

REGION OF OTTAWA CARLETON
 RÉGION D'OTTAWA CARLETON

REPORT
RAPPORT

Our File/N/Réf. **25 43-98-0116**
 Your File/V/Réf.

DATE 22 April 1999

TO/DEST. Co-ordinator
 Planning and Environment Committee

FROM/EXP. Planning and Development Approvals Commissioner
 Director Engineering Division

SUBJECT/OBJET **PUBLIC MEETING TO CONSIDER DRAFT REGIONAL
 OFFICIAL PLAN (97) AMENDMENT 5
 PROPOSED MUNSTER HAMLET WASTEWATER PIPELINE
 TOWNSHIP OF GOULBOURN**

DEPARTMENTAL RECOMMENDATIONS

That Planning and Environment Committee recommend that Council:

- 1. Subject to the public meeting, enact a by-law to adopt Regional Official Plan Amendment 5 to the 1997 Regional Official Plan, attached in Annex A;**
- 2. Approve the pipeline route selected as the preferred option (option 1A) from the Munster Hamlet facility south on Munster Road to Franktown Road and then east into Richmond.**

PURPOSE

Proposed Regional Official Plan (97) Amendment 5 (ROPA 5) is before Planning and Environment Committee for a public meeting.

BACKGROUND

The existing wastewater treatment facility in Munster Hamlet in the Township of Goulbourn, (which is owned and operated by the Region of Ottawa-Carleton), consists of a lagoon and spray irrigation system that has several limitations. The lagoons have insufficient capacity for treatment of flows to the facility and the spray field is undersized. In addition, the structural integrity of the lagoons is poor resulting in inadequate containment of the wastewater.

An Environmental Study Report (ESR) completed in 1996 recommended an upgrade and expansion of the existing lagoon and spray irrigation system as the preferred solution. Based on public concerns with the proposed upgrade of the lagoon and spray irrigation system and new information on treatment alternatives, on 11 March 1998 Regional Council directed staff to prepare an “Addendum to the Munster Wastewater Treatment Plan ESR” in accordance with the Class Environmental Assessment for Municipal Water and Wastewater Projects, to address alternative approaches to spray irrigation. The firm of Conestoga-Rovers and Associates (CRA) was retained to complete this review and prepare the Addendum.

Alternatives including do nothing, spray irrigation, on-site treatment facilities and pipelines were evaluated using three well established evaluation methods. In addition to the treatment alternatives, the “Do Nothing” scenario was also evaluated to establish a baseline for assessing impacts relative to existing conditions. The selection of the preferred treatment alternative was based on a number of criteria which included: the impact on natural environment; impact on social environment; impact on land use; wastewater treatment and economics.

Each of the criteria were assigned a weight factor that was based on its relative importance. The factors were developed based on information collected from the Public Liaison Committee (PLC), the public and from the CRA project team. The preferred treatment alternative was selected based on the fact that it had the highest scoring in each of the three independent evaluation methods.

The analysis concluded that the preferred solution for addressing the wastewater treatment requirements for Munster Hamlet is to construct a pipeline to convey the wastewater to the Region’s wastewater collection system. The results of a sensitivity analysis indicated that the identification of the pipeline option as a preferred treatment alternative was not sensitive to significant changes to any of the weighting criteria. That is, the elimination of any one of the criteria, economics, land use, demonstrated experience or the use of the most costly pipeline alternative resulted in the same alternative, that being the pipeline as the preferred alternative.

The evaluation of alternatives included an extensive public and government consultation process. The consultation involved the creation of a Public Liaison Committee (PLC) and four PLC meetings, two formal public meetings, five community newsletters and solicitation of input from various government agencies at two different stages of the project.

The Planning and Environment Committee held a public meeting in Munster Hamlet on 10 November 1998 to consider the consultant’s report and recommendations. The recommendations were accepted, and on 25 November 1998, Regional Council approved the following recommendations:

1. Receive the report of the independent consultant Conestoga-Rovers and Associates (CRA) “Wastewater Treatment Alternatives Evaluation - Munster Hamlet”;
2. Approve the recommendation of the independent consultant to construct a pipeline to convey the wastewater from Munster Hamlet to the Region’s central collection system;

3. Direct staff to:
 - a) Immediately initiate a route selection process and increase the scope of CRA's assignment to include identifying a preferred routing for the pipeline;
 - b) Upon completion of the route selection process to proceed with submission of the ESR Addendum to the Ministry of the Environment;
 - c) Initiate the required Official Plan Amendment;
 - d) Advise the Ministry of the Environment of the revised project schedule;
 - e) Request funding for this project from the Minister of the Environment.

DISCUSSION

Pipeline Route Alternatives

Five main pipeline route alternatives, and two minor variants of a pipeline route were considered as part of the route evaluation. The main routes were: a pipeline to the Richmond Pump station; a pipeline to the Richmond forcemain; a pipeline to the South Glen Cairn Trunk sewer in Kanata; a pipeline to the Glen Cairn Trunk sewer in Kanata and a pipeline to the Stittsville Trunk sewer (see attached plan).

The evaluation of alternative pipeline routes included extensive public and government consultation. The consultation involved the creation of a Public Liaison Committee (PLC) and three PLC meetings, two formal open houses/meetings, distribution of an area-wide newsletter and solicitation of input from various government agencies following identification of the preferred route alternative and completion of the public consultation process.

The evaluation of the route alternatives considered the following criteria: the impact on natural environment; impact on social environment; impact on land use; sewage conveyance and economics. Each of the criteria were assigned a weight factor developed from information collected from the public and from the CRA project team. The preferred alternative route was selected based on the fact that it had the highest scoring in each of the three independent evaluation methods.

The preferred pipeline route referred to in the Route Selection report as Route 1A, involves the construction of a wastewater pipeline from the Munster Hamlet sewage pump station south along Munster Road to Franktown Road and east to the Richmond pump station in Richmond. The specific location of the wastewater pipeline through the Village of Richmond to the Richmond pump station tie-in point is to be established during the detailed design phase of the sewer construction project.

The pipeline route was selected as it represents the alternative which scored best overall on the entire range of criteria evaluated on each of the three evaluation methods.

An open house/public meeting was held on 23 March 1999 in Richmond to discuss the evaluation process which led to the preliminary preferred route. Comments and input from the public provided at this event were used in the selection of the final preferred route, that being Route 1A.

Proposed Regional Official Plan Amendment 5 (Annex A refers) is necessary to implement the final recommended route of the wastewater pipeline as outlined in the ESR Addendum.

Proposed Regional Official Plan Amendment 5

Proposed Regional Official Plan Amendment 5 is necessary to implement the final recommended route of the wastewater pipeline as outlined in the ESR Addendum. This Official Plan amendment is required to allow the community of Munster Hamlet to connect to the Regional wastewater collection system, since this work is not contemplated in the current Regional Official Plan or Wastewater Master Plan.

The alignment of the wastewater pipeline is shown on Schedule H, Rural Servicing, and identifies an extension to the regional trunk sanitary sewer (forcemain) from the Munster Hamlet sewage pump station south along Munster Road to Franktown Road and east to the Richmond pump station in Richmond, as shown on Schedule 1 (Annex A refers).

The specific location of the wastewater pipeline in the Village of Richmond to the Richmond pump station tie-in point is not finalized at this time. The reasons for this are twofold. From a procedural point of view, as the route will travel in existing road allowances (Schedule "A" under the Class Environmental Assessment process) there is no requirement to identify the final routing at this time. The routing will have to be approved by the appropriate parties as part of the normal approval process.

Secondly, it would be more appropriate to finalize the route during the detailed design phase. This will allow for an opportunity to review, in detail all of the information related to the potential routes through Richmond. It will also allow for discussion with the local planning engineers to best utilize the existing infrastructure where possible as well as taking into account local concerns.

Munster Hamlet wastewater flows would not remove any servicing capacity for the Village of Richmond where development on the regional service is permitted in the Official Plan up to a total development capacity of 2,800 dwellings. The total servicing capacity for Munster Hamlet would not change and would remain at 480 dwellings, as per Section 10.3.7, Policies 1 and 2 of the Official Plan.

The wastewater from Munster Hamlet will be conveyed to the Region's wastewater collection system, therefore the symbol for a regional communal lagoon in Munster Hamlet is deleted from Schedule H, as shown on Schedule 1 (Annex A refers). It is important to note that one lagoon cell will be retained for maintenance and emergency use and is not part of the treatment process.

Circulation of Proposed ROPA 5

The proposed ROPA was circulated to the standard technical agencies and interested parties. Written comments were received from the Rideau Valley Conservation Authority (RVCA) and Trans Canada Pipeline. Both of these agencies had no objections to the proposed amendment.

Trans Canada Pipeline indicated that it has one high-pressure gas pipeline in the right-of-way which crosses the proposed wastewater pipeline route in a north-south direction and would require a crossing agreement and approval.

The RVCA indicated that it has had extensive involvement in the preparation and review of the original ESR, the subsequent addendum to the ESR and in the wastewater pipeline alternative routes evaluation. The RVCA advised that there are several issues which must be addressed at the detailed design stage, in regard to mitigating measures which must be developed and implemented to minimize potential environmental impacts on fish habitat and groundwater levels and flows.

The RVCA stated that it had received confirmation from the project consultant (CRA) that the final design phase of the project will address construction mitigation measures required for the protection of fish habitat and aquatic resources, near surface groundwater interference, potential floodwater inflow, in addition to the provision of information on the feasibility of Jock River crossing alternatives and watercourse crossing permits (if required). The RVCA indicated that it will continue to be involved in the next phase of this project to ensure that all concerns and interests are addressed.

The Ministry of the Environment telephoned and indicated that they had no objection to the proposed ROPA for the route of the pipeline but would review the final design and construction mitigation measures during the approval phase of the project.

It should be noted that while few written comments were received on the proposed ROPA, Planning and Development Approvals staff have received copies of comments which were sent to the Region's project consultant, CRA, in the context of the ESR Addendum and are included therein. For example, the comments of the Ministry of Citizenship, Culture and Recreation (concerning cultural and archaeological issues) and of the Mayor of the Township of Goulbourn (in regard to an examination, in the final design stage, of pipeline routes within the Village of Richmond and in the review of the site plan for the pumping station in Munster) and from the Region's Health Department in support of the project and on the selection of Route 1A.

ENVIRONMENTAL STUDY REPORT - ADDENDUM

Detailed Design Requirements

There are several requirements that will be incorporated during the detailed design phase. Implementation of these recommendations will ensure that the system will run smoothly and more importantly, will not impact the capacity of the Richmond Pumping Station during high flow events.

These requirements include:

- Monitoring of peak hour flows from Munster;
- Further refinement of pipeline materials to ensure superior corrosion protection;
- A full hydraulic transient analysis to ensure equipment is sized and located correctly;
- Thorough geotechnical investigations along the proposed route to ensure pipe bedding and excavations are designed properly. This will also minimize any impact on surrounding properties;
- Design of the instrumentation and control strategy for the Munster Pump Station will require detailing to ensure proper integration with the Richmond Station.

Project Scheduling

Following approval of the recommended route for the pipeline, the addendum will be formalized and submitted to the Ministry of the Environment. It will then be placed on the public record for comment for a period of 30 days. The next steps in the process will depend on whether or not there are “Bump-Up” requests. If there are no “Bump-Up” requests we will be able to proceed with the implementation of the recommendations, pending approval of the Regional Official Plan Amendment. Should there be “Bump-Up” requests, they will have to be reviewed by the MOE who will then provide direction on what steps will have to be taken.

CONSULTATION

Under the *Planning Act* for Proposed ROPA 5

Public notice of the Proposed Regional Official Plan amendment was published in *Le Droit*, the *Ottawa Sun* and in the *Ottawa Citizen* on 16 April 1999; in the *Stittsville Signal* on 25 April; in the *Stittsville News* on 28 April and in the *Kanata Courier* on 30 April. In addition, notice of the public meeting and a copy of the proposed ROPA 5 were mailed to various community associations and other interested parties.

The Class Environmental Assessment Process

Although not specifically required as a part of the Class Environmental Assessment Process, there was a significant public consultation component to the Route Selection Process. The level of public interest in the Munster Hamlet Wastewater Treatment Alternatives Evaluation indicated that continued involvement was essential for a successful route evaluation and subsequent pipeline construction program.

As the selected pipeline route could potentially affect Richmond, Stittsville and Kanata, as well as Munster Hamlet, the existing Public Liaison Committee was modified to allow for representation from all potentially affected groups. The PLC was there to ensure the concerns of the public were brought forward and adequately addressed in the evaluation and selection process.

FINANCIAL IMPLICATIONS

There are no financial implications directly associated with the Regional Official Plan amendment. Funds for the proposed wastewater pipeline are contained in the capital budget for the Munster Hamlet lagoons.

Approved by
D. McCartney on behalf of
Jim Miller, P.Eng.

Approved by
N. Tunnacliffe, MCIP, RPP

SF/JP/jw
Attach.

AMENDMENT 5
OFFICIAL PLAN (1997) OF THE
REGIONAL MUNICIPALITY OF OTTAWA CARLETON

PURPOSE

The purpose of Amendment 5 is to allow the Village of Munster Hamlet to connect to the Regional wastewater collection system, since this work is not contemplated in the current Regional Official Plan or Wastewater Master Plan. Proposed Regional Official Plan Amendment 5 is necessary to implement the final recommended route (Route 1A) for a wastewater pipeline from the Munster Hamlet sewage pump station south along Munster Road to Franktown Road and east to the Richmond pump station in Richmond, as outlined in the Addendum to the Environmental Study Report, prepared for the Region of Ottawa-Carleton.

The amendment consists of changes on Schedule H (Rural Servicing) of the Official Plan of the Regional Municipality of Ottawa-Carleton.

BASIS

The existing wastewater treatment facility in Munster Hamlet in the Township of Goulbourn, (which is owned and operated by the Region of Ottawa-Carleton), consists of a lagoon and spray irrigation system that has several limitations. The lagoons have insufficient capacity for treatment of flows to the facility and the spray field is undersized. In addition, the structural integrity of the lagoons is poor resulting in inadequate containment of the wastewater.

An Environmental Study Report (ESR) completed in 1996 recommended an upgrade and expansion of the existing lagoon and spray irrigation system as the preferred solution. Based on public concerns with the proposed upgrade of the lagoon and spray irrigation system, on 11 March 1998 Regional Council directed staff to prepare an "Addendum to the Munster Wastewater Treatment Plan ESR" in accordance with the Class Environmental Assessment for Municipal Water and Wastewater Projects, to address alternative approaches to spray irrigation. The firm of Conestoga-Rovers and Associates (CRA) was retained to complete this review and prepare the Addendum.

Alternatives including do nothing, spray irrigation, on-site-treatment facilities and pipelines were evaluated using three well established evaluation methods. In addition to the treatment alternatives, the "Do Nothing" scenario was also evaluated to establish a baseline for assessing impacts relative to existing conditions. The selection of the preferred treatment alternative was based on a number of criteria which included: the impact on natural environment; impact on social environment; impact on land use; wastewater treatment and economics. Each of the criteria were assigned a weight factor that was based on its relative importance. The factors were developed based on information collected from a Public Liaison Committee (PLC), the public and

from the CRA project team. The preferred treatment alternative was selected based on the fact that it had the highest scoring in each of the three independent evaluation methods.

The analysis concluded that the preferred solution for addressing the wastewater treatment requirements for Munster Hamlet is to construct a pipeline to convey the wastewater to the Region's wastewater collection system. The results of a sensitivity analysis indicated that the identification of the pipeline option as a preferred treatment alternative was not sensitive to significant changes to any of the weighting criteria. That is, the elimination of any one of the criteria, economics, land use, demonstrated experience or the use of the most costly pipeline alternative resulted in the same alternative, that being the pipeline as the preferred alternative.

The evaluation of treatment alternatives included an extensive public and government consultation process. The consultation involved the creation of a Public Liaison Committee (PLC) and four PLC meetings, two formal public meetings, five community newsletters and solicitation of input from various government agencies at two different stages of the project.

The Planning and Environment Committee held a public meeting at Munster Hamlet on 10 November 1998 to consider the consultant's report and recommendations. The recommendations were accepted, and on 25 November 1998, Regional Council approved the following recommendations:

- Approve the recommendation of the independent consultant to construct a pipeline to convey the wastewater from Munster Hamlet to the Region's central collection system.
- Upon completion of the Route Selection Process to proceed with submission of the ESR Addendum to the Ministry of the Environment and initiate the required Official Plan Amendment.

Five main pipeline route alternatives, and two minor variants of a pipeline route, were considered as part of the route evaluation. The main routes were: a pipeline to the Richmond Pump station; a pipeline to the Richmond forcemain; a pipeline to the South Glen Cairn Trunk sewer in Kanata; a pipeline to the Glen Cairn Trunk sewer in Kanata and a pipeline to the Stittsville Trunk sewer.

The evaluation of alternative pipeline routes included extensive public and government consultation. The consultation involved the creation of a Public Liaison Committee (PLC) and three PLC meetings, two formal open houses / meetings, distribution of an area-wide newsletter and solicitation of input from various government agencies following identification of the preferred route alternative and completion of the public consultation process.

The evaluation of the route alternatives considered the following criteria: the impact on natural environment; impact on social environment; impact on land use; sewage conveyance and economics. Each of the criteria were assigned a weight factor developed from information collected from the public and from the CRA project team. The preferred alternative route was selected based on the fact that it had the highest scoring in each of the three independent evaluation methods.

The preferred pipeline route referred to in the Route Selection report as Route 1A, would involve the construction of a regional trunk sanitary sewer forcemain from the Munster Hamlet sewage pump station south along Munster Road to Franktown Road and east to the Richmond pump station in Richmond. The specific location of the wastewater pipeline from Franktown Road through the Village of Richmond to the Richmond pump station tie-in point to be established during the detailed design phase of the sewer construction project.

The pipeline route was selected as it represents the alternative which scored best overall on the entire range of criteria evaluated on each on the three evaluation methods.

An open house/public meeting was held on 23 March 1999 in Richmond to discuss the evaluation process which led to the preliminary preferred route. Comments and input from the public provided at this event were used in the selection of the final preferred route, that being Route 1A.

Proposed Regional Official Plan Amendment 5 is necessary to implement the final recommended route of the wastewater pipeline as outlined in the ESR Addendum. This Official Plan amendment is required to allow the community of Munster Hamlet to connect to the Regional wastewater collection system, since this work is not contemplated in the current Regional Official Plan or Wastewater Master Plan.

The alignment of the wastewater pipeline will be shown on Schedule H, Rural Servicing, and identifies an extension to the regional trunk sanitary sewer (forcemain) from the Munster Hamlet sewage pump station south along Munster Road to Franktown Road and east to the Richmond pump station in Richmond, as shown on Schedule 1 attached.

The specific location of the wastewater pipeline from Franktown Road in the Village of Richmond to the Richmond pump station tie-in point is not finalized at this time. The reasons for this are twofold. From a procedural point of view, as the route will travel in existing road allowances (Schedule "A" under the Class Environmental Assessment process) there is no requirement to identify the final routing at this time. The routing will have to be approved by the appropriate parties as part of the normal approval process.

Secondly, it would be more appropriate to finalize the route during the detailed design phase. This will allow for an opportunity to review, in detail all of the information related to the potential routes through Richmond. It will also allow for discussion with the local planning engineers to best utilize the existing infrastructure where possible as well as taking into account local concerns.

Munster Hamlet wastewater flows would not remove any servicing capacity for the Village of Richmond where development on the regional service is permitted in the Official Plan up to a total development capacity of 2,800 dwellings. The total servicing capacity for Munster Hamlet would not change and would remain at 480 dwellings, as per Section 10.3.7, Policies 1 and 2 of the Official Plan.

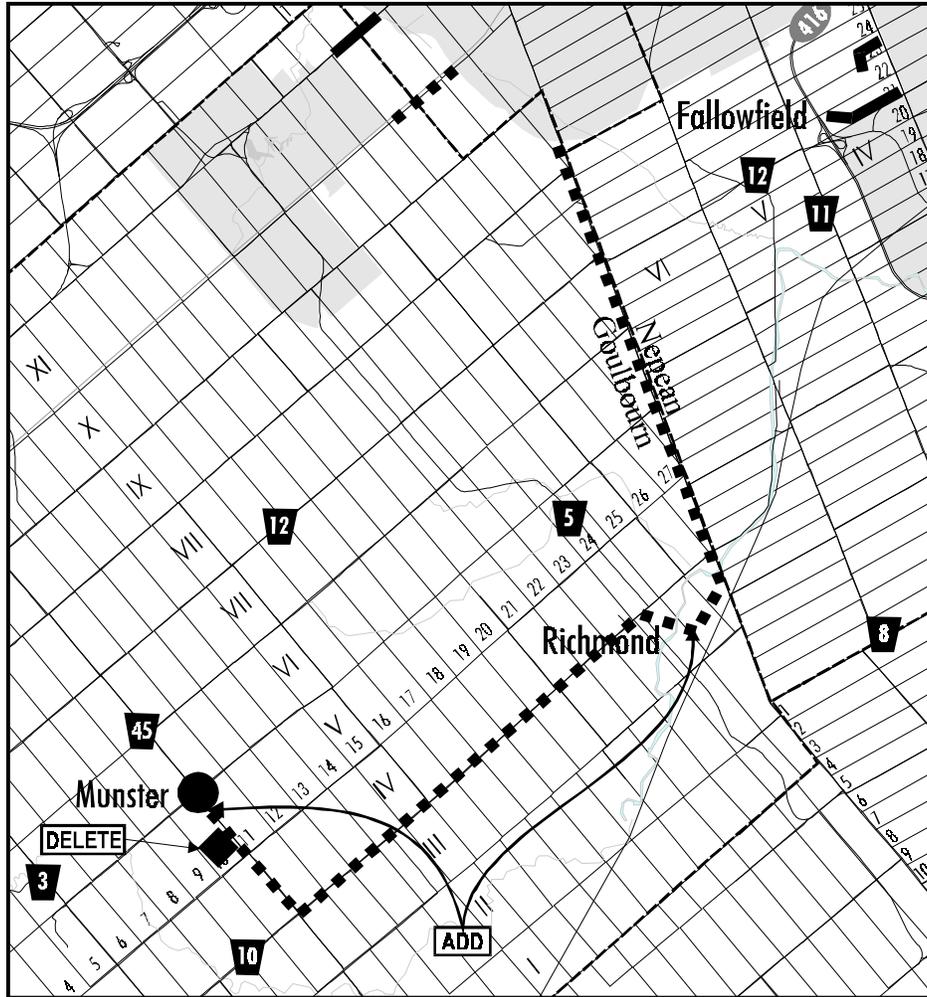
The wastewater from Munster Hamlet will be conveyed to the Region's wastewater collection system, therefore the symbol for a regional communal lagoon in Munster Hamlet is deleted from

Schedule H, as shown on Schedule 1 attached. It is important to note that one lagoon cell will be retained for maintenance and emergency use and is not part of the treatment process.

THE AMENDMENT

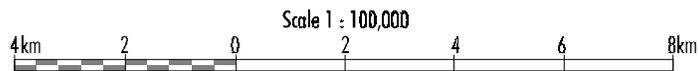
1. Schedule H, Rural Servicing, is hereby amended to extend the regional trunk sanitary sewer (forcemain) from the Munster Hamlet sewage pump station south along Munster Road to Franktown Road and east to the Richmond pump station in Richmond, as shown on Schedule 1 attached. Since the sewage lagoons will not be required as the wastewater from Munster Hamlet would be conveyed to the regional wastewater collection system, the symbol for a regional communal lagoon in Munster Hamlet is deleted, as shown on Schedule 1 attached.

SCHEDULE "1" OF AMENDMENT 5 OFFICIAL PLAN (1997) OF THE REGIONAL MUNICIPALITY OF OTTAWA-CARLETON



OFFICIAL PLAN - SCHEDULE "H" RURAL SERVICING

- REGIONAL WATER MAIN 
- REGIONAL TRUNK SEWER (OR FORCEMAIN) 
- REGIONAL COMMUNAL WELL 
- REGIONAL COMMUNAL LAGOON 



OCCONOMOCOUNTY

ENVIRONMENT AND TRANSPORTATION DEPARTMENT

J.J.E. SHOOK, P. Eng.
 Consultant and Transportation Commissioner

LEGEND

- REGIONAL ROAD
- TO RICHMOND PUMP STATION
- ROUTE 1
- TO RICHMOND FORCEMAIN
- ROUTE 2,3,4
- SOUTH GLEN CAIRN
- GLEN CAIRN
- TO STITTVILLE
- ROUTE 5
- WETLAND

CRA SUBMITTAL NUMBER: 1-10-0000000

Designed by: L. DUBREY
 Date: JAN-02/04
 Drawn by: B.E. HADZICH
 Date: JAN-02/04
 Checked by: []
 Date: []

CONSTRUCTION NOT FOR DRINKING WATER

Project No: 10000
 Date: []
 Revision: []
 Date: []

WASTEWATER PIPELINE ROUTE EVALUATION
 MUNSTER HAMLET
 MUNSTER PIPELINE ALTERNATIVE ROUTES

Figure 4-1

