

## Questions from attendees of the Port Huon Progress Association meeting

These answers were sourced from Environmental Science Leader, Senior Environmental Scientists, Project Managers and Senior investment planning manager at TasWater.

What will be the cost of the overall project and its component parts? [Estimated at \\$9 million.](#)

Can TasWater confirm the timeframe, especially for traffic disruption? [Throughout the delivery of the project, traffic management will be required along approximately 3.5 km of the Huon Highway. At times traffic will be reduced to single lane, with speed limit reductions implemented. Where possible, we will avoid work during peak traffic periods to minimise the impact and any delays. The project is anticipated to take approximately 8 – 10 months to complete.](#)

The report does not mention tourism, eg. in the section on socio-economic impacts or stakeholders. How will the project limit the impact of road disruptions on the tourism sector during the construction phase? [The impact to traffic will be minimal, in that it is for a short length of highway, no different to other infrastructure works which are frequently undertaken. You can expect to see traffic management in place for the duration of the construction – this is to keep both the community and contractors safe.](#)

What other sites were considered for the new discharge outlet and why was Port Huon chosen? [Ambient monitoring took place once a month over a twelve-month period to determine the best outfall location. Monitoring occurred at the surface, mid-depth, and bottom level of the water. Bathymetry \(depth\) of the area was mapped and hydrodynamics were measured, including locations in Hospital Bay and the Whale Point area. It was determined that an outfall off Shipwrights Point was the best location as a depth of 8m could be achieved at an appropriate distance from the shore and will achieve optimal mixing of effluent and dilution characteristics.](#)

An alternative route for the proposed pipeline to Shipwrights Point would be to direct the pipe to Whale Point. This possibility does not appear to have even been considered. But this would be a shorter distance, it would avoid disrupting traffic for 9-12 months along the Huon Highway, it would avoid the expense and complexity of working around all of the buried infrastructure along the highway in Port Huon and it would discharge the effluent in to a high-flow section of the Huon away from the main population centre and recreational activities. [This route was investigated however, it presented several challenges including rocky ground and would see the pipeline run through private property. The EPA have approved the outfall at Shipwrights Point and to change location after approval would result in lengthy delays to the project, and in turn delay the intended benefits to the health of the Kermadie River by at least 18 to 24 months. Both Whale Point or Shipwrights Point could have the outfall located in deep water in the Huon River however, the Shipwright Point location will achieve superior dilution and mixing of the effluent, based on the ambient monitoring and environmental assessments.](#)

Is Taswater aware of the existing pipeline delivering water to Huon Aquaculture along the southern bank of the Kermadie River? (potential joint use of an easement for efficiency). [The TasWater pipeline ends at the Huon Aquaculture and Crown land property boundary. The pipe mentioned is private infrastructure, on private land. TasWater would require its own easement.](#)

Under the current location there seems to be the risk that the pipe could be damaged by anchors of mooring boats. Has this been taken into account? [The outfall pipeline will be installed using Horizontal Direct Drilling \(HDD\). The majority of the outfall pipeline will be constructed beneath the](#)

seabed. Only the diffuser component will be above the seabed, and this will be appropriately communicated from a navigational perspective.

What information does TasWater have about likely population growth in the Huon Valley and Port Huon in particular? Over what timeframes? Growth and Capacity Plans were reviewed to confirm catchment growth in line with Huon Valley Council planning information and Census data, with future planning horizons applying an annual growth rate of 1.47% p.a. TasWater's adopts a general 30-year planning horizon.

What population figures were used in the modelling of future needs? Please see answer above. Do these figures incorporate the ~1500 new houses expected in Port Huon based on the zoning around the township? Information from the council regarding the additional 1500 new houses indicated that: "The likelihood of 1500 new houses expected in Port Huon is achievable, but there is no timeframe around this." Secondary to this, new land releases which are interested in connecting to TasWater infrastructure need to follow the development process. This process addresses the capacity in existing infrastructure, the developers then need to submit plans and have an engineered solution (potentially constructing pump stations, storage wells etc) in order to connect. Further information can be found within our [Land Development Policy](#), which is available on our website.

To what extent does the modelling incorporate changes to climate? Information regarding sea level rise and storm surges is taken from using the appropriate layers on [List map](#), an online tool available through the Department of Natural Resources and Environment Tasmania.

What will TasWater do if the weather events turn out to be more severe than TasWater's modelling assumes and therefore the number of events with raw sewerage entering the river exceeds 10 per 10 years as assumed in the report modelling? The new sewage pump station and associated storage has been designed to meet EPA engineering guidelines. Incidents of bypass will be significantly reduced. As we do currently, we will continue to manage the performance of our infrastructure during significant weather events.

Has alternative use of treated wastewater for irrigation/resource been investigated, or can this option be facilitated in future given the intended project design? This was investigated in depth in 2014. However, it was deemed unviable as the two likely candidates who could potentially accept reuse water were in separate directions from the treatment plant and an outfall would still be required for the times when customers had no capacity to accept and store this water (particularly the wetter months of May to October). The current outfall would still need to be moved to achieve compliance with the commitment to the EPA.

Has TasWater investigated land-based disposal? Land based disposal is essentially the same as Reuse. As mentioned above this was explored in 2014.

There's an extensive agricultural operation on the northern face of Whale Point Hill which could have an interest in utilising effluent output. With the existing industrial site below, and previous facilities that delivered water up and down the hill in the pulp mill era, there could be good acceptability and some efficiencies. Worth talking to Adam Chapman at HAC and the Benders farm owners? The option of a reuse scheme was investigated and considered not viable, for a number of reasons as detailed above.

There was some info in the EIS about mixing distances from the outfall. Is Taswater aware of the popular fishing jetty that previously existed outside the sailing club and which will be rebuilt soon? (This use of Shipwrights Point was not noted in section 5.3.) We are aware of the old jetty. However,

the outfall will be 45 meters offshore at a depth of 8 meters, on the seabed. Mixing zone modelling indicated substantial dilution well above the target criteria for ecotoxicology and human health will be achieved within 15 meters of the outfall.

Environmental Values		Contaminant of concern			
		Chlorine	Ammonia	Nutrients	Pathogens
Ecological	Fish/Invertebrates	Medium	Low	Low	Insignificant
	Shellfish	Medium	Low	Low	Low
	Marine mammals	Low	Insignificant	Insignificant	Insignificant
	Aquatic plants	Low	Low	Low	Insignificant
Recreation	Primary	Insignificant	Insignificant	Low	Low
	Secondary	Insignificant	Insignificant	Low	Low
	Aesthetic	Insignificant	Insignificant	Low	Low
Industrial	Marine farming	Low	Low	Low	Low
Cultural	Aboriginal Culture	Insignificant	Insignificant	Insignificant	Insignificant

Will it always be safe to eat fish caught from Shipwrights Point in future? Yes, unless otherwise advised by Environmental Health Organisation (EHO), Environment Protection Authority (EPA) and Department of Health (DoH). This may have nothing to do with the effluent and could be related to toxic dinoflagellate blooms etc.

How would the public be indicated of times where the water is unsafe for recreation activities like swimming, boating and kayaking? This would be courtesy of Council communication and signage.

Facts from the EIS that are relevant to this question include:

- The report indicates that there is an expectation of a +1000metre plume of toxic levels of chlorine upstream AND downstream of the effluent outflow area at Shipwrights Point. On Pg 26 the report states “..there may be acute toxicity risks to aquatic organisms caught up in the effluent plume”. ...and... “the effluent plume may encroach on the public jetty and boat ramp at Shipwrights Point.”
- Pg 26 also indicates a risk from organic pathogens and viruses. “Pathogens and viruses to recreational users – MEDIUM SENSITIVITY – the mixing zone for enterococci. However, on the incoming tide, the effluent plume may encroach on the public jetty and boat ramp at Shipwrights Point. The effluent is disinfected and will achieve low-risk guideline most of time.” The public jetty and boat ramp are where people swim and fish. “most of the time” indicates it would be dangerous to swim and fish some of the time.
- Pg 27 of the report states that “Such a mixing zone does not meet the requirements of the State Policy on Water Quality Management 1997.” ....and... “While the STP discharge will occur less than 10 % of the time, there is a medium risk of acute toxicity impacts to the oyster beds and other marine life (sea stars, screw shells, macroalgae, ascidians, shark egg casings) that have been observed in the area.”

There is a possible chlorine toxicity risk to the aquatic ecosystem but there is no risk to recreational activities and/or public health. The chlorine risk is considered extremely conservative due to an overall lack of understanding in the scientific literature about what happens to chlorine in saltwater environments. The behaviour of chlorine in an estuarine environment is complex and its persistence is likely short lived. This will be investigated further during site specific studies. Consequently, the risk is over exaggerated. As part of the EPA approval conditions TasWater will be investigating the fate of chlorine in the receiving environment to understand what, if any, chlorine poses. Note in saltwater chlorine reacts with bromine so there will be no chlorine available.

The EIS authors indicate that due to the complexity of the Shipwrights Point area, they cannot accurately model the behaviour of the toxic plume. The report recommends (P44) that a plume dilution study (PDS) be carried out within 12 months of the commissioning of the project. At this point, the project will have been completed and it will be too late to move the outlet to a different location. What is the planned remedy? A Plume Dilution Study (PDS) is normal practice to verify the modelling. This is a staged approach. If the monitoring indicates a residual risk, then further steps will be undertaken to address this risk in accordance with TasWater's risk-based approach.

Why is monitoring only to be undertaken for the first six months rather than one full year under the Marine Monitoring Plan (section 6.2.4)? At the end of the six months of operational monitoring, results will be reviewed in consultation with the EPA, and based on the outcome of the results, a decision made as to whether to continue for an additional six months or to cease monitoring. Future monitoring will be determined based on the findings of the initial monitoring.

Can TasWater confirm the schedule for monitoring the health of the river and what are the critical things to measure? Please see appendix 1- Operational Phase Monitoring.

The report indicates that events where raw sewerage is dumped in to the Kermandie River are relatively common. I am not aware that TasWater has ever warned the public of the dangers associated with accessing the Kermandie River or Hospital Bay after these events. Huon Aquaculture takes water for their operations directly from the Kermandie. Is Huon Aquaculture warned during these events? When an event results in raw sewage being discharged into the environment, TasWater communicate with the EPA, the EHO, local council (Huon Valley Council), shellfish lease holders and fish farms. TasWater follow strict guidelines and have regular consultation with the EPA. If there are any concerns for public health this will always be communicated.

The report (Pg 39) indicates that TasWater has carried out water testing in Hospital Bay and around Shipwrights Point. All of the seven samples collected showed significant aluminium contamination. Aluminium is considered to be toxic in saline waters above a threshold of 0.5ug/litre (this figure is quoted as 0.5 and 5ug/l in different parts of the report). All samples returned aluminium levels well above the threshold. The distribution of the samples is suggestive of significant and widespread toxic levels of contamination is this (and possibly extending further) area. Has TasWater informed the EPA about these results? The EIS was submitted to the EPA. The EPA have been heavily involved in the planning and approval of this project.

There's long been community interest in establishing a West-East footpath through Port Huon, and potentially co-locating a footpath with the pipeline route could bring efficiencies for both projects. This is especially around the narrow Kermandie Hotel section. The pipeline is now proposed to be aligned within the highway, it is unlikely this will be a possibility, but we are happy to explore this if the opportunity is present, when design is confirmed.