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REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE MEETING OF WEDNESDAY, NOVEMBER 25, 2015

SUBJECT Framework for Costing Assumptions

ISSUE

To provide the Core Area Liquid Waste Management Committee (CALWMC) with a summary of the framework that will be used to calculate an estimated cost per household for each of the option sets presented.

BACKGROUND

The Service Establishment Bylaw for the Core Area Liquid Waste Management establishes cost sharing for shared infrastructure to be allocated on the basis of Design Capacity Benefit. The work of the Eastside and Westside Select committees has resulted in five sewage treatment and waste disposal option sets being put forward for costing analysis.

The engineering consultants will provide estimated design costs and operating costs for each of the option sets, along with flow information for each major component of infrastructure within the option sets. Within each option set, the cost sharing for a participant can vary between different components because the Design Capacity Benefit may differ. 2030 Population Equivalents have been provided by the engineers for each participant area.

For each of the five option sets the major categories are:

- Conveyance
- Liquid Treatment
- Solid Treatment
- Existing System Capacity Upgrades
- Reuse
- Land

Within each category, there are major components which may benefit from one to all of the participants in the option set. (ie. For a treatment plant that processes effluent from one participant - 100% of the Design Capacity Benefit attributes to that municipality and thus 100% of the cost; for a conveyance line with flows from three participants, each participant will have a portion of the Design Capacity Benefit and therefore a portion of the costs).

In order to calculate a cost per household, a number of assumptions are made.

- Land includes all costs associated with the site, including the purchase price, site preparation, geotechnical, contamination, and impact considerations.
- For a number of the options, the site will house two facilities. In these cases, the land costs are distributed 50/50 between the two facilities.
- The average household is estimated to have three people per household.
- Costs for each component are allocated amongst the specific participants on the basis of flow.
- The cost sharing for each option represents the combination of the various component apportionments within the categories.

- The grants have been applied against the components that most closely align with the existing approvals based on flows. Other than the one plant option, grant realignment or apportionment will need to be clarified with senior levels of government.

FINANCIAL IMPLICATIONS

Costs will be allocated to the participating municipalities by major component category as presented in Schedule A (attached), which may change as further costing is completed.

CONCLUSION

Preliminary costing and apportionment is being completed and costs are being apportioned to each participant based on Design Capacity Benefit by major component.

RECOMMENDATION

That the Core Area Liquid Waste Management Committee recommends that the Capital Regional District Board receive this report for information.

Submitted by:	Amber Genero, MA, CPA, CMA, Manager, Accounting Services
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Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

AG:sb

Attachment: Schedule A – Draft Allocation by Major Component Category

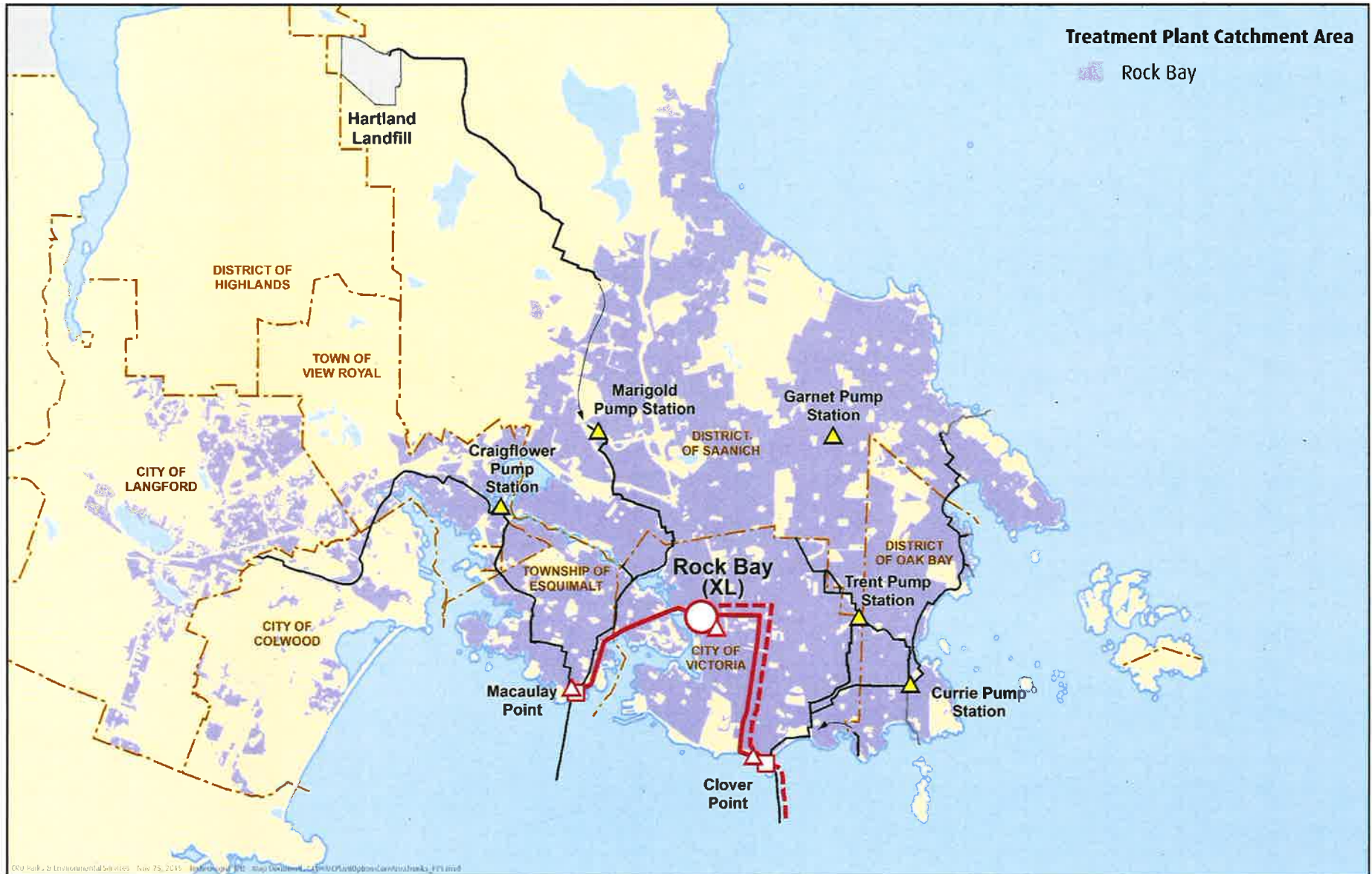
DRAFT ALLOCATIONS BY MAJOR COMPONENT CATEGORY

	OAK BAY	SAANICH	VICTORIA	ESQUIMALT	SONGHEES	EFN	VIEW ROYAL	COLWOOD	LANGFORD
Option 1a - 1 Site									
Conveyance	5.8%	30.9%	34.3%	6.8%	0.4%	0.3%	3.3%	4.5%	13.5%
Liquid Treatment	6.1%	30.5%	35.5%	6.6%	0.4%	0.3%	3.2%	4.4%	13.0%
Solids Treatment	6.1%	30.5%	35.5%	6.6%	0.4%	0.3%	3.2%	4.4%	13.0%
Existing System Capacity Upgrades	18.5%	20.7%	31.5%	0.0%	0.5%	0.4%	4.5%	6.0%	18.0%
Reuse	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Land	6.1%	30.5%	35.5%	6.6%	0.4%	0.3%	3.2%	4.4%	13.0%
Total Option 1a	6.4%	29.5%	36.6%	6.2%	0.4%	0.3%	3.2%	4.4%	13.0%
Option 1b - 1 Site (Tertiary)									
Conveyance	5.8%	30.9%	34.3%	6.8%	0.4%	0.3%	3.3%	4.5%	13.5%
Liquid Treatment	6.1%	30.5%	35.5%	6.6%	0.4%	0.3%	3.2%	4.4%	13.0%
Solids Treatment	6.1%	30.5%	35.5%	6.6%	0.4%	0.3%	3.2%	4.4%	13.0%
Existing System Capacity Upgrades	18.5%	20.7%	31.5%	0.0%	0.5%	0.4%	4.5%	6.0%	18.0%
Reuse	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Land	6.1%	30.5%	35.5%	6.6%	0.4%	0.3%	3.2%	4.4%	13.0%
Total Option 1b	6.4%	29.8%	36.0%	6.3%	0.4%	0.3%	3.2%	4.4%	13.1%
Option 2 - 2 Sites									
Conveyance	5.7%	30.4%	33.7%	6.7%	0.4%	0.3%	3.3%	6.2%	13.3%
Liquid Treatment	5.6%	28.2%	32.8%	6.1%	0.4%	0.3%	3.0%	11.7%	12.0%
Solids Treatment	6.1%	30.5%	35.5%	6.6%	0.4%	0.3%	3.2%	4.4%	13.0%
Existing System Capacity Upgrades	18.5%	20.7%	31.5%	0.0%	0.5%	0.4%	4.5%	6.0%	18.0%
Reuse	0.0%	0.0%	59.4%	0.0%	0.0%	0.0%	0.0%	40.6%	0.0%
Land	5.2%	26.2%	30.6%	5.7%	0.3%	0.3%	2.8%	17.7%	11.2%
Total Option 2	6.0%	27.8%	34.4%	5.9%	0.4%	0.3%	3.0%	10.0%	12.3%
Option 3 - 4 Sites									
Conveyance	5.1%	28.8%	29.9%	9.7%	0.6%	0.6%	4.2%	8.7%	12.4%
Liquid Treatment	5.1%	27.8%	29.8%	7.1%	0.4%	0.3%	3.5%	11.7%	14.2%
Solids Treatment	6.1%	30.5%	35.5%	6.6%	0.4%	0.3%	3.2%	4.4%	13.0%
Existing System Capacity Upgrades	18.5%	20.7%	31.5%	0.0%	0.5%	0.4%	4.5%	6.0%	18.0%
Reuse	0.0%	21.5%	32.3%	22.0%	1.2%	0.9%	0.0%	22.1%	0.0%
Land	5.0%	30.4%	29.2%	6.6%	0.4%	0.3%	3.2%	11.7%	13.1%
Total Option 3	5.5%	28.1%	31.2%	8.3%	0.5%	0.4%	3.4%	9.9%	12.7%
Option 4 - 7 Sites									
Conveyance	3.9%	22.8%	22.7%	24.9%	0.0%	0.0%	8.8%	4.0%	12.9%
Liquid Treatment	4.7%	28.3%	27.1%	13.1%	0.0%	0.0%	4.5%	6.3%	16.0%
Solids Treatment	6.1%	30.5%	35.5%	6.6%	0.4%	0.3%	3.2%	4.4%	13.0%
Existing System Capacity Upgrades	18.5%	20.7%	31.5%	0.0%	0.5%	0.4%	4.5%	6.0%	18.0%
Reuse	0.0%	30.3%	29.4%	17.1%	0.0%	0.0%	0.0%	23.2%	0.0%
Land	4.2%	33.3%	24.6%	9.7%	0.1%	0.1%	6.4%	6.3%	15.2%
Total Option 4	4.8%	27.5%	27.7%	14.6%	0.1%	0.1%	5.2%	6.4%	13.6%

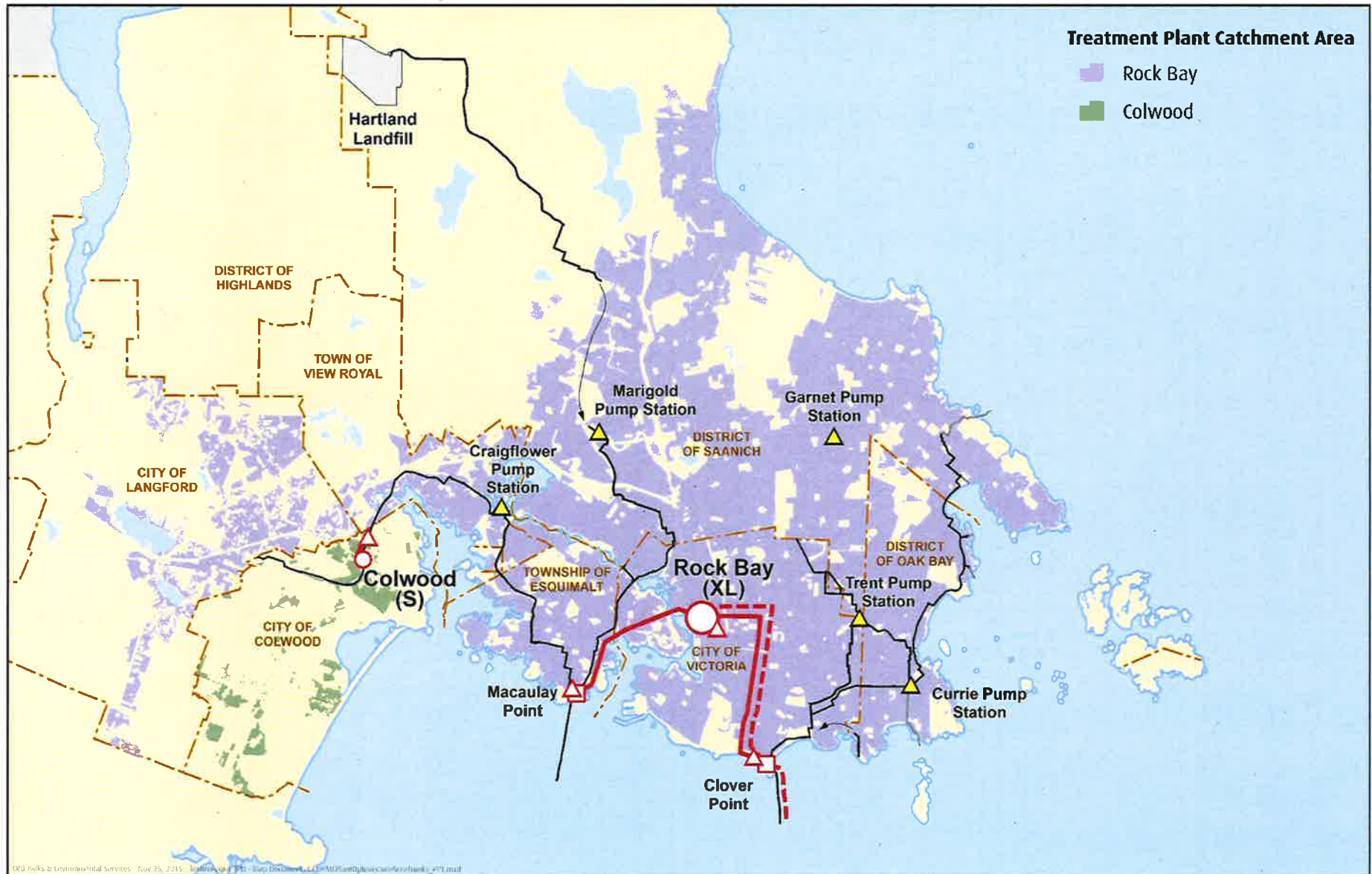
Existing Infrastructure



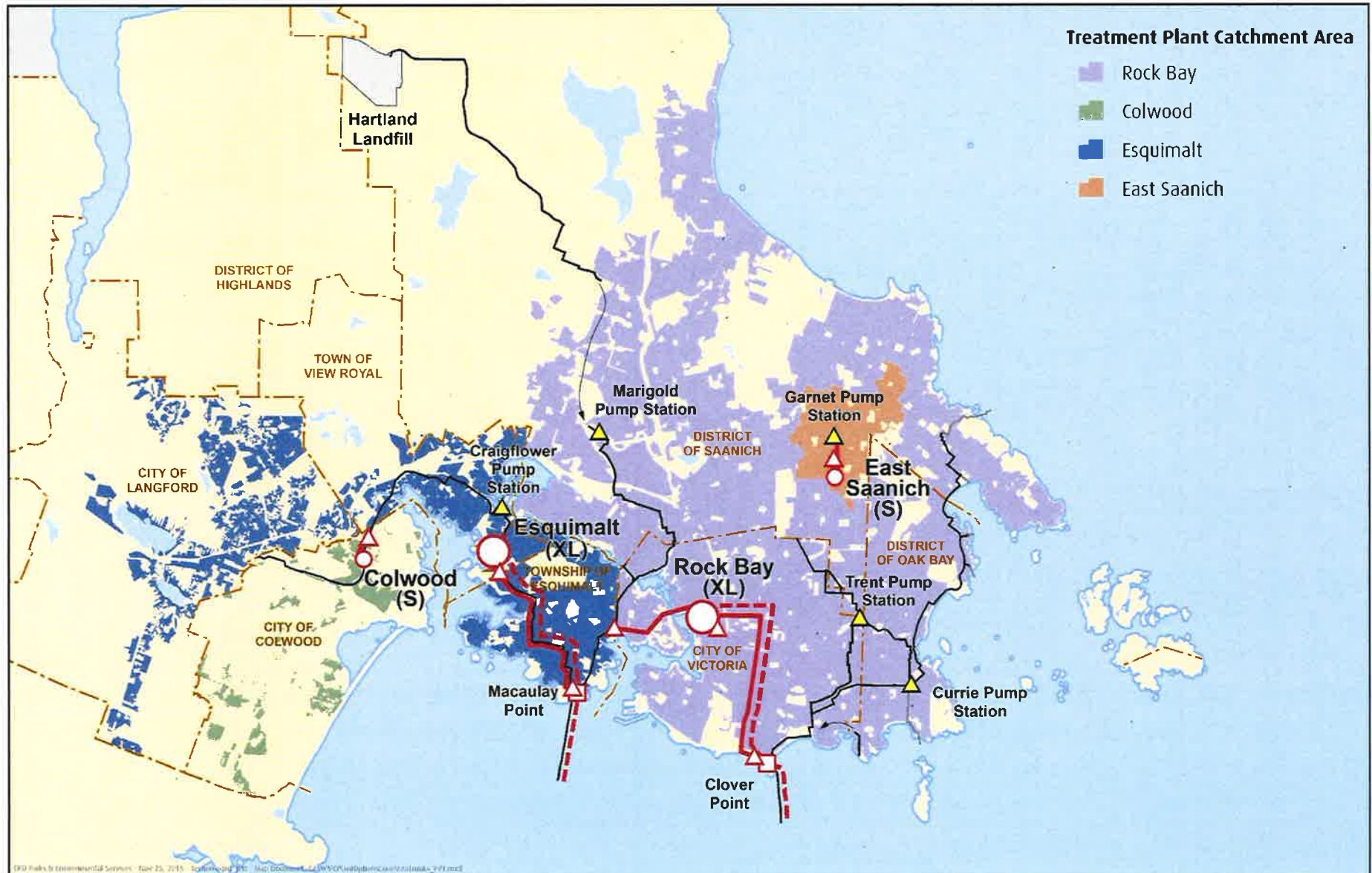
Option 1



Option 2



Option 3



Option 4

