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Somerset Power LLC
1606 Riverside Avenue
Somerset, MA 02726-2805

Phone 508.235.2000
Fax 508.235.2085

October 20, 2006

Mr. Richard Bourré
Attn: MEPA Office
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Re: Request for Advisory Opinion
Somerset Power LLC; Somerset Station; Maintenance Dredging
Town of Somerset, Bristol County, Massachusetts

Dear Mr. Bourré:

Somerset Power LLC (Somerset Power) respectfully requests an advisory opinion from the Commonwealth of Massachusetts, Executive Office of Environmental Affairs (EOEA) for the two separate proposed maintenance dredging projects at Somerset Station. While the projects qualify for review of an Environmental Notification Form (ENF) in accordance with the Massachusetts Environmental Policy Act (MEPA – 301 CMR 11.00), the projects consist of routine maintenance dredging and, therefore, not subject to MEPA review.

The smaller of the two proposed projects (intake structure) does not exceed the MEPA ENF reporting thresholds. The larger of the two proposed projects (berthing area) does exceed the ENF thresholds of alteration of one-half or more acres of other wetland where a permit is required, and of dredging and disposal of more than 10,000 cubic yards of material. However, both of the proposed projects also meet the definition of routine maintenance in the MEPA regulations and are viewed as such by Massachusetts Department of Environmental Protection (MADEP) representatives as determined during a permit pre-application meeting on Wednesday, September 27, 2006. Maintenance dredging activities like those proposed herein, were conducted periodically at this facility since it was constructed in the early 1920s, most recently in 1979 and 1993. It is expected that this maintenance dredging will continue to be performed periodically into the future.

The following is a list of regulatory permits and reviews required for the project: New England District Army Corps of Engineers (COE) in accordance with the Programmatic General Permit, Category 2 reporting; MADEP, Bureau of Resource Protection Dredging Permit; MADEP, Chapter 91 Waterways Permit; and a Notice of Intent submitted to the Town of Somerset Conservation Commission & MADEP.

Site Description

The Site is located at 1606 Riverside Avenue in the Town of Somerset, Bristol County, Massachusetts at the confluence of the Lower Taunton River with Mount Hope Bay (**Attachment 1**). The facility's six coal-fired units were constructed between the 1920's through 1959. Unit #6 is the only active unit for base-load electric generation and consists of a single once-through, coal-fired, steam electric generating unit, with a total generation capacity of 110 net megawatts (MW). The Taunton River is tidal from its confluence with Mt. Hope Bay to approximately 24 miles upriver.

The tidal portion of the Taunton River in the vicinity of the facility is an active seaport with regular cargo, coal, and petroleum shipping via ships and barges.

Unit #6 Cooling Water Intake Structure

The cooling water for Unit #6 is withdrawn from the Taunton River, through a dual-bay intake structure (**Attachment 2**). The Unit #6 Cooling Water Intake Structure (CWIS) is a standard structure located along the shoreline. Trash racks are installed across the intake structures to prevent large debris from entering the intake bays. Vertical dual-flow configured traveling water screens are installed behind the trash racks to remove smaller debris. Impinged fish and other organisms are washed from the traveling water screens and into a fish return sluiceway, back into the Taunton River. Heated cooling water is discharged from the Unit #6 condenser and back into the Taunton River approximately 500 feet downriver (South) of the Unit #6 CWIS.

Somerset Power proposes maintenance dredging to a depth of 17 feet below mean low water (MLW) at the Unit #6 CWIS to prevent further entrainment of sediments in the cooling water infrastructure. While the intake system is designed to be self-cleaning of large debris, fine material has accumulated in the area of the screens which reduces the flow area. The sediment causes scour and erosion of the condenser tubes. Condenser tube leaks result in the contamination of the high temperature, high pressure steam with salt water. Such contamination can result in significant damage to the high pressure steam turbine and other equipment. Extreme conditions can result in catastrophic failure of the turbine/generator. The sediment will also accumulate in the condenser, which negatively affects heat transfer and reduces thermal efficiency. The proposed maintenance dredging is required to ensure safe and efficient operation of the facility. Performing this maintenance activity will mitigate the need to temporarily shut down the facility and replace costly damaged infrastructure as well as address mounting safety concerns. The proposed maintenance dredging is targeted for December 2006 or January 2007.

The area proposed for maintenance dredging at the Unit #6 CWIS measures approximately 100-feet square. Sediment will be removed to the previously licensed depth of 17 feet below MLW. Based on a hydrographic survey conducted in December 2005, approximately 2,000 cubic yards of sediment require removal.

Ship Berthing Basin Area

The ship berthing area is adjacent to the U.S. Government Turning Basin (**Attachment 2**). Tugboats maneuver barges of coal within the turning basin and push the ships alongside the wharf. Cranes and hoppers are used to transfer coal from the ships to the coal transfer structure on the wharf which then delivers coal to the coal storage area located in an upland area.

Somerset Power proposes maintenance dredging to a depth of 34 feet below MLW at the ship berthing basin area to minimize the potential for ships grounding while docked at the facility.

The area proposed for maintenance dredging in the ship berthing basin area measures approximately 860-feet in length along the wharf and 110-feet in width from the wharf edge. Sediment will be removed to the previously licensed depth of 34 feet below MLW. Based on a hydrographic survey conducted in December 2005, approximately 25,000 cubic yards of sediment require removal.

Dredging Process

The dredging will be performed from a barge using a closed-clamshell bucket with gasket. This is marine excavation equipment modified to meet the requirements for "environmental dredging" which greatly reduces the amount of turbidity and sediment agitated by dredging operations. The dredged sediment will be removed to a water tight floating scow. Excess water in the scow will be

decanted and returned to the Taunton River. Oversize material will be removed and handled separately. The remaining sediment will be stabilized by mixing with cement at approximately 10 percent by weight. The stabilized sediment will either be transferred to an upland staging area with the appropriate BMPs for temporary storage or directly to trucks and transported over-land to the Benson Brook Road Landfill, a Massachusetts permitted disposal facility.

Proposed Schedule

The proposed dredging schedule was developed around Massachusetts Department of Environmental Protection (MADEP) permit review schedules and Massachusetts Division of Marine Fisheries restrictions for in-water activities between February and mid-June. The Unit #6 CWIS dredging will be performed in December 2006 or January 2007 and the berthing area dredging will be performed after June 15, 2007, pending receipt of regulatory authorizations. The dredging schedule is based on separate submittal of permit applications for the Unit #6 CWIS and berthing area dredging activities. Permitting the proposed maintenance dredging activities as two separate and complete projects is critical to allowing Somerset Power to meet the January 2007 dredging schedule for the Unit #6 CWIS. Unit #6 is the only operating unit at the facility. If the dredging can not be completed before the end of January 2007, there is the potential that the unit may have to be shut down for either safety concerns or due to equipment failure caused by the quantity of entrained sediment.

Somerset Power would like to thank EOEA for their review of this proposed maintenance dredging project and would appreciate a written opinion at your earliest convenience. If you have any questions regarding this submittal, please call me at (508) 235-2004 or Jacob Dunnell of Shaw Environmental, Inc. at (508) 497-6173.

Respectfully,
Somerset Power LLC

Leonard J. Ariagno
Plant Manager

Attachments
Attachment 1 – USGS Topographic Map
Attachment 2 – Site Plan

Cc: C. Lodi, Somerset Power
E. Keith, NRG
D. Mannion, Shaw
J. Dunnell, Shaw
File

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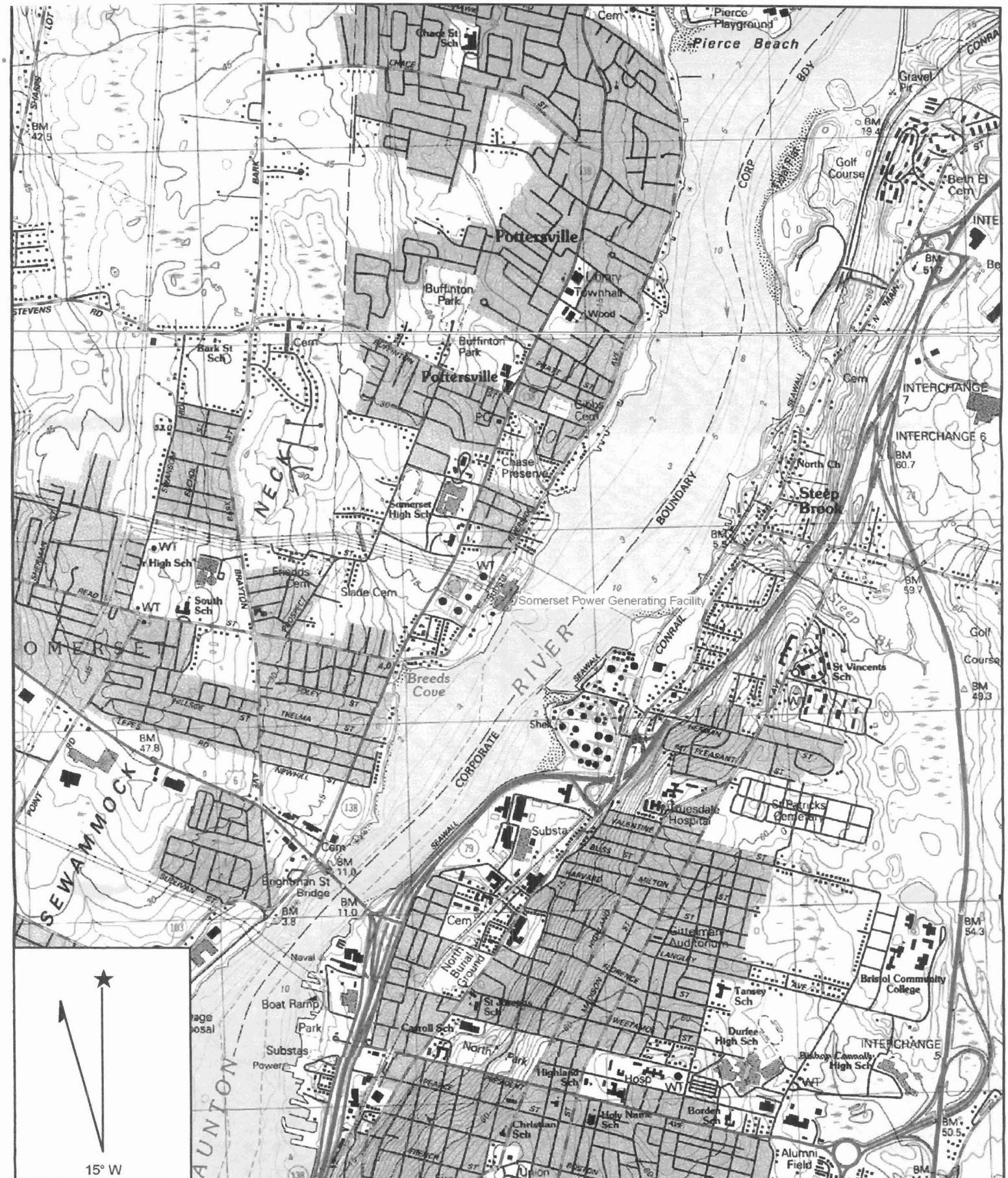
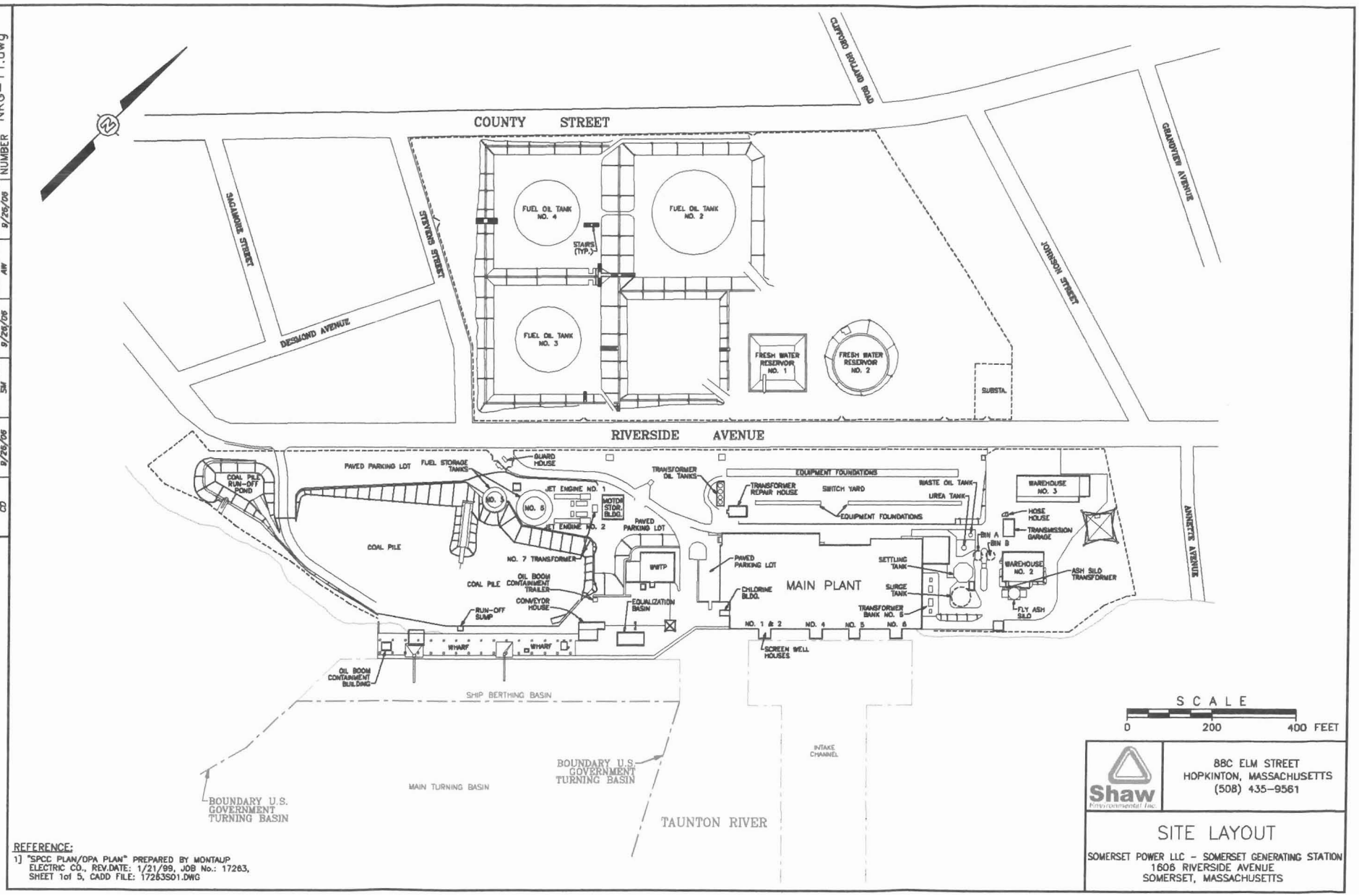


Name: FALL RIVER
Date: 9/18/2006
Scale: 1 inch equals 2000 feet

Location: 041° 44' 15.75" N 071° 08' 44.60" W
Caption: Somerset Power Generating Facility
Somerset Power LLC (NRG)
Somerset, Bristol County, MA



REFERENCE:
1] "SPCC PLAN/OPA PLAN" PREPARED BY MONTAUP ELECTRIC CO., REV.DATE: 1/21/99, JOB No.: 17263, SHEET 1of 5, CADD FILE: 17263S01.DWG

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Shaw Environmental Inc.
88C ELM STREET
HOPKINTON, MASSACHUSETTS
(508) 435-9561

SITE LAYOUT

SOMERSET POWER LLC - SOMERSET GENERATING STATION
1606 RIVERSIDE AVENUE
SOMERSET, MASSACHUSETTS

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