximum Day Demand
MGD	Million Gallons per Day
MG/M^3	Milligrams per Cubic Meter
MOS	Margin of Safety
NAAQS	National Ambient Air Quality Standards
NDDB	Natural Diversity Data Base
NGVD	National Geodetic Vertical Datum
NO	Nitrogen Oxide
NO_2	Nitrogen Dioxide
O_3	Ozone
OPM	Office of Policy and Management
PEW	Palustrine Emergent Wetland
PFW	Palustrine Forested Wetland
Pb	Lead
PM_{10}	Particulate matter smaller than 10 micrometers in diameter

List of Abbreviations (Cont.)

POWW	Palustrine Open Water Wetland
PPM	Parts per Million
PRRD	Planned Residential Recreational Overlay District
PSSW	Palustrine Scrub-Schrub Wetland
RUP RB/UB	Riverine Upper Perennial Rock Bottom/ Unconsolidated Bottom
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
STEAP	Small Town Economic Assistance Program
UG/M^3	Micrograms per Cubic Meter
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
VOCs	Volatile Organic Compounds
WSP	Water Supply Plan

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EXECUTIVE SUMMARY

Introduction and Background

The Town of Middlebury, the Connecticut Water Company (CWC) and the Heritage Village Water Company (HVWC) are working collaboratively to plan, design, and construct a public water supply system expansion and regional interconnection in central Middlebury, Connecticut. Funding for the project is being provided through the Connecticut Department of Environmental Protection (DEP) and the Federal Environmental Protection Agency (EPA), triggering the need for environmental assessment under the National Environmental Policy Act (NEPA) and an Environmental Impact Evaluation under the Connecticut Environmental Policy Act (CEPA).

The proposed water supply interconnection will include (1) installation of an interconnection line along Tucker Hill Road and CT Route 188, and (2) the construction of a booster pump station. Additional project elements include (1) the extension of a water main along Chase Road and the Northern portion of Tucker Hill Road; (2) a service line to the Middlebury Convalescent Home; (3) a service line to the Town Library; and (4) an emergency interconnection to the Westover School water system.

A water supply expansion and regional interconnection has long been a goal of the Town of Middlebury. Water quality and quantity issues in the Town center have historically been difficult to address without the comprehensive solution an extension of water main affords. Further, the need for an interconnection has been underscored by the recent increase in regional development. The demand on the existing public water systems, particularly the HVWC system, is substantial and only expected to increase in the future. This is particularly true if regional development keeps up at its current pace.

The total funding for this project is $2,265,000. The following positive benefits are expected to occur as a result of the construction and operation of the regional water interconnection project:

- Supply HVWC with an adequate margin of safety for peak demand purposes and emergency supply.
- Provide an overall high level of redundancy to all water customers in the Town of Middlebury, with availability of one additional source of supply if the Waterbury or Naugatuck supply were compromised.
- Supply the Town of Middlebury Convalescent Home with public water and fire protection, bringing the facility into compliance with State fire suppression codes.
- Supply the existing town library with public water and fire protection, replacing the well that has suffered from bacteria contamination.

- Provide an emergency backup supply for Westover School's existing community water system.
- Provide a new public water supply for off-campus customers of the Westover School community water system, including municipal buildings.
- Provide improved water pressure to the Heritage-Middlebury system in the Bronson Drive area.

The multiple benefits far outweigh the costs of the project.

Alternatives Analysis

In accordance with CEPA and NEPA requirements, numerous alternatives have been analyzed for the regional water interconnection, including the "no action" alternative. A macro-scale alternative analysis considered an interconnection line between the CWC system in Middlebury with the HVWC system through the CWC Heritage-Middlebury system; expanding the capacity of the Pomperaug River wellfield; interconnecting with neighboring water com0pany supply systems; developing a stratified drift wellfield at the Housatonic River; develop new bedrock wells in the HVWC system; and modifying the Westover school water system. The micro-scale analysis considered two different interconnection routes between the CWC and HVWC systems. The proposed interconnection route (i.e. proposed action) is referenced as Alternative 2.

Evaluation of Existing Environment and Potential Impacts

The southwestern portion of the Town of Middlebury is serviced by the Heritage Village Water Company. The Central System of the Naugatuck Region of The Connecticut Water Company serves portions of the Towns of Beacon Falls, Bethany, Prospect, Naugatuck, Middlebury, and Waterbury. Two CWC systems currently operate in Middlebury. These are the main system, supplied by interconnections with Waterbury and the Naugatuck system; and the Heritage-Middlebury system in the Bronson Drive area, supplied by a single interconnection with HVWC.

The proposed interconnection will have a positive impact on the public water systems serving within the Town of Middlebury. The interconnection will provide HVWC with an adequate margin of safety and emergency supply, the Westover School system with an emergency water source, and provide improved water pressure for fire suppression purposes to several areas of the Town. However, an additional overall benefit of the interconnection is that the Town will increase its overall water supply redundancy, with the ability to draw water from the HVWC system in the west and the two existing CWC interconnections in the east.

The western section of the proposed interconnection route runs directly through the center of the Town of Middlebury. This area contains the central Town Green, several

municipal buildings, a private girl's school, and several churches. The eastern section of the proposed interconnection traverses a rural residential area which is predominately wooded open space with residences sparsely scattered throughout.

The interconnection route travels through several land use categorizations per the *State of Connecticut Conservation and Development Policies Plan.* The categorizations include Neighborhood Conservation Area, Conservation Area, Preservation Area, Existing Open Space and Rural Lands.

The proposed project is consistent with the policies of Neighborhood Conservation Areas. However, because all construction activities will be within the roads or their previously disturbed shoulders, the project will not result in any additional direct disturbance in the other land use designations. The project is inconsistent with the remaining designation in that running a water main through these areas supports growth of that area.

The major concern associated with the interconnection is that induced growth could be promoted and supported as a result of its construction and use. This can be a particularly adverse impact if this growth occurs in areas meant for preservation and conservation, such as those areas where such growth is unsupported by the *State Conservation and Development Plan.*

Mitigation Opportunities

Although induced growth should be prevented, it is important that mitigation allow for existing developed properties to connect to the water system, and that individual homes that are developed on lots with interconnection frontage be allowed to connect as well. In other words, a moratorium on connections is not workable because it will not provide for improved water service to existing and some future potential homes. For example, it is desired that subdivisions allowed through a simple division that yield lots with interconnection frontage should be permitted to connect to the water main. One way to control this process would be to exclude any development project that needs a special permit from the Middlebury Zoning Commission.

In summary, the following objectives must be considered in the development of mitigation in the form of land use controls:

- Allow existing transient non-community and non-transient non-community public water systems such as the library to connect to the water main along Whittemore Road and Tucker Hill Road.
- Allow existing homes on Whittemore Road and Tucker Hill Road to connect to the water main.

- Allow individual new homes on existing lots or first-cut lots with frontage on Whittemore Road and Tucker Hill Road to connect to the water main.
- Do not allow homes on new public or private streets to connect.
- Do not allow homes to connect if they are part of subdivisions or planned developments that require local special permits.

The Town of Middlebury has agreed to amend both its zoning regulations and its local Conservation and Development plan to restrict induced growth along the proposed interconnection route. The following represents the proposed language to be added to the local Conservation and Development plan:

- *In land use designations where the extension of public water or sewer service is not compatible with the policies of said designations, as determined by the State of Connecticut Conservation and Development Policies Plan (Conservation areas, Preservation areas, Existing preserved open space, and Rural Lands), only previously-developed parcels and those allowed to develop in accordance with the R-40 or R-80 zoning through a simple division will be eligible to receive water service.*

The following language is proposed to amend the town's R-40 and R-80 zoning regulations:

- *In land use designations where the extension of public water or sewer service is not compatible with the policies of said designations, as determined by the State of Connecticut Conservation and Development Policies Plan (Conservation areas, Preservation areas, Existing preserved open space, and Rural Lands), and that are located along Route 188(Whittemore Road) and Tucker Hill Road between their respective intersections with Bronson Drive and Chase Road; only previously-developed parcels and those allowed to develop in accordance with the R-40 or R-80 zoning through a simple division will be eligible to receive water service.*

1.0 PURPOSE AND NEED

1.1 Introduction

1.1.1 Project Background

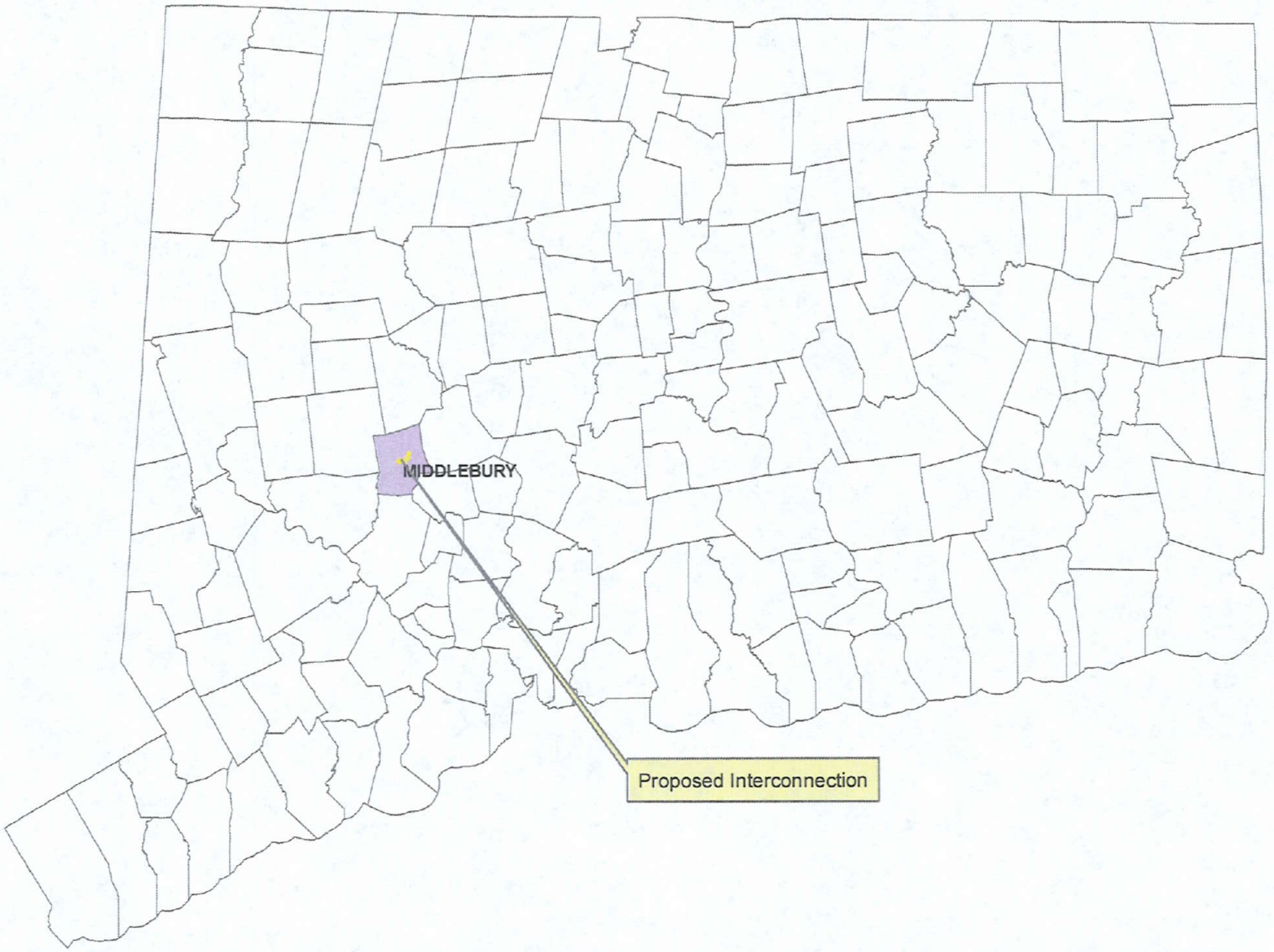
The Town of Middlebury, the Connecticut Water Company (CWC) and the Heritage Village Water Company (HVWC) are working collaboratively to plan, design, and construct a public water supply system expansion and regional interconnection in central Middlebury, Connecticut. Figure 1-1 is a location of the Town of Middlebury and the State of Connecticut. Figure 1-2 shows the proposed interconnection route and surrounding area.

Specifically, the regional interconnection will include (1) installation of an interconnection line along Tucker Hill Road and CT Route 188; and (2) the construction of a booster pump station. Additional project elements include (1) the extension of a water main along Chase Road and the northern portion of Tucker Hill Road; (2) a service line to the Middlebury Convalescent Home;[1] (3) a service line to the Town Library; and (4) an emergency interconnection to the Westover School water system.

This project is being implemented by the Town of Middlebury. Table 1-1 summarizes the available funding for this project as of the writing of this document. A significant portion of the funding is being provided by HVWC. HVWC funding is being supplemented by grant funds from the Environmental Protection Agency (EPA), a Small Town Economic Assistance Program (STEAP) grant, as well as monies from CWC, the Town of Middlebury, and the Middlebury Convalescent Home.

As the interconnection project is funded in part with state money totaling over $100,000, it is subject to the Connecticut Environmental Policy Act (CEPA). The purpose of CEPA is to ensure that a proposed project is evaluated to determine if it will have significant impacts on the physical, biological, social, or economic environments. This evaluation is documented in the subject Environmental Impact Evaluation (EIE).

[1] Additional project elements 1 -3 were privately funded or funded in part with state monies totaling less than $100,000. Although these elements have been completed and are in service, they are essential components of the Town's master water supply plan, and as such, discussed herein.



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Study Location Plan

Location: Middlebury, CT

MMI#: 1573-22-1
MXD: H:\1-1-SLP.mxd
Source: DEP Bulletin No.40

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Environmental Impact Evaluation
Middlebury Interconnection

Date: Dec. 2007

Scale: 1" = 12 miles

Sheet: Figure 1-1