Public Information Session #2

WELLINGTON - CLAIR FEEDERMAIN

Municipal Class Environment Assessment

City Hall Meeting Room C, 1 Carden Street, Guelph





Tuesday, September 23, 2014

6:30-8:30 p.m.







Please sign in on the sheet provided. Then feel free to walk around and view the displays.

If you have any questions, our representatives will be pleased to discuss the project with you.

Comment sheets are provided for those who wish to provide comments in writing. Please place your completed sheets in the Comment Box or send them to one of the identified Project Team Members listed below.

Please contact one of the following Team Members for additional information.





Welcome – Your input is appreciated !

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Wellington – Clair Feedermain





Project Background and Objectives

Background

The City of Guelph has initiated a Class Environmental Assessment study for a large water transmission main between Wellington Street and Clair Road which was identified in the City's Water and Wastewater Master Plan for phased implementation as a Priority Project. The Guelph Water and Wastewater Servicing Master Plan (2009) identified the need for these improvements in order to service planned growth in the City.

Objectives

The City of Guelph has initiated the Class Environmental Assessment for the Wellington – Clair Feedermain to determine the preferred servicing alignment.





A large transition main between Wellington Street and Clair Road was identified in the City's Water and Wastewater Master Plan for phased implementation as a priority project. The Master Plan identified that this could be accommodated via a new watermain paralleling east side of the Hanlon expressway, primarily through parks, trails and the Hanlon Road Utility Corridor or possibly along Edinburgh road depending on the City's road reconstruction plans. The Wellington – Clair Feedermain will also allow the City to complete maintenance and repairs on the existing water distribution system with minimal impact to the customers.

The objectives of Class EA are to:

- Feedermain.
- Recommend design and construction methodology that will well-being of the City of Guelph.

Wellington – Clair Feedermain

Municipal Class Environment Assessment

Recommend the preferred alignment of the proposed North - South

minimize adverse effects to the environment, social and economic



Problem Definition and Service Area

Problem Statement

The Wellington - Clair Feedermain project was identified in the 2009 City of Guelph Water and Wastewater Master Plan as a priority project. The feedermain is required to improve north-south water transmission to service existing and new customers in the south end of Guelph. This study will review various routes to connect the existing watermain on Wellington Road to the Clair Water Tower. This study will recommend the preferred alignment of the north-south feedermain as well as design and construction methodology that will minimize adverse effects to the environment, social and economic well-being of the City of Guelph.

Opportunity Statement

The installation of the Wellington – Clair Feedermain will provide a major north-south water conveyance link between the existing watermain on Wellington Street and the existing Water Tower on Clair Road. This link will enable the City of Guelph to provide better, more consistent service to the residents and businesses of Guelph particularly in the south end. It will also allow for the connection for the trunk watermain to the local distribution watermains thereby providing a more robust water distribution network within the west side of Guelph and allow maintenance of the existing water distribution system with minimal impact to the level of service.









Class Environmental Assessment Planning Process

Class EA Planning Process

The Ontario Environmental Assessment Act, R.S.O., 1990 (the EA Act) requires that projects corresponding to a given class of undertakings (e.g. municipal road, transit, water and wastewater projects) follow an approved Class Environmental Assessment (Class EA) process. The Class EA planning process as documented in the MEA Municipal Class EA document (October 2000, amended in 2007 & 2011) includes the following five phases:

esign Concepts	5	Environmental Study
e re	sign Concepts ed Solution	sign Concepts ed Solution

The water and wastewater infrastructure needs identified in the City's Water and Wastewater Master Plan fall within the Municipal Class EA process.

Class EA Schedules for This Study

Depending on their Environmental Impact, municipal projects are classified in the Municipal EA in terms of schedules:

- Schedule A or A+
- Schedule B
- Schedule C \bigcirc

The Wellington – Clair Feedermain Class EA is being conducted as a Schedule B which requires completion of Phase 1 and 2 of the MEA Municipal Class EA Process.

What does a Schedule B Project Mean ?

- There is potential for some adverse environmental (natural, economic, social) effects. Ο
- Ο are addressed.
- Ο concerns to be included in the environmental assessment.
- Ο
- Ο



A screening and evaluation process is required including public and relevant review agency consultation to make them aware of the project and ensure that any concerns

Following the completion of the screening process, a recommended alternative will be selected and there will be a 30 day public review period for any comments or

After the 30 day review period a Notice of Completion will be issued provided there are no outstanding issues.

Subsequent to the Notice of Completion, the City can move to detailed design and study implementation.

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Stakeholder Consultation

- Community Organizations are being consulted through a parallel process to the Public Consultation
- Review and Approval Agencies (Grand **River Conservation Authority, Ministry** of Transportation, etc) are being consulted, as needed, throughout the course of the study
- An Internal Steering Committee (ISC), comprised of City Staff from various departments, have provided input at key project milestones during the course of the Class EA Study

First Public Information Session (PIS)

Notice of Project Commencement





Consultation



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Environmental Effects

- Impact on Trees and Vegetation
- Impact on Aquatic Life
- Watercourse Crossing

Social and Cultural Effects

- Traffic Impacts
- Archaeological Impacts
- Heritage Resource Impacts

Economic Effects

- Estimated Capital Cost
- Operating and Maintenance Costs
- Land Acquisition Requirements





Evaluation Criteria

Addresses Problem Statement

Wellington – Clair Feedermain





Alternative Solutions – North Section

Alternative 1 – Do Nothing

•Maintain Existing Water Distribution System. •Existing system does not meet future growth needs.

Alternative 2: Feedermain route from Wellington Ave., crossing the Speed River, along Municipal Street past the west side of College Heights Secondary School, crossing College Ave. W. to Janefield Ave., crossing Stone Rd. to Hanlon Rd.

Alternative 2A: Feedermain route from Wellington Ave., crossing the Speed River, along Municipal Street past the west side of College Heights Secondary School, crossing College Ave. W. to Janefield Ave. towards Scottsdale Drive, westwards along Ironwood Rd. to Kortright Rd. W. towards Hanlon Rd.

<u>Alternative 3: Feedermain route from Wellington Ave., crossing the Speed River, along Edinburgh Rd. S., towards Municipal Street</u> across Centennial Park and past the west side of College Heights Secondary School, crossing College Ave. W. to Janefield Ave., towards Scottsdale Drive, westwards along Ironwood Rd. to Kortright Rd. W. towards Hanlon Rd.

Alternative 4: Feedermain route from Wellington Ave., crossing the Speed River, along Edinburgh Rd. S., towards College Ave. W. to Scottsdale Drive, westwards along Ironwood Rd. to Kortright Rd. W. towards Hanlon Rd.

Alternative 4A: Feedermain route from Wellington Ave., crossing the Speed River, along Edinburgh Rd. S., towards Wilsonview Ave. (next to University supply well and reservoir) to Scottsdale Drive, westwards along Ironwood Rd. to Kortright Rd. W. towards Hanlon Rd.







North Section – Alternative 2 & 2A





NOTE: POTENTIAL WELL LOCATIONS ARE MERELY CONCEPTUAL FOR ANALYTICAL PURPOSES. FURTHER INVESTIGATION WILL BE REQUIRED TO CONFIRM WHETHER THESE LOCATIONS ARE SUITABLE WATER SUPPLY SOURCES.





PROPOSED FEEDERMAIN ALTERNATIVE 2		EXISTING WATER W
 PROPOSED FEEDERMAIN ALTERNATIVE 2A		EXISTING RESERVO
 EXISTING WATERMAIN	•	PROPOSED WATER
 WATERCOURSE		PROPOSED BOOSTE
 FUTURE WATER INFRASTRUCTURE		RESERVOIR/WATER
 FUTURE WASTEWATER INFRASTRUCTURE		
 EXISTING SANITARY SEWER		
	PROPOSED FEEDERMAIN ALTERNATIVE 2 PROPOSED FEEDERMAIN ALTERNATIVE 2A EXISTING WATERMAIN WATERCOURSE FUTURE WATER INFRASTRUCTURE FUTURE WASTEWATER INFRASTRUCTURE EXISTING SANITARY SEWER	 PROPOSED FEEDERMAIN ALTERNATIVE 2 PROPOSED FEEDERMAIN ALTERNATIVE 2A EXISTING WATERMAIN WATERCOURSE FUTURE WATER INFRASTRUCTURE FUTURE WASTEWATER INFRASTRUCTURE EXISTING SANITARY SEWER

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	LEGEND		
NATURAL HERITAGE SYSTEM	PROPOSED FEEDERMAIN ALTERNATIVE 3	•	EXISTING WATER
ATTAINT			EXISTING RESERV
POTENTIAL CONTAMINATED SITE	EXISTING WATERMAIN	•	PROPOSED WATER
NEW ROAD /INTERCHANGE	WATERCOURSE		PROPOSED BOOST
/FLYOVER LOCATION (MTO)			RESERVOIR/WATEF
PROPOSED RIVER CROSSING	——————————————————————————————————————		
FUTURE ZONE SPLIT	EXISTING SANITARY SEWER		







North Section – Alternative 3

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North Section – Alternative 4 & 4A



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ATTAINT	🗕 🗕 🗕 PROPOSED FEEDERMAIN ALTERNATIVE 4A		EXISTING RESE
POTENTIAL CONTAMINATED SITE	EXISTING WATERMAIN	•	PROPOSED WAT
NEW ROAD /INTERCHANCE	WATERCOURSE		PROPOSED BOC
/FLYOVER LOCATION (MTO)	——————————————————————————————————————		RESERVOIR/WAT
PROPOSED RIVER CROSSING	——————————————————————————————————————		
FUTURE ZONE SPLIT	EXISTING SANITARY SEWER		

NOTE: POTENTIAL WELL LOCATIONS ARE MERELY CONCEPTUAL FOR ANALYTICAL PURPOSES. FURTHER INVESTIGATION WILL BE REQUIRED TO CONFIRM WHETHER THESE LOCATIONS ARE SUITABLE WATER SUPPLY CULIDUEG





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North Section – Evaluation Summary

Across Speed River - Along Hanlon Parkway Through Kortright Rd, Ironwood Rd, Scottsdale Dr. & Janefield Rd	Edinburgh Bridge - Along Hanlon Parkway Through Parks & Recreational Properties	Edinburgh Bridge - Through Scottsdale Drive, College Avenue	Edinburgh Bridge - Through
Addresses problem statement		and combargh hoad	Scottsdale Drive, Wilson Avenue and Edinburgh Road
Addresses problem statement	•	•	•
realized providing watering in	Addresses problem statement	Addresses problem statement	Addresses problem statement
Trees and vegetation impacts	• Trees and vegetation and parks impacts	Trees and vegetation impacts	Trees and vegetation impacts
Temporary impacts to fish habitat	Temporary impacts to fish habitat	Temporary impacts to fish habitat	Temporary impacts to fish habitat
River Crossing Required, Crossing exists for Storm and Sanitary sewers	Mounted to the Bridge	Mounted to the Bridge	Mounted to the Bridge
Municipal Street, Scottsdale, Ironwood, Janefield	Municipal Street, Scottsdale, Ironwood, Janefield	Edinburgh, College, Scottsdale, Ironwood	Edinburgh, College, Scottsdale, Ironwood
Minimum Impacts - additional study required	Impacts possible - additional study required	Impacts possible - additional study required	Impacts possible - additional study required
Some impacts possible - additional study required	Some impacts possible - additional study required	O Some impacts possible - additional study required	O Some impacts possible - additional study required
● \$9.6 Million	\$9.96 Million	\$9.93 Million	© \$9.96 Million
River Crossing - Water and Sewer crossing exist	Change in direction increase 0 & M	Bridge crossing impacts 0 & M cost	O Bridge crossing impacts 0 & M cost
Mo Ecomont required	•	No Escomont Required	No Escoment Required
	No Easement required RECOMMENDED	No Easement required Easement may be required	No Easement required Easement may be required No Easement Required No Easement Required



Wellington – Clair Feedermain



Description:

- lacksquareRd. W. towards Hanlon Rd.
- Pipe size is 600mm (12") To be confirmed during detailed design •
- Length: 3,995 meters

Advantages:

- Limited disturbance to Roads and Traffic, Parks and Recreational Areas. \bullet
- Minimum impact to residential areas.
- Convenient connections to future Steffler & Ironwood Wells and Booster stations.
- Opportunities to reconstruct roads under capital programs.
- ${\bullet}$

Disadvantages:

Construction through residential roads. lacksquare

Cost Estimate:

- Total Estimated Cost: \$9.6 Million lacksquare





Recommended Alternative North Section (2A)

New Feedermain route from Wellington Ave., crossing the Speed River, along Municipal Street past the west side of College Heights Secondary School, crossing College Ave. W. to Janefield Ave. towards Scottsdale Drive, westwards along Ironwood Rd. to Kortright

Less approvals and negotiations required with Ministry of Transportation (MTO) and Union Gas.

Including: New Feedermain Installation, River Crossing, (Allowance for Dewatering of Contaminated Ground Water, Allowance for Disposal of Contaminated Soil), Detailed Design and Construction Administration, Contingency Allowance



Altern

<u>Alternative 1 – Do Nothing</u> •Maintain Existing Water Distribution System. •Existing system does not meet future growth

Alternative 2: Feedermain route along Hanlon

Alternative 2A: Feedermain route along Hanlor Tower.

Alternative 3: Feedermain route along Hanlon Rd. towards Preservation Park and Dog Trail, to Clair Rd. W. towards the Clair Tower. Alternative 3A: Feedermain route along Hanlon Rd. towards Preservation Park and Dog Trail, across to Kirkby Court towards Laird

Rd. to the Clair Tower.





ative Solutions – South Se
needs.
n Rd. across to Cowan Place towards Southgate Dr., n Rd. across to Cowan Place, along Southgate Dr., a

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ection

along Laird Rd. to the Clair Tower.

and along Clair Rd. to the Clair



South Section – Alternative 2 & 2A





NATURAL HERITAGE SYSTEM POTENTIAL CONTAMINATED SITE





NEW ROAD/INTERCHANGE /FLYOVER LOCATION (MTO) PROPOSED RIVER CROSSING



----- FUTURE ZONE SPLIT





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	PROPOSED	FEEDERMAIN	ALTERNATIVE	2	\bigcirc	EXISTING	BOOSTE	ER S
	PROPOSED	FEEDERMAIN	ALTERNATIVE	2A		EXISTING	WATER	ТОТ
	EXISTING	WATERMAIN			•	EXISTING	WATER	WEI
	WATERCOU	RSE						
	FUTURE W	ATER INFRAST	RUCTURE					
	FUTURE W	ASTEWATER IN	IFRASTRUCTUR	εE				
	EXISTING	SANITARY SEW	ER					

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South Section – Alternative 3 & 3A



	INATURAL HERITAGE SYSTEM	 PROPOSED FEEDERMAIN ALTERNATIVE 3		EXISTING	BOOST
ATTAINT		 PROPOSED FEEDERMAIN ALTERNATIVE 3A	•	EXISTING	WATER
	POTENTIAL CONTAMINATED SITE	- EXISTING WATERMAIN		EXISTING	WATER
	NEW ROAD /INTERCHANCE	 WATERCOURSE			
	/FLYOVER LOCATION (MTO)	 - FUTURE WATER INFRASTRUCTURE			
÷	PROPOSED RIVER CROSSING	 - FUTURE WASTEWATER INFRASTRUCTURE			
*		 - EXISTING SANITARY SEWER			
	FUIURE ZUNE SPLIT				





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TER STATION TOWER WELL



South Section – Evaluation Summary

	Alternative 1	Alternative 2	Alternative 2A	Alternative 3	Alternative 3A
Description	Do Nothing	Along Hanlon Parkway - Through Laird Road	Along Hanlon Parkway - Through Clair Road	Along Hanlon Parkway - Through Community Trail	Along Hanlon Parkway - Through Laird Road & Community Trail
Addresses Problem Statement	0	•	•	•	•
F :	Does not address problem statement	Addresses problem statement	Addresses problem statement	Addresses problem statement	Addresses problem statement
Environmental Effects					
Impact on Trees and Vegetation	No impact to vegetation	Impacts to existing ditch & wild vegetation along Hanlon road	Impacts to existing ditch & wild vegetation along Hanlon road	C Significant Impacts	Significant Impacts
Impact on Aquatic Life	•	•	0	0	0
	No impact to aquatic life	Some temporary impacts to fish habitat	Some temporary impacts to fish habitat	Some temporary impacts to fish habitat	Some temporary impacts to fish habitat
Creek Crossing	•	•	•	•	•
Social and Cultural Effects	Crossing exist for municipal services	Hanlon Creek Crossing required	Hanlon Creek Crossing required	Hanlon Ureek Urossing required	Hanlon Creek Crossing required
Traffic Impacts	•	•	0	•	0
	No traffic impacts	Disruption to Laird Road traffic	Disruption to Clair Road traffic	Disruption to Laird Road traffic	Disruption to Clair Road traffic
Archaeological Impacts	۲	•	•	Some impacts possible - Additional study	Some impacts possible - Additional study
-	No change to archaeologic impacts	Impacts are minimum	Impacts are minimum	required	required
Heritage Resource Impacts	No change to beritage impacts	E Impacts are minimum	C Impacts are minimum	Some impacts possible - Additional study	Some impacts possible - Additional study required
Economic Effects	no onange to nemage impaoto	inpacts are minimum	inipacts are minimum	required	required
Estimated Capital Cost	Maintenance of existing	G	0	٠	٠
	no new capital works	\$6.18 Million	\$6.84 Million	\$5.58 Million	\$5.91 Million
Operating and Maintenance Costs	O Highest expected 0 & M cost	Less D & M cost with straight sections	Less D & M cost with straight sections	Longer Length & change in direction increase D & M	Longer length & change in direction
Land Acquisition	۲	•	•	0	0
nequirements	No Easement Required	Easement may not be required	Easement may not be required	Working Easement maybe required	Working Easement maybe required
LEGEND:	•	RECOMMENDED			





Wellington – Clair Feedermain



Description:

- Pipe size is 600mm (12") To be confirmed during detailed design.
- Length: 3,625 meters lacksquare

Advantages:

- Reduced Number of Bends and Directional Changes
- Minimum Environmental, Heritage, and Archeological impacts ullet
- Opportunity to reconstruct Laird Road.

Disadvantages:

Disturbance to Dog Trail lacksquare

Cost Estimate:

- Total Estimated Cost: \$6.1 Million
- \bullet





Recommended Alternative South Section (2)

• New Feedermain route along Hanlon Rd. across to Cowan Place towards Southgate Dr., along Laird Rd. to the Clair Tower.

Including: New Feedermain Installation, River Crossing, (Allowance for Dewatering of Contaminated Ground Water, Allowance for Disposal of Contaminated Soil), Detailed Design and Construction Administration, Contingency Allowance





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Mitigation Measures • Construction to be held in stages to minimize any issues related to access City's Parks and recreational facilities such as Centennial Park, official dog off-leash area and trail along Hanlon Expressway. • Any disturbed areas to be restored to original or better conditions. Opportunities to be explored to help create and renew park facilities through the project. • Stage 2 archaeological assessment prior to any ground disturbance activities to identify any artifacts or features in the identified area of work. • Employ Measures to control dust and noise. • Maintain or provide alternate walkways through temporary detours throughout the construction areas. Construction staging to minimize road closures and duration of disturbance. • Trenchless construction techniques to minimize surface disruption, where possible. • Ensure provision of mandatory services such as Waste Management, Canada Post, EMS, Fire Rescue, Transit. • Combine capital projects in the area together for cost savings and to avoid duplication of disturbance

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Mitigation Measures

 Develop and Implement an Emergency Spill Response Plan Report all spills to the Ministry of the Environment (MOE) Spills Do not stockpile materials or store equipment near natural feat Minimize the use of heavy equipment on exposed soils to avoid Minimize vegetation removal to the extent possible Restore disturbed areas as soon as possible using native soil minimize
 Install Protective Fencing Install Sediment and Erosion Control Setback the disturbance area outside dripline Use water as dust suppressant.
 Avoid Species at Risk and clearly delineate the boundaries of an Stop work is a Species at Risk enters the disturbance area Educate staff about Species at Risk in the Area and appropriate Conduct vegetation removal outside the breeding bird season (
 Comply with Migratory Birds Convention Act (1994) by protecting a Avoid Construction within Deer yard Schedule Construction activities near deer yards outside of the wind Install fences around open excavations, regularly check excavations
 Work within appropriate timing window for each watercourse Complete any inwater works during the cold-water timing wind If coffer dams are required use a properly sized by-pass pump of flows, maintain downstream flow conditions; and be able to main the such a way to minimize/prevent fish e Any fish isolated in the work area should be transferred downstream

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s Action Centre tures d soil compaction

IX.

ny SAR habitat

mitigation measures (April 1st to July 31st)

active bird nests from disturbance and destruction

iter months when deer would be using the habitat for wildlife and release any trapped wildlife.

wob

during dewatering activities to convey expected anage storm flows

ntrainment

tream from the construction area



Construction Methodology











Sheet piling and work within river during construction





Construction Methodology



Open Cut & Trenchless Construction











Directional Drilling





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Traffic management during construction





Once a preferred alternative has been established, the project file documentation will be finalized. Review agencies & the public will be notified of the completion of the Class EA and will be provided the opportunity to comment during the 30 day period following the notification. If agencies &/or the public do not agree with the findings, they can contact the Ministry of Environment and request a Part II Order for additional studies to be completed. If the Ministry agrees, a Part II Order will be issued and the proponent will be required to further the study.





Next Steps



Upon completion of the 30 day review period and no comments from agencies or the public, the study will be complete. The project may proceed to detailed design, tender & construction.







Your comments are important.

Please remember to place your completed sheets in the comment box provided.





THANK YOU FOR ATTENDING!

