



Qenos

March EMT PFAS update

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12/04/2018



# Status update

- Regulatory direction not yet clear.
  - Likely to move to phase out PFAS. (except medical use).
  - Issue of Australia wide Draft PFAS management plan overdue.
- EPA briefed on progress in November and February
- Clean up plan development on schedule to submit to EPA by 31<sup>st</sup> March.
- Extra groundwater sampling completed with GME in October.
- Surface water sampling in October, December and January.
- Further soil testing in progress to better define areas with PFAS.
- Foam with high levels of PFOS removed from service.
- Other C8 PFAS foams still in service due to uncertainty in regulatory reforms.



## Key findings

- PFAS detected in surface water at all sites.
- Resins stormwater has highest levels in the 5-10 ug/l
  - Identified tank farm area as principal source to stormwater.
  - Planning to cap the PFAS impacted area to block the pathway of PFAS to stormwater and groundwater. Scoping underway.
- Will verify performance of capping prior to implementing in other areas.
- Groundwater and soil levels have not changed from 2016 levels.
  - Excavation procedures updated to avoid personnel exposure and migration of PFAS in excavated soil.



# PFAS CUP Remediation approach

- **Soil and Sediment**
  - Short term (<24 months) - Construction on an impervious cap in highest risk areas – Resins highest priority
  - Minimise direct contact, dust generation, leaching to groundwater and surface water runoff
  - Assess effectiveness and then adopt across other areas, if successful
- **Surface Water**
  - Short term (<24 months) - Construction on an impervious cap in highest risk areas – Resins highest priority.
  - Minimise contamination of surface water runoff
  - Assess effectiveness and then adopt across other areas, if successful
  - Impracticable to capture / store on-site
- **Groundwater**
  - Currently are no short term options for groundwater
  - May not be technically feasible to pump and treat in the Newer Volcanics basalt.



## PFAS management

- Annual sampling of groundwater and review of results.
- Disposal of Quarantined foam stocks once there is an EPA approved method.
- Capping of impacted areas to prevent PFAS migration.
- Monitor development in PFAS management.
  - Health and Environmental risk from PFAS.
  - Development of treatment/management options.
  - Changes in regulations and standards

