



What's wrong with the proposed "Lauderdale Quay" canal estate development?

1. Threats to Biodiversity

- Drying out of a vast swathe of the Ralphs Bay mudflat/sandflat ecosystem by bunding off the construction area would kill virtually every organism in the invertebrate/microorganism food web, and destroy the local population of all these organisms, which are components of a valuable ecosystem.
- Removal of this mudflat/sandflat ecosystem would deprive migratory and resident shorebirds of their food supply, roosting and nesting areas and thus lead to inevitable mortality and population declines in these bird species.
- Since Birds Tasmania records show that shorebirds regularly move between Ralphs Bay and the Ramsar-listed site at Pittwater/Orielton, to feed and roost, mortality at Ralphs Bay can be expected to reduce populations recorded at the Ramsar listed site.
- Removal of remnant saltmarsh vegetation. Threats to the endangered geometrid moths that feed on the barilla bushes in the saltmarsh.
- Estuarine areas such as Ralphs Bay have an important function as fish nurseries, as they provide protected, rich feeding grounds for the young fish. Ralphs Bay may also be a nursery area for sharks and rays.
- Out in the Bay itself, and downstream in the Derwent – threat to the critically endangered Spotted Handfish, which has a confirmed population in Ralphs Bay itself, not far from the proposed development, and also has two of its only three confirmed breeding colonies just downstream from Ralphs Bay, along the South Arm peninsula.
- Sea lavender – another threatened species.
- Low biodiversity in the vicinity of the canal estate itself, as a result of poor flushing of the water in canals, which leads to low oxygen levels and high levels of turbidity and general pollution.

The proposed development cannot be described as environmentally sustainable, in the light of all these significant threats to biodiversity in the locality and further afield.

2. Threats to water quality in Ralphs Bay and the River Derwent

- Loss of ecosystem services provided by the excavated mudflat / sandflat ecosystem, which plays a complex and vital role in moderating water quality, especially through the nitrogen cycle.
- Possible release of acid from acid sulfate sediments, following drying across the bunded-off area.

- Resuspension of Ralphs Bay sediments as a result of the initial construction process and ongoing dredging to keep waterways open. This would result in increasing turbidity, and distribution of highly toxic heavy metals (lead, zinc, mercury, cadmium, copper) throughout the water column. This has the potential to threaten:
 - marine life in Ralphs Bay and its parent water body, the River Derwent (especially the critically endangered Spotted Handfish)
 - the aquaculture industry, if the heavy metals spread around the South Arm peninsula to Pipeclay Lagoon
- Petrochemical pollution into Ralphs Bay as a result of the presence of heavy trucks and vehicles working in the bay itself, during the extended construction phase.
- Pollution in Ralphs Bay as a result of a wide range of building materials used during construction.
- Runoff from gardens, roads and driveways in the proposed development, directly into Ralphs Bay (fertilizers, pesticides, petrochemicals, dog faeces, general rubbish).
- Antifoulants, paint, sewage and fuel spills from the marina, and moorings.
- Interruption of existing patterns of water movement in Ralphs Bay.
- Poor flushing of the canals in the canal estate, partly because the proposed Ralphs Bay development is “back to front” in the sense that the prevailing strong winds would push polluted water from the canal estate back to the landward edge of the bay, instead of encouraging flushing towards the open sea. Poor flushing leads to the buildup of turbid, anoxic, polluted water in the canals, and frequently results in algal blooms and the buildup of other nuisance species (eg thick encrustations of tubeworms on underwater pilings).

The proposed development cannot be described as environmentally sustainable in the light of these short, medium and long term impacts on the water quality of Ralphs Bay and its parent water body, the Derwent River, and the flow-on effects to marine life, the aquaculture industry and public health.

3. Threats to Public Health

- Canal estates on the mainland are often associated with large populations of pest insect species, including the mosquito which transmits Ross River Fever. This is because poor flushing in the canals leads to stratification of the water, with brackish water floating above heavier, more saline water layers below. Ross River Fever is already an increasing threat to the residents of Eastern Tasmania, and is predicted to be more of a problem in coming years. Apart from the occupants of the proposed almost 500 homes in Ralphs Bay, the 1000 members of the Lauderdale school community would be among the canal estate’s nearest neighbours. The threat of this disease would impact on the whole community. Creating an extensive breeding ground for Ross River Fever in Ralphs Bay is an unacceptable risk.
- With predictions of tens of thousands of heavy vehicle movements involved in the initial excavation of 2 000 000 m³ of sediments in Ralphs Bay and the importation of vast quantities of rock, sand and building materials, road safety in the Lauderdale area would be severely compromised, especially as the development is proposed for an area immediately adjacent to a school community of close to 1000 students and staff.
- Risk of human consumption of seafood containing elevated levels of toxic heavy metals, as a result of sediment disturbance.

4. Loss of amenity for the local community

- Loss of a significant swathe of the valued Ralphs Bay Conservation Area.
- Traffic delays, due to large numbers of heavy vehicles on the roads during the construction phase, and extra cars on the roads from the canal estate residents. These delays would be experienced all the way from Lauderdale to the Tasman Bridge.
- Noise from heavy trucks, excavators and other vehicles and plant associated with the excavation, importation of rock and sand to form artificial landforms in the bay, and construction of buildings on top of these landforms.
- Unpleasant sulfurous (“rotten egg”) smells resulting from excavating the sandflat / mudflat ecosystem. These smells would mainly result from the exposure of bacteria naturally present in the lower, black layers, and also from the death and decomposition of the myriad molluscs, worms, crabs, phytoplankton, protozoa, bacteria etc. in the sediments.
- Loss (by excavation) of one of the State’s best sailboarding areas, which is shallow enough to be safe and easy for beginners, yet exciting due to the high winds prevalent in the area.
- Threats to safe, shallow areas currently used for kayaking, canoeing and floundering in Ralphs Bay (as well as sailboarding).
- Loss of visual amenity across Ralphs Bay, as a result of construction of buildings across the bay, on top of artificial landforms built up above the current high tide mark.
 - loss of the wide, flat, uninterrupted views across Ralphs Bay towards Mount Wellington, with reflections, in the shallow waters of the bay, of the sky conditions, especially sunsets and sunrises.
 - loss of the sight of the numerous wader birds, both resident and migratory, that locals have come to look out for and appreciate, as they feed along the water’s edge.
- The influx of the occupants of almost 500 new homes would be a massive impact on this small beachside community, and would in no way compare to the gradual integration of new residents as homes in existing Lauderdale streets are sold and bought, or small subdivisions occur within the existing village community.
- Damage to the social fabric by introducing considerable disparity between the traditional community and the Ralphs Bay Village residents, who would be likely to be wealthier, and may only be in residence for the Tasmanian summer. Houses left unattended during the winter may also be attractive to criminals.

5. Economic sustainability

- As a result of the environmental damage flowing from canal estate developments interstate, unpredicted remediation costs have often been considerable, and have been borne by the local community long after the developer has left. In the context of Ralphs Bay, residents can expect eventual rates rises, aimed at covering the cost of environmental remediation, continual dredging to keep waterways open and other unforeseen costs.
- Insurability of the properties is a big question mark and may not be possible.
- The building material for the artificial landforms on which canal estates are constructed can subside, resulting in cracking and other property damage, which causes considerable cost for the property owners, after the developer is long gone. Acids in dredge spoil and sulphate attack can degrade concrete and cause damage to infrastructure.

- Likely drop in property values for residents of the South Arm Peninsula south of the canal development, resulting from up to 17 years of traffic delays during construction.
- Unknown economic impact following loss of fish nursery areas.
- Public health impacts and repairs and upgrades to roads as a result of the heavy traffic detailed above, would result in considerable unplanned expense for the State Government.
- Pressure on the Lauderdale School, which is already a community of close to 1000 pupils and teachers.
- Selling a Conservation Area to a developer for the construction of an environmentally damaging canal estate and marina development would erode the distinctiveness of Tasmania as “The Natural State”, thus reducing the State’s market advantage in a competitive world.
- Anticipated rises in the costs of all commodities derived from petrochemicals (diesel, petrol, oil, asphalt, tar) in coming years raise serious questions as to the financial viability of this long-term project, which is dependent on their use.
- The high wind conditions experienced at Ralphs Bay would appear to make the “Ralphs Bay Village” a highly undesirable place to live, which raises the question of whether the project will be financially viable once the initial “excitement” (if any!) has worn off.

For these reasons, and because all the other issues already described would be so enormously challenging to the developer, the project would be economically unsustainable, as well as environmentally unsustainable and socially damaging.