



# Drumbo Wastewater Treatment Plant Class Environmental Assessment

Public Consultation Centre No. 2  
May 16, 2017



# Welcome to Public Consultation Centre No. 2

Oxford County is undertaking a Schedule C Class Environmental Assessment to develop a wastewater treatment plan for the Community of Drumbo to service existing and planned growth in the community.

The Drumbo Wastewater Treatment Plant (WWTP) Class EA has also considered the potential to provide wastewater treatment for the Community of Princeton at an expanded or new Drumbo WWTP.

# Welcome to Public Consultation Centre No. 2

The purpose of PCC No. 2 is to:

- Provide background information about the study
- Present the alternatives that were evaluated in Phase 2 of the Class EA process
- Present the methodology that was used to evaluate and compare the alternatives
- Present the outcome of the evaluation and the recommended preferred alternative
- Outline next steps and schedule

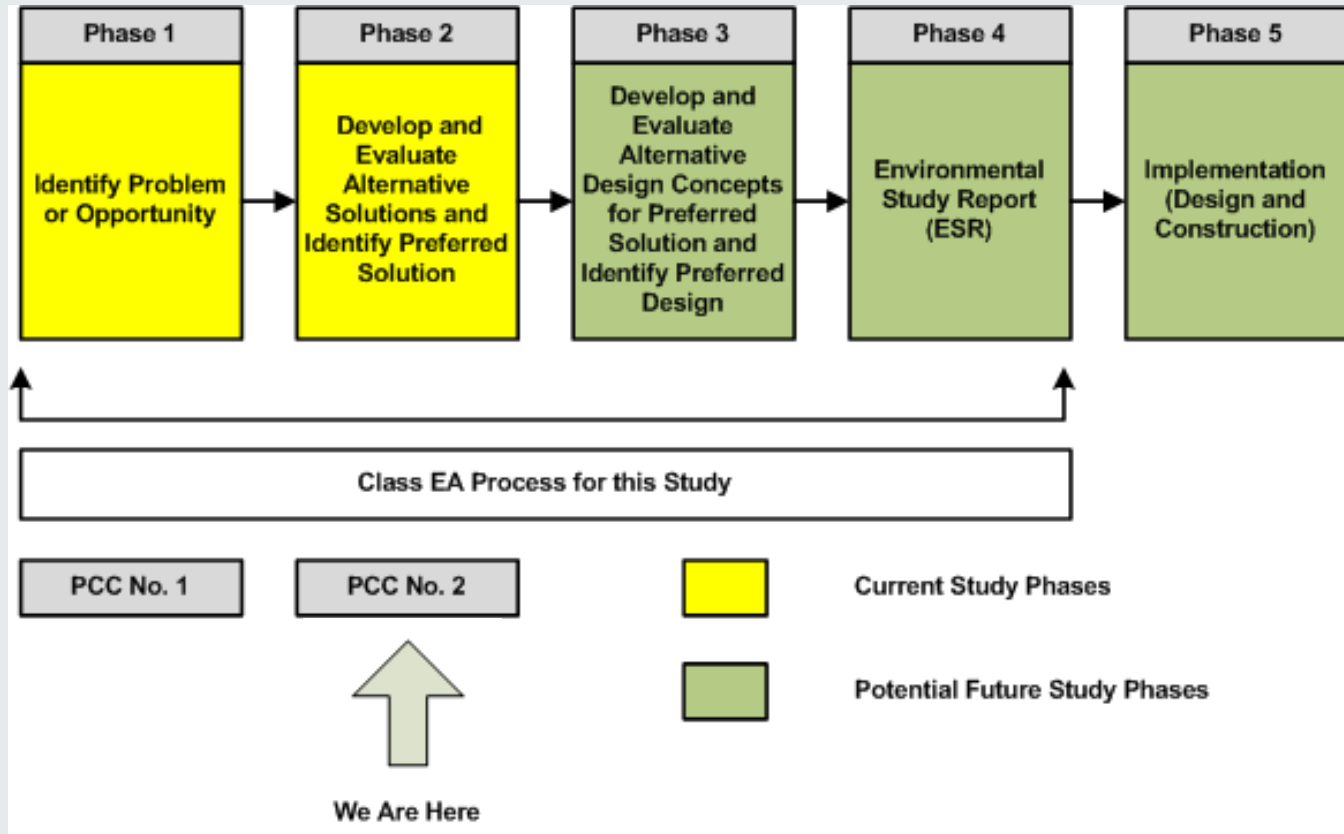
**A third PCC will be held to present the recommended design that will be used to implement the preferred alternative.**

# Drumbo WWTP Class EA – Problem/Opportunity Statement

Develop a wastewater treatment plan for the Community of Drumbo that is environmentally responsible, socially acceptable and economically sustainable to accommodate existing and future development within the community to at least 2036. The Drumbo WWTP Class EA will also consider the potential to provide servicing for the Community of Princeton at an expanded or new Drumbo WWTP.

# Municipal Class Environmental Assessment Process

Phases of the Study:



Public Consultation Centres (PCCs):




# Background – Drumbo WWTP Class EA

- Existing WWTP is a Sequencing Batch Reactor (SBR) with tertiary filtration and ultraviolet disinfection, and a discharge to the Cowan Drain
- Original design capacity was 272 m<sup>3</sup>/d. In February 2015, the plant was re-rated to a design capacity of 300 m<sup>3</sup>/d
- In 2015, the annual average day flow was 228 m<sup>3</sup>/d, or 76% of the re-rated design capacity



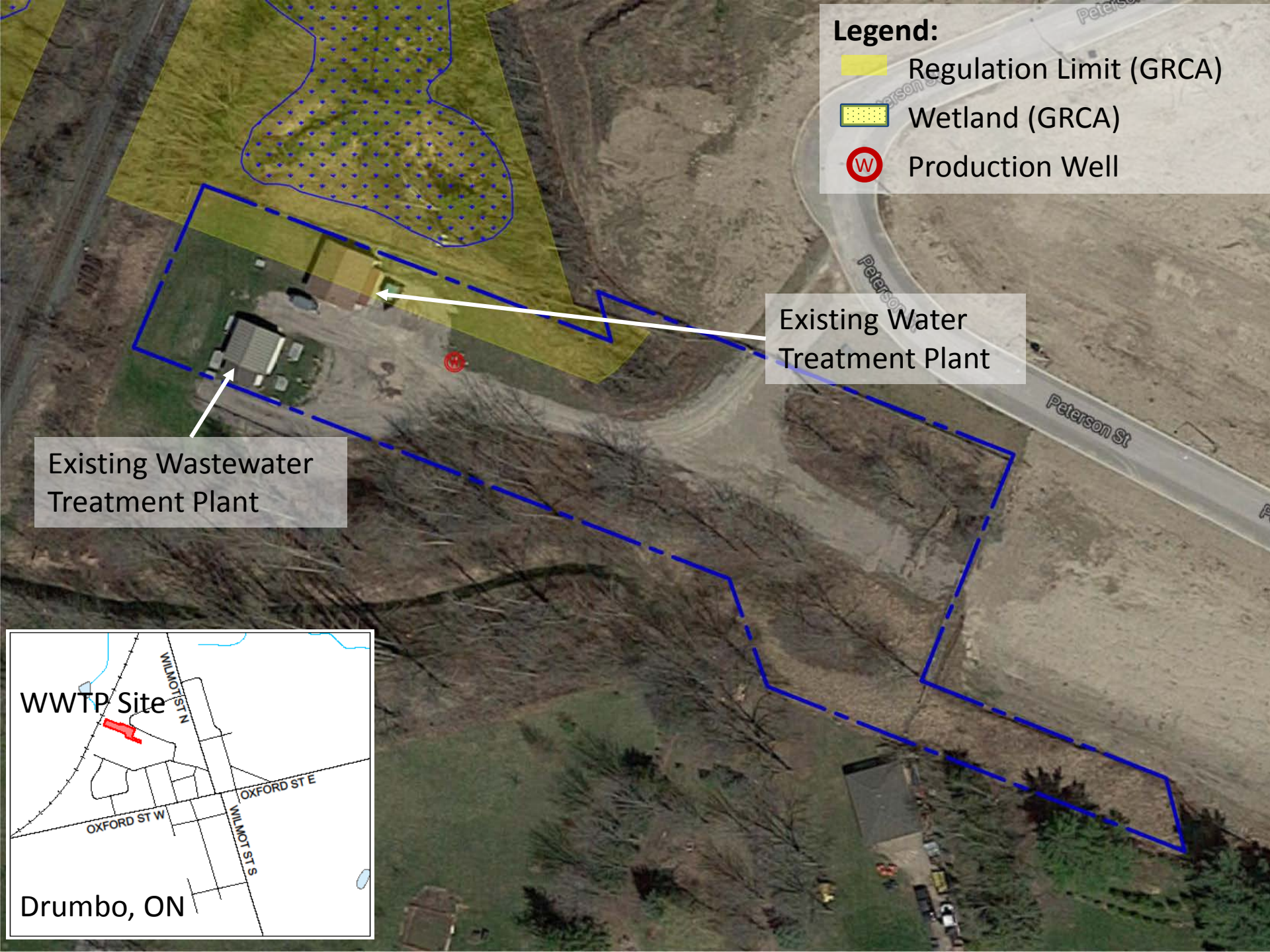


**Legend:**

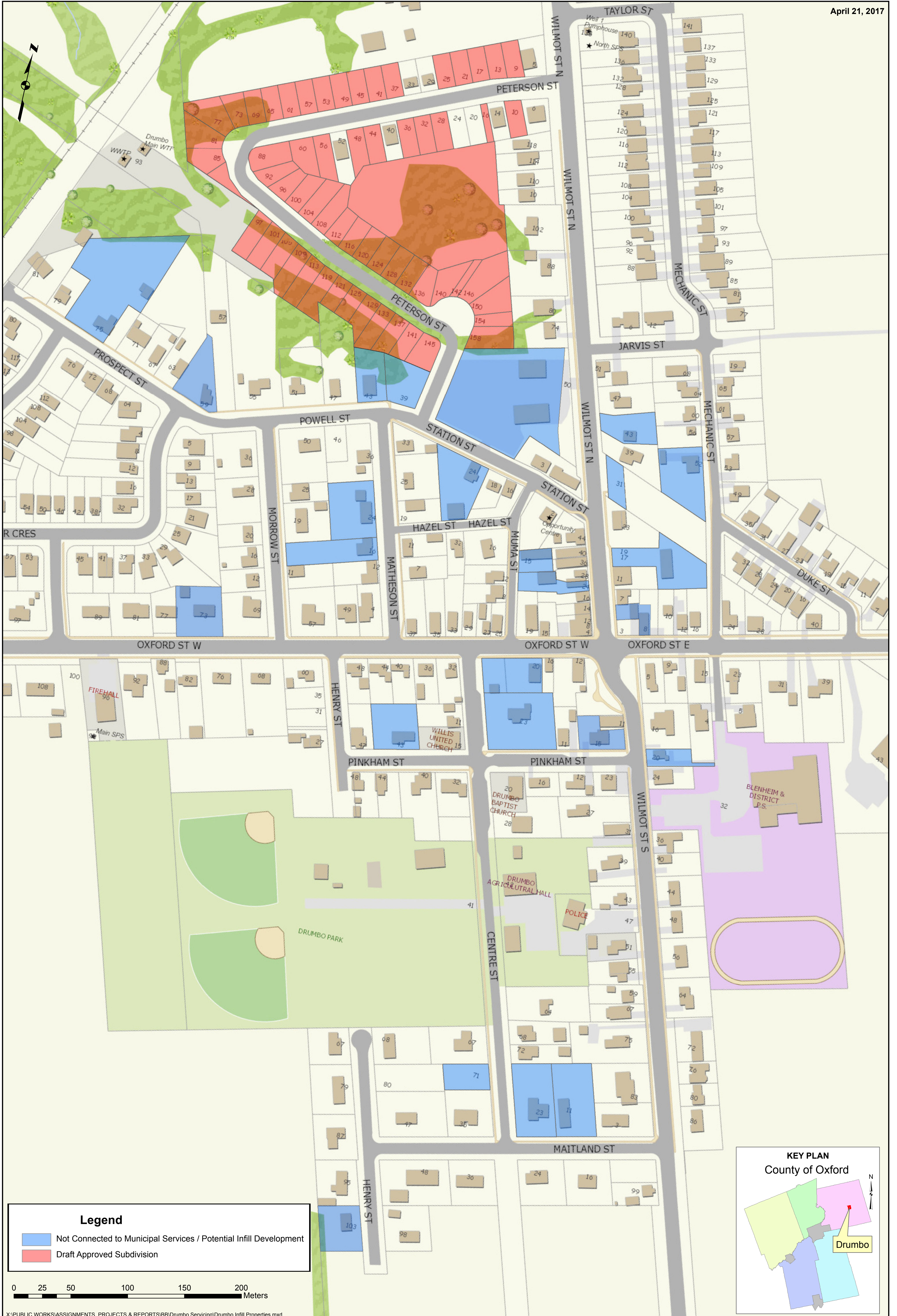
-  Regulation Limit (GRCA)
-  Wetland (GRCA)
-  Production Well

Existing Water Treatment Plant

Existing Wastewater Treatment Plant

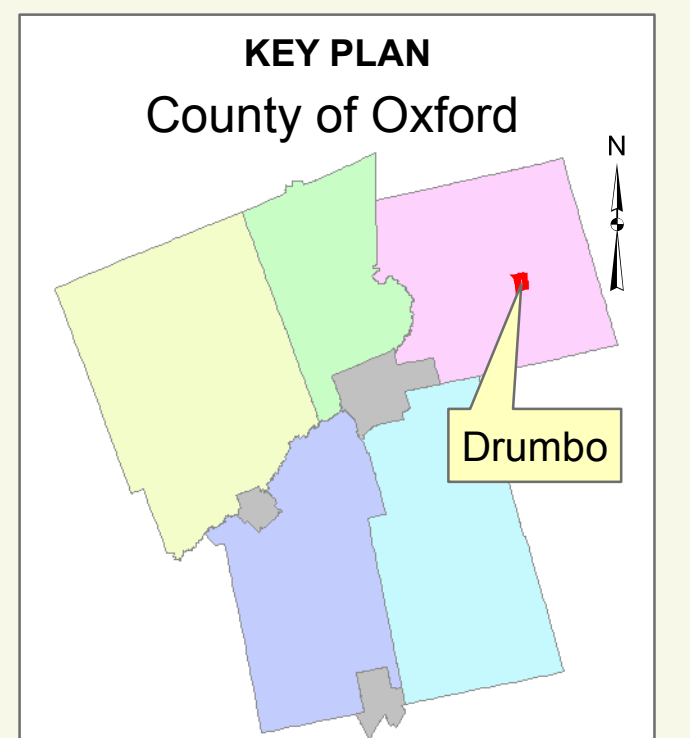
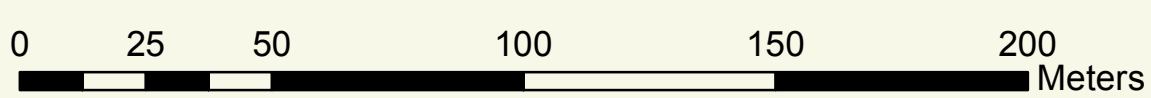






**Legend**

- Not Connected to Municipal Services / Potential Infill Development
- Draft Approved Subdivision





# Alternative Solutions Considered

Alternative Solution	Description
Alternative 1 – “Do Nothing”	No additional wastewater treatment capacity for Drumbo and no treatment of Princeton wastewater at the Drumbo WWTP.
Alternative 2 – Service Drumbo growth at an expanded Drumbo WWTP	The existing Drumbo WWTP would be expanded to service 20 years of projected growth in Drumbo. No treatment of Princeton wastewater at the Drumbo WWTP.
Alternative 3 – Service Drumbo growth at a new Drumbo WWTP at a new site	A new Drumbo WWTP would be constructed at a new site to service growth in Drumbo. The existing Drumbo WWTP would be decommissioned. No treatment of Princeton wastewater at the new Drumbo WWTP.



# Alternative Solutions Considered

Alternative Solution	Description
Alternative 4A/4B – Service Drumbo growth and Princeton at an expanded Drumbo WWTP	The existing Drumbo WWTP would be expanded to service planned growth in Drumbo and wastewater from Princeton, excluding (4A) or including (4B) proposed 324 unit development in Princeton.
Alternative 5A/5B – Service Drumbo growth and Princeton at a new Drumbo WWTP at a new site	A new Drumbo WWTP would be constructed at a new site to service planned growth in Drumbo and wastewater from Princeton, excluding (5A) or including (5B) proposed 324 unit development in Princeton. The existing Drumbo WWTP would be decommissioned.








# Alternatives Evaluation Process

- Alternative solutions were evaluated based on four categories: Technical, Environmental, Social and Financial
- Each category had several evaluation criteria
- All criteria and all categories had equal weight
- Each alternative was ranked relative to the other alternatives from most preferred to least preferred
- A numerical score was assigned to each ranking and the rankings summed to establish an overall score



# Evaluation Methodology

Ranking	Description	Numerical Value
	No impact. Lowest cost.	1
	Negligible impact.	2
	Minor impact.	3
	Moderate impact.	4
	Major impact. Highest cost.	5

# Evaluation of Alternatives

Alternative	Technical					Environmental			Social		Financial				
	Satisfaction of objectives	Consistent with County Policies	Technical feasibility	System complexity	Sustainability	Surface water impacts	Ground-water impacts	Impacts on the Natural Environment	Community Impacts	Impacts on Archaeological and Heritage Resources	Capital Cost	O&M Cost	Life Cycle Cost	Financial Risk	
Alt.1	<ul style="list-style-type: none"> <li>- Does not meet the objectives of the Problem/Opportunity Statement.</li> <li>- Will not accommodate planned community growth</li> <li>- Does not meet the needs of the County and was, therefore, not considered further.</li> </ul>														
Alt.2															
Alt.3															
Alt.4A															
Alt.4B															
Alt.5A															
Alt.5B															



Least Preferred → Most Preferred



# Summary of Alternative Evaluation

Alternative	Total Score	Ranking
1. Do Nothing	- (1)	- (1)
2. Service Drumbo at an expanded Drumbo WWTP	22	1
3. Service Drumbo at a new Drumbo WWTP at a new site	28	2
4A. Service Drumbo and Princeton at an expanded Drumbo WWTP <b>excluding</b> proposed 324-unit development in Princeton	40	3
4B: Service Drumbo and Princeton at an expanded Drumbo WWTP <b>including</b> proposed 324-unit development in Princeton	46	5
5A: Service Drumbo and Princeton at a new Drumbo WWTP at a new site <b>excluding</b> proposed 324-unit development in Princeton	41	4
5B: Service Drumbo and Princeton at a new Drumbo WWTP at a new site <b>including</b> proposed 324-unit development in Princeton	46	5

**Notes:**

1. Alternative 1 does not meet the objectives of the Problem/Opportunity Statement and will not accommodate planned community growth. Therefore it does not meet the needs of the County and was not considered further.

# Recommended Preferred Alternative

Based on the evaluation of alternative solutions, the recommended preferred alternative solution is:

- **Alternative 2 – Expand the existing Drumbo WWTP on the existing site to service 20 years of projected growth within the Community of Drumbo. No treatment of wastewater generated in the Community of Princeton would be provided at the Drumbo WWTP.**



# Rationale for Selection of Preferred Alternative

- Most consistent with County policies and plans for future growth.
- Most comparable in size and operational complexity to existing WWTP.
- Represents best use of existing infrastructure and lowest relative energy use.
- Reduced risk of impacts on natural environment or archeological/heritage resources.
- Lowest estimated capital and operational cost.
- Lowest financial risk to County and residents (system users).

# Servicing beyond 20-year Horizon

- To service future development within the Drumbo Village boundary but beyond the 20 year planning horizon considered in this Class EA, consideration of all technically feasible alternatives to provide additional treatment capacity to service all lands within the designated settlement boundary of Drumbo will be required as part of a Class EA initiated at that time.
- Evaluation criteria that would be considered as part of that Class EA would include, but not be limited to, additional capacity requirements, site constraints, capital costs to upgrade the existing plant vs. building a new plant at a new location, source water protection issues, treatment technology advances and effluent quality requirements.



# Proposed Next Steps and Schedule

- Initiate Phase 3 of the Drumbo WWTP Class EA – Summer 2017
- Hold Public Consultation Centre No. 3 to present the Recommended Preferred Design Approach – Fall 2017
- File the Environmental Study Report for public and agency comment – Winter 2017

# We'd Like to Hear From You

Please deposit your comment sheet in the box provided or forward to the County.

## Contact information:

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