



Vermont Department of Environmental Conservation

Agency of Natural Resources

EC7 Facilities Engineering Division

103 South Main Street, Laundry Bldg
Waterbury, VT 05671-0511

[phone] 802-241-3737
[fax] 802-244-4516

John Ward, Jr, City Manager
Authorized Representative
City of Newport
222 Main Street
Newport, Vermont 05855

February 7, 2011

**Re: Prive Pump Station Upgrade
Vermont/ USEPA Clean Water Revolving Loan Number RF1-150**

Categorical Exclusion from Detailed Environmental Review

Dear Mr Ward:

The Department of Environmental Conservation has determined that the City's proposed **Prive Pump Station Upgrade** project may be excluded from the detailed environmental review procedures that are required for projects that have significant environmental effects. The Department's environmental review procedures require a **30 day public comment period** following the issuance of a Notice of Determination of Eligibility for Categorical Exclusion. If no public comments received during that period demonstrate that this Determination is in error, then the Categorical Exclusion exempting the project from detailed review will become effective.

Copies of documents supporting a Categorical Exclusion are enclosed. Please keep copies of the **enclosed documents available for public inspection** during a public comment period of 30 days. A full listing of the documents that must be available for public inspection is attached. Please call (241-3740) if you have any questions or concerns.

Sincerely,

Thomas G. Joslin, P.E.
Environmental Engineer
Design Section

TGJ/tgj

Enclosures

John Ward, Jr, City Manager, Authorized Representative
City of Newport, Vermont
Prive Pump Station Upgrade
Categorical Exclusion from Detailed Environmental Review
February 7, 2011

Documents Enclosed for Categorical Exclusion Public Comment Period (30 days)

1. *"Notice of Determination of Eligibility for Categorical Exclusion"*
(Signed by Larry R. Fitch, P.E., Director, Facilities Engineering Division.)
2. *"Evaluation of Eligibility for Categorical Exclusion"*
(Approved by Larry R. Fitch, P.E., Director, Facilities Engineering Division.)
3. *"Environmental Review Procedures for Projects Funded Through the Vermont/EPA Revolving Loan Program"*, also available online at:

http://www.anr.state.vt.us/dec/fed/design/docs/Environmental_Review_Procedures_for_VT-EPA_SRF.htm
4. **Categorical Exclusion** request letter, City of Newport
5. **Environmental information document** titled *"City of Newport, Vermont; Prive Pump Station Upgrade, Environmental Information Document"*, and dated **January 2011**, by **Aldrich + Elliott**, Water Resource Engineers, of Essex Junction, Vermont.
6. **Facilities plan** titled *"Letter Report, Prive Pump Station Upgrade; City of Newport, Vermont"*, and dated **January 19, 2011**, by **Aldrich + Elliott**, Water Resource Engineers, of Essex Junction, Vermont.

Additional Documents Needed for Categorical Exclusion Public Comment Period (30 days)

7. None

John Ward, Jr, City Manager, Authorized Representative
City of Newport, Vermont
Prive Pump Station Upgrade
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February 7, 2011

COPY LIST

Joseph Duncan, P.E., Aldrich + Elliott, Water Resource Engineers, Essex Junction, Vermont

Tom Benoit, Environmental Analyst, Stormwater Section, VT-DEC, Water Quality Division

Everett Marshall, Information Manager, Nongame and Natural Heritage Program, VT Dept of Fish & Wildlife

Chuck Schwer, Chief, Site Management Section, VT-DEC, Waste Management Division

Scott Dillon, Archeologist, Division for Historic Preservation, VT Dept Housing and Community Affairs

Brian Kooiker, Chief, Discharge Permits Section, VT-DEC, Wastewater Management Division

Winslow Ladue, Chief, Financial Management Section, VT-DEC, Facilities Engineering Division



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[fax] 802-244-4516

Notice of Determination of Eligibility for Categorical Exclusion

City of Newport

Prive Pump Station Upgrade

Vermont/ USEPA Clean Water Revolving Loan Number RF1-150

In accordance with section VII of the Department's "*Environmental Review Procedures for Projects Funded Through the Vermont/ EPA Revolving Loan Program*", the **City of Newport** has requested that its proposed **Prive Pump Station Upgrade** project be evaluated for eligibility for a Categorical Exclusion from the detailed environmental review that is described in the Procedures and required for projects with significant environmental effects.

Consideration of the **City of Newport** request for Categorical Exclusion included a review of the following documents:

Environmental information document titled "*City of Newport, Vermont; Prive Pump Station Upgrade, Environmental Information Document*", and dated **January 2011**, by **Aldrich + Elliott**, Water Resource Engineers, of Essex Junction, Vermont.

Facilities plan titled "*Letter Report, Prive Pump Station Upgrade; City of Newport, Vermont*", and dated **January 19, 2011**, by **Aldrich + Elliott**, Water Resource Engineers, of Essex Junction, Vermont.

Upon completion of its independent evaluation, the Department has determined that the proposed project meets the criteria for issuance of a Categorical Exclusion.

Specifically, the project will not increase the permitted annual average flow (hydraulic) capacity of the existing wastewater treatment facility, and it will not increase permitted pounds of pollutants that may be discharged to Lake Memphremagog. Also, the project will not increase the design organic (equivalent population) treatment capacity of the wastewater treatment facility. The project will not add a new permanent discharge of treated wastewater to surface waters or groundwater. Further, the project does not involve (create) serious local or environmental issues, or meet any of the criteria that would result in denial of an Exclusion.

**City of Newport, Vermont
Prive Pump Station Upgrade
Notice of Determination of Eligibility for Categorical Exclusion from Detailed Environmental Review
February 4, 2011**

Further information on the project and this Determination is available for inspection at the following locations:

John Ward, Jr, City Manager
City of Newport
222 Main Street
Newport, Vermont. 05855

telephone (802) 334-5136
jo_ward@comcast.net

Tom Joslin, P.E.
Vermont Department of Environmental Conservation
Facilities Engineering Division
Laundry Building, 103 South Main Street
Waterbury, Vermont 05671-0511

telephone (802) 241-3740
tom.joslin@state.vt.us

Joseph Duncan, P.E.
Aldrich + Elliott, Water Resource Engineers
6 Market Place, Suite 2
Essex Junction, Vermont 05452

telephone (802) 879-7733
jduncan@AEengineers.com

No significant administrative action will be taken on this project for thirty (30) days from issuance of this Notice of Determination, to allow for public response.



Larry R. Fitch, P.E., Director
Facilities Engineering Division

Feb 7, 2011
Date

Department of Environmental Conservation
Vermont Agency of Natural Resources



Vermont Department of Environmental Conservation

Agency of Natural Resources

EC7 Facilities Engineering Division

103 South Main Street, Laundry Bldg
Waterbury, VT 05671-0511

[phone] 802-241-3737
[fax] 802-244-4516

TO: Larry Fitch, Director, Facilities Engineering Division

Receivd JF 2/7/2011

FROM: *TJS* Tom Joslin, Environmental Engineer, Design Section, Facilities Engineering Division

SUBJECT: **City of Newport
Prive Pump Station Upgrade**

**Evaluation of Eligibility for Categorical Exclusion
from Detailed Environmental Review**

DATE: February 4, 2011

A. Project Identification

Project Name: City of Newport
Prive Pump Station Upgrade

Address: John Ward, Jr, City Manager
Authorized Representative
City of Newport
222 Main Street
Newport, Vermont 05855

Project Location: Prive Pump Station, Glen Road, City of Newport

Vermont/ USEPA Clean Water Revolving Loan Number RF1-150

City of Newport, Vermont
Prive Pump Station Upgrade
Evaluation of Eligibility for Categorical Exclusion from Detailed Environmental Review
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B. Summary of Environmental Review

In accordance with section VII of the Department's "*Environmental Review Procedures for Projects Funded Through the Vermont/ EPA Revolving Loan Program*", the **City of Newport** has requested that its proposed **Prive Pump Station Upgrade** project be evaluated for eligibility for a Categorical Exclusion from the detailed environmental review that is described in the Procedures and required for projects with significant environmental effects.

The applicant's request, along with the following planning documents, have been reviewed, and our findings are summarized below:

Environmental information document titled "*City of Newport, Vermont; Prive Pump Station Upgrade, Environmental Information Document*", and dated **January 2011**, by **Aldrich + Elliott**, Water Resource Engineers, of Essex Junction, Vermont.

Facilities plan titled "*Letter Report, Prive Pump Station Upgrade; City of Newport, Vermont*", and dated **January 19, 2011**, by **Aldrich + Elliott**, Water Resource Engineers, of Essex Junction, Vermont.

1. Project Description

The City of Newport is located in **Orleans** County, Vermont.

The proposed project will replace the existing Prive sewage ejector station, on Glen Road in the City of Newport, with a new above-ground, suction-lift pump station at the same site. The existing ejector station, installed in 1983, has had operational problems and is at or near the end of its useful service life.

It is reported that the existing ejector station site (land parcel) was largely disturbed by construction of the ejector station.

The existing ejector station serves approximately fifteen residences. The replacement pump station could potentially serve additional development, but is not specifically intended for that purpose. Instead, the replacement pump station is sized to provide a minimum recommended self-cleaning sewage flow velocity in the existing 4 inch force main pipe from the pump station.

The project will be implemented under a single construction contract. The contract documents will contain standard requirements to limit hours of construction and to control noise, dust and discharges of stormwater runoff or pollutants during construction.

City of Newport, Vermont
Prive Pump Station Upgrade
Evaluation of Eligibility for Categorical Exclusion from Detailed Environmental Review
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The project site is located in wet (hydic) soils near the South Bay of Lake Memphremagog. It is likely that pumping of groundwater will be required during construction. The construction documents will require treatment and control of pumped groundwater, as needed, prior to temporary discharge to surface waters.

2. Justification for Categorical Exclusion

We have determined that the proposed project meets the criteria for issuance of a Categorical Exclusion.

Specifically, the project will not increase the **design hydraulic** capacity of the **Newport** wastewater treatment plant by more than 20 percent, and it will not increase the design **organic** treatment capacity (**equivalent population served**) by more than 30 percent. In fact, the project will not increase the hydraulic or organic capacity of the treatment plant at all.

The project will **not** create a **new permanent discharge** to surface waters or groundwater, and there will be **no increase** of permitted effluent **pollutant loadings** (pounds per day).

The project is not expected to adversely affect wetlands, wetlands buffer zones, floodplains, historic sites, archeological sites, habitats of threatened or endangered species, or other environmentally or culturally sensitive areas.

The project does not involve (create) serious local or environmental issues, or meet any of the criteria that would result in denial of an Exclusion.

Vermont Department of Environmental Conservation
Facilities Engineering Division

Environmental Review Procedures for
Projects Funded Through the
Vermont/EPA Revolving Loan Program

I. Purpose and Policy

- a. Section 602(b)(6) of Title VI of the Federal Clean Water Act requires that states have an environmental review process for Title VI projects. This process can be the same as that applied to Title II projects under the National Environmental Policy Act (NEPA) or can be modified if the intent of NEPA is met. The State of Vermont, Department of Environmental Conservation (VT DEC) provides state grant funds to projects under Title II and Title VI and applies the NEPA process to Title II projects. It is our intent to apply substantially the same process to Title VI projects. A statement of the process follows.

II. Definitions

- a. Terminology. All terminology used in this part will be consistent with the terms as defined in 40 CFR Part 1508 (the CEQ Regulations). Any qualifications will be provided in the definitions set forth in each subpart of the procedure.
- b. The term "environmental review" means the process whereby an evaluation is undertaken by the VT DEC to determine whether a proposed project may have a significant impact on the environment and therefore require the preparation of an EIS.
- c. The term "environmental information document" means any written analysis prepared by an applicant or contractor describing the environmental impacts of a proposed project. This document will be of sufficient scope to enable the responsible official to assess the environmental impacts of the proposed project.
- d. The term "loan" means a loan of funds by a written loan agreement from the VT/EPA Revolving Loan Fund (SRF).
- e. "Applicant" means any local authority which has filed an application for loan assistance from the SRF.
- f. "Responsible official" means the Director, VT Public Facilities Division, or a designated representative thereof, who is authorized to fulfill the requirements of these procedures.
- g. The term "record of decision" (ROD) means a document prepared and issued by the VT DEC responsible official on the environmental impact statement which includes an identification of mitigation measures.
- h. The term "planning/design loan" means a loan which is issued for the purpose of preparation of a plan (including environmental review process) and/or preparation of design drawings

and specifications for a potential construction project.

- i. The term "project" means a construction project which receives a loan for the purpose of building a publicly owned treatment works.

III. Applicability

These procedures apply to all construction projects funded wholly or partly from funds within the VT/EPA Revolving Loan Fund which are derived from the federal capitalization grant, except as provided in Section IV. These procedures may be carried out during the planning/design project which received a loan from the revolving fund.

IV. Overview of the Environmental Review Process

The process for conducting an environmental review of wastewater facility construction projects includes the following steps:

- a. Consultation. The applicant is encouraged to consult with VT DEC early in project formulation or the facilities planning stage to determine whether a project is eligible for a categorical exclusion from the remaining substantive environmental review requirements of these procedures, to determine alternatives to the proposed project for evaluation, to identify potential environmental issues and opportunities for public recreation and open space, and to determine the potential need for partitioning the environmental review process and/or the need for an Environmental Impact Statement (EIS).
- b. Determining categorical exclusion eligibility. At the request of an applicant, VT DEC will determine if a project is eligible for a categorical exclusion as described in Section VII of these procedures.
- c. Documenting environmental information. If the project is determined to be ineligible for a categorical exclusion, or if no request for a categorical exclusion is made, the potential applicant subsequently prepares an Environmental Information Document (EID) for the project.

In the event that the proposed action is of a limited nature, but does not qualify for a categorical exclusion, and that an EID has been approved previously by the US EPA or VT DEC for wastewater facilities, the responsible official may determine to what extent updated information may suffice to provide the requisite environmental review of the project.

- d. Assessing environmental impacts. The VT DEC reviews the environmental information document and based upon an assessment of the environmental impacts of the proposed project, the VT DEC:
 1. Prepares and issues a Finding of No Significant Impact (FNSI); or
 2. Prepares and issues a Notice of Intent to prepare an original or supplement EIS and Record of Decision (ROD).
- e. Monitoring. The construction and post-construction operation and maintenance of the facilities are monitored to ensure implementation of mitigation measures identified in the FNSI or ROD.

V. Consulting During the Facilities Planning Process

The responsible official shall initiate the environmental review process early to identify environmental effects, avoid delays, and resolve conflicts. The environmental review process should be integrated throughout the facilities planning process. Potential applicants should consult with VT DEC early in the facilities planning process to determine the appropriateness of a categorical exclusion, the scope of an Environmental Assessment, or the appropriateness of the early preparation of an Environmental Impact Statement (EIS). The consultation would be most useful during the evaluation of project alternatives prior to the selection of a preferred alternative to assist in resolving any identified environmental problems.

VI. Coordination With Other Environmental Review and Consultation Requirements

Various state and federal laws and executive orders address specific environmental concerns and review procedures. The responsible official shall integrate to the greatest practicable extent those concerns and applicable procedures during implementation of the environmental review process to ensure an interdisciplinary approach to assessing impacts including adherence to other state and federal environmental objectives. Coordination shall be implemented early with the State Clearinghouse Review Process.

Referenced below are pertinent laws, regulations, or executive orders which should be included in this coordinated effort:

a. Landmarks, historical, and archaeological sites

1. Historic Sites Act;
2. National Historic Preservation Act;
3. Archaeological and Historic Preservation Act;
4. Executive Order 11593, "Protection and Enhancement of the Cultural Environment;"
5. Executive Order 12372, "Intergovernmental Review of Federal Programs;"

b. Wetlands, floodplains, important farmlands, coastal zones, wild and scenic rivers, fish and wildlife, and endangered species.

1. Executive Order 11990, "Protection of Wetlands;"
2. Executive Order 11988, "Floodplain Management;"
3. Farmland Protection Policy Act;
4. EPA Policy to Protect Environmentally Significant Agricultural Lands, September 8, 1978;
5. Coastal Zone Management Act;
6. Wild and Scenic Rivers Act;

7. Fish and Wildlife Coordination Act; and
8. Endangered Species Act.

c. Air Quality-Clean Air Act, as amended in 1977.

VII. Categorical Exclusions

a. At the request of an applicant, the responsible official shall determine from existing information and documents whether an action is consistent with the categories eligible for exclusion from review identified in VII (b) and not inconsistent with the criteria in VII (c).

b. Categories of actions eligible for exclusion. For these procedures actions consistent with any of the following categories are eligible for a categorical exclusion:

1. Actions for which the facilities planning is solely directed toward minor rehabilitation of existing facilities, functional replacement of equipment, or toward the construction of new ancillary facilities adjacent or appurtenant to existing facilities which do not affect the degree of treatment or capacity of the existing facility by more than 20%. Such actions include, but are not limited to, infiltration and inflow corrections, replacement of existing facility, equipment or structures, and the construction of additional treatment structures on existing sites.
2. Actions in communities of less than 10,000 persons which are for minor upgrading and minor expansion of existing treatment works or collection lines, or for on-site disposal systems.
3. Other actions developed in accordance with paragraph (d) of this section.

c. Criteria for not granting a categorical exclusion.

1. The full environmental review procedures must be followed if undertaking an action consistent with the categories described in paragraph (b) may involve serious local or environmental issues, or meets any of the criteria listed below:
 - a. The facilities to be provided will create a new discharge to surface or groundwater;
 - b. The facilities will result in substantial increases in the volume of discharge or the loading of pollutants from an existing source or from new facilities to receiving waters;
 - c. The facilities would provide capacity to serve an equivalent population 30% greater than the existing equivalent population;
 - d. The action is known or expected to have a significant negative effect on the quality of the human environment, either individually, cumulatively over time, or in conjunction with other federal, state, local, or private actions;

- e. The action is known or expected to directly or indirectly affect: (1) cultural resource areas such as archaeological and historic sites, (2) habitats of endangered or threatened species, (3) environmentally important natural resource areas such as floodplains, wetlands, important farmlands, aquifer recharge zones, or (4) other resource areas identified in supplemental guidance issued by the VT DEC; or
- f. The action is known or expected not to be cost-effective or to cause significant public controversy.
- 2. Notwithstanding the provisions of paragraph (b), if any of the above conditions exist, the responsible official shall ensure:
 - a. That a categorical exclusion is not granted or, if previously granted, that it is revoked according to paragraph e2(c) of this part;
 - b. That either a FNSI or an EIS and ROD are prepared and issued.
- d. Developing new categories of excluded actions. The responsible official or other interested parties may request that a new category of excluded actions be created, or that an existing category be amended or deleted. The request shall be made in writing to the Director, and shall contain adequate information to support the request. Proposed new categories shall be developed by VT DEC. The following shall be considered in evaluating proposals for new categories:
 - 1. Actions in the proposed category should seldom result in the effects identified in Paragraph VIII.(c)(1);
 - 2. Based upon previous environmental reviews, actions consistent with the proposed category have not required the preparation of an EIS; and
 - 3. Whether information adequate to determine if a potential action is consistent with the proposed category will normally be available when needed.
- e. Proceeding with loan agreements.
 - 1. After a categorical exclusion on a proposed treatment works has been granted, and notices published, loan agreements may proceed without being subject to any further environmental review requirements, unless the responsible official determines that the project, or the conditions at the time of the categorical determination was made, have changed significantly since the independent VT DEC review of information submitted by the applicant in support of the exclusion.
 - 2. For categorical exclusion determinations five or more years old, the responsible official shall re-evaluate the project, environmental conditions and public views, and prior to a loan agreement, either:
 - a. Reaffirm--issue a public notice reaffirming the original environmental determination to proceed with the project without need for any further environmental review;
 - b. Supplement--update the information in the decision document on the

categorically excluded project and prepare, issue, and distribute a revised notice; or

- c. Reassess--revoke the categorical exclusion and require a complete environmental review to determine the need for an EIS, followed by preparation, issuance, and distribution of a FNSI, or EIS and ROD.

VIII. Environmental Review Process

- a. Review of completed facilities plans. VT DEC shall review the completed facilities plan with particular attention to the Environmental Information Document (EID) and its utilization in the development of alternatives and the selection of a preferred alternative. An adequate Environmental Information Document shall be an integral part of any facilities plan submitted to Vermont DEC. The EID shall be of sufficient scope to enable the responsible official to make determinations on requests for partitioning the environmental review process and for preparing a FNSI.
- b. Environmental assessment. The environmental assessment process shall cover all potentially significant environmental impacts. VT DEC personnel shall assess environmental impacts before the facilities plan approval if needed for compliance with environmental review requirements. Each of the following subjects, and requirements, shall be included in the EID so that Vermont DEC personnel may objectively identify potentially significant environmental concerns and the potential impacts.
 1. Description of the existing environment. For the delineated facilities planning area, the existing environmental conditions relevant to the analysis of alternatives, or to determining the environmental impacts of the proposed action, shall be considered.
 2. Description of the future environment without the project. The relevant future environmental conditions shall be described. The no action alternative should be discussed.
 3. Purpose and need. This should include a summary discussion and demonstration of the need, or absence of need, for wastewater facilities in planning area, with particular emphasis on existing public health or water quality problems and their severity and extent.
 4. Documentation. Sources of information used to describe the existing environment and to assess future environmental impacts should be clearly referenced. These sources should include regional, state, and federal agencies with responsibility or interest in the environmental concerns.
 5. Analysis of alternatives. This discussion shall include a comparative analysis of feasible alternatives, including the no action alternative, throughout the study area. The alternatives shall be screened with respect to capital and operating costs; direct, indirect, and cumulative environmental effects; physical, legal, or institutional constraints; and compliance with regulatory requirements. Special attention should be given to: The environmental consequences of long-term, irreversible, and induced impacts; and that applicants have satisfactorily demonstrated analysis of potential recreation and open-space opportunities in the planning of the proposed treatment works. The reasons for rejecting any alternatives shall be presented in addition to any

significant environmental benefits precluded by rejection of an alternative. The analysis should consider when relevant to the project:

- a. Flow and waste reduction measures, including infiltration/flow reduction and pretreatment requirements.
 - b. Appropriate water conservation measures;
 - c. Alternative locations, capacities, and construction phasing of facilities;
 - d. Alternative waste management techniques, including pretreatment, treatment and discharge, wastewater reuse, land application, and individual systems;
 - e. Alternative methods for management of sludge, other residual materials, including utilization options such as land application, composting, and conversion of sludge for marketing as a soil conditioner or fertilizer.
 - f. Improving effluent quality through more efficient operation and maintenance;
 - g. Appropriate energy reduction measures; and
 - h. Multiple use including recreation, other open space, and environmental education.
6. Evaluating environmental consequences of proposed action. A full range of relevant impacts of the proposed action shall be discussed, including measures to mitigate adverse impacts, any irreversible or irretrievable commitments of resources to the project and the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity. Any specific requirements, including loan conditions and area wide waste treatment management plan requirements, should be identified and referenced. In addition to these items, the responsible official may require environmental review requirements be included with the facilities plan. Such requirements should be discussed whenever meetings are held with applicants.
7. Minimizing adverse effects of the proposed action.
- a. Structural and nonstructural measures, directly or indirectly related to the facilities plan, to mitigate or eliminate adverse effects on the human and natural environments, shall be identified during the environmental review. Among other measures, structural provisions include changes in facility design, size, and location; nonstructural provisions include staging facilities, monitoring and enforcement of environmental regulations, and local commitments to develop and enforce land use regulations.
 - b. The Vermont DEC shall not accept a facilities plan, nor approve loan assistance for its implementation, if the applicant has not made, or agreed to make, changes in the project, in accordance with determinations made in a FNSI or the ROD for a EIS. The Vermont DEC shall condition a loan or seek other ways to ensure that the applicant will comply with such environmental

review determinations.

- c. FNSI/EIS determination. The responsible official shall apply the criteria under Section XI to the following:

1. A complete facilities plan;
2. The EA; and
3. Other documentation deemed necessary by the responsible official adequate to make an EIS determination by Vermont DEC. Following an independent environmental review of the project, the responsible official shall document

in writing the reasons for his determination to issue a FNSI or to prepare an EIS. The responsible official's determination to issue a FNSI or to prepare an EIS shall constitute final Vermont DEC action.

IX. Partitioning the Environmental Review Process

- a. Purpose. Under certain circumstances, the building of a component/portion of a wastewater treatment system may be justified in advance of completing all environmental review requirements for the remainder of the system(s). When there are overriding considerations of cost or impaired program effectiveness, the responsible official may approve a loan for a discrete component of a complete wastewater treatment system(s). The process of partitioning the environmental review for the discrete component shall comply with the criteria and procedures described in paragraph (b) of this section. In addition, all reasonable alternatives for the overall wastewater treatment works system(s) of which the component is a part shall have been previously identified and each part of the environmental review for the remainder of the overall facilities plan shall comply with all requirements under Section VIII.

- b. Criteria for partitioning. The project component must:

1. Immediately remedy a severe public health, water quality, or other environmental problem;
2. Not foreclose any reasonable alternatives identified for the overall wastewater treatment works system(s);
3. Not cause significant adverse direct or indirect environmental impacts including those which cannot be acceptably mitigated without completing the entire wastewater treatment system of which the component is a part; and
4. Not be highly controversial.

- c. Request for partitioning. The applicant's request for partitioning must contain the following:

1. A description of the discrete component proposed for construction before completing the environmental review of the entire facilities plan;

2. How the component meets the above criteria;
 3. The environmental information required by Section VIII for the component; and
 4. Any preliminary information that may be important to Vermont DEC in an EA determination for the entire facilities plan.
- d. Approval of requests for partitioning. The responsible official shall:
1. Review the request for partitioning against all requirement of this procedure;
 2. If approvable, prepare and issue a FNSI;
 3. Include a loan condition prohibiting the building of additional or different components of the entire facilities plan for which the environmental review is not complete.

X. Finding of no Significant Impact (FNSI) Determination

- a. Criteria for producing and distributing a FNSI. If, after completion of the environmental review, Vermont DEC determines that an EIS will not be required, the responsible official shall issue a FNSI. The FNSI will be based on Vermont DEC independent review of the EID and any other environmental information deemed necessary by the responsible official consistent with the requirements of Section VIII. The FNSI shall list mitigation measures necessary to make the recommended alternative environmentally acceptable.
- b. Proceeding with loan agreement.
 1. Once the issued FNSI becomes effective for the facilities plan for the study area, a loan agreement may proceed without preparation of an additional FNSI, unless the responsible official determines that the project or environmental conditions have changed significantly from that which underwent environmental review.
 2. For an Environmental Assessment/FNSI five or more years old, the responsible official shall re-evaluate the project, environmental conditions, and public views, and, prior to approval of loan agreement, either:
 - a. Reaffirm--issue a public notice reaffirming the original environmental determination to proceed with the project without revising the Environmental Assessment;
 - b. Supplement--require an update of the Environmental Assessment, issue and distribute a revised FNSI; or
 - c. Reassess--withdraw the FNSI and publish a notice of intent to produce an Environmental Assessment, followed by the preparation, issuance, and distribution of the Environmental Assessment and ROD.

c. Revisions to the Project.

1. Statement of Findings. If the project scope of work is revised after FNSI has been issued, but the revision is determined by the VT DEC to be a minor revision, the VT DEC shall issue a Statement of Findings (SOF) documenting the reason for the revision and its impact, if any, on the environment. The SOF shall be distributed to parties who previously indicated interest in the project environmental review process.
2. Amendment. If the project scope of work is revised after a FNSI has been issued, but the revision is determined by the DEC to be significant, the DEC shall issue an amendment to the FNSI with proper public notification as identified in Section XV and shall provide for a public meeting to discuss the amendment.

XI. Criteria for Initiating Environmental Impact Statements (EIS)

- a. Conditions requiring an EIS. The responsible official shall assure that an EIS will be prepared and issued when it is determined that the treatment works or collector system will cause any of the conditions to exist, or when:
 - b. The project may significantly affect the pattern and type of land use (industrial, commercial, agricultural, recreational, residential) or growth and distribution of population;
 - c. The effects resulting from any structure or facility constructed or operated may conflict with local, regional, or state land use plans or policies;
 - d. The project may have significant adverse effects on wetlands, including indirect and cumulative effects, or any major part of the project may be located in significant wetlands;
 - e. The project may significantly affect a habitat identified on the Department of the Interior' or the state's threatened and endangered species lists, or may be located in the habitat;
 - f. Implementation of the project may directly cause or induce charges that significantly:
 1. Displace population;
 2. Alter the character of existing residential areas;
 3. Adversely affect a floodplain; or
 4. Adversely affect significant amounts of important farmlands or agricultural operations on this land.
 - g. The project may directly, indirectly, or cumulative have significant adverse effects on parklands, preserves, other public land, or areas of recognized scenic, recreational,

archaeological, or historic value;

- h. The project may directly, or through induced development, have a significant adverse effect upon local ambient air quality, local ambient noise levels, surface water or groundwater quality or quantity, water supply, fish, shellfish, wildlife, and their natural habitats;
- i. The treated effluent is being discharged into a body of water where the present classification is too lenient or is being challenged as too low to protect present or recent uses, and the effluent will not be of sufficient quality or quantity to meet the requirements of these uses; or
- j. Other conditions. The responsible official shall also consider preparing an EIS if: the project is highly controversial; the project, in conjunction with related federal, state, or local resource projects, produces significant cumulative impacts; or if it is determined that the treatment works may violate federal, state, or local laws or requirements imposed for the protection of the environment.

XII. Environmental Impact Statement (EIS) Preparation

- a. Steps in preparing the EIS. In addition to the other requirements specified in this procedure, the responsible official will conduct the following activities:
 - 1. Notice of intent. If a determination is made that an EIS will be required, the responsible official shall prepare and distribute a notice of intent.
 - 2. Scoping. As soon as possible, after the publication of the notice of intent, the responsible official will convene a meeting of affected federal, state, and local agencies, the applicant and other interested parties to determine the scope of the EIS. As part of the scoping meeting, VT DEC will, as a minimum:
 - a. Determine the significance of issues for and the scope of those significant issues to be analyzed in depth in the EIS;
 - b. Identify potential cooperating agencies and determine the information or analyses that may be needed from cooperating agencies or other parties;
 - c. Discuss the method for EIS preparation and the public participation strategy;
 - d. Identify consultation requirements of other environmental laws; and
 - e. Determine the relationship between the EIS and the completion of the facilities plan and any necessary coordination arrangements between the preparers of both documents.
 - 3. Identifying and evaluating alternatives. Immediately following the scoping process, the responsible official shall commence the identification and evaluation of all potentially viable alternatives to adequately address the range of issues identified in the scoping process. Additional issues may be

addressed, or others eliminated, during this process and the reasons documented as part of the EIS.

- b. Method for preparing EIS. After Vermont DEC determines the need for an EIS, it shall select one of the following methods for its preparation:
 1. By Vermont DEC contracting directly with a qualified consulting firm;
 2. By utilizing a third party method whereby the responsible official enters into "third party agreements:" for the applicant to engage and pay for the services of a third party to prepare the EIS. Such agreement shall not be initiated unless both the applicant and the responsible official agree to its creation. A third party agreement will be established prior to the applicant's EID and eliminate the need for the comment. In proceeding under the third party agreement, the responsible official shall carry out the following practices:
 - a. In consultation with the applicant, choose the third party contractor and manage that contract;
 - b. Select the consultant based on ability and absence of conflict of interest. Third party contractors will be required to execute a disclosure statement prepared by the responsible official signifying they have no financial or other conflicting interest in the outcome of the project; and
 - c. Specify the information to be developed and supervise the gathering, analysis, and presentation of the information. The responsible official shall have sole authority for approval and modification of the statements, analyses, and conclusion included in the third party EIS.

XIII. Record of Decision (ROD) for the EIS and Identification of Mitigation Measures

- a. Record of Decision. After a final EIS has been issued, the responsible official shall prepare an issue a ROD prior to, or in conjunction with, the approval of the facilities plan. The ROD shall include identification of mitigation measures derived from the EIS process including loan conditions which are necessary to minimize the adverse impacts of the selected alternative.
- b. Specific mitigation measures. Prior to the approval of a facilities plan, the responsible official must ensure that effective mitigation measures identified in the ROD will be implemented by the applicant. This should be done by revising the facilities plan, initiating other steps to mitigate adverse effects, or including conditions in loans requiring actions to minimize effects. Care should be exercised if a condition is to be imposed in a loan document to assure that the applicant possesses the authority to fulfill the conditions.
- c. Proceeding with loan agreements.
 1. Once the ROD has been prepared on the selected or preferred alternative(s) for the facilities plan described within the EIS, loan agreements may proceed without preparation of a supplemental EIS unless the responsible official determines that the project or the environmental conditions described within

the current EIS have changed significantly from the previous environmental review.

2. For EISs five or more years old, the responsible official shall re-evaluate the project, environmental conditions, and public views, and compare them to the information contained within the EIS and, prior to loan agreement, make a determination to either:
 - a. Reaffirm--prepared, issue, and distribute a FNSI affirming the original environmental determination to proceed with the project, and documenting that no additional significant impacts were identified during the re-evaluation which would require supplementing the EIS; or
 - b. Supplement--conduct additional studies and prepare, issue, and distribute a supplemental EIS and document the original or any revised decision in an addendum to the ROD.

XIV. Monitoring for Compliance

- a. General. The responsible official shall ensure adequate monitoring of mitigation measures and other loan conditions identified in the FNSI or ROD.
- b. Enforcement. If the applicant fails to comply with loan conditions, the responsible official may consider applying the following sections:
 1. withhold payment
 2. suspend or terminate the loan agreement for cause
 3. suspend the applicant as an eligible applicant
 4. take other appropriate administrative action or
 5. institute judicial proceedings

XV. Public, Federal Agency, and Other State Agency Involvement

- a. The VT DEC shall make diligent efforts to involve the public in the environmental review process consistent with program statutes, regulations and State Clearinghouse for Intergovernmental Review policies on public participation. The responsible official shall ensure that public notice is provided and shall ensure that public involvement is carried out following state policies and guidelines on public participation.

General. Consistent with state public participation regulations, it is VT DEC policy that certain public participation steps be achieved before the VT DEC completes the environmental review process. As a minimum, for projects not qualifying for a categorical exclusion, potential applicants shall conduct:

1. One public meeting when alternatives have been developed, but before an alternative has been selected, to discuss all alternatives under consideration and the reasons for rejection of others; and
2. One public hearing prior to formal adoption of a facilities plan to discuss the

proposed facilities plan and any needed mitigation measures. In the event that a full-scale facilities plan is not prepared, or an existing facilities plan is amended because the proposed action is determined to be of a limited nature, the responsible official may approve the substitution of a public meeting with appropriate public notice instead of a public hearing for this requirement.

- b. Publication of notices of intent. As soon as practicable after a decision is rendered to issue a categorical exclusion or FNSI, or to prepare an EIS (but before initiating the process), the responsible official shall send the notice of intent to interested and affected members of the public, and shall publish the notice of intent in a newspaper of general circulation in the community of the project.

The responsible official shall not take administrative action on the project for at least thirty (30) calendar days after release of the notice of determination on the categorical exclusion or release of the FNSI to allow time for public response.

- c. Record of Decision. The responsible official shall disseminate the record of decision to those parties which commented on the draft of final EIS. One copy shall be submitted to EPA.
- d. EIS. The responsible official shall follow, as applicable, procedures identified at 40 CFR, Part 6, Subpart B, for official filing requirements, availability of documents, commenting process, and supplements to the EIS.
- e. Scope. The responsible official may institute additional NEPA-related public participation procedures as are deemed necessary during the environmental review process.

XVI. The Environmental Impact Statement Format

Preparers of EIS must use plain language and may use appropriate graphics so that decision makers and the public can readily understand them. Statements shall be based upon the analyses and supporting data from the natural and social sciences and the environmental design. The format used for the EIS shall encourage good analysis and clear presentation of alternatives, including the proposed action, and their environmental, economic, and social impacts. The following standard format for EISs should be used unless the responsible official determines that there is a compelling reason to do otherwise:

- a. Cover Sheet;
- b. Executive Summary;
- c. Table of Contents;
- d. Purpose of and need for action;
- e. Alternatives including proposed action;
- f. Affected environment;

- g. Environmental consequences of the alternative;
- h. Coordination (includes list of agencies, organizations, and persons to whom copies of the EIS are sent);
- i. List of preparers;
- j. Index (commensurate with complexity of EIS);
- k. Appendices.

XVII. Executive Summary

The executive summary shall describe in sufficient detail (10-15 pages) the critical facets of the EIS so that the reader can become familiar with the proposed project or action and its net effects. The executive summary shall focus on:

- a. The existing problem;
- b. A brief description of each alternative evaluated (including the preferred and no action alternatives) along with a listing of the environmental impacts, possible mitigation measures relating to each alternative, and any areas of controversy (including issues raised by governmental agencies and the public); and
- c. Any major conclusions.

A comprehensive summary may be prepared in instances where the EIS is unusually long in nature. The comprehensive summary may be circulated in lieu of the EIS; however, both documents shall be distributed to any federal, state, and local agencies who have EIS review responsibilities and also shall be made available to other interested parties upon request.

XVIII. Body of the EIS

- a. Purpose and need. The EIS shall clearly specify the underlying purpose and need to which VT DEC is responding.
- b. Alternatives including the proposed actions. In addition to alternatives indicated in 40 CFR 1502.14, the EIS shall discuss:
 - 1. Alternatives considered by the applicant. This section shall include a balanced description of each alternative considered by the applicant. These discussions shall include size and location of facilities, land requirements, operation and maintenance requirements, auxiliary structures such as pipelines and construction schedules. The alternative of no action shall be discussed and the applicant's preferred alternative(s) shall be identified. For alternatives which were eliminated from detailed study, a brief discussion of the reasons for their having been eliminated shall be included.
 - 2. Alternatives available to VT DEC. VT DEC alternatives to be discussed shall

include:

- a. Taking an action; or
 - b. Taking an action on a modified or alternative project, including an action not considered by the applicant; and
 - c. Denying the action.
3. Identifying preferred alternative. In the final EIS, the responsible official shall signify the preferred alternative.
- c. Affected environment and environmental consequences of the alternatives. The affected environment on which the evaluation of each alternative shall be based includes, for example, hydrology, geology, air quality, noise, biology, socioeconomic, energy, land use, and archeology and historic subject. The discussion shall be structured so as to present the total impacts of each alternative for easy comparison among all alternatives by the reader. The effects of a "no action" alternative should be included to facilitate reader comparison of the beneficial and adverse impacts of other alternatives to the applicant doing nothing. A description of the environmental setting shall be included in the "no action" alternative for the purpose of providing needed background information. The amount of details in describing the affected environment shall be commensurate with the complexity of the situation and the importance of the anticipated impacts.
 - d. Coordination. The EIS shall include:
 1. The objections and suggestions made by local, state, and federal agencies before and during the EIS review process must be given full consideration, along with the issues of public concern expressed by individual citizens and interested environmental groups. The EIS must include discussions of any such comments concerning our actions, and the author of each comments should be identified. If a comment has resulted in a change in the project of the EIS, the impact statement should explain the reason.
 2. Public participation through public hearings or scoping meetings shall also be included. If a public hearing has been held prior to the publication of the EIS, a summary of the transcript should be included in this section. For the public hearing which shall be held after the publication of the draft EIS, the date, time, place, and purpose shall be included here.
 3. In the final EIS, a summary of the coordination process and VT DEC responses to comments on the draft EIS shall be included.

XIX. Incorporation by Reference

Material may be incorporated by reference as provided by 40 CFR 1502.21. In addition such material shall be organized to the extent possible into a Supplemental Information Document and be made available for review upon request. No material may be incorporated by reference unless it is reasonably available for inspection by potentially interested persons within the period allowed for comment.

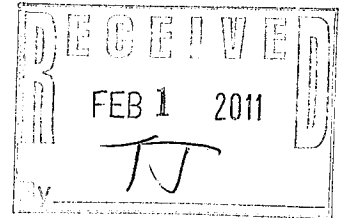
XX. List of Preparers

When the EIS is prepared by contract, either under direct contract to VT DEC or through an applicant's or grantee's contractor, the responsible official must independently evaluate the EIS prior to its approval and taken responsibility for its scope and contents. The VT DEC officials who undertake this evaluation shall also be described under the list of preparers.

City Manager (802) 334-5136
334-3891
City Clerk/Treasure 334-2112
334-3892
Public Works 334-2124
Zoning Adm./Assessor 334-6992
Recreation/Parks 334-6345
Fax 334-5632



City of Newport
222 Main Street
Newport, Vermont 05855



January 31, 2011

Mr. Tom Joslin
Facilities Engineering Division
Vermont Department of Environmental Conservation
Agency of Natural Resources
103 South Main Street, Old Laundry Building
Waterbury, VT 05671-0511

Re: Request for Categorical Exclusion
Prive Pump Station Upgrade
City of Newport, Vermont

Dear Tom:

The Environmental Information Document for the above referenced project is being submitted separately by Aldrich + Elliott, PC (A+E) to satisfy the requirements of the environmental review procedures. Since this project consists of replacement of an existing ejector station and does not include any capacity increase, it is eligible for a categorical exclusion. Therefore, the City of Newport requests that a Categorical Exclusion be issued for this project.

Upon your review, please do not hesitate to call me at 802-334-5136. If you require additional information, please do not hesitate to contact our engineer, Joe Duncan, PE of A+E.

Respectfully,

City of Newport

John Ward, Jr.
City Manager

cc: Joe Duncan, PE, Aldrich + Elliott, PC
Newport City Council

**CITY OF NEWPORT, VERMONT
PRIVE PUMP STATION UPGRADE**

ENVIRONMENTAL INFORMATION DOCUMENT

January 2011

A. PROJECT IDENTIFICATION

Project Name: City of Newport, Vermont
Prive Pump Station Upgrade

Contact and Address: John Ward, Jr., City Manager
City of Newport
222 Main Street
Newport, VT 05855

Project Location: Prive Ejector Station, Glen Road, Newport, Vermont

B. SUMMARY OF ENVIRONMENTAL REVIEW

The "City of Newport Prive Pump Station Upgrade Letter Report" dated January 19, 2011 has been reviewed, and in accordance with State/Federal regulations, the findings of our environmental review are summarized below.

1. Project Description

- a. The proposed project is located in the City of Newport, Orleans County, Vermont. The wastewater pump station upgrade will take place at the existing Prive Ejector Station site located on Glen Road. Refer to the attached Location Plan.
- b. The proposed project includes a new above ground wastewater pump station to replace the existing aging ejector station to reduce reliability and maintenance issues. The new pump station includes a new 6' diameter precast concrete wet well and a new weatherproof enclosure installed on top of the wet well. The enclosure will house the pumps and controls.
- c. The pump station upgrade project is anticipated to be constructed under one (1) contract for a duration of about two (2) months. Construction is scheduled to begin in July 2011.
- d. Population data, projected wastewater flows and loading projections are not applicable since this project does not include work at the existing wastewater treatment facility nor expansion of the sewer collection system.
- e. The City of Newport will continue to own, and operate the upgraded pump station.

2. Purpose and Need

- a. The existing Prive sewage ejector station serves the area along Glen Road, which includes approximately 15 residential units. The flow is pumped in a 4" diameter forcemain north to the gravity sewer system on Glen Road. Portions of the ejector station have been upgraded since its installation in 1983, but the pneumatic system is original and continues to be unreliable.
- b. Alternatives for replacement of the ejector station were evaluated. Installation of a new above ground self-priming pump station was determined to be the best approach at an estimated total project cost of \$250,000.
- c. The City conducted and passed a bond vote for the Prive pump station upgrade on November 2, 2010 in the amount of \$250,000.

3. Discussion of Alternatives

A detailed alternative analysis for upgrading the existing Prive ejector station was completed in City of Newport Prive Pump Station Upgrade Letter Report. The alternative analysis included:

- a. Alternative No. 1: New Below Ground Dry Pit Pump Station
- b. Alternative No. 2: New Above Ground Self-Priming Pump Station

Based upon a technical and economical analysis and input from the City, it is recommended to install a new above ground pump station to replace the existing ejector station.

4. Impact of Proposed Project on the Environment

- a. Direct Impacts
 - i. Air Quality

During construction, noise and dust will be generated by construction equipment. Mufflers and other noise reduction devices will be utilized to minimize noise levels on construction equipment and calcium chloride and/or water will be utilized as required to minimize dust generation. The project will limit the work hours of construction to regular working hours, and specify methods to be used for dust control during construction.

- ii. Water Quality and Quantity

There will be no significant change in the handling of surface runoff or the amount of runoff by this project. This project is less than one (1) acre in disturbance and therefore will not be subject to the State of Vermont General Permit for Stormwater Runoff and submittal of the Notice of Intent is not required. However, the contract documents will require

temporary erosion control measures during construction to minimize the impacts on the adjacent receiving waters of the South Bay.

iii. Environmentally Sensitive Areas

Floodplains and Wetlands: The proposed pump station upgrade will not impact floodplains and wetlands because the construction activity is being performed within existing roadways and previously disturbed areas.

Prime Agricultural Land: The proposed pump station upgrade project will not impact prime agricultural land because the construction activity is being performed within existing roadways and previously disturbed areas.

Wildlife Habitat: The proposed pump station upgrade project will not impact wildlife habitat because the construction activity is being performed within existing roadways and previously disturbed areas.

Stream Modification: No stream modifications will be performed for this project.

iv. Socio-Economic Impacts

The projected total ^{construction} project cost of the pump station upgrade is \$167,000 using an assumed ENR cost index of 9200 for May 2011. The total project cost has been estimated at \$250,000 and is eligible for State loans. The City plans to utilize State revolving loan funds in the amount of \$250,000 to fund the project. A bond vote in the amount of \$250,000 was passed on November 2, 2010.

v. Historical/Archaeological Sites

The proposed pump station upgrade project will not impact historical/archaeological sites because the construction activity is being performed within existing roadways and previously disturbed areas.

vi. Endangered Species

The proposed pump station upgrade project will not impact endangered species because the construction activity is being performed within existing roadways and previously disturbed areas.

vii. Coastal Zone Management

Not applicable

viii. Wild and Scenic Rivers

Not applicable

5. Mitigation of Environmental Impacts

There are no significant, long-term, adverse impacts anticipated as a result of construction of this project. Minor impacts will be mitigated as follows:

a. Air Quality

During construction, dust and equipment exhaust may temporarily adversely impact air quality. These impacts will be mitigated by requiring the contractor to utilize calcium chloride for dust control. The contract documents will specify that the contractor must control emissions to the maximum extent possible using the latest available techniques.

Noise generated during construction will be controlled by the installation of adequate muffling devices on construction equipment and proper regulation of working hours as will be required in the contract documents.

b. Water Quality and Quantity

Temporary and permanent erosion control measures are required to be installed at critical locations on the project site. These measures will be incorporated on the plans and in the specifications.

c. Environmentally Sensitive Areas

The construction of this project will be performed in a manner which should not significantly impact any environmentally sensitive areas, including wetlands and floodplains. Dewatering and sheeting may be required during construction of the new pump station and temporary measures will be implemented to minimize the environmental impacts to the South Bay. Groundwater pumped from the ground will be treated via sedimentation basins prior to discharge to the South Bay.

d. Socio-Economic Impacts

The project will not require mitigation of socio-economic impacts.

e. Historical/Archaeological Sites

The project will not require mitigation of historical/archaeological sites.

f. Endangered Species

The project will not require mitigation of endangered species.

g. Coastal Zone Management

Not applicable

- h. Wild & Scenic Rivers

Not applicable

6. Summary of Agency and Public Consultation

- a. The District 7 coordinator for the State Agency of Natural Resources Regional Office has reviewed the project and determined that an ACT 250 permit is not required.
- b. The State DEC Facilities Engineering Division will be involved in the project, and will also be responsible for technical review of the final designs prior to construction.
- c. The City received a positive bond vote on November 2, 2010. A public hearing was conducted in advance of this vote to receive public comment. No significant objections were raised to the proposed project during the public meeting; therefore no modifications have been made to the proposed plan.
- d. The plan will be modified accordingly to address any outstanding objections after specific comments are received from State and Federal agencies.

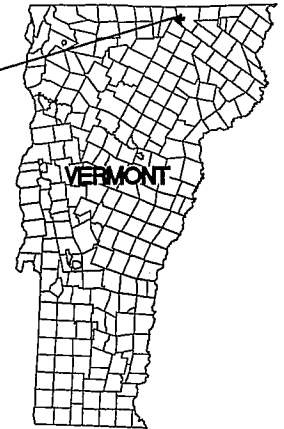
7. List of Agencies and Groups Consulted During the Environmental Review Process

- a. Federal
None
- b. State of Vermont
Facilities Engineering Division
Wastewater Management Division
District Act 250 Coordinator
- c. Local – City of Newport
City Council

C. PREPARER'S SIGNATURE

Aldrich + Elliott, PC

Joseph J. Duncan, P.E.
Project Manager



**PROJECT
AREA**

LOCATION MAP

SCALE: 1"=2000'



6 Market Place, Suite 2
Essex Jct., VT 05452

P: 802.879.7733
AEengineers.com

PROJECT LOCATION MAP

PRIME PUMP STATION UPGRADE

CITY OF NEWPORT

NEWPORT

VERMONT

DESIGNED JJD
DRAWN JEN
CHECKED (PM) WAE
CHECKED (PE) JJD
SCALE AS NOTED
DATE JAN. 2011

PROJECT NO.

09020

FIGURE NO.

1

PROJECT REVIEW SHEET ONLY
THIS IS NOT A PERMIT

PRE-APPLICATION REVIEW: _____
PENDING APPLICATION #: _____
PIN **SJ98 - 0033**

****NOTE: NUMBERS IN PARENTHESES (#) REFER TO PERMIT INFORMATION SHEETS IN THE VERMONT PERMIT HANDBOOK**
http://www.anr.state.vt.us/dec/permit_hb/index.htm OVER >>>>>>>>>>>>

THIS IS A PRELIMINARY, NON-BINDING DETERMINATION REGARDING THE FOLLOWING PERMITS WHICH YOU MAY NEED PRIOR TO COMMENCEMENT OF CONSTRUCTION. PLEASE CONTACT THE DEPARTMENTS INDICATED BELOW.

3. WASTEWATER MANAGEMENT DIVISION, ANR (802-241-3822)

Contact: _____

- ☐ Discharge Permits: pretreatment; industrial, municipal (#7.1, 7.2, & 8) ☐ Indirect Discharge Permits (#9 & 9.1) ☐ Residuals Management (#10)

4. AIR POLLUTION CONTROL DIVISION, ANR (888-520-4879)

Contact: _____

- ☐ Construction/modification of source (#14) ☐ Open Burning (#18) ☐ Wood Chip Burners (>90 HP) (#14)
☐ Furnace Boiler Conversion/Installation (#14) ☐ Industrial Process Air Emissions (#14) ☐ Diesel Engines (>450 bHP) (#14)

5. WATER SUPPLY DIVISION, ANR (802-241-3400) (800-823-8500 in VT)

Contact: _____

- ☐ New Hydrants (#22) ☐ >500' waterline construction (#22) ☐ Community Water System (CWS) ☐ Bottled Water (#20) ☐ Operating permit (#21)
☐ Transient Non-Community water system (TNC) (#21) ☐ Capacity Review for Non-transient non-community water systems (NTNC) (#21)

6. WATER QUALITY DIVISION, ANR

Contact: _____

- ☐ River Management (241-3770) ☐ Ponds (#32.1)
☐ Shoreland Encroachment (241-3777) Steve Hanna (#28)
☒ Wetlands (241-3770) (#29) *Shannon Morrison 241-3762*
☐ Stream Alteration / Section 401 Water Quality Certification / Stream Crossings (476-2679 / 879-5631) (#27 & 32)

STORMWATER PERMITS (Hotline 802-241-4320) (#6 - 6.5)

Contact: _____

- ☐ Construction General Permits >1AC of disturbance (#6.1)
☐ Stormwater from new development or redevelopment sites (#6.2 & 6.3)
☐ Multi-Sector General Permit (MSGP) industrial activities w/ SIC codes (#6.4)
☐ Floodplains (241-3759)

7. WASTE MANAGEMENT DIVISION, ANR

Contact: _____

- ☐ Hazardous Waste Handler site ID (241-3888) (#36)
☐ Lined landfills; transfer stations, recycling facilities drop off (241-3444) (#37, 39, 40)
☐ Disposal of inert waste, untreated wood & stumps (241-3444) (#41 & 44)
☐ Waste oil burning (241-3888) ☐ Waste transporter permit (#35) ☐ Demolition waste 241-3477 ☐ Used septic system components/stone (#41)

8. FACILITIES ENGINEERING DIVISION, ANR

Contact: _____

- ☐ Dam operations (greater than 500,000 cu. ft.) (241-3451) (#45)
☐ State-funded municipal water/sewer extensions/upgrades and Pollution Control Systems (241-3750)

9. POLLUTION PREVENTION & MERCURY DISPOSAL HOTLINE (1-800-974-9559) (#46)

Contact: _____

SMALL BUSINESS & MUNICIPAL COMPLIANCE ASSISTANCE (1-800-974-9559)

Contact: Judy Mirro/John Daly

RECYCLING HOTLINE (1-800-932-7100)

Contact: _____

10. FISH & WILDLIFE DEPARTMENT (802-241-3700)

Contact: _____

- ☐ Nongame & Natural Heritage Program (Threatened & Endangered Species) (#47.4) ☐ Stream Obstruction Approval (#47.5)

11. DEPARTMENT OF PUBLIC SAFETY (802-479-7561) or District Office (479-4434) Contact: Mike Desrochers

- ☐ Construction Permit fire prevention, electrical, plumbing, accessibility (Americans with Disabilities Act) (#49, 50, 50.1, 50.2)
☐ Storage of flammable liquids, explosives ☐ LP Gas Storage ☐ Hazardous Chemical Use/Tier II Reporting (800-347-0488)
☐ Plumbing in residences served by public water/sewer with 10 or more customers' (#50.2) ☐ Boilers and pressure vessels (#50.3)

12. DEPARTMENT OF HEALTH (800-439-8550 in VT) (802-863-7221) (Lab 800-660-9997) Contact: _____

- ☐ Food, lodging, bakeries, food processors (#51, 51.1, 52, 53, 53.1) ☐ Program for asbestos control & lead certification (#54, 55, 55.1)
☐ Children's camps ☐ Hot Tub Installation & Inspection - Commercial (#51.1)

13. AGENCY OF HUMAN SERVICES

Contact: _____

- ☐ Child-care facilities (1-800-649-2642 or 802-241-2159) (#57) ☐ Residential care homes (241-2345) (Dept. of Aging & Disabilities) (#59)
☐ Nursing Homes (241-2345) (#59) ☐ Assisted Living and Therapeutic Community Residences (241-2345) (#59)

14. AGENCY OF TRANSPORTATION

Contact: _____

- ☐ Access to state highways (residential, commercial) (828-2653) (#66) ☐ Junkyards (828-2053) (#62)
☐ Signs (Travel Information Council) (828-2651) (#63) ☐ Railroad crossings (828-2710) (#64)
☐ Development within 500' of a limited access highway (828-2653) (#61) ☐ Airports and landing strips (828-2833) (#65)
☐ Construction within state highway right-of-way (Utilities, Grading, etc.) (828-2653) (#66) ☐ Motor vehicle dealer license (828-2067) (#68)

15. DEPARTMENT OF AGRICULTURE (800-675-9873)

Contact: _____

- ☐ Use/sale of Pesticides (828-3429) (#72, 73, 74, 75, 76, 77, 78) ☐ Slaughter houses, poultry processing (828-3429) (#81)
☐ Milk Processing Facilities (828-3429) (#83, 83.1, 85, 87) ☐ Animal shelters/pet merchant/livestock dealers (828-3429) (#89, 89.1)
☐ Golf Courses (828-2431) (#71) ☐ Green Houses/Nurseries (828-2431) (#79) ☐ Weights and measures, Gas Pumps, Scales (828-2436) (#88)
☐ Medium and Large Farm Operations (828-2431) ☐ Retail Sales/Milk/Meat/Poultry/Frozen Dessert/Class "C" Pesticides (828-3429) (#75.1, 80)

16. VERMONT ENERGY CODE ASSISTANCE CENTER TOLL FREE 888-373-2255

☐ VT Building Energy Standards (#47.2)

17. DIVISION FOR HISTORIC PRESERVATION (802-828-3211) ☐ Historic Buildings (#47.1 & 101) ☐ Archeological Sites (#47.1 & 101)

18. DEPARTMENT OF LIQUOR CONTROL (1-800-832-2339) ☐ Liquor Licenses (#90) ☐ General Info (1-800-642-3134)

19. SECRETARY OF STATE (1-802-828-2386) ☐ Business Registration (#90.1) ☐ Professional Boards (1-800-439-8683) (#90.2)

20. DEPARTMENT OF TAXES (802-828-2551 & 828-5787) ☐ Income & business taxes (sales, meals/ rooms, etc) (#91, 92, 93, 94, 95, 96)

21. DEPARTMENT OF MOTOR VEHICLES (802-828-2070) ☐ Fuel Taxes; Commercial Vehicle (#69-70)

22. LOCAL PERMITS (SEE YOUR TOWN CLERK, ZONING ADMINISTRATOR, PLANNING COMMISSION, OR PUBLIC WORKS)

23. U.S. ARMY CORPS OF ENGINEERS, 8 Carmichael St., Ste. 205, Essex Jct., VT 05452 (802) 872-2893 (#97, 98, & 99)

24. OTHER:

Sections #3-#24 above have been completed by Permit Specialist John Miller Date: 01/25/11 I may be reached at 802-476-0195

Copies have been mailed to: _____ (TUES) St Johnsbury 751-0127

****NOTE: NUMBERS IN PARENTHESES (#) REFER TO PERMIT INFORMATION SHEETS IN THE VERMONT PERMIT HANDBOOK**

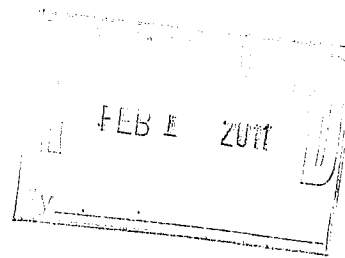
http://www.anr.state.vt.us/dec/permit_hb/index.htm

Revised 02/10

January 19, 2011

Mr. John Ward, Jr.
City Manager
222 Main Street
Newport, VT 05855

Re: Letter Report
Prive Pump Station Upgrade
City of Newport, Vermont
A+E Project No. 09020



Dear John:

The following letter report summarizes the findings of the evaluation conducted for the City of Newport Prive pump station upgrade.

EXECUTIVE SUMMARY

The existing Prive ejector station serves approximately 15 existing homes and it is unknown whether the service area will significantly expand. However, based upon input from the City, the surrounding area has immediate potential for expansion and design flows should take into account future connections. Portions of the ejector station have been upgraded since its installation in 1983, but the pneumatic system is original and continues to be unreliable.

Alternatives for replacement of the ejector station were evaluated. Installation of a new above ground self-priming pump station was determined to be the best approach at an estimated construction cost of \$167,000. Funding alternatives were reviewed and the use of local funds is recommended at an estimated total project cost of \$250,000.

INTRODUCTION

The City of Newport retained Aldrich + Elliott, PC (A+E) to evaluate the upgrade of the existing Prive ejector station. The station has been maintained over the years, but the City has had ongoing operational problems with the pneumatic system. No significant expansion of this sewer service area is certain, but the City wants to replace this existing ejector station with a new pump station to handle the existing flows, manage potential expansion, and provide reliable operation.

EXISTING CONDITIONS

This existing ejector station serves the area along Glen Road, which includes approximately 15 residential units. The ejector station collects flow from the properties along Glen Road and is situated below vacant land suitable for future development. The flow is pumped in a 4" diameter forcemain north to the gravity sewer system on Glenn Road. An existing site plan is provided as Figure No. 1.

The ejector station was installed in 1983. The station consists of a pneumatic ejector system including two (2) 2 hp air compressors, two (2) fifty (50) gallon raw sewage holding tanks, an air tank, gate valves, check valves, and pneumatic control system. This equipment together with a small unit heater lighting, and control panel are housed below grade in a factory built steel pumping chamber.

EVALUATION OF PUMP STATION UPGRADES

General

For upgrade of the pump station, the following alternatives were evaluated:

- Alternative No. 1: New Below Ground Dry Pit Pump Station
- Alternative No. 2: New Above Ground Self-Priming Pump Station

Preliminary Design Criteria

Based upon input from the City, expansion of the service area is possible and should be anticipated for this pump station. The design criteria in the State Environmental Protection Rules were used to estimate the wastewater flows for the existing (Initial Year 2009) and future (Design Year 2029) conditions. A summary of the wastewater flows is presented in Table No. 1.

Table No. 1
Summary of Wastewater Flows

Flow Condition	Initial Year (2009)	Design Year (2029)
Average Daily Flow	2.6 gpm (3,762 gpd)	✓ 10.5 gpm (15,186 gpd)
Peak Hourly Flow (P.F.=5.0)	13 gpm	✓ 53 gpm
Design Pumping Capacity	100 gpm	✓ 100 gpm

Notes:

1. A design pumping capacity of 100 gpm is recommended to maintain a flushing velocity of 2.5 feet per second (fps) in the 4" discharge forcemain.

Based on the City's Emergency Power Outage Plan, the typical power outage duration is 2.0 hours. At a 16 hour delivery rate of 22,779 gpd, a storage volume of 1,898 gallons needs to be provided. A 6' diameter wet well is recommended to provide the required emergency storage volume.

Refer to Attachment No. 2 for the Basis of Design and Storage Volume Calculations.

Alternative No. 1: New Below Ground Dry Pit Pump Station

Description

A new below ground dry pit pump station would be installed to replace the existing steel pneumatic ejector station. This pump station would include a new 6' diameter precast concrete wet well with discharge piping and a separate 6' diameter dry pit containing two (2) 15 hp pumps. A control panel located below ground will include the level controller, manual transfer switch with portable generator connection, and autodialer. The proposed below ground dry pit pump station site plan is shown on Figure No. 2. The typical below ground dry pit pump station plan and section are shown on Figure No. 3.

Advantages

- The below ground pump station has no above ground profile for aesthetics.
- Heating is not required since all equipment is below ground.
- The existing 4" diameter sewer forcemain can be utilized.
- Adequate storage can be provided in the new wet well.
- Three phase power is provided at the site.

Disadvantages

- A separate dry pit to house the pumps is required.
- The pumps and valves are located in below grade structures that are confined spaces.
- Conditions are undesirable for excavation and an additional structure below ground will increase the construction difficulty

Alternative No. 2: New Above Ground Pump Station

Description

A new duplex pump station would be installed to replace the existing steel pneumatic ejector station. This pump station would include a new 6' diameter precast concrete wet well. The package mounted 15 hp duplex pumps, 4" piping, valves, and controls would be installed on a concrete slab in a weatherproof enclosure. The proposed above ground pump station site plan is shown on Figure No. 4. The typical above ground pump station is shown on Figure No. 5.

Advantages

- The above ground self-priming pumps are more reliable than submersible pumps.
- A separate dry pit is not required because the pumps and valves are in the weatherproof enclosure.
- The pumps are accessible at grade for maintenance and there is no mechanical equipment located in the wet well. Eliminates Confined Space Entry requirements.
- The existing 4" diameter forcemain can be utilized.
- Adequate storage can be provided in the new wet well.
- Single phase power is provided.

Disadvantages

- Operation of the self-priming pumps can sometimes be problematic if there is any leakage in the suction lines.
- Requires heating of weatherproof enclosure.
- This type of pump station is slightly more expensive (approximately \$20,000).

Comparison of Costs

Construction cost estimates were prepared for each alternative and detailed breakdowns are provided in Attachment No. 3. As shown in Table No. 2, Alternative No. 2 for the new above ground pump station has the lowest construction cost at \$167,000.

Table No. 2
Estimated Construction Costs

Alternative	Estimated Cost (ENR 9200)
No. 1: New Below Ground Dry Pit Pump Station	\$242,000
No. 2: New Above Ground Pump Station	\$167,000

Notes:

1. ENR 9200 = May 2011

Present Worth Analyses

Present worth analyses were prepared for each alternative. As shown in Table No. 3, Alternative No. 2 for the new above ground self-priming pump station has the lowest present worth cost of \$199,563.

Table No. 3
Summary of Present Worth Analyses

Item Description	Alt. No. 1 Dry Pit	Alt. No. 2 Above Ground
Capital Costs		
Annual Loan Payment ⁽¹⁾	\$14,800	\$10,214
Operation & Maintenance		
Labor	\$400	\$200
Electric (including heat)	\$570	\$2,050
Maintenance Equipment	\$650	\$600
Equipment Replacement	\$750	\$250
Miscellaneous	\$125	\$100
Total	\$2,495	\$3,200
Present Value (PV)⁽²⁾⁽³⁾	\$257,306	\$199,563

Notes:

1. For capital costs, a 2% CWSRF loan for 20 years is assumed with an annual payment of \$61.16/\$1,000.
2. $PV = (\text{Annual Loan Payment} + O\&M) \times PWF$
3. $PWF = 14.8775$ for equal payment series @ $r = 3\%$, $n = 20$ years

RECOMMENDED PLAN

Description

Based on the technical and economical analysis and input from the City, it is recommended to install a new above ground pump station to replace the existing steel pneumatic ejector station. This pump station would include a new 6' diameter precast concrete wet well and a new weatherproof enclosure with two (2) 15 hp pumps with discharge piping, a control panel, a level controller, a manual transfer switch with portable generator connection, and an autodialer. The proposed above ground pump station site plan is shown on Figure No. 2. The typical above ground pump station plan and section are shown on Figure No. 3. The estimated construction cost for the proposed above ground pump station is \$167,000 (ENR 9200 = May 2011).

Funding Alternatives

For this project the following potential funding sources were considered:

- State of Vermont Department of Environmental Conservation (VTDEC)
- USDA Rural Development (RD)
- Local Funds

The State of Vermont offers low interest loans for planning, design, and construction of municipal infrastructure improvements through the Clean Water State Revolving Fund (CWSRF) program. This funding source offers loans only with an annual administrative fee equivalent to 2% of the remaining principal balance for a 20 year period. The funding schedule depends on the individual project's priority ranking in comparison with other projects.

The USDA Rural Development (RD) program includes both grants and loans, depending on the project and the community's ability to pay, which is based on the City's sewer rates and median household income (MHI). Historically, the City-wide MHI has been low enough for the City to be eligible for grant funding, but the sewer rates have been too low for the City to receive grant funding. A preliminary funding determination from RD indicates that the City's rates are too low for the City to receive grant funding for this project.

The local funding source would be a 5 to 10 year loan from a local banking institution at market rates, which are currently around 4.5% to 5%. The advantages of utilizing local funds are that the design, permitting, and construction engineering costs are minimized versus the requirements associated with the CWSRF program. In addition, a bond vote is required to utilize the CWSRF loan, whereas the City may have more flexibility in obtaining a local loan without bond authorization.

Total project cost estimates have been developed for both funding sources. As shown in Table No. 4, utilizing local funds has the least total project cost at \$210,000.

Table No. 4
Total Project Cost Summary

Item Description	Estimated Cost		
	CWSRF	RD	Local Funds
Construction (ENR 8600)	\$167,000	\$167,000	\$167,000
Construction Contingency (10%)	\$16,700	\$16,700	\$16,700
Preliminary Engineering	\$2,100	\$2,100	\$2,100
Final Design and Permitting	\$13,100	\$13,100	\$13,100
Bid and Construction Phase Engineering	\$20,000	\$20,000	\$7,000
Other Costs			
Administrative and Fees	\$1,000	\$1,000	\$1,000
Legal	\$1,000	\$1,000	\$1,000
Land/Easements	\$0	\$0	\$0
Total	\$220,900	\$220,900	\$207,900
Use	\$225,000	\$225,000	\$210,000

Notes:

1. ENR 9200 = May 2010.

Total loan costs have been developed for both funding sources. For the local funds, total loan costs at 4.875% for 10 years and 4.5% for 5 years were developed for comparison. As shown in Table No. 5, the local fund loan at 4.5% for 5 years results in the highest annual payment of \$47,838, but the lowest total cost of \$239,190. The CWSRF loan at 2% for 20 years results in the lowest annual payment of \$13,761, but the highest total cost of \$275,220.

Table No. 5 Loan Comparison				
Funding Source	Rate (%)	No. of Years	Annual Payment	Total Cost
CWSRF	2.000	20	\$13,761	\$275,220
RD	3.000	20	\$15,125	\$302,490
Local Funds	4.875	10	\$27,031	\$270,312
Local Funds	4.500	5	\$47,338	\$239,190

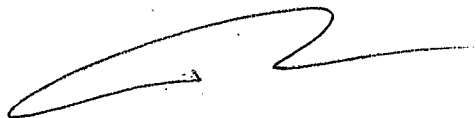
Notes:

1. For 2% 20 year loan, annual payment is \$61.16/\$1,000.
2. For 3% 20 year loan, annual payment is \$67.22/\$1,000.
3. For 4.875% 10 year loan, annual payment is \$128.72/\$1,000.
4. For 4.5% 5 year loan, annual payment is \$227.80/\$1,000.

Given the lowest interest rate and annual payment cost, it is recommended that the City pursue CWSRF funding. The terms of the funding should be reviewed by the City based upon their bonding requirements and their ability to fund the annual loan payments.

If you have any questions in regard to the information presented, please do not hesitate to call our office.

Sincerely,
Aldrich + Elliott, PC



Joseph J. Duncan, P.E.
Project Manager

Attachments

cc: Tom Bernier, City Newport
Dave Parenteau, City Newport
Tom Joslin, ANR FED

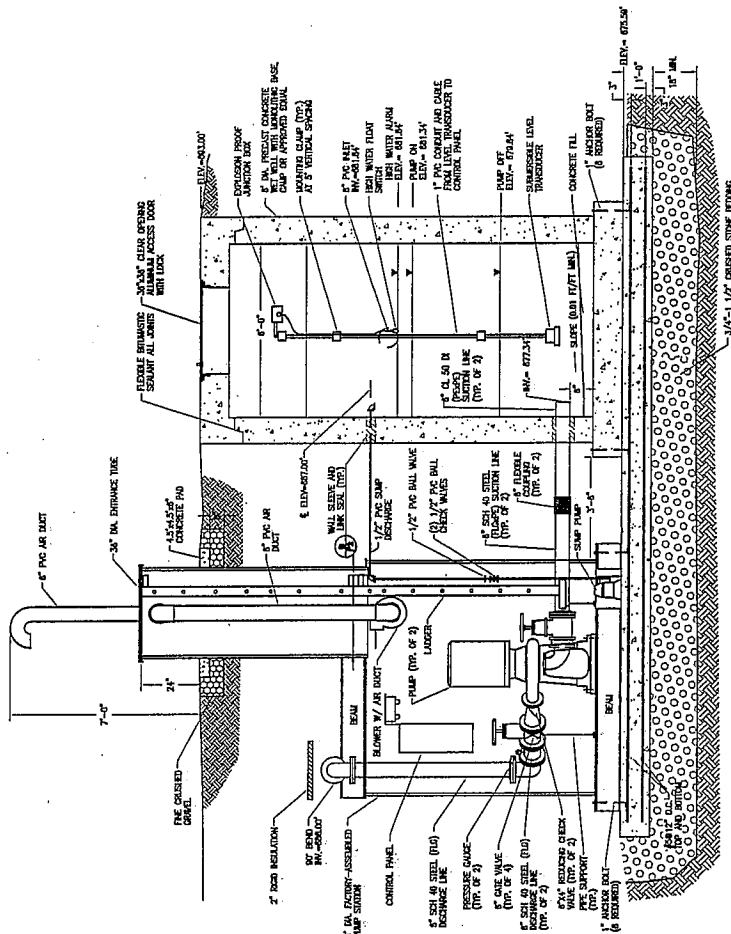
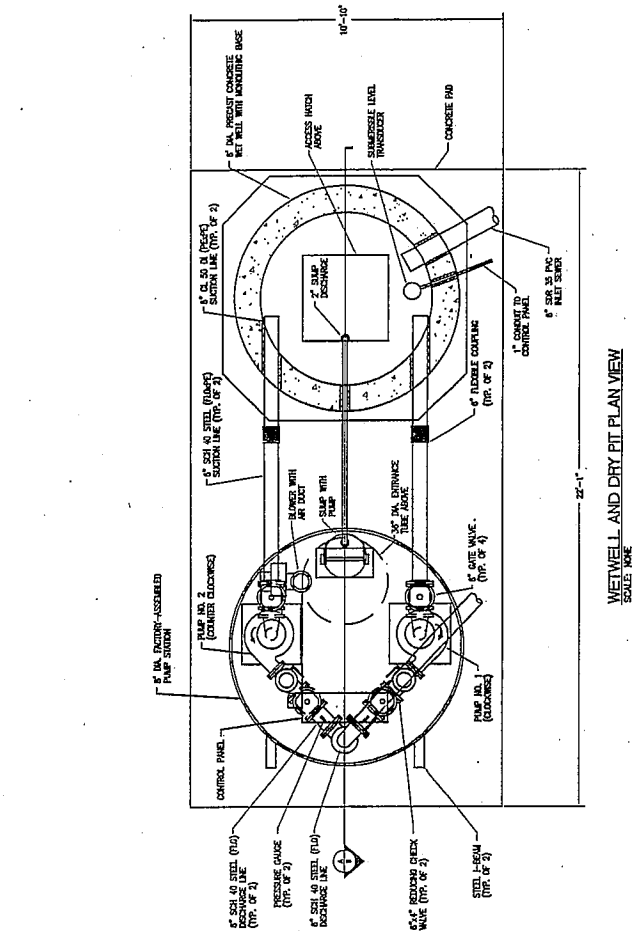


ATTACHMENTS

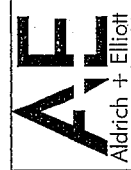
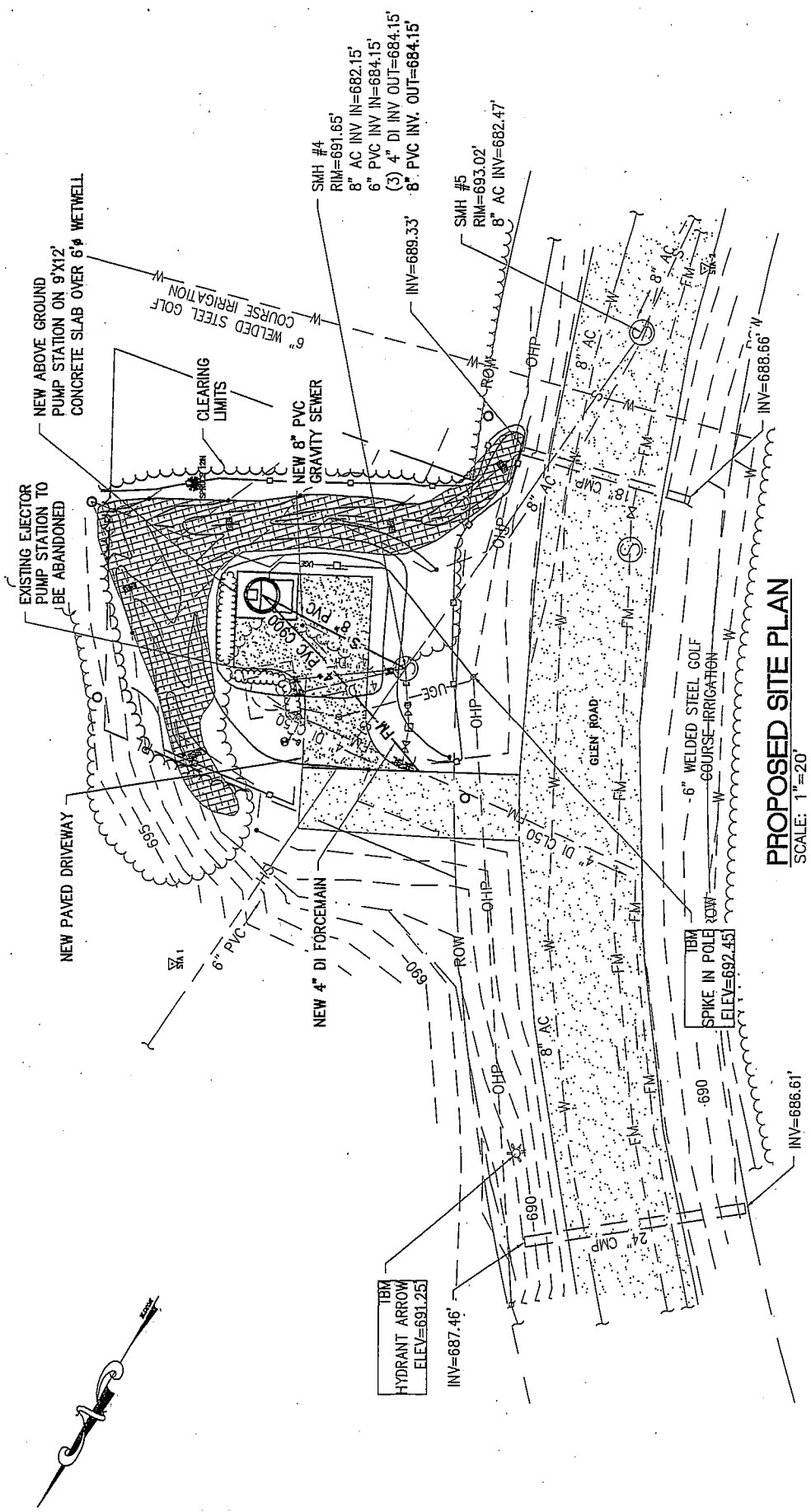
ATTACHMENT NO. 1

FIGURES

PROJECT NO.		DESIGNED BY		CHECKED BY		SCALE		DATE	
09020		JUN 2011		JUN 2011		JUN 2011		JUN 2011	
PROJECT NAME		PROJECT NO.		SCALE		DATE		DATE	
DRY PIT PUMP STATION		09020		JUN 2011		JUN 2011		JUN 2011	
PLAN AND SECTION		PUMP STATION STUDY		CITY OF NEWPORT		NEWPORT		NEWPORT	
Aldrich + Elliott		WATER RESOURCES ENGINEERS		P. 802.879.2733		Aldrich@ae.com		Aldrich@ae.com	



A SECTION
SCALE: 1/4\"/>



4 Market Place, Suite 2
East Isl., VT 05452
P: 802.879.7133
A@engr.com

SELF PRIMING
PUMP STATION
PROPOSED SITE PLAN

PROVE PUMP STATION STUDY

CITY OF NEWPORT

PROJECT NO.
09020

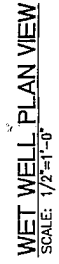
FIGURE NO.
4

DESIGNED BY
JAD

CHECKED BY
JAD

SCALE
AS NOTED

DATE
JAN. 2011





Aldrich + Elliott
WATER RESOURCE ENGINEERS

4 Maple Hill, Suite 2
Piquette, MI 48664
P: 616.939.3333
Aldrich@aei.com

ABOVE GROUND SELF PRIMING PUMP STATION PLAN AND SECTION

PRIVATE PUMP STATION STUDY

CITY OF NEWPORT

PROJECT NO. 09020

DATE 05/01/11

DESIGNED BY [Signature]

CHECKED BY [Signature]

SCALE AS NOTED

PROJECT NO. 09020

DATE 05/01/11

DESIGNED BY [Signature]

CHECKED BY [Signature]

SCALE AS NOTED

ATTACHMENT NO. 2

BASIS OF DESIGN AND STORAGE
VOLUME CALCULATIONS

**CITY OF NEWPORT, VERMONT
PRIVE PUMP STATION UPGRADE STUDY**

**PRIVE PUMP STATION
BASIS OF DESIGN
As of January 18, 2011**

Pump Station Influent

	<u>Initial Year</u> (2010)	<u>Design Year</u> (2030)
<i>Flow</i>		
Residential (15 existing, 50 new)	3,150 gpd	13,650 gpd
Non-Residential	0 gpd	0 gpd
Inflow/Infiltration	612 gpd	1536 gpd
Total Flow	3,762 gpd	15,186 gpd
<i>Flow Rates</i>		
Average Daily	2.6 gpm	10.5 gpm
Peak Hourly (Peaking Factor of 5)	13 gpm	53 gpm
<i>Design Pumping Capacity</i>	100 gpm	100 gpm

Pump Station

Pumps	
Number	2
Design Operating Conditions	
Pumping Capacity, Each Pump	100 gpm
Total Dynamic Head	58 feet
Velocity	2.5 fps
Horsepower	15 hp
Phase	3
Cycle	60 hertz
Voltage	230 volts
Wetwell	
Diameter	6 feet
Material	Precast Concrete

**CITY OF NEWPORT, VERMONT
PRIVE PUMP STATION UPGRADE STUDY**

**PRIVE PUMP STATION
BASIS OF DESIGN**

As of January 18, 2011

Pump Station Control System

Type	Microprocessor based
Control	
Level sensor	Submersible pressure transducer
Speed Control	Constant speed
Telemetry	Alarm dialer (re-use existing)
Alarms	Electrical outage
	Pump fail
	Wetwell high water level
	Wetwell low water level
Lightning Arrestor	Three phase arrestor on load side of incoming service circuit breaker

Emergency Storage

Storage Volume Required	1,898 gal
Total Available Storage	2,542 gal
Emergency Storage Required	(644) gal
Use	0 gal

Forcemain

Pipe Diameter	4 inch
Material	DI CL 50
Joints	Push-on
Pressure Rating	150 psi

ATTACHMENT NO. 3
CONSTRUCTION COST ESTIMATES

**CITY OF NEWPORT, VERMONT
PRIVE PUMP STATION UPGRADE STUDY**

DRY PIT PUMP STATION ESTIMATED CONSTRUCTION COST

As of 1/19/11

		ESTIMATED COST	
		ENR 8950	ENR 9200
1	GENERAL REQUIREMENTS (8%)	\$17,360	\$17,900
2	SITEWORK/YARD PIPING	\$108,000	\$111,100
3	EQUIPMENT	\$97,000	\$99,800
4	MECHANICAL/PROCESS PIPING	\$3,000	\$3,100
5	ELECTRICAL	\$9,000	\$9,300
ESTIMATED CONSTRUCTION COST			\$241,200
		USE	\$242,000

NOTES:

1. ENR 8950 = December 2010
2. ENR 9200 = May 2011

DRY PIT PUMP STATION ESTIMATED CONSTRUCTION COST
SITWORK/YARD PIPING

ITEM NO.	DESCRIPTION OF ITEM	ESTIMATED QUANTITY	UNIT	LABOR	MATERIAL	EQUIPMENT	SUB CONTRACTOR	UNIT COST	TOTAL AMOUNT
1	Mobilization/Demobilization	1	Job					\$1,500.00	\$1,500
2	Silt Fence	450	L.F.	\$1.00	\$1.50			\$2.50	\$1,125
3	Safety Fence	200	L.F.	\$1.00	\$1.00			\$2.00	\$400
4	Dewatering - 4" Pump	12	Day	\$700.00		\$300.00		\$1,000.00	\$12,000
5	Dewatering - Sump Hole Construction	22	L.F.	\$20.00	\$35.00	\$5.00		\$60.00	\$1,320
6	Sheeting	2,200	S.F.	\$14.00	\$4.00	\$2.00		\$20.00	\$44,000
7	Strip/Stockpile Loam	35	C.Y.	\$5.00		\$5.00		\$10.00	\$350
8	Excavation	450	C.Y.	\$4.50		\$7.50		\$12.00	\$5,400
9	Common Fill	60	C.Y.	\$2.00	\$4.00	\$10.00		\$16.00	\$960
10	Granular Backfill for Structures	160	C.Y.	\$4.00	\$5.00	\$4.00		\$13.00	\$2,080
11	Stone Fill for Structures	60	C.Y.	\$5.00	\$15.00	\$5.00		\$25.00	\$1,500
12	Crushed Stone Subbase for Structures	4	C.Y.	\$5.00	\$15.00	\$5.00		\$25.00	\$100
13	8" Gravity Sewer	30	L.F.	\$15.00	\$16.00	\$24.00		\$55.00	\$1,650
14	Core Existing Manhole and Install Boot	1	Each					\$1,500.00	\$1,500
15	Rework Existing Invert	1	Each					\$3,000.00	\$3,000
16	4" DI CL 50 Forcemain	40	L.F.	\$10.00	\$10.00	\$25.00		\$45.00	\$1,800
17	6' Diameter Precast Concrete Wetwell	16	V.F.	\$200.00	\$400.00	\$50.00		\$650.00	\$10,400
18	6' Diameter Precast Concrete Valve Vault	0	V.F.	\$200.00	\$400.00	\$50.00		\$650.00	\$0
19	Concrete Pad	10	C.Y.					\$400.00	\$4,000
20	Abandon Ejector Station	1	Each					\$1,500.00	\$1,500
21	Abandon Emergency Bypass Manhole	1	Each					\$900.00	\$900
22	Stabilization Fabric	80	S.Y.	\$0.50	\$1.00			\$1.50	\$120
23	Gravel Subbase	15	C.Y.	\$5.00	\$12.00	\$5.00		\$22.00	\$330
24	Fine Crushed Gravel	5	C.Y.	\$5.00	\$15.00	\$5.00		\$25.00	\$125
25	2" Bituminous Pavement	8	Ton	\$30.00	\$70.00	\$100.00		\$200.00	\$1,600
26	Underground Electric	25	L.F.	\$3.00	\$1.00	\$4.00		\$8.00	\$200
27	Berm Swale	200	L.F.	\$4.50		\$3.50		\$8.00	\$1,600
28	Stone Check Dams	6	Each	\$30.00	\$80.00	\$25.00		\$135.00	\$810
29	Erosion Control Blanket	180	S.Y.	\$1.50	\$0.70	\$0.30		\$2.50	\$450
30	Seed, and Mulch	75	S.Y.	\$1.00	\$1.00			\$2.00	\$150
SUBTOTAL \$100,870 7% OVERHEAD & PROFIT \$7,061 TOTAL \$107,931 USE \$108,000									

CITY OF NEWPORT, VERMONT
PRIVE PUMP STATION UPGRADE STUDY
As of 1/19/11

DRY PIT PUMP STATION ESTIMATED CONSTRUCTION COST
EQUIPMENT

ITEM NO.	DESCRIPTION OF ITEM	ESTIMATED QUANTITY	UNIT	LABOR	MATERIAL	EQUIPMENT	SUB CONTRACTOR	UNIT COST	TOTAL AMOUNT
1	Dry Pit Pump Station	1.0	Each	\$5,000	\$5,000	\$80,000		\$90,000	\$90,000
2								\$0	\$0
3								\$0	\$0
4								\$0	\$0
5								\$0	\$0
6								\$0	\$0
7								\$0	\$0
8								\$0	\$0
SUBTOTAL									\$90,000
7% OVERHEAD & PROFIT									\$6,300
TOTAL									\$96,300
USE									\$97,000

DRY PIT PUMP STATION ESTIMATED CONSTRUCTION COST
MECHANICAL/PROCESS PIPING

ITEM NO.	DESCRIPTION OF ITEM	ESTIMATED QUANTITY	UNIT	LABOR	MATERIAL	EQUIPMENT	SUB CONTRACTOR	UNIT COST	TOTAL AMOUNT
1	4" DI Pipe and Fittings	50.0	L.F.	\$20	\$20			\$40	\$2,000
2								\$0	\$0
3								\$0	\$0
4								\$0	\$0
5								\$0	\$0
6								\$0	\$0
7								\$0	\$0
8								\$0	\$0
9								\$0	\$0
10								\$0	\$0
11								\$0	\$0
SUBTOTAL									\$2,000
7% OVERHEAD & PROFIT									\$140
TOTAL									\$2,140
USE									\$3,000

CITY OF NEWPORT, VERMONT
PRIME PUMP STATION UPGRADE STUDY
As of 1/19/11

DRY PIT PUMP STATION ESTIMATED CONSTRUCTION COST
ELECTRICAL

ITEM NO.	DESCRIPTION OF ITEM	ESTIMATED QUANTITY	UNIT	LABOR	MATERIAL	EQUIPMENT	SUB CONTRACTOR	UNIT COST	TOTAL AMOUNT
1	HA Electrical	1.0	Job					\$7,500	\$7,500
2								\$0	\$0
3								\$0	\$0
4								\$0	\$0
5								\$0	\$0
SUBTOTAL									\$7,500
7% OVERHEAD & PROFIT									\$525
TOTAL									\$8,025
USE									\$9,000

CITY OF NEWPORT, VERMONT
PRIVE PUMP STATION UPGRADE STUDY

ABOVE GROUND PUMP STATION ESTIMATED CONSTRUCTION COST

As of 1/19/11

		ESTIMATED COST	
		ENR 8950	ENR 9200
1	GENERAL REQUIREMENTS (8%)	\$12,000	\$12,400
2	SITEWORK/YARD PIPING	\$75,000	\$77,100
3	EQUIPMENT	\$64,000	\$65,800
4	MECHANICAL/PROCESS PIPING	\$2,000	\$2,100
6	ELECTRICAL	\$9,000	\$9,300
ESTIMATED CONSTRUCTION COST			\$166,700
		USE	\$167,000

NOTES:

1. ENR 8950 = December 2010
2. ENR 9200 = May 2011

**ABOVE GROUND PUMP STATION ESTIMATED CONSTRUCTION COST
SITEWORK/YARD PIPING**

ITEM NO.	DESCRIPTION OF ITEM	ESTIMATED QUANTITY	UNIT	LABOR	MATERIAL	EQUIPMENT	SUB CONTRACTOR	UNIT COST	TOTAL AMOUNT
1	Mobilization/Demobilization	1	Job					\$1,500.00	\$1,500
2	Silt Fence	200	L.F.	\$1.00	\$1.50			\$2.50	\$500
3	Safety Fence	200	L.F.	\$1.00	\$1.00			\$2.00	\$400
4	Dewatering - 4" Pump	10	Day	\$700.00		\$300.00		\$1,000.00	\$10,000
5	Dewatering - Sump Hole Construction	22	L.F.	\$20.00	\$35.00	\$5.00		\$60.00	\$1,320
6	Sheeting	1,200	S.F.	\$14.00	\$4.00	\$2.00		\$20.00	\$24,000
7	Strip/Stockpile Loam	30	C.Y.	\$5.00		\$5.00		\$10.00	\$300
8	Excavation	130	C.Y.	\$4.50		\$7.50		\$12.00	\$1,560
9	Common Fill	30	C.Y.	\$2.00	\$4.00	\$10.00		\$16.00	\$480
10	Granular Backfill for Structures	80	C.Y.	\$4.00	\$5.00	\$4.00		\$13.00	\$1,040
11	Stone Fill for Structures	30	C.Y.	\$5.00	\$15.00	\$5.00		\$25.00	\$750
12	Crushed Stone Subbase for Structures	2	C.Y.	\$5.00	\$15.00	\$5.00		\$25.00	\$50
13	8" Gravity Sewer	30	L.F.	\$15.00	\$16.00	\$24.00		\$55.00	\$1,650
14	Core Existing Manhole and Install Boot	1	Each					\$1,500.00	\$1,500
15	Rework Existing Invert	1	Each					\$3,000.00	\$3,000
16	4" DI CL 50 Forcemain	40	L.F.	\$10.00	\$10.00	\$25.00		\$45.00	\$1,800
17	6' Diameter Precast Concrete Wetwell	16	V.F.	\$200.00	\$400.00	\$50.00		\$650.00	\$10,400
18	6' Diameter Precast Concrete Valve Vault	0	V.F.	\$200.00	\$400.00	\$50.00		\$650.00	\$0
19	Concrete Pad	4	C.Y.					\$400.00	\$1,600
20	Abandon Ejector Station	1	Each					\$1,500.00	\$1,500
21	Abandon Emergency Bypass Manhole	1	Each					\$900.00	\$900
22	Stabilization Fabric	80	S.Y.	\$0.50	\$1.00			\$1.50	\$120
23	Gravel Subbase	15	C.Y.	\$5.00	\$12.00	\$5.00		\$22.00	\$330
24	Fine Crushed Gravel	5	C.Y.	\$5.00	\$15.00	\$5.00		\$25.00	\$125
25	2" Bituminous Pavement	8	Ton	\$30.00	\$70.00	\$100.00		\$200.00	\$1,600
26	Underground Electric	25	L.F.	\$3.00	\$1.00	\$4.00		\$8.00	\$200
27	Berm Swale	200	L.F.	\$4.50		\$3.50		\$8.00	\$1,600
28	Stone Check Dams	6	Each	\$30.00	\$80.00	\$25.00		\$135.00	\$810
29	Erosion Control Blanket	180	S.Y.	\$1.50	\$0.70	\$0.30		\$2.50	\$450
30	Seed, and Mulch	75	S.Y.	\$1.00	\$1.00			\$2.00	\$150
SUBTOTAL \$69,635 7% OVERHEAD & PROFIT \$4,874 TOTAL \$74,509 USE \$75,000									

CITY OF NEWPORT, VERMONT
PRIVE PUMP STATION UPGRADE STUDY
As of 1/19/11

**ABOVE GROUND PUMP STATION ESTIMATED CONSTRUCTION COST
EQUIPMENT**

ITEM NO.	DESCRIPTION OF ITEM	ESTIMATED QUANTITY	UNIT	LABOR	MATERIAL	EQUIPMENT	SUB CONTRACTOR	UNIT COST	TOTAL AMOUNT
1	Above Ground Self-Priming Pump Station	1.0	Each	\$1,250	\$3,000	\$55,000		\$59,250	\$59,250
2								\$0	\$0
3								\$0	\$0
4								\$0	\$0
5								\$0	\$0
6								\$0	\$0
7								\$0	\$0
8								\$0	\$0
SUBTOTAL									\$59,250
7% OVERHEAD & PROFIT									\$4,148
TOTAL									\$63,398
USE									\$64,000

ABOVE GROUND PUMP STATION ESTIMATED CONSTRUCTION COST
MECHANICAL/PROCESS PIPING

ITEM NO.	DESCRIPTION OF ITEM	ESTIMATED QUANTITY	UNIT L.F.	LABOR \$20	MATERIAL \$20	EQUIPMENT	SUB CONTRACTOR	UNIT COST	TOTAL AMOUNT
1	4" DI Pipe and Fittings	40.0						\$40	\$1,600
2								\$0	\$0
3								\$0	\$0
4								\$0	\$0
5								\$0	\$0
6								\$0	\$0
7								\$0	\$0
8								\$0	\$0
9								\$0	\$0
10								\$0	\$0
11								\$0	\$0
SUBTOTAL 7% OVERHEAD & PROFIT TOTAL USE									\$1,600 \$112 \$1,712 \$2,000

ABOVE GROUND PUMP STATION ESTIMATED CONSTRUCTION COST
ELECTRICAL

ITEM NO.	DESCRIPTION OF ITEM	ESTIMATED QUANTITY	UNIT	LABOR	MATERIAL	EQUIPMENT	SUB CONTRACTOR	UNIT COST	TOTAL AMOUNT
1	HA Electrical	1.0	Job					\$7,500	\$7,500
2								\$0	\$0
3								\$0	\$0
4								\$0	\$0
5								\$0	\$0
SUBTOTAL 7% OVERHEAD & PROFIT TOTAL USE									\$7,500 \$525 \$8,025 \$9,000



ATTACHMENT NO. 4
SUBSURFACE INFORMATION

MIKE'S BORING & CORING LLC.

PO Box 75 • East Barre, Vermont 05649 • 802-476-5073

TO: Jeff Grace Forcier Aldrich & Assoc., Inc. 6 Market Place, Suite 2 Essex Junction, VT	PROJECT NAME: WWTF	SHEET: 1
	LOCATION: Newport, VT	DATE: 5-5-09
	MBC JOB #: 09039	HOLE #: B-1
		LINE & STA. OFFSET:

Ground Water Observations none at _0_ hours	Augers-Size I.D. 3.25"	Surface Elevation:
	Split Spoon 2"	Date Started: 5-5-09
	Hammer Wt. 140#	Date Completed: 5-5-09
	Hammer Fall 30"	Boring Foreman: Mike McGinley
		Inspector:
		Soils Engineer: Randy

LOCATION OF BORING: As shown

Sample Depths From/To (Feet)	Type of Sample	Blows per 6" on Sampler	Moisture Density or Consist.	Strata Change Elev.	Soil Identification	Sample		
						No.	Pen. Inches	Rec. Inches
0'-2'	Dry	1/6/6/6	Wet		Fine brown silty sand with stones	1	24	8
5'-7'	Dry	1/1/1/1	Wet		Brown very fine sand with silt	2	24	6
10'-12'	Dry	4/4/6/10	Wet		Brown very fine sand with stones and some organics (wood)	3	24	24
15'-17'	Dry	12/15/15/15	Wet		Brown very fine silty sand with stones into a rotten granite then into hard pan	4	24	24
20'-22'	Dry	16/21/30/44	Wet		Brown very fine silty sand with stones into a rotten granite then into a hard pan	5	24	24
25'-27'	Dry	49/60/90	Moist		Very hard packed brown very fine sand with stones	6	18	18
30'-31.5'	Dry	21/36/49	Moist		Brown very fine sand with silt and stones	7	18	18

Ground Surface to 30'

Used 3.25" augers:

Then S.S. to 31.5'

Earth Borings 31.5'
 Rock Coring
 Samples: 7
 HOLE NUMBER B-1