



# ORGANICA SUPPORTS A CLEANER ENVIRONMENT AT SEASIDE COMMUNITY

## Municipal Wastewater Treatment – Sechelt, Canada

### CHALLENGE

Amidst a glorious natural environment, the municipality of Sechelt lies on the lower “Sunshine Coast” of British Columbia, only 50 km northwest of Vancouver. Although the municipality had 2 existing wastewater treatment facilities, due to stricter effluent standards and operational expenses those facilities were insufficient for the community needs. The older Ebbitide facility was noisy, had odor problems and needed significant maintenance, while the younger Dusty Road facility had enormous pumping costs, located far from town. As a result, expanding or upgrading these conventional and outdated treatment facilities was not feasible, requiring the municipality to find a solution.

**Organica integrates into community by providing public education and water reuse center**

### RESULT

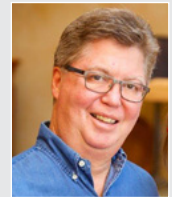
Since commissioning in early 2015, the facility has performed per design while meeting LEED gold standards. Packaged in its noise and odor-free greenhouse enclosure, the Sechelt Water Resource Center is a great example of how sustainable designs can bring economic benefits, and minimize neighborhood impacts.

### SOLUTION

To solve their challenges, an Organica-powered facility was chosen for due to the garden-like appearance and odorless operation, optimal for placing the facility in the close vicinity of the town (reducing pumping and collection cost). Further, the community leadership wanted to create a facility integrated into the community, as a “water resources center” for public education on sustainable water resource management. Of course, to justify the project it must ensure effective treatment over the next 20 years, with provisions to increase capacity and increase nutrient removal incrementally for up to 50 years more, meeting the highest Provincial standards for water quality.



“The Centre demonstrates how Sechelt is embracing new ideas to improve protection of our environment and the quality of life our residents enjoy. It takes an innovative approach to treating wastewater and recovering resources on a compact site that is central to the community it serves. We are proud of this accomplishment and eager to show the results to our residents and the world.”



**John R. Henderson**  
Mayor of Sechelt, Canada

**Location**  
Sechelt, Canada

**Project Scope**  
Municipal WWTP, design

**Operational since**  
2014

**Footprint**  
900 m<sup>2</sup> (9 700 sq ft)

**Hydraulic Capacity**  
2 200 m<sup>3</sup>/day  
(580 000 gallons/day)

**Community Served**  
6 000 people

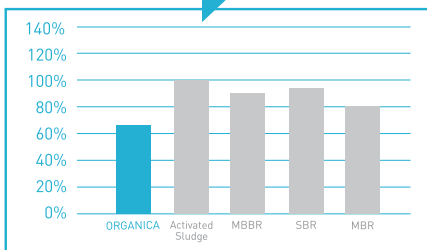
## THE ORGANICA SOLUTION

Organica Water is a global provider of innovative solutions for the treatment and recycling of wastewater. The Organica solution is an Integrated Fixed-Film Activated Sludge (IFAS) system utilizing a fixed-bed biofilm that grows on root structures, all housed in a compact, odourless, botanical garden-like facility.

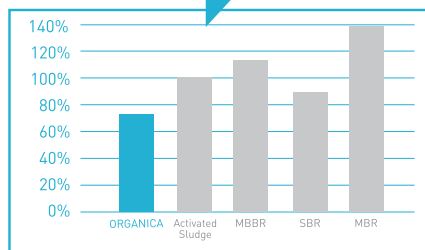
The resulting solution offers a significantly reduced physical footprint, zero “psychological” footprint, and lower operational and infrastructure costs when compared to other activated sludge-based wastewater treatment solutions.



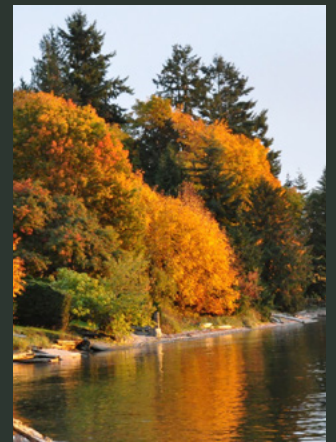
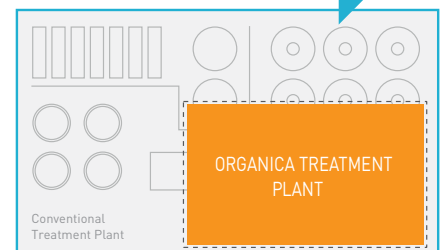
**30%+**  
Less  
Sludge Production



**30%+**  
Lower  
Energy Consumption



**50-75%**  
Smaller  
Geographic Footprint



### DESIGN PARAMETERS OF THE SECHLT FACILITY

Parameter	Influent (mg/L)	Effluent limits (mg/L)
COD	430	
BOD	220	25
NH <sub>4</sub> -N	13	1.25
TP	2	
TSS	250	25

## RELIABLE AND RESILIENT

As a result of their unique ecological diversity, Organica facilities are not only able to meet the strictest effluent limits, but also are highly resilient to changes in influent conditions. This is especially important where industrial flows can unpredictably mix with municipal flows and threaten biological processes. The enhanced diversity of the Organica solution means the system can adapt to rapid spikes in influent much more effectively than other approaches. And because almost all of the biomass is fixed on root structures, oxygen transfer is much more efficient, resulting in significantly lower energy requirements. All of these benefits make the Organica solution ideal for nearly any application.