

STECKLEY Consulting Engineers Inc.

22E12 Stephenfield Lake Resort OWMS

	Original Design (2023 04 17)	Proposed (2023 08 10)
1	Existing tank train To be removed	Existing tanks to remain as separate short term storage during construction and post construction for emergency storage. Inlet to be fitted with cover or cap for security Outlet of last tank to be plugged
2	Existing Total Area Field To be abandoned in place with inlet pipes capped	remains the same
3	New Tank Train To replace existing tank train	Proposed new tank train to be situated to east of existing tanks
4	Discharge Tank #1 12,000 litres with inlet tee manifold Pump handling 100mm solids	12,002 litres with inlet tee manifold Duplex Liberty LE71M2-2 on GR22-LE Guide Rail System w/IP-Series Control Panel. 50mm solids handling capability
5	Primary Tank #2 15,000 litres	15,943 litres with inlet tee manifold
6	Primary Tank #3 10,000 litres Polylock PL-525 filter	9,142 litres Polylock PL-525 filter
7	Primary Tank #4 - FUTURE 10,000 litres with Polylok PL-122 filter	remains the same
8	Pump Manhole (Secondary Chamber) 6,000 litres	6,869 litres Duplex pumps with single forcemain to Switching Manhole
9	Switching Manholes Two proposed	One shallow Switching Manhole only to contain three total indexing valves, one will alternate between north and south zones, and the other two will alternate between the east and west zones of each. Initially setup for 4-zones, expandable to 6-zones. Piping installed for initial and future mounds
10	Controls Either time or flow controlled with data recording capabilities	Liberty IP-Series Panels w/Floatless Technology. Sensor mounted 150mm above the bottom converts water pressure in tank to a low voltage signal that is read by the panel and displayed as inches of capacity. Timed discharge to achieve design dosing volume.
11	Mounds Quick 4 Plus Standard (864mmx1346mmx305mm, effective length 1219mm) Option of ARC 36 (864mmx1600mmx330mm, effective length 1524mm) 4.8mm Orifices with 1.5m squirt Two soil samples indicating Sandy Loam (22.02 L/D/SM)	Quick 4 Standard (864mmx1346mmx305mm, effective length 1219mm) Not being used 5.55mm orifices with minimum 0.6m squirt Four additional samples at mound corners indicating Loamy (29.35 L/D/SM) No mound design change proposed - conservative