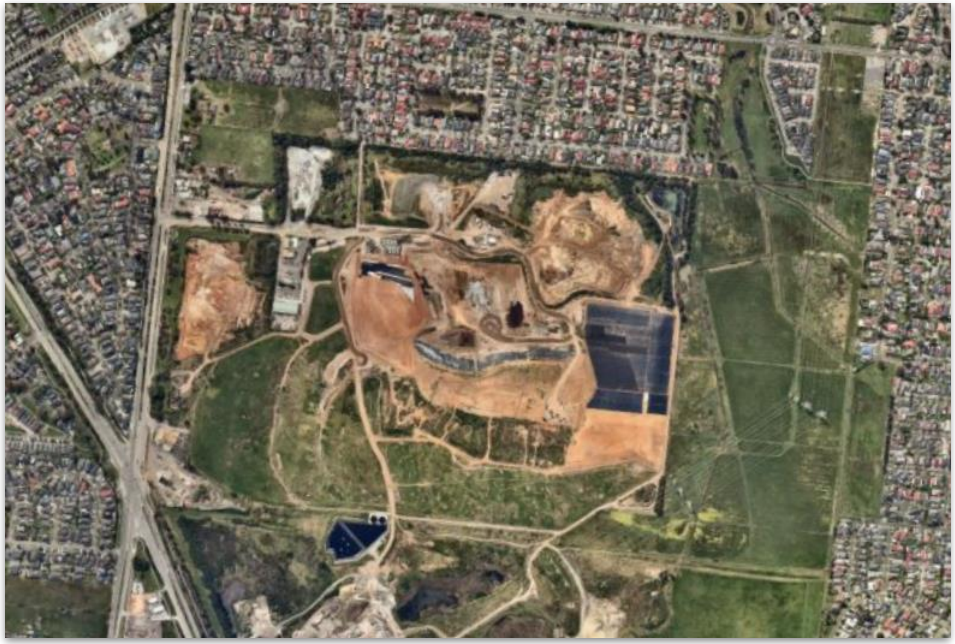
Liquid Risk, Solid Solutions



Jessica Keyt
Environment Manager (VIC/TAS)

VEOLIA

Hallam Road Landfill



Critical waste infrastructure

Veolia considers Hallam Rd as one of its highest performing landfills.

Maximised LFG capture under NGERS models.

Strong community engagement

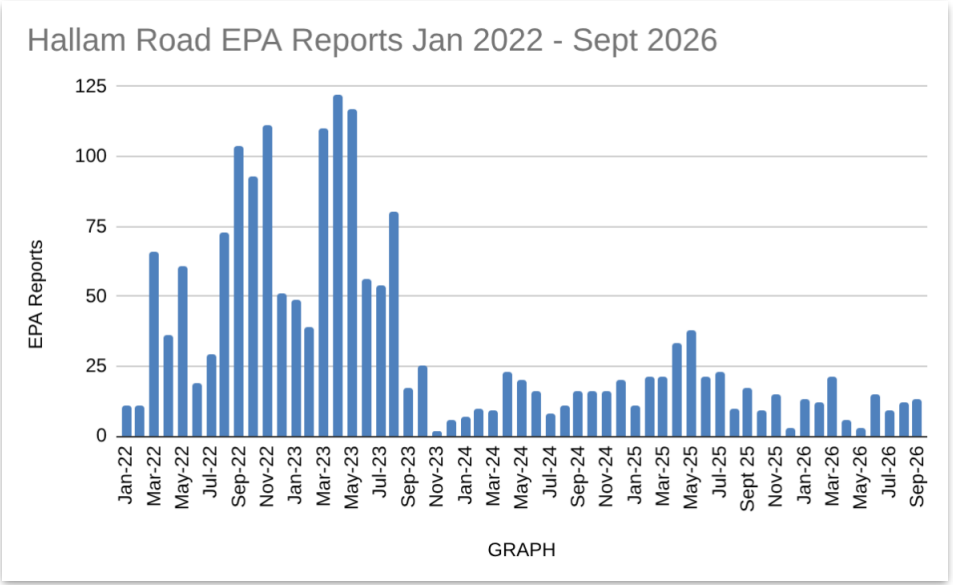
Compounding Challenges

Previous odour profile within our community

Civil claim from our neighbour

Civil claim from our regulator

Social licence challenges with landfilling exit strategy



Leachate Backlog

Sump	Cell	Cell Area (floor plus batters) (m^2)	Leachate Head above base of Sump (m)	Total Leachate Volume (ML)	Leachate Head over Compliance (m)	Leachate Volume over Compliance (ML)
Sump 2	Cell 1, 2, 3 and 6	88,512	2.125	7.7 – 9.2	-3.452	0
Sump 4	Cell 4	30,775	1.534	1.4 – 1.6	0.484	1.3 – 1.5
Sump 5	Cell 5	29,375	4.098	5.9 – 7.1	1.868	5.8 – 7.1
Sump 7	Cell 7	33,400	1.380	0.1	-0.730	0
Sump 8	Cell 8	39,699	4.593	12.7 – 15.6	2.323	12.6 – 15.6
Sump 9	Cell 9A and 9B	46,310	9.291	57.5 – 74.3	7.081	57.5 – 74.3
Sump 10A	Cell 10A	29,160	11.454	54.2 – 70.3	8.644	54.1 – 70.2
Sump 10B	Cell 10B	19,440	8.888	22.1 – 28.5	6.178	22.1 – 28.4
Sump 11A	Cell 11A-P1 and 11A-P2	38,340	8.112	32.1 – 41.2	5.182	32.0 – 41.1
Sump 12	Cell 12A-P1 and 12A-P2	61,000	5.42	35.5 – 54.3	4.700	35.4 – 54.3
Sump 14A	Cell 14A	11,820	0.33	0.08	-0.290	0
TOTAL				229.3 – 293.4		228.4 – 292.6

Decommissioning several legacy ponds severely reduced leachate treatment capacity.

EPA Works Approvals for replacement ponds faced delays due to VCAT objector proceedings.

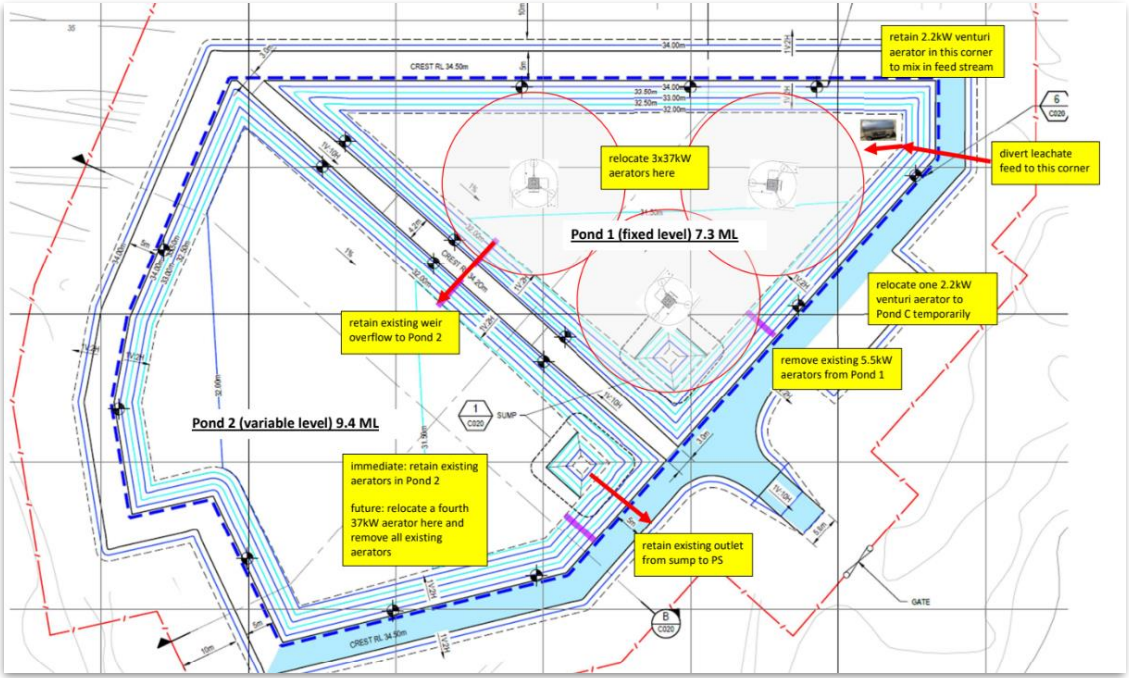
Offsite commercial facilities lacked spare capacity for high-strength raw leachate

Cell 15 Pinch Point





Veolia Water Intervention



- Modified IDEA activated sludge process
- 7.3ML bioreactor (Pond 1)
- 9.4ML buffer pond (Pond 2)
- 2 x 1.75ML batch discharge tanks

Capacity to treat 628 kg/day of ammonia!

EPA approved Cell 15

Wins + Losses

The good...

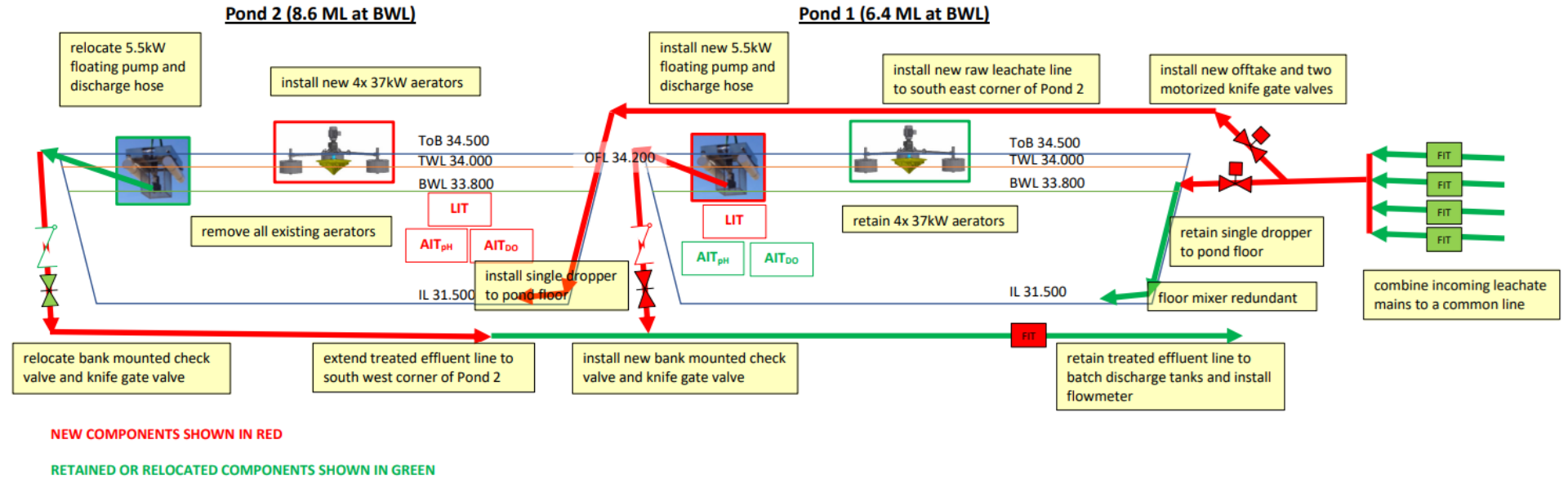
1. It works
2. Minimal CAPEX spend
3. All inhouse knowledge
4. No approvals required

The not as good...

1. Ammonia strength
2. High ATOX
3. Winter



Keep Evolving...



NEW COMPONENTS SHOWN IN RED

RETAINED OR RELOCATED COMPONENTS SHOWN IN GREEN

Insights...

lightbulb **Challenge asset assumptions**

settings **Process over CAPEX**

analytics **Assess and evolve**




VEOLIA