CVWPCC Odour Control

Comox Valley sewage commission
February 11, 2020

Comox Valley REGIONAL DISTRICT

Nov 5, ‘19 Recommendations

1. Additional odour sampling to build a better model
2. An odour control systems option analysis be completed
3. Further research from other BC jurisdictions
4. Draft a good neighbor agreement with CRRA

Additional sampling & modelling

- **Changes:** December samples, split year into 2 periods & Input multiple years climactic data
- **Results:** negligible decrease in maximum odour concentration, several sensitive receptors still over 5 OU
- **Also:**
  - Modelled new odour improvement options summarized on later slide
  - Estimated future odour concentrations for existing and other options

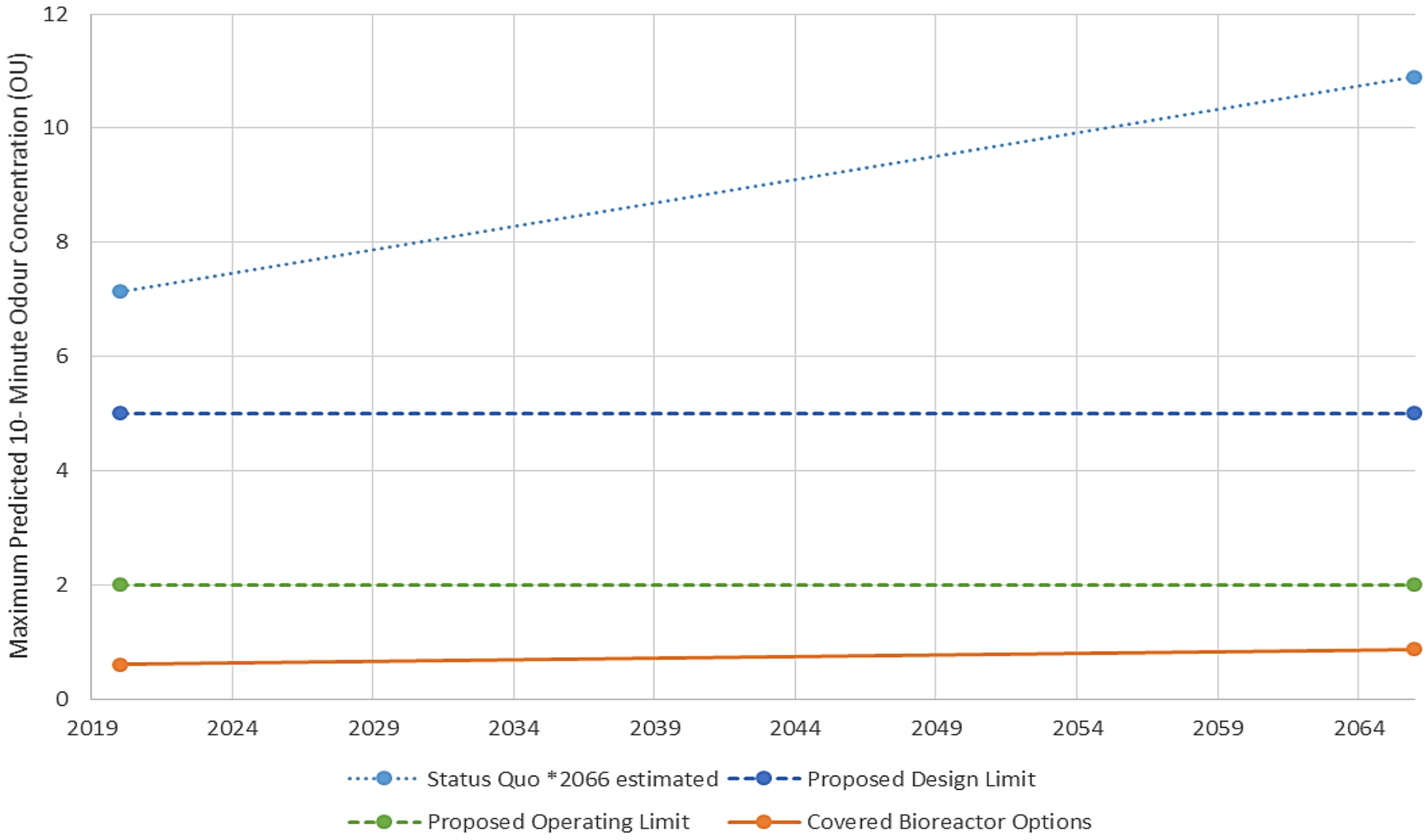
Updated options analysis

- **Changes:** looked at alternatives to full covering of bioreactors, and options for partial treatment of bioreactor emissions
- **Results when combined with RWDI modelling:**
  - No effective alternatives to covering bioreactors
  - Partial treatment of bioreactor emissions almost as effective as full treatment
  - Most cost effective solution is replacement of existing scrubber with larger one, and non new carbon polisher

Other jurisdictions

- Voluntary standards in BC:
  - Capital Regional District - 5OU at property line – not detectable at SR (however…)
  - Metro Vancouver - no detectable odour at SR for new plant/upgrades, 5OU at property line and minimally detectable at SR for other plants
  - Kelowna and Vernon included 5 OU design limit at construction
  - French Creek only other facility experiencing significant complaints and they are initiating a major upgrade

Maximum Predicted Odour Units at Sensitive Receptors for Various Upgrade Options



Funding

- Funded from reserves to delay long term borrowing
- If borrowed, cost impact per property of $35/year
- Mitigated by:
  - $1.5 M cost reduction from previous est. of $8.5 M
  - $3 M EQ basin savings
  - $1.5 M avoided cost of replacing existing scrubber

Feb 11, ‘20 recommendations

1. Cover bioreactors at a cost of $7 M & do our best to mitigate odours until complete
2. Establish two tier odour standard at the CVWPCC, with upper (design) limit set at 5 OU once work complete & lower (operational) limit set once performance of upgrades understood
3. Work with CRRA to finalize Good Neighbor Agreement and bring back for approval

Timing and Next Steps

- Spring 2020 – detailed design & GNA
- Summer 2020 – procurement
- Fall 2020 to Spring 2021 – construction
- Summer 2021 – sampling & modelling
- Fall 2021 – recom. operational odour standard

Throughout

- Keep residents up to date on progress
- Do everything we can to mitigate odours