

# WESTSIDE SOLUTIONS INTERIM REPORT

# Introduction:

Determining where and how to treat our wastewater is one of the important decisions our region has faced. Over the past few months Westside Solutions has engaged citizens from across the four participating municipalities and two First Nations on the west shore through Open Houses, Surveys, Roundtables, Innovation Days, public fairs and events, website postings, Facebook, Twitter and individual conversations.

SiteSpeak is the current online platform that is engaging residents to provide their input into possible sites and technologies to deal with our wastewater that meets the objectives of being environmentally beneficial and economically responsible.

The following is an interim report based on the input of 320 of respondents. The intent is to give citizens and decision makers a snapshot of the raw data at that moment in time, as well as some indication on what the respondents' opinions of possibilities and disadvantages are regarding the proposed options.

Some important things to note about SiteSpeak:

- only one survey completion is allowed through each email address,
- respondents are allowed to skip questions if they did not wish to respond,
- At the end of the survey respondents can see the statistical results to date (graphs).



# **General Observations:**

The majority of comments on SiteSpeak have been constructive. Even those expressing concerns over specific sites or issues have been valuable in contributing to the conversation as we move forward to find a solution.

There are common themes and conditions expressed throughout the responses, regardless of site location including:

- ensuring odour control/elimination from any facility
- minimizing traffic
- minimizing noise
- complementing any environment where a facility is built
- ensuring public safety including taking into account sea level rises
- developing and maintaining trust through on going public involvement

There is also a large appeal for further detailed information including;

- o all costs (life cycle and ancillary infrastructure),
- o cost comparisons between each option,
- o potential environmental impacts, and
- o realistic resource recovery benefits and liabilities

Responses to date indicate that meeting environmental objectives in a financially responsible way will be heavily studied by those citizens who are engaged.

#### **TECHNCIAL COMMENTS**

o Analysis must continue to respect the criteria and priorities established to date including the themes and conditions outlined in the report

o There is a strong need for detailed economic and technical feasibility analysis of option sets to inform next round of public input on option set choices

o Analysis should cover the range of possibilities of system configurations: centralized and / or dual-plant and up to a distributed wastewater treatment and resource recovery model.

o Treatment should exceed secondary levels and in particular, treatment to higher levels should occur for water reclamation where there is a justified need

o Residuals solids recovery is preferred at a more local-scale instead of at Hartland



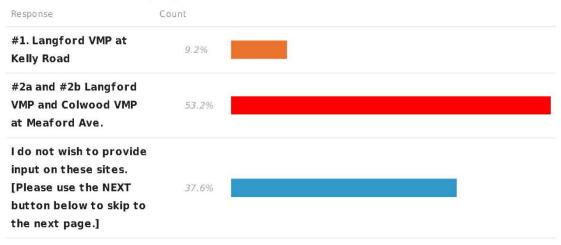
## Sites:

#### LANGFORD SITE NODE:

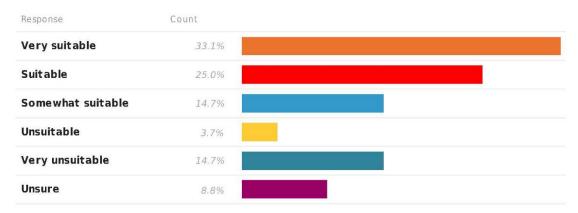
#### Preferred site:

#### The majority of respondents chose THE Langford/Colwood VMP at Meadford (Site #2a/2b)

LANGFORD: Please choose your preferred site within this node:



How suitable do you consider this site in terms of how the land is currently used, how wastewater resource facility would fit with the surrounding area and future plans for the community?



#### Benefits:

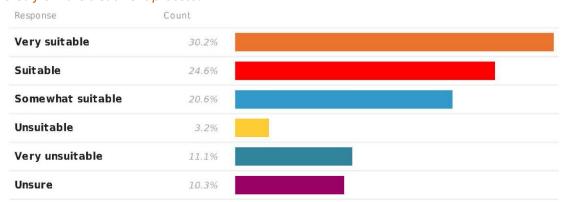
- site not adjacent to residential
- close to infrastructure
- high water reclamation opportunities

Concerns:



- privately owned therefore could increase costs
- conflicts with current zoning
- increased traffic could be a problem

# How suitable do you consider this site in terms of potential for use of reclaimed water and energy recovered from the treatment process?



#### Benefits:

- high water re-use opportunities
- potential new opportunities for heat recovery including both private and public buildings

#### Concerns:

- heat recovery would take more work as there are few at this time
- health concerns over water re-use

#### How suitable do you consider this site in terms of how close it is to existing sewer trunk and truck routes?

Response	
Very suitable	47.7%
Suitable	21.1%
Somewhat suitable	6.3%
Unsuitable	5.5%
Very unsuitable	8.6%
Unsure	10.9%

#### Benefits:

- well situated to existing trunk lines and truck routes
- very accessible

Concerns:



• possible increased traffic issues – particularly as it is close to a school

#### What conditions would need to be met in order for you to consider this site suitable?

- must fit in with the community to the point of being "invisible
- no odour or noise pollution
- cannot comment without more information on design, cost or potential reclamation opportunities

#### **TECHNCIAL COMMENTS**

• Site 2a:2b is large enough to accommodate liquids and residuals treatment at sub-regional scale

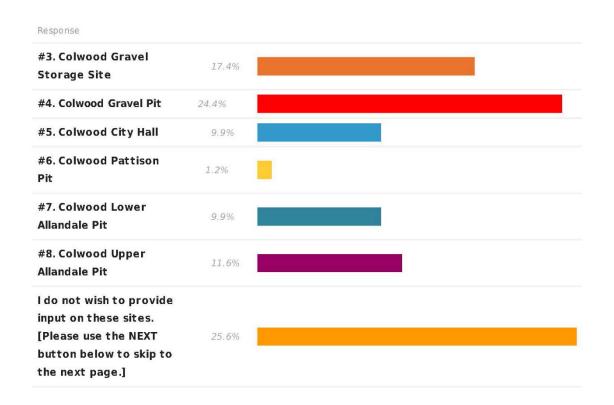
- Public input suggests any facility should tie into existing and future uses and be partly hidden
- A facility at 2a:2b is better suited a distributed-type plant with residuals processing located at an alternate site (to accommodate the input of being partly hidden)
- Site acquisition or assembly requires further study

#### COLWOOD SOUTH - CENTRAL NODE:

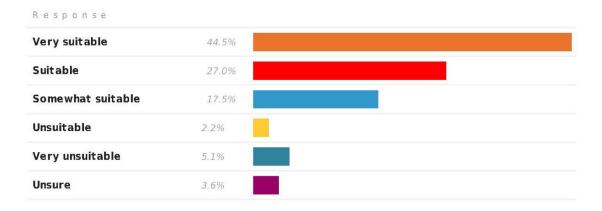
#### Preferred site:

The majority of respondents chose the Colwood Gravel Pit (Site #4).





How suitable do you consider this site in terms of how the land is currently used, how wastewater resource facility would fit with the surrounding area and future plans for the community?



Benefits:

- growth in area could see more resource recovery
- currently undeveloped and available
- expansion possibilities

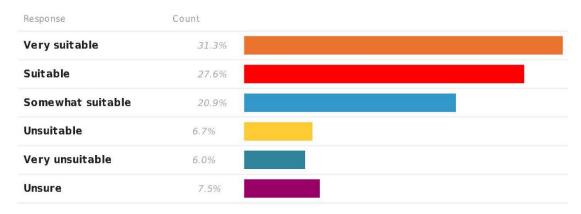
#### Concerns:

• could deter future investment and development opportunities



• currently limited resource recovery options

# How suitable do you consider this site in terms of potential for use of reclaimed water and energy recovered from the treatment process?



#### Benefits:

• opportunities for utilizing reclaimed water and energy into future developments

#### Concerns:

- heat and water reclamation not a priority
- too far from existing facilities

#### How suitable do you consider this site in terms of how close it is to existing sewer trunk and truck routes?

Response		
Very suitable	26.7%	
Suitable	28.2%	
Somewhat suitable	21.4%	
Unsuitable	8.4%	
Very unsuitable	5.3%	
Unsure	9.9%	

#### Benefits:

- roads with close proximity
- room for expansion

Concerns:



- too far from existing outfalls
- current access goes through residential neighbour hood

What conditions would need to be met in order for you to consider this site suitable?

- no conditions this is bad for investment
- would require additional consultation with residents in the area
- must be invisible

#### **TECHNCIAL COMMENTS**

• Servicing Site 4 requires greater infrastructure needs (e.g. length of pipe and new outfall) and a lesser opportunity for resource recovery than sites in other Option Sets

• Site 4 demonstrates some potential for a satellite facility phased in over time with growth at Royal Bay (e.g. to eliminate cost of rerouting flows across the sub-region)

- Site acquisition requires further study
- Note: Similar technical considerations apply to Site 3 (both received public support)

#### COLWOOD NORTH NODE:

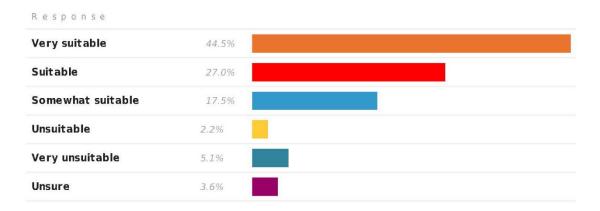
#### Preferred site:

The majority of respondents chose the Colwood West Shore Parks & Recreation (Site #14).



Response		
#9. Colwood City Centre	6.2%	
#10. Colwood City Centre Adjacent	3.1%	
#11. Colwood Park & Ride	17.3%	
#12. Colwood Island Highway at Goldstream	3.7%	
#13. Colwood Wale Road	10.5%	
#14. Colwood West Shore Parks & Recreation	30.9%	
I do not wish to provide input on these sites. [Please use the NEXT button below to skip to the next page.]	28.4%	

How suitable do you consider this site in terms of how the land is currently used, how wastewater resource facility would fit with the surrounding area and future plans for the community?



Benefits:

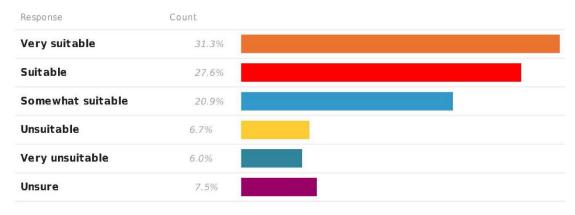
- high potential for resource recovery
- reasonable distance from residential
- publically owned

#### Concerns:

• needs to at least comprise to maintain the park



# How suitable do you consider this site in terms of potential for use of reclaimed water and energy recovered from the treatment process?



#### Benefits:

- possible benefits for the recreation centre and surrounding park
- adjacent to other services

#### Concerns:

• none at this time

#### How suitable do you consider this site in terms of how close it is to existing sewer trunk and truck routes?

Response		
Very suitable	26.7%	
Suitable	28.2%	
Somewhat suitable	21.4%	
Unsuitable	8.4%	
Very unsuitable	5,3%	
Unsure	9.9%	

#### Benefits:

- extremely close
- good proximity to highway

Concerns:

• none at this time



#### What conditions would need to be met in order for you to consider this site suitable?

- appropriate amenities
- that enhance park values and recreational use
- maintain park and ride

#### **TECHNCIAL COMMENTS**

Site 14 is sufficiently large enough to accommodate a sub-regional facility including liquids and residuals processing

Site 14 is better suited to a distributed model to prevent directing large flows from the View Royal, Esquimalt and First Nations back up the sewer-shed (e.g. need for significant pipes and pump stations)

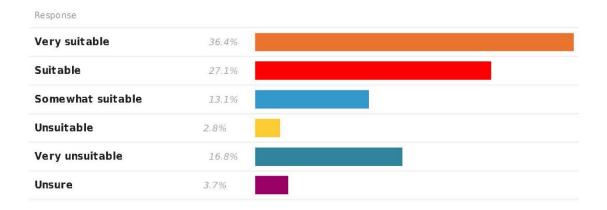
• Further study needed on governance for use of the Site 14 (inter-municipal lands) as wastewater facility and identifying the preferred location for any facility (e.g. identifying where there is surplus lands)

#### VIEW ROYAL NODE:

#### Preferred site:

There is only one site in this node View Royal Burnside & Watkiss (Site #16).

How suitable do you consider this site in terms of how the land is currently used, how wastewater resource facility would fit with the surrounding area and future plans for the community?



Benefits:

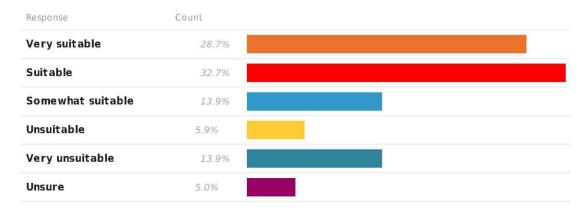


- publically owned and currently vacant
- not too close to residential
- good proximity to transportation and resource recovery opportunities

Concerns:

- parkland/recreation opportunities need to be reserved
- too close to hospital/school/residences
- possible archeological issues

# How suitable do you consider this site in terms of potential for use of reclaimed water and energy recovered from the treatment process?



#### Benefits:

• good recovery opportunities with proximately to hospital and golf course

#### Concerns:

- size may limit possibilities
- not enough detail to fully comment

How suitable do you consider this site in terms of how close it is to existing sewer trunk and truck routes?



# ResponseVery suitable32.0%Suitable32.0%Somewhat suitable11.7%Unsuitable4.9%Very unsuitable14.6%Unsure4.9%

#### Benefits:

• near some truck routes

#### Concerns:

- not near a main highway
- not at the end of the pipe and may require more infrastructure like pump stations

#### What conditions would need to be met in order for you to consider this site suitable?

- integration into community and current uses including odour and noise control
- for the province to agree to either gift the land or negotiate a fair price
- separate access away from school

#### **TECHNCIAL COMMENTS**

• BC Hydro right-of-way should be studied to incorporate any setback/limitations for new works (e.g. may limit site area significantly)

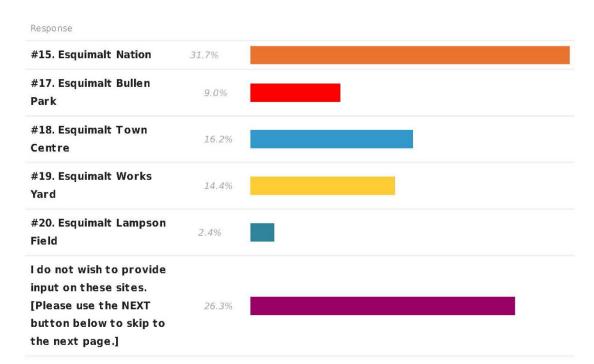
• Servicing Site 16 in any distributed or dual model requires relatively high amounts of new infrastructure

#### ESQUIMALT NODE:

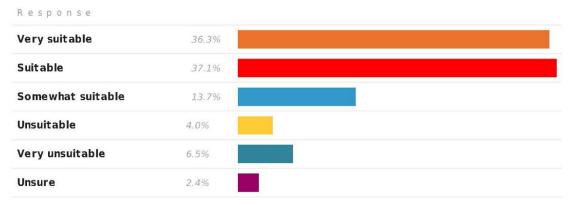
#### Preferred site:

The majority of respondents chose the Esquimalt Nation (Site #15)





How suitable do you consider this site in terms of how the land is currently used, how wastewater resource facility would fit with the surrounding area and future plans for the community?



#### Benefits:

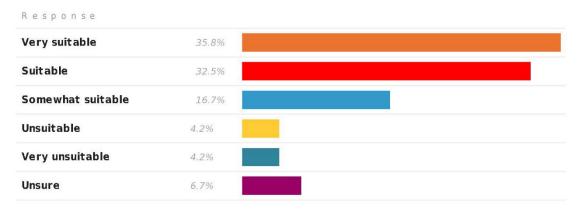
- site currently vacant
- has possibility to allow for expansion

#### Concerns:

- parkland and recreation opportunities need to be maintained
- must have secure access



# How suitable do you consider this site in terms of potential for use of reclaimed water and energy recovered from the treatment process?



Benefits:

- potential for water reuse such as with the golf course
- future development possibilities for resource utilizations

#### Concerns:

- better opportunities elsewhere
- not a priority

#### How suitable do you consider this site in terms of how close it is to existing sewer trunk and truck routes?

Response	
Very suitable	39.7%
Suitable	35.5%
Somewhat suitable	9.9%
Unsuitable	5.0%
Very unsuitable	4.1%
Unsure	5.8%

#### Benefits:

• close to both sewer mains and truck routes

#### Concerns:

• could contribute to traffic congestion



What conditions would need to be met in order for you to consider this site suitable?

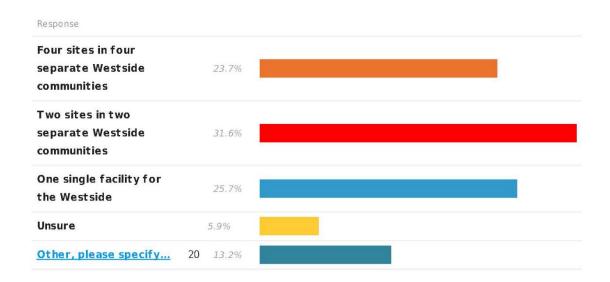
- agreements in place with Esquimalt Nation
- proper odour, noise and traffic management

#### **TECHNCIAL COMMENTS**

- Site 15 is suitable for all Option Set configurations: 1 plant, 2 plant and 4 plant
- Possibilities to utilize other sites in Esquimalt site node for heat recovery or water reclamation
- Site 15 has high public support for both liquid and residuals treatment

## Number of sites:

#### What number of westside wastewater resource sites makes the most sense to you?





*Of the sample option Sets presented, which option (s) do you feel should move forward for further technical analysis?* 

Response	Count
4A Langford / Colwood / View Royal / Esquimalt Village	35.2%
4B Langford / Colwood / Esquimalt Nation / Esquimalt Village	15.7%
2A Esquimalt Village / View Royal	13.2%
2B Esquimalt Nation / Esquimalt Village	13.8%
2C Colwood North / Esquimalt Village	16.4%
2D Langford+Colwood / Esquimalt Village	21.4%
2E Colwood South / Esquimalt Village	8.2%
1A Esquimalt Village	24.5%
1B Esquimalt Nation	23.3%
Unsure	11.3%
Other, please specify	15.1%



# Level of treatment:

#### Removal of Harmful Substances

To what degree do you think a wastewater resource facility should deal with harmful substnces? (Please select one.)

Response		
Meet minimum environmental regulations (mandatory)	11.9%	
Meet regulations plus advanced treatment at sites where resource recovery and operating cost recovery options are present	27.7%	
Meet regulations plus advanced treatment to protect our natural environment	14.5%	
All of these are important to me	39.6%	
l do not have enough information to respond	6.3%	

Focusing in on Technology



### What technology would you support in your community? (Please select all that apply.)

Response		
Advanced wastewater treatment (treating wastewater beyond secondary treatment to produce high quality reclaimed water)	47.8%	
Aerobic digestion of residual solids (using microbes to break down organic waste in the presence of oxygen)	26.4%	
Anaerobic digestion of residual solids (using microbes to change the chemical composition of organic waste in an oxygen free environment)	27.7%	
Gasification of residual solids (using extreme heat to convert organic matter into a gas that can be used as fuel)	38.4%	
Dewatering and transporting residual solids to another location	8.2%	
l do not have enough information to respond	32.7%	
Other, please specify	10.1%	



## Costs:

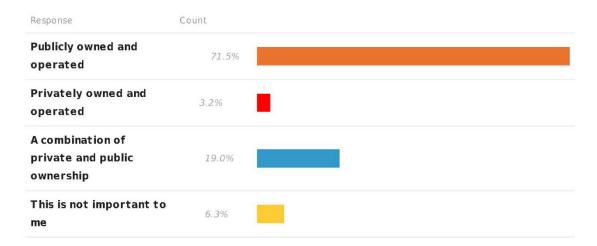
#### Breaking down the costs

Regulations require the region to treat wastewater to at least secondary treatment levels. If there were additional costs attached to a higher level of treatment, what would be a reasonable amount for each household to pay per day? (Please select one.)

Response		
0 cents/day	27.9%	
25 cents/day	35.1%	
50 cents/day	20.8%	
75 cents/day	2.6%	
1 dollar/day	13.6%	

#### Defining Ownership an Governance

What is your view of the ideal ownership and governance of the site? (Please select one.)



#### Reporting on Financial Aspects

What information will you need in order to provide input into cost options over the course of the project? (Please select all that apply.)



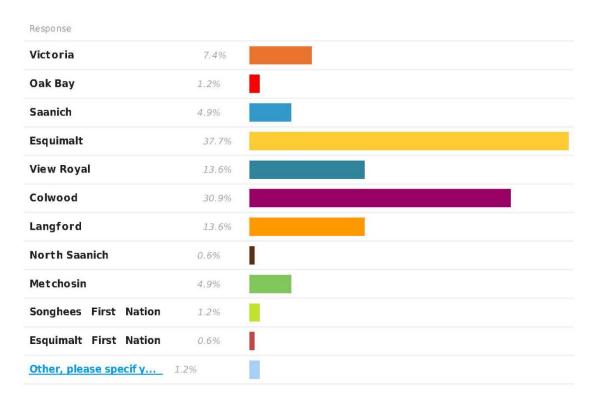
Response		
Total amount from funding sources	20.4%	
Projected cost for the region	23.6%	
Estimated costs for residents per property	28.0%	
Estimated construction and operating costs	17.2%	
All of the above	79.0%	
Other, please specify	8.3%	

If your chosen wastewater resource solution would cost significantly more than another option, would that affect your choice?

Response		
Yes	43.9%	
No	56.1%	

Responses by Community:





# Conclusion:

SiteSpeak is key in facilitating the valuable input from citizens across the region. Trends appear to be emerging from this particular platform and previous public engagement endeavours;

- adequately dealing with any impacts to communities
- ensuring accurate cost benefit analysis, and
- continuing an open and transparent process that engenders public trust,

However to get the best information from residents it is critical to get as wide a respondent base to help determine further trends. To help promote as many respondents as possible to obtain as much public input over the course of this particular engagement tool – Westside Solution is actively promoting participation through print and online advertising, municipal and CRD websites, social media and a post card drop across the entire Westside.

The successful siting, constructing and operating of a wastewater treatment facility or facility is critical – not only to the Westside – but to the entire Core Area of the Capital Regional District.