



Bowser Village SEWER SERVICE AREA OPTIONS

Information Meeting #1

May 29th, 2017

Dan Huang
MCIP, RPP

Shaun Heffernan
MCIP, RPP

URBAN
systems

Welcome

Thank you for
Coming!

This meeting is specifically about Sewer in the Bowser Village Centre (circled in orange).

Anyone with interest outside of Bowser is welcome to stay, but this meeting will only focus on a discussion about sewer within the boundaries of Bowser Village Centre at this time.

Thank you



Background

2013

An RDN-wide Rural Village Centre Study identified Bowser as one of the Rural Village Centres with the most potential to evolve into a compact, complete community.

Background

2014

The RDN was awarded \$300,000 of Federal Gas Tax Grant Funding to undertake a sewer servicing study for Bowser Village Centre.

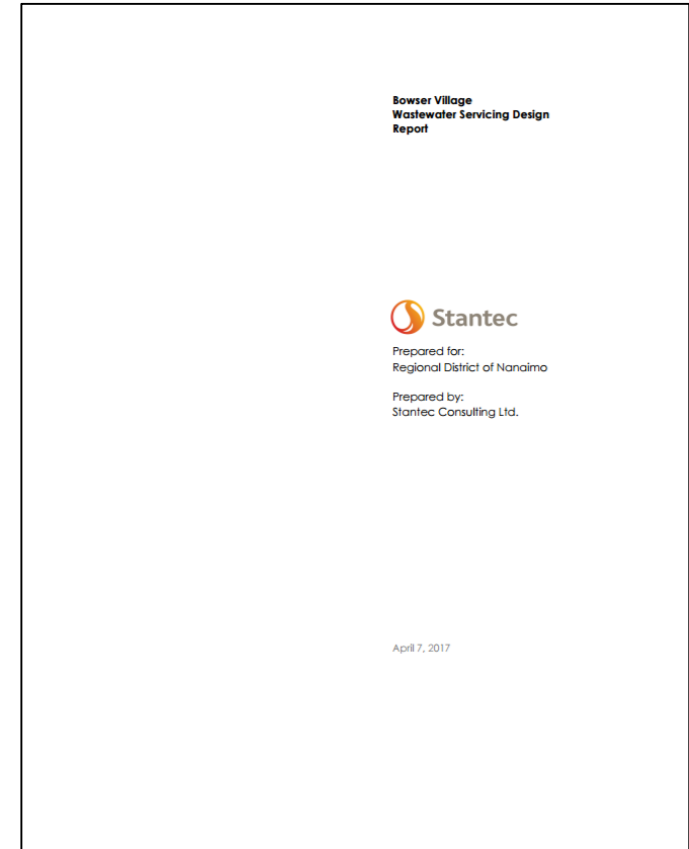
The sewer servicing study led to the creation of a detailed engineering design and costs for a potential community collection and treatment system

Background

2015

2016

- Concepts for sewer servicing developed
- Treatment plant siting and sizing
- Service area was defined
- Number of units for servicing determined
- Community presentation July 11, 2016



Background

**MARCH
2017**

The Bowser Village Wastewater project was awarded a Clean Water and Wastewater Fund Grant of approximately \$7.6 million. This represents 83% senior government funding up to project costs of \$9.15 million. Any amount over \$9.15 million would be funded at 100% **local** dollars.

Background

**APRIL
2017**

Urban Systems Ltd. was retained to advise on the process to establish the Service Area and seek elector approval for borrowing for the construction of the Treatment Plant, Collection System and Outfall

The project team (RDN, USL and Stantec) reviewed several cost scenarios and developed two preliminary options with costs to discuss with the community.

That brings us to today.

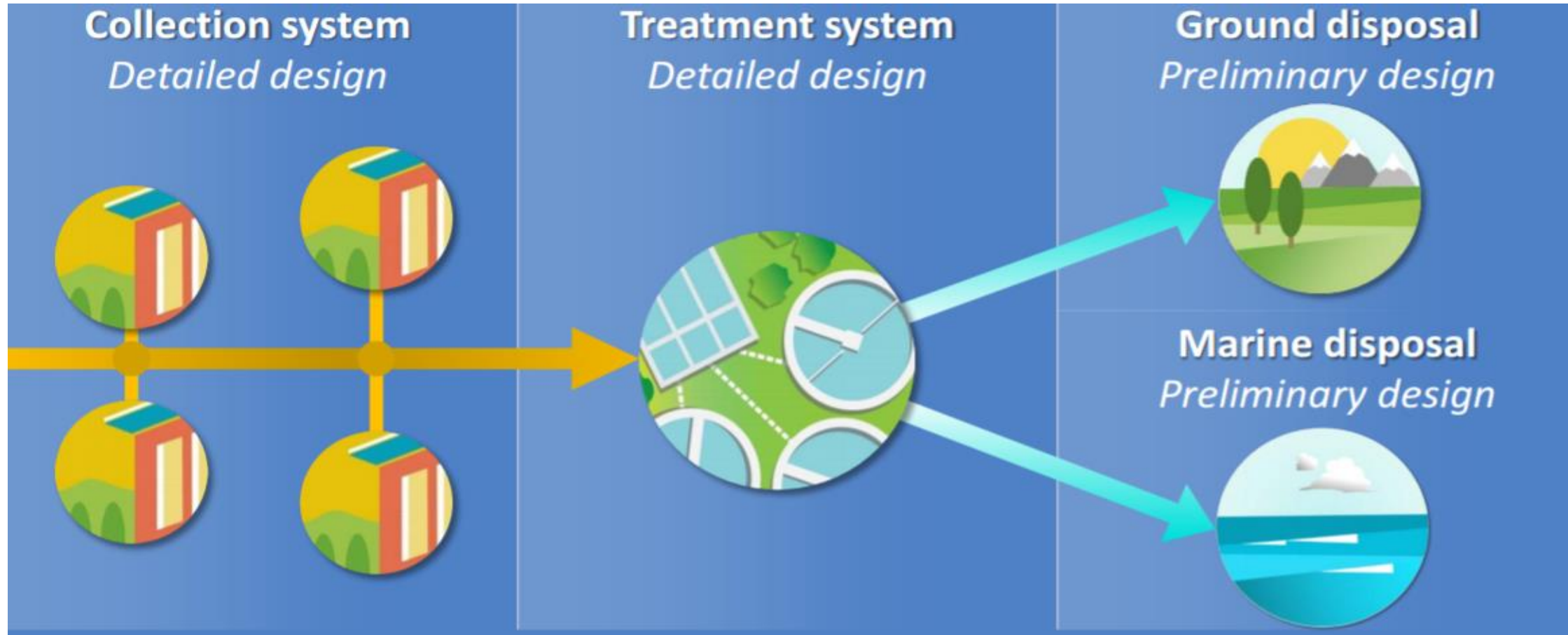
Purpose of this Meeting

Purpose

The purpose of this meeting is to:

1. present the sewer servicing options and costs;
2. discuss options to pay for any borrowing costs to fund the non-grant portion of the project; and
3. discuss legal requirements to establish the sewer service and borrowing bylaw.

Project Components



- The sewer systems can be broken into three major components – Collection System, Wastewater Treatment Plant (WWTP), and Outfall.

Project Components

- The WWTP capacity is based on a 2036 (20 year) design population of approximately 600 people.
- Based on an average of 2.1 people per household (Statistics Canada) it is estimated the proposed sewer system could support 286 units (over 200 new units).
- Several options for effluent disposal were evaluated. No suitable option was found for ground disposal.
- Therefore, the engineering consultant recommended marine disposal, meeting or exceeding all environmental regulations.

Collection System Service Area

- Through the preliminary work of the Regional District, Urban Systems and Stantec had determined that there are two potential service area options to deliver sewer services to the Bowser Village Centre.
- These two options are defined by the areas of the community the service will be provided.
- Please note that neither option precludes expansion of the sewer service area in the future.

Base Case Scenario

- Covers 73 parcels accessible from existing roadways in the village centre.
- Most cost effective and will require the least amount of borrowing.



Expansion Scenario

- Covers 80 parcels in the village centre.
- Not all parcels are accessible from existing roadways in the village centre.
- Adds collection system costs including an additional pump station.



Cost Comparison

Estimated Project Costs	Base Case Scenario	Expansion Scenario
Wastewater Treatment Plant (WWTP)	\$ 4,262,962	\$ 4,262,962
Collection System	\$ 2,964,076	\$ 3,877,154
Marine Outfall	\$ 2,541,395	\$ 2,541,395
Total Cost	\$ 9,768,433	\$10,681,511
Operations and Maintenance Cost (per Unit)	\$2,050	\$1,875
Total Number of Parcels	73	80

***Note:** This is only a draft estimate. These numbers are for discussion purposes only and are to be refined using the final project costs for the preferred option.

- Expansion Scenario increases cost by **\$900,000** to service an additional **7 properties**.
- Due to the high development activity in the region the **current costs of construction may change**.

Cost Recovery Options

Parcel Tax Option	Considerations
By Parcel	<ul style="list-style-type: none">• Costs will go down as more units develop - cost based on number of user connections.• Large parcels with higher development potential pay the same as everyone else.• Non-developers pay the same as potential developers
By Area	<ul style="list-style-type: none">• Based more on the development potential of a site.• More fair for current users who occupy properties with limited development potential.• Large property owners with no development interest will pay more.

Parcel Tax Comparison

Key Metrics:	Base Case Scenario		Expansion Scenario	
Total Project Cost	\$9,768,433		\$10,681,511	
Grant (\$)	\$7,590,328		\$7,590,328	
Amount Remaining	\$2,178,105		\$ 3,091,183	
Total Annual Borrowing Cost (20 years @ 3.24%)	\$149,671		\$212,414	
Parcel Tax Options	One time Charge	Annual Charge (Financed Over 20 Years)	One Time Charge	Annual Charge (Financed Over 20 Years)
1. By Parcel - Charge per Parcel	\$30,000	\$2,050 / yr	\$38,500	\$2,900 / yr
2. By Area - Charge per m ²	\$5.50 / m ²	\$0.38 / m ² / yr	\$6.60 / m ²	\$0.46 / m ² / yr

***Note:** This is only a draft estimate. These numbers are for discussion purposes only and are to be refined using the final project costs for the preferred option.

Parcel Tax Comparison – One Time Charge

Parcel Size	Base Case Scenario		Expansion Scenario	
	By Parcel	By Area m ²	By Parcel	By Area m ²
Smallest	\$30,000	\$1,900	\$38,500	\$2,300
0.15 acre		\$3,300		\$4,050
0.25 acre		\$5,500		\$6,750
0.50 acre		\$11,000		\$13,500
1.00 acre		\$22,000		\$27,000
2.00 acres		\$44,000		\$54,000
5.00 acres		\$110,000		\$135,000
10.00 acres		\$220,000		\$270,000
Largest		\$264,000		\$319,000

Parcel Tax Comparison – Financed Charge (20 years)

Parcel Size	Base Case Scenario		Expansion Scenario	
	By Parcel (per year)	By Area (per m ² per year)	By Parcel (per year)	By Area (per m ² per year)
Smallest	\$2,050	\$130	\$2,900	\$158
0.15 acre		\$225		\$275
0.25 acre		\$375		\$463
0.50 acre		\$750		\$925
1.00 acre		\$1,500		\$1,850
2.00 acres		\$3,000		\$3,700
5.00 acres		\$7,500		\$9,250
10.00 acres		\$15,000		\$18,500
Largest		\$18,150		\$21,900

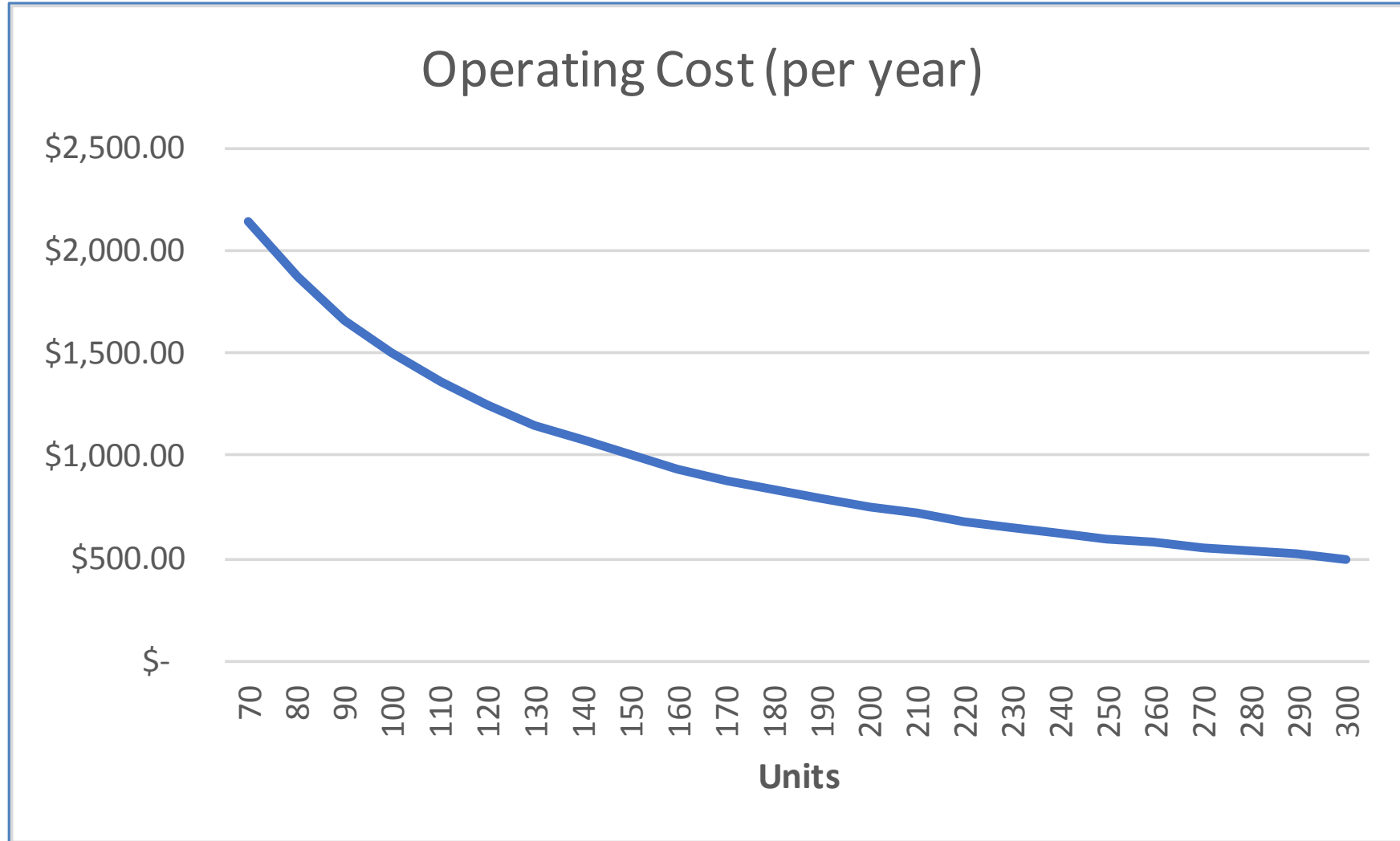
Operations and Maintenance Costs

- Operations and maintenance costs are required to pay for the ongoing operation of the wastewater treatment plant, pumps and collection systems, as well as replacing parts of the system as they age.
- Operations and maintenance costs are not included in the project costs presented. These will be in addition to the costs estimates for each Options.
- Operations and maintenance costs will be charged as a separate fee on all properties and units receiving sewer services.

Operations and Maintenance Costs

- Annual operations and maintenance costs are currently estimated at \$150,000 per year. This works out to approximately:
 - Base Case = \$2,050 per parcel per year
 - Expansion = \$1,875 per parcel per year
- As new development occurs operations and maintenance costs will be spread out amongst a larger number of properties.
- At full capacity of Phase 1 of WWTP (280 units) it works out to about \$550 per parcel per year.

Operations and Maintenance Costs



Parcel Tax Comparison – Financed Charge (20 years) including Operations and Maintenance Costs

Parcel Size	Base Case Scenario					
	By Parcel	O +M	Total By Parcel	By Area	O +M	Total By Area
Smallest	\$2,050	\$2,050	\$4,100	\$130	\$2,050	\$2,180
0.15 acre				\$225	\$2,050	\$2,275
0.25 acre				\$375	\$2,050	\$2,425
0.50 acre				\$750	\$2,050	\$2,800
1.00 acre				\$1,500	\$2,050	\$3,550
2.00 acres				\$3,000	\$2,050	\$5,050
5.00 acres				\$7,500	\$2,050	\$9,550
10.00 acres				\$15,000	\$2,050	\$17,050
Largest				\$18,150	\$2,050	\$20,200

Parcel Tax Comparison – Financed Charge (20 years) including Operations and Maintenance Costs

Parcel Size	Expansion Scenario					
	By Parcel	O +M	Total By Parcel	By Area	O +M	Total By Area
Smallest	\$2,900	\$1,875	\$4,775	\$158	\$1,875	\$2,033
0.15 acre				\$275	\$1,875	\$2,150
0.25 acre				\$463	\$1,875	\$2,338
0.50 acre				\$925	\$1,875	\$2,800
1.00 acre				\$1,850	\$1,875	\$3,725
2.00 acres				\$3,700	\$1,875	\$5,575
5.00 acres				\$9,250	\$1,875	\$11,125
10.00 acres				\$18,500	\$1,875	\$20,375
Largest				\$21,900	\$1,875	\$23,775

On-site Costs

- A number of properties will require on-site pumps due to topography and design restrictions: Base Case (40 pumps) and Expansion (36 pumps)
- On-site pumps will be provided by the Regional District, but property owners will be required to pay for installation and ongoing maintenance.
- The cost of ongoing maintenance for an on-site pump is usually fairly low - approximately \$100 per year, plus saving for future pump replacement.
- All property owners with buildings will be required to pump out their septic tank, fill it with sand and connect to the sewer main at their property line within one year of sewer availability.
- On-site costs vary widely depending on the location of the building on a property and topography of the parcel receiving the sewer service. The typical on-site cost of installation for a single-family residence ranges from \$1,000 - \$5,000; this is a one-time cost.

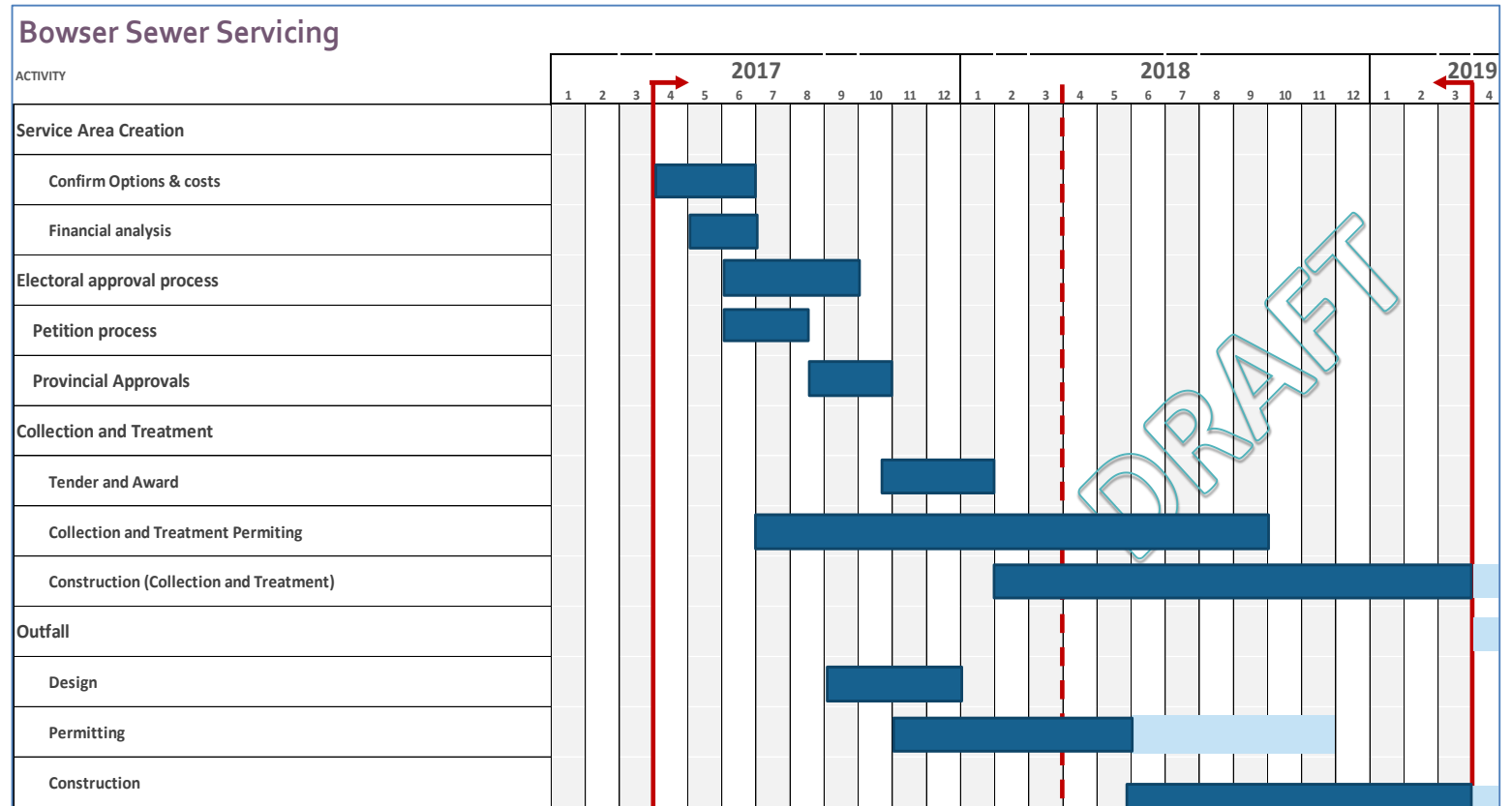
Local Service Establishment Process

Property owners in the proposed service area will decide if this project goes ahead.

- This can be done either through a **referendum** (in general, residents vote, including non-owners, but excluding businesses) or a **petition** (owners only) from the affected property owners or residents.
- Based on our review, given the potential impact to property owners, the timing, and cost of a referendum, the RDN has selected the **petition process** to establish the proposed sewer service.
- In order for the petition to be valid, it must be signed by the **owners of at least 50% of the parcels** to be charged for the proposed service, and the persons signing must represent **at least 50% of the net taxable value of all land and improvements** within the proposed service area.

Project Timeline

- Time is a very important factor in this process.
- The grant is only available for a limited time. The RDN is seeking a 1-year extension on the initial completion deadline of March 2018.
- Even a deadline of March 2019 will require a focused effort.
- A decision to proceed by property owners needs to be made this summer.



Next Steps

1

Continue discussion with all owners / developers within the potential Sewer Local Service area to answer any questions and prepare a petition to establish the sewer service.

Follow-up meeting to be held **Monday, June 26th**.

Next Steps

2

If proceeding with the establishing the sewer service:

- Owners introduce a petition to the RDN.
- If the petition is approved, develop a Local Service Establishment Bylaw and Loan Authorization Bylaw with confirmed local service area and collection method.
- Bring bylaw(s) forward for review and adoption by the RDN Board.

Next Steps

3

If **not** proceeding with establishing the sewer service:

- The sewer project will not approved and will not be constructed

Thank You

For more information

dhuang@urbansystems.ca

www.urbansystems.ca

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