

# Comox Strathcona Waste Management

## Waste to Energy

### Full System Costing & Scope Change 2

Board of Directors meeting  
April 19<sup>th</sup> 2018

# Factors used to calculate



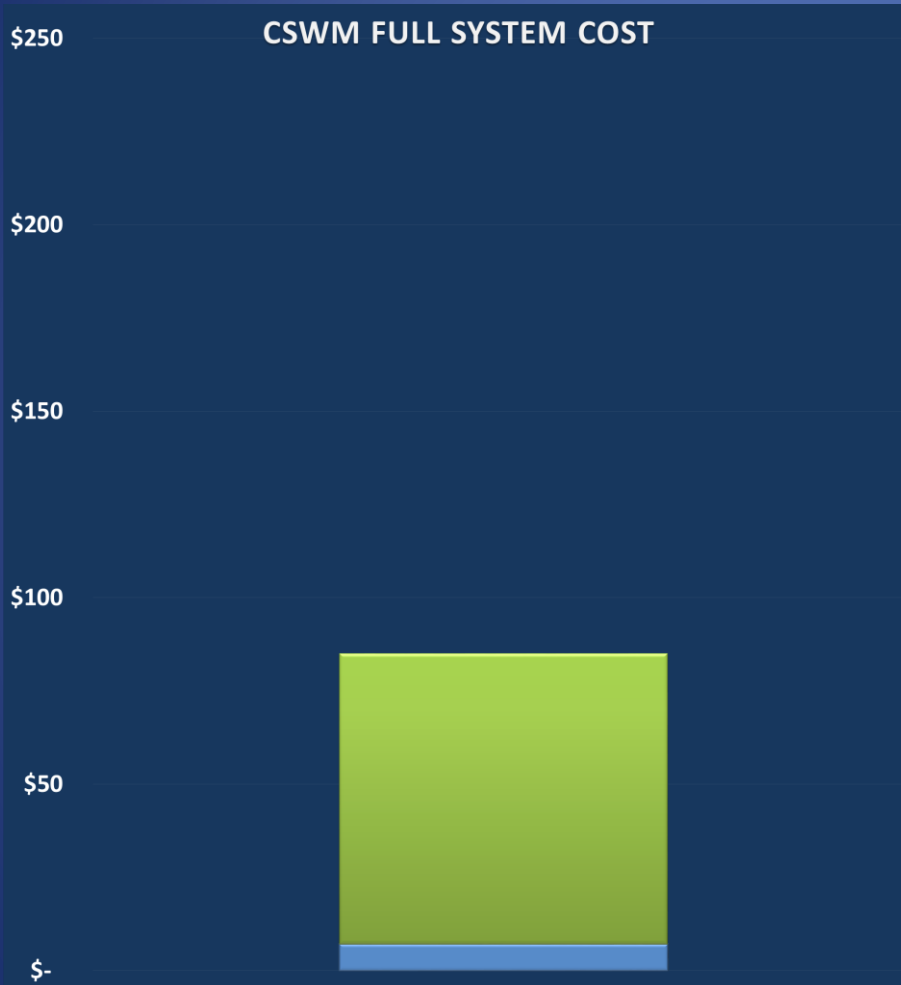
- Operations staff
- Tonnage
- Revenue expectations - \$130 per tonne for MSW.
- Taxation of \$4 million in 2018, moving to \$6 million in 2019 to 2067.
- Our status quo costs are \$243 per tonne (includes estimate for organics) – 10 year model costs

# Status Quo

- Host Community Agreements - \$7

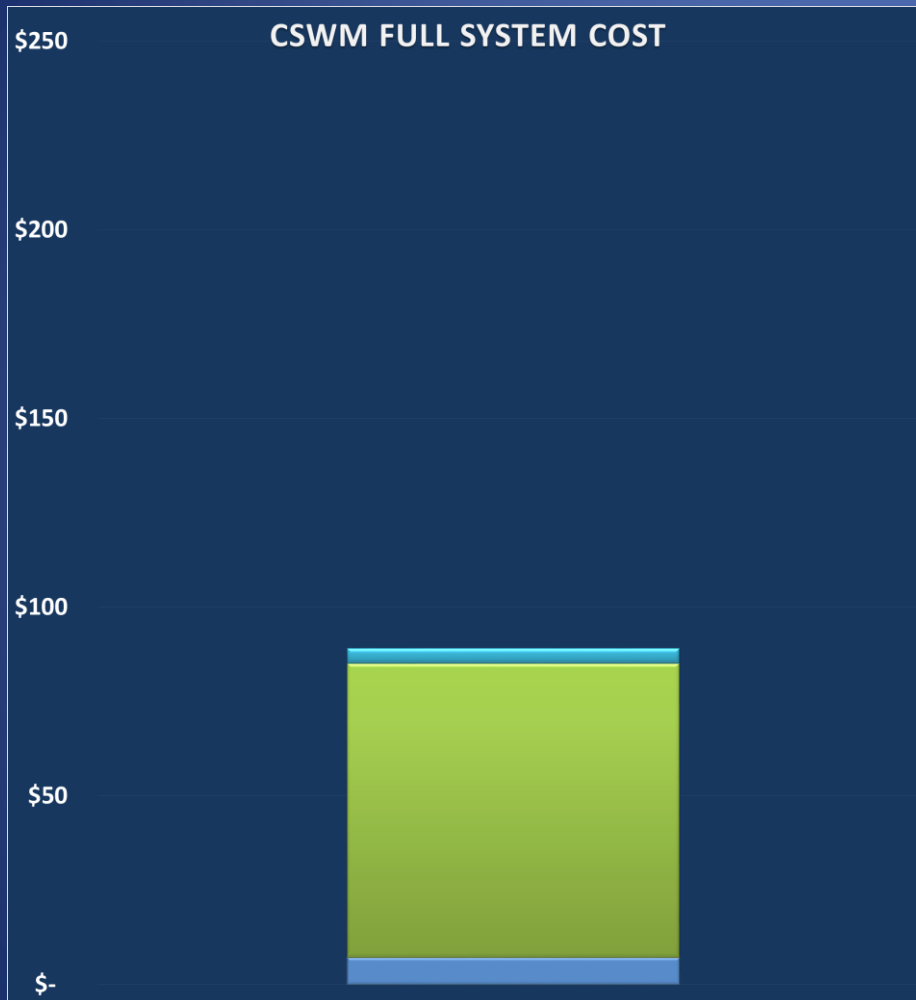


# Status Quo



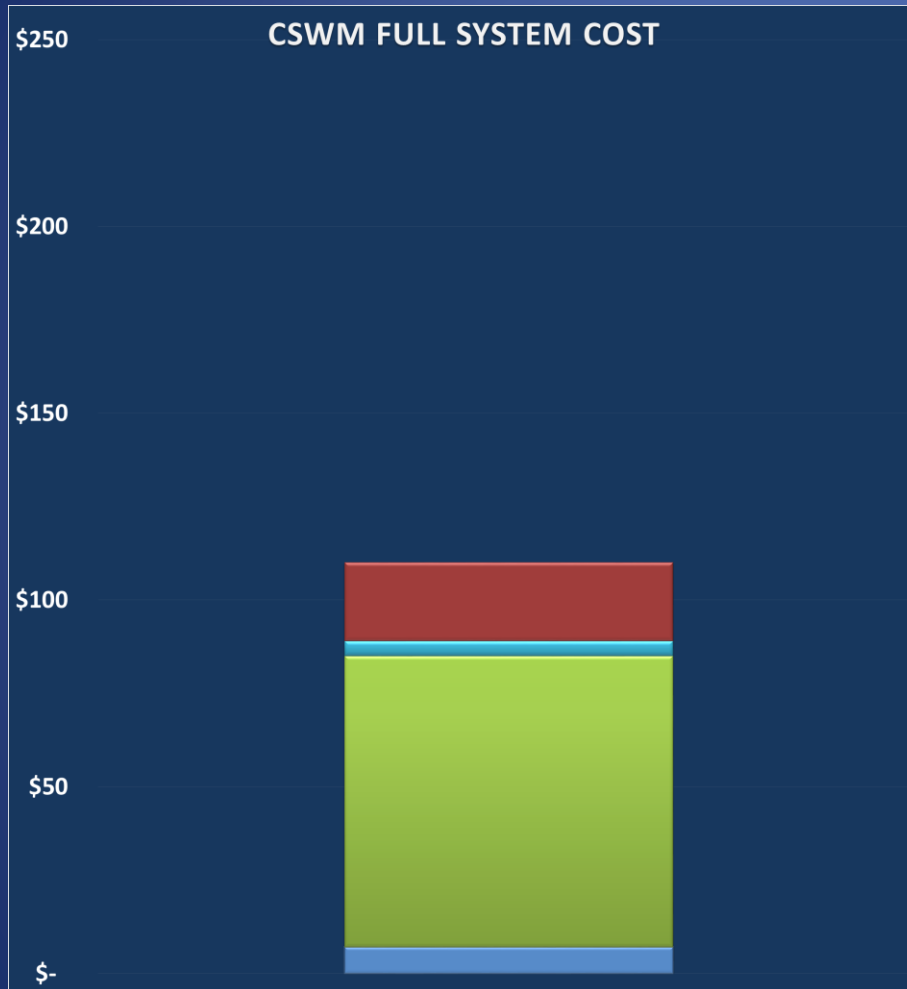
- Host Community Agreements
- Diversion Initiatives \$78

# Status Quo



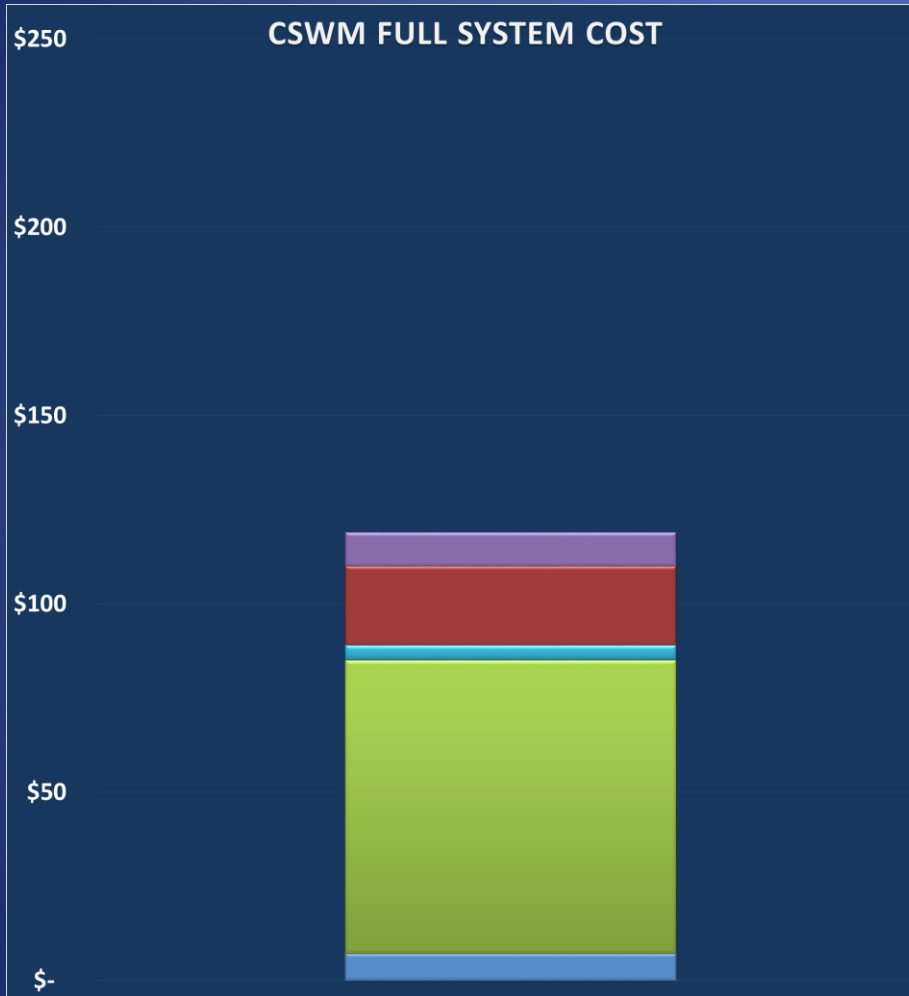
- Host Community Agreements
- Diversion Initiatives
- Illegal Dumping \$4

# Status Quo



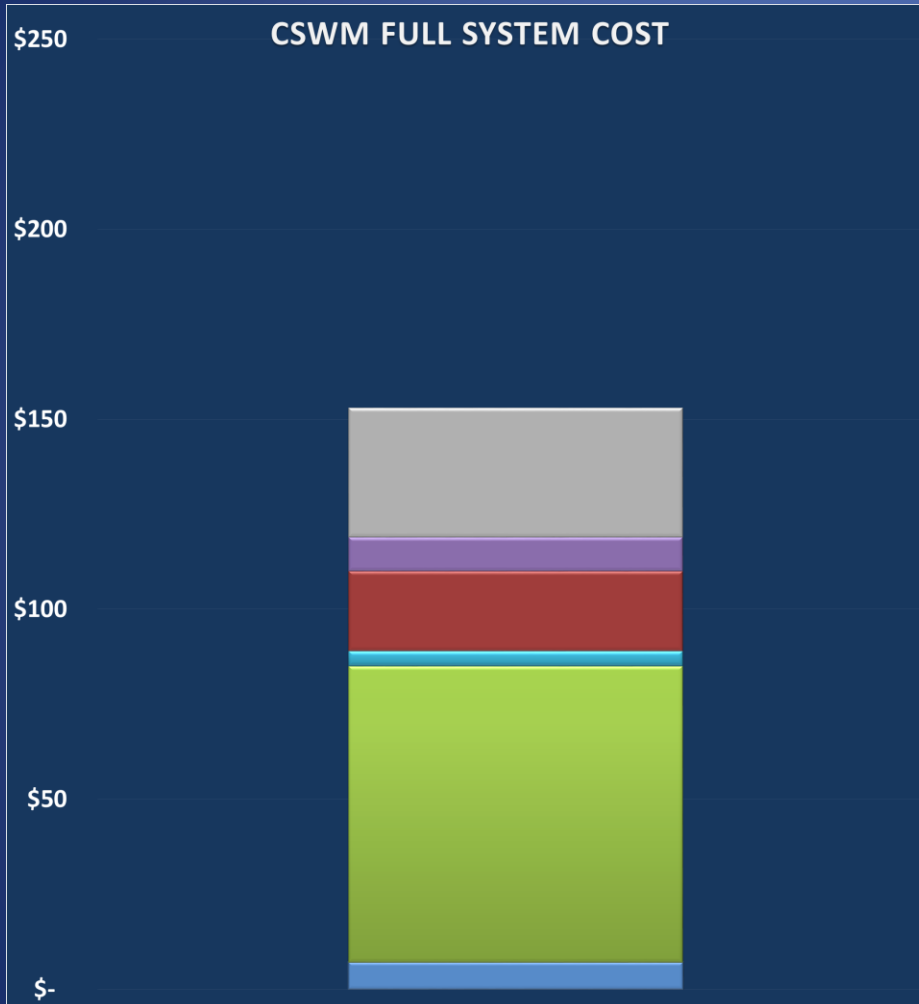
- Host Community Agreements
- Diversion Initiatives
- Illegal Dumping
- Regional Organics (est.) \$21

# Status Quo



- Host Community Agreements
- Diversion Initiatives
- Illegal Dumping
- Regional Organics (est.)
- Support Services \$9

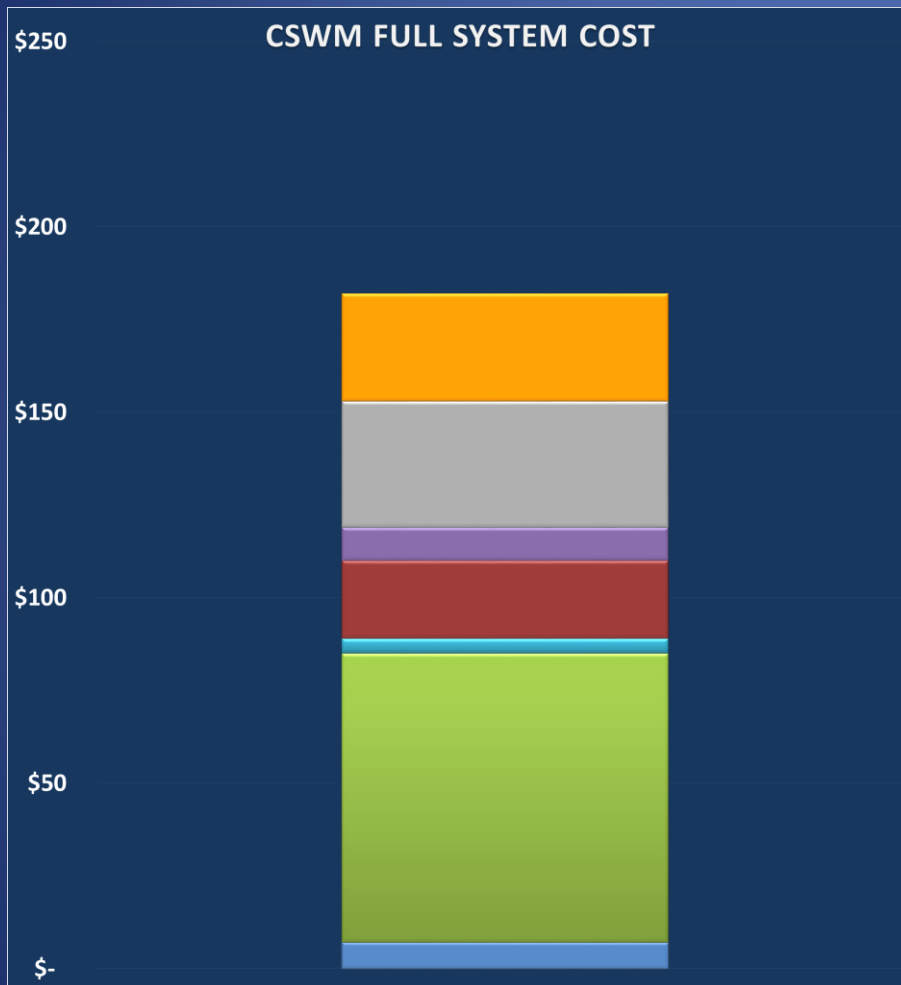
# Status Quo



- Host Community Agreements
- Diversion Initiatives
- Illegal Dumping
- Regional Organics (est.)
- Support Services
- Remote transfer stations/Landfills \$34

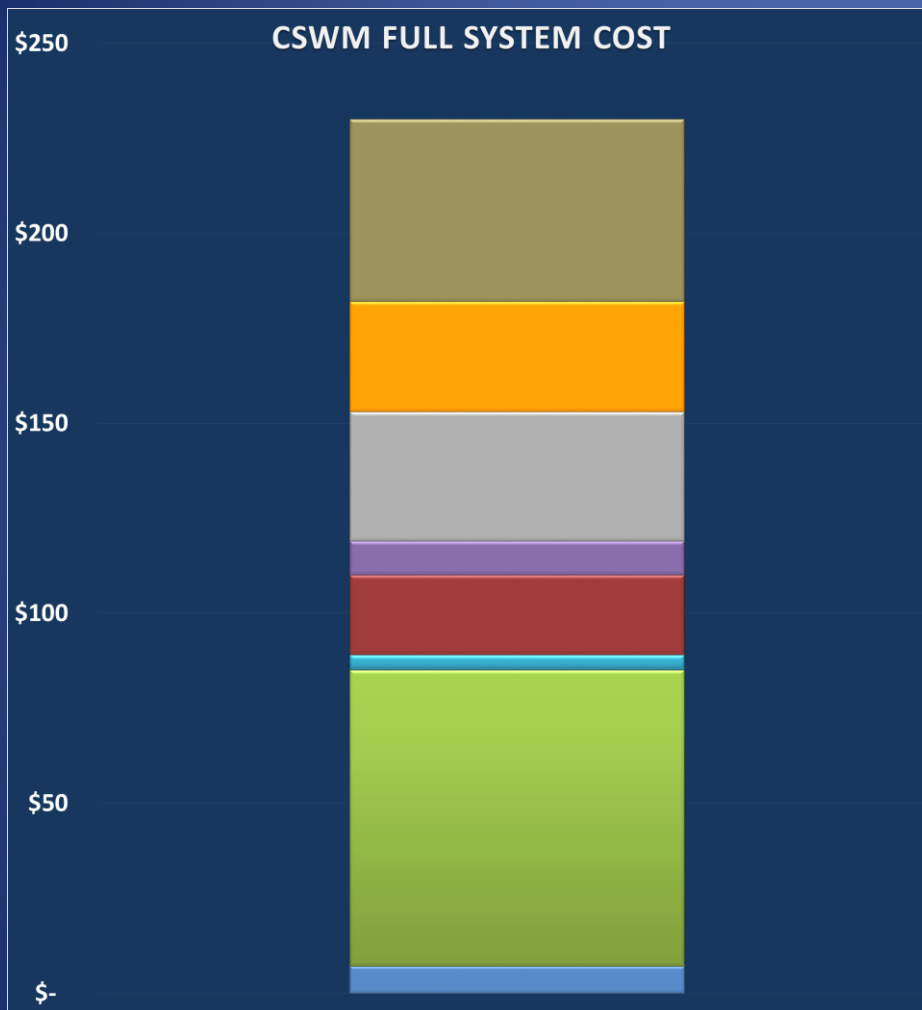


# Status Quo



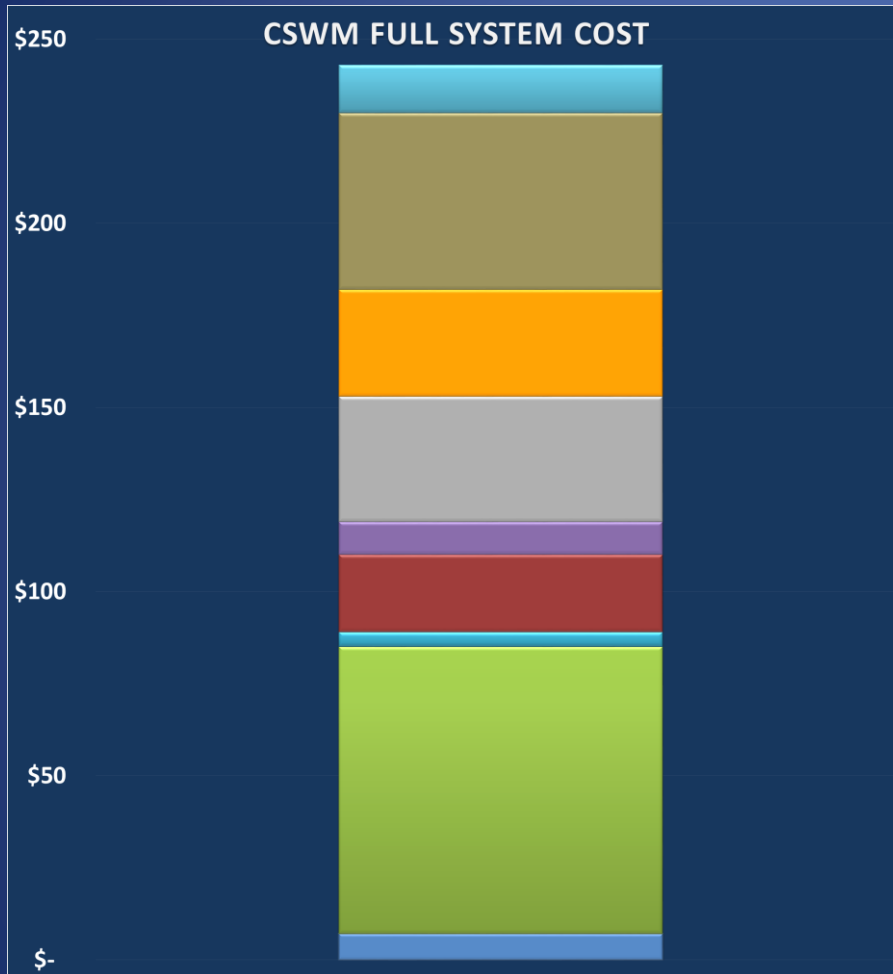
- Host Community Agreements
- Diversion Initiatives
- Illegal Dumping
- Regional Organics (est.)
- Support Services
- Remote transfer stations/Landfills
- Landfilling - \$29 Fixed

# Status Quo



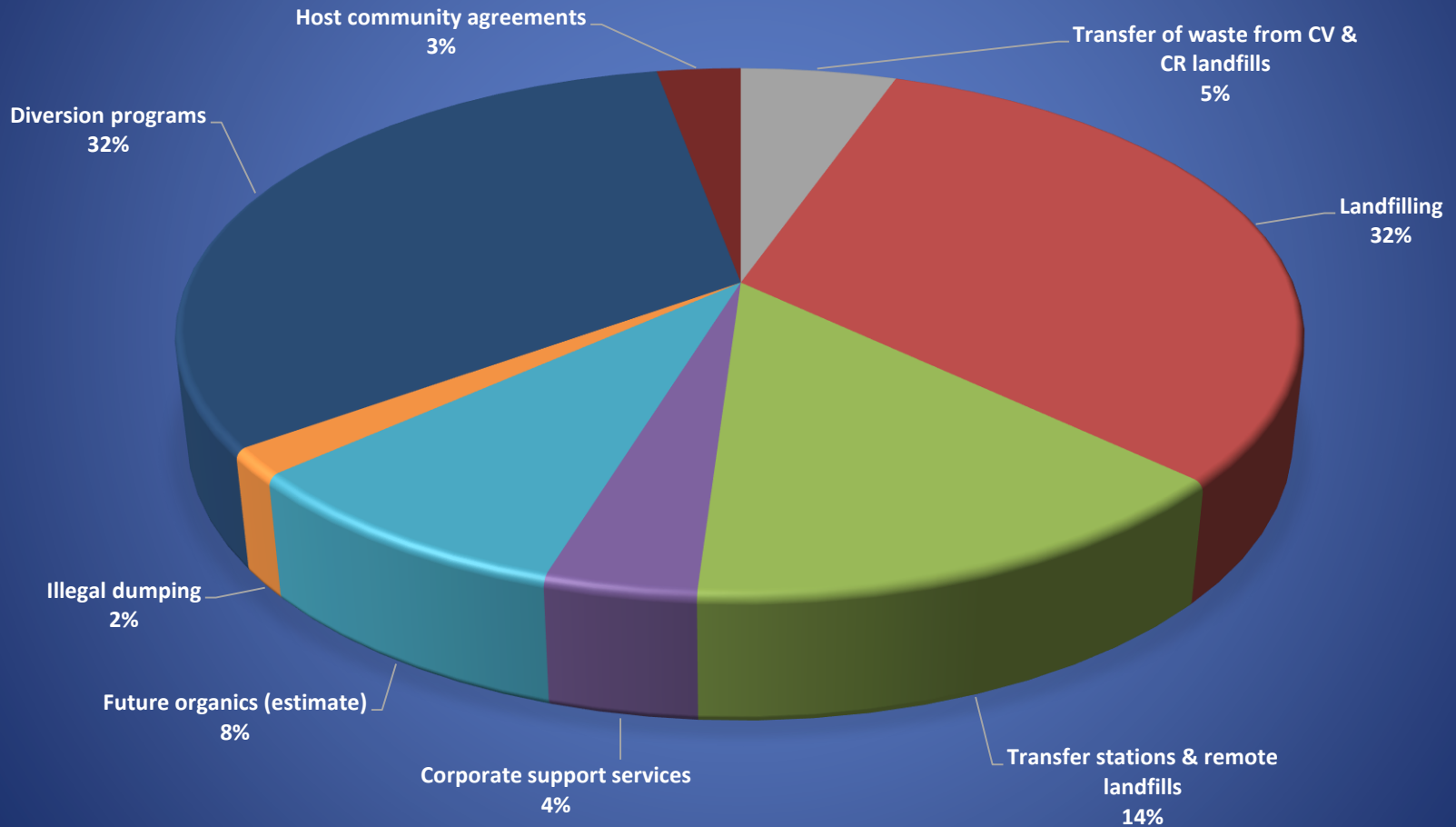
- Host Community Agreements
  - Diversion Initiatives
  - Illegal Dumping
  - Regional Organics (est.)
  - Support Services
  - Remote transfer stations/Landfills
  - Landfilling
    - \$29 Fixed
    - \$48 Variable
- } \$77

# Status Quo



- Host Community Agreements
- Diversion Initiatives
- Illegal Dumping
- Regional Organics (est.)
- Support Services
- Remote transfer stations/Landfills
- Landfilling
  - Fixed
  - Variable
- CVWMC & CRWMC waste transfer \$13

# Percentages – Full System Costing



# Waste to Energy Assessment

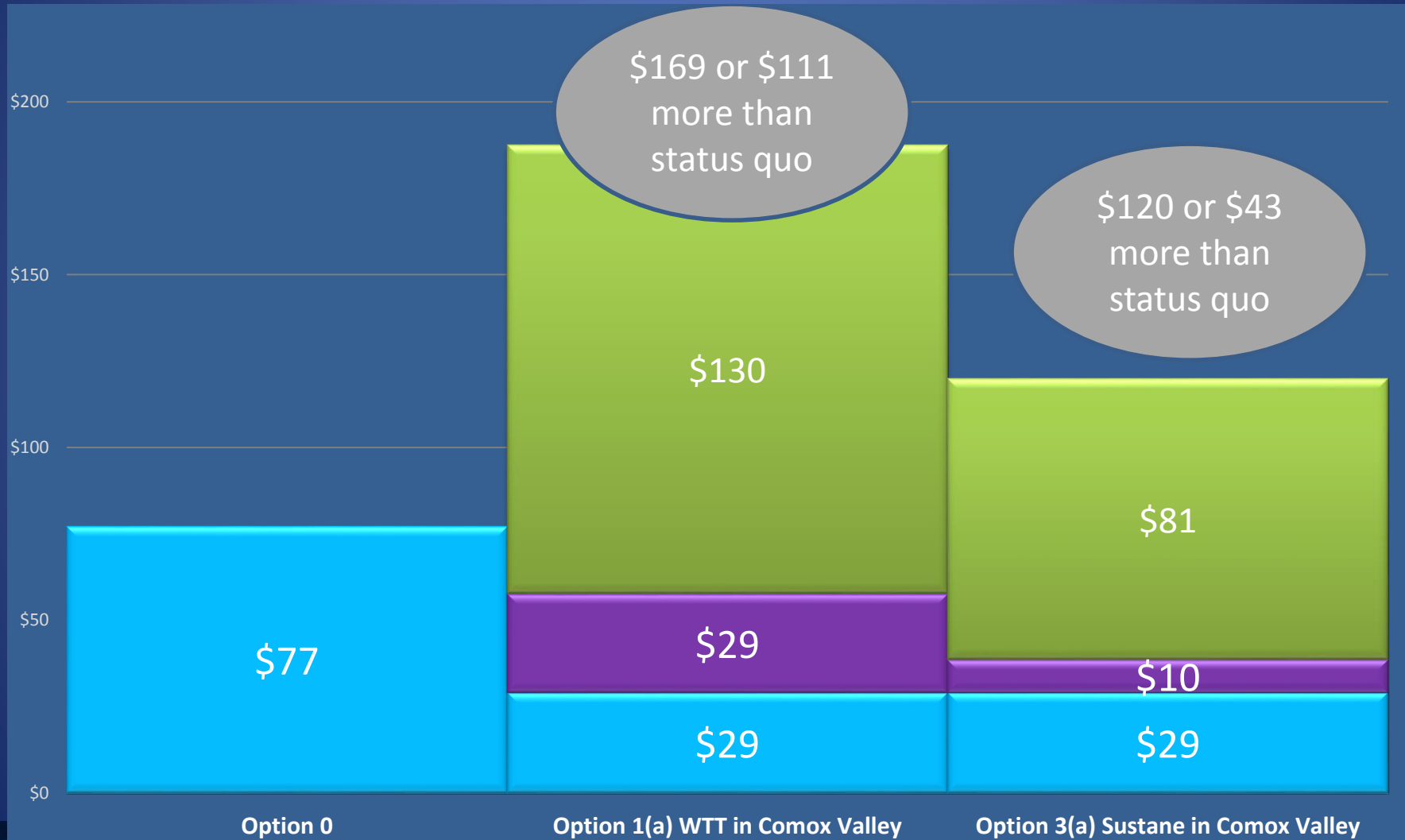
## Expanded Results and Recommendations



- Overall Project Objectives
- Assessed Technologies
- Draft 1 - Presented in November 2017
- Expanded Version
  - Full System Cost Assessment
- Ministry of Environment Requirements for WTE

# Full System Cost Assessment – 10 years

## Increasing Capacity (variable only)



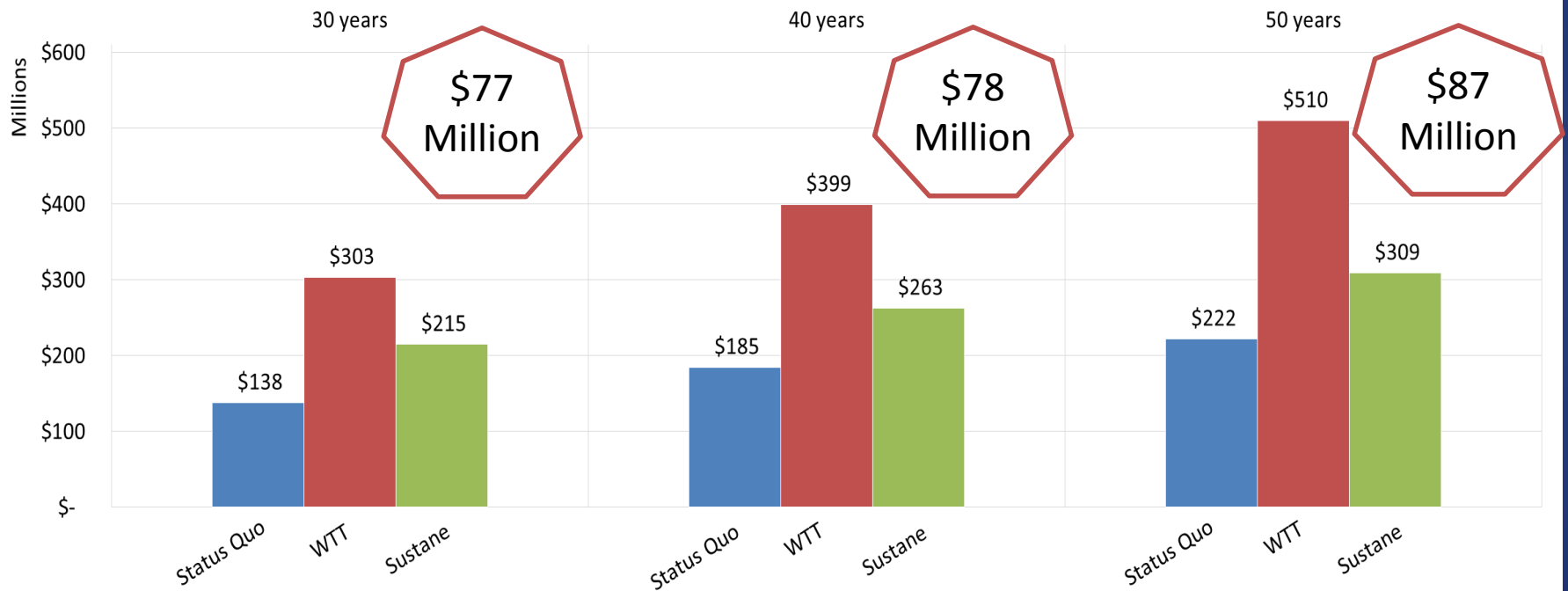
# Long-Term Cost Model \$/tonne – Expanded Version



Increasing capacity - Estimated average disposal cost per tonne				
Option		30 years	40 years	50 years
<b>0</b>	Status Quo	\$77	\$75	\$70
<b>1(a)</b>	WTT in Comox Valley	\$169	\$163	\$161
<b>1(b)</b>	WTT in Campbell River	\$180	\$173	\$171
<b>1(c)</b>	WTT in Gold River	\$206	\$200	\$199
<b>3(a)</b>	Sustane in Comox Valley	\$120	\$107	\$98
<b>3(b)</b>	Sustane in Campbell River	\$128	\$114	\$105
<b>3(c)</b>	Sustane in Gold River	\$151	\$139	\$130

# Summary of Total Disposal Cost – Increasing Capacity

Total disposal cost in Comox Valley





# Conclusion

- The cost to continue landfilling is approximately \$75/tonne ( Expanded Version)
- Waste processing through one of the assessed WTE technology options would increase this cost by \$28 to \$129 per tonne
- Sustane provides the lowest cost option, however it remains more costly than landfilling and comes with technology risks

# Conclusion

- Current revenue (tax requisition and tipping fees) cover current full cost of the solid waste management system
- Processing through WTT or Sustane would require additional funding
- Landfilling remains the most cost effective waste disposal option for the region



**Comox Strathcona  
Waste Management**

# Questions?

RETHINK REDUCE REUSE RECYCLE