Overview	Code	Specific Considerations	Relevant Plans/ Programmes/Projects
1. ACCESS - Access to and around the awa for multiple uses is an integral value held by all. Persisting loss and diminished quality of access is consequently a major issue across all interest and user groups. **Issues** - Limited accessibility to the awa - Restricted accessibility around the awa - Lack of connectivity to the harbour waterfront			
1.1 Enhancing existing access Providing improved access to and across the harbour with a focus on enhancing existing access whilst avoiding further adverse effects, particularly from reclamation and dredging.	1.1.1	Options to extend Te Aka Ōtākou out to Harrington Point should be investigated and actioned.	DCC Transport and/or Parks & Recreation teams
	1.1.2	A forum for tourism operators and recreational boaties needs to be identified or established to address navigational clashes in the shipping channel. This should provide for engagement with the Harbour Master to recognise past usage practices, other user needs, and find a medium for navigation. It is not conducive to a flourishing tourist industry to have tourism vessels holding at sea, and there is poor transparency as to where the new rule is coming from.	Existing - ORC Harbour Master
	1.1.3	Solutions should be investigated to address the siltation at North End Wharf to restore its functionality for recreational and visiting boats.	Possible action resulting from the ICM process
	1.1.4	The St Andrews Street upgrade will provide an opportunity to require walking and cycling safety integration through DCC vesting.	9YP - Zero Carbon potential workstream
	1.1.5	A bike hub could be established along Portabello Road, on the harbourside. This would provide an ideal location, well connected to the ferry terminal; linking the upper harbour to Portobello.	DCC Transport and/or Parks & Recreation teams
	1.1.6	Existing walking tracks around the awa should be maintained, enhanced and promoted with signage, and public maps provided / updated. Where feasible, linkages between tracks should be formalised.	DCC Parks & Recreation Team (Tracks Strategy)
	1.1.7	Develop an inventory (spatial referenced database) and collate data from audits of the condition of all wharfs, jetties, boat ramps and access infrastructure owned and managed acrosss key organisations (e.g. Port Otago, DCC, DOC, ORC, Ravensdown), including current and potential future uses.	Possible action resulting from the ICM process
	1.1.8	Develop a unified approach for access and recreation across the harbour. Key actors in this may include Mana Whenua, Port Otago, ORC, DCC, and DOC in collaboration with relevant local boards and tourism operators.	Possible action resulting from the ICM process
1.2 Harbour waterfront regeneration Redevelopment of the harbour is a widely shared ambition across user and interest groups. While it is a complex for Ōtepoti, it is likely a matter of when, not if, the potential of Steamer Basin and surrounds are realised. Potentially phasing the process may assist in overcoming capital investment challenges that have stalled progress in the past.	1.2.1	Regeneration must address the Octagon-Harbour connection, providing safe pedestrian access across or over the state highway and rail lines. This should focus on providing connection through Queens Garden. Opportunities to enhance safe connections outwards towards Forsyth Barr Stadium and Kitchener Street Reserve should be explored.	DCC Central City Plan, plus Zero Carbon and Transport teams
	1.2.2	Draw on international and local experiences, with a focus on enhancing local community wellbeing and visitor experiences.The transformation of Te Whanganui-a-Tara / Wellington's central waterfront from working port to the bustling crown jewel of 'Welly on a good day' provides a hugely successful model from a similar setting to reflect on. Through consultation, there were many references to Te Whanganui-a-Tara as an aspiration for the Ōtepoti waterfront, especially given both are afflicted by exposure to high winds. In particular, the way the northern example speaks to its industrial past – retaining, repurposing and enhancing existing buildings and structures, whilst celebrating the natural elements and Te Ao Māori - should be reflected on. Port Otago / Chalmers Property holds the majority of land ownership across the waterfront industrial area; rather than a complex mosaic of land owners. They are a key roleplayer and potential enabler.	DCC Central City Plan, plus Zero Carbon and Transport teams
	1.2.3	Relocate industrial activities from the harbour basin area, enabling land use change to occur.	Port Otago
2. ENVIRONMENTAL HEALTH - The harbour has been subject to several centuries of human intervention which have translated into a steady and then rapid decline in the extent and condition of natural systems and habitat, and the ecological processes that underpin their function, which has resulted in a decline in the abundance and diversity of indigenous plant and animal species. In short, the capacity and resilience of the natural asset has been significantly diminished and with it the values and benefits derived from its use, and resilience in the face of a changing climate. **Issues** - Degradation and loss of habitat. - Native biodiversity Declining and At Risk - Pollution - Fragmented understanding and response			
2.1 Monitoring and Research A holistic, whole-of-harbour environmental monitoring approach would be beneficial. This should: - improve understanding of the state and trends in environmental health, to inform education and management; - address marine, freshwater and terrestrial ecosystem health; - be co-designed by Mana Whenua and ORC, in collaboration with the University of Otago, DCC, community environmental groups, NGOs, Port	2.1.1	Establsish a holistic, whole-of-harbour marine health monitoring programme. This should take into account holistic habitat, species, and system dynamics. It should consider monitoring outcomes rather just indicators of decline, and be designed to inform responses and include review processes to inform adaptive management.	Possible action resulting from the ICM process
	2.1.2	Assess cultural and citizen science to identify opportunities to strengthen and build into the overarching monitoring programme.	Possible action resulting from the ICM process
	2.1.3	Develop a Cultural Health Index (by Mana Whenua) for monitoring the health of ecosystems through a mātauraka lens.	Possible action resulting from the ICM process
	2.1.4	Establish avenues for Mana Whenua-directed research.	Possible action resulting from the ICM process
	2.1.5	Access, review and integrate consent monitoring (including DCC stormwater consent monitoring) into the overarching monitoring programme.	Possible action resulting from the ICM process
2.2 Education Education is crucial for improving understanding of the harbour's health and social and cultural wellbeing, and it is essential that knowledge generated through monitoring and research is shared with the community. The community is well aware of and prizes the life within the harbour. However, limited understanding of the causes, scale, and impacts of existing results in inconsistent community participation in stewardship roles and actions, such as sustainable recreational fishing practices and prevention of littering. This impacts not just the environment, but also cultural practices and connection to place. The >50 schools in the harbour catchment, Youth Council, and University should also be engaged in this process.	2.2.1	Develop avenues for more accessible communication of research and information about the harbour ecosystems through a variety of mechanisms including social media and/or a book or leaflet about Te awa Ōtākou – what's special about it or an account of the living history. Make this available to habour residents and the wider Ōtepoti community, including visitors.	Possible action resulting from the ICM process
	2.2.2	The Yellowfish campaign for avoiding littering and polluting around stormwater drains could be revitalised with an accompanying digital element.	Possible action resulting from the ICM process
	2.2.3	Improve education on the fate of piped urban water including Toitu and Ōpoho through visual arts, story telling and potentially renaming of piped streams on DCC asset plans and consenting documents. This needs to highlight the role of this infrastructre in linking the harbour and headwaters.	Possible action resulting from the ICM process
	2.2.4	There is a clear need to improve visibility of cultural perspectives in existing educational programs and initiatives.	Possible action resulting from the ICM process
	2.2.5	The visibility and celebration of unique species could be enhanced, for example an underwater camera could be installed at Anderson's Bay to capture the octopus migration; and engaging signage could be installed celebrating the Otago Shag.	Possible action resulting from the ICM process

	2.2.6	Education opportunities throughout the education pathway (primary – tertiary) are fundamental to the wellbeing of the harbour and community. This needs to be supported by providing equitable access to the harbour, e.g. providing affordable and reliable transport to Quarantine Island. Options to embed the Kaumautaurua in environmental education programmes should also be explored.	Possible action resulting from the ICM process
2.3 Kaitiakitanga in action There is and has been over a long time considerable effort from a range of organisations towards the improved state of natural systems at a habitat and species scale, including combatting of threats like pest species and restoration. This effort needs to be celebrated, supported and upscaled. Mana whenua need to be at the centre of this effort to facilitate the effective understanding of mātauraka so that informs and is central in restoration, protection and monitoring.	2.3.1	Green corridors linking areas of regenerating native cover can be pathways for taoka species. The feasibility of formally developing, restoring and protecting a continuous biodiversity corridor connecting Orokonui Sanctuary through the inner islands and across to Hereweka could be investigated. The expansion of the formalised corridor to connect to Moore's Bush, OPERA and Pukekura could follow.	Possible action resulting from the ICM process
	2.3.2	Promote planting of native vegetation along riparian margins to protect and help filter the waterways entering into the harbour.	Possible action resulting from the ICM process
	2.3.3	Promote NES-FM 2020 requirements for older structures to address fish passage barrier issues.	Possible action resulting from the ICM process
	2.3.4	Revisit conceptual restoration plans for the naturalisation and restoration of the Ōwheo catchment and functions of the area of tidal influence.	Possible action resulting from the ICM process
	2.3.5	Create coastal bird roosting habitat.	Possible action resulting from the ICM process
	2.3.6	Investigate culturally sensitive options for restore parts of the intertidal zone.	Possible action resulting from the ICM process
	2.3.7	Integrate mātauraka into planting plans to ensure appropriate habitat and food for native bird species.	Possible action resulting from the ICM process
	2.3.8	Cruise ship outreach programme. In partnership with Mana Whenua, give a presentation Te Awa Ōtākou to visitors prior to disembarking at Port Chalmers. This should include the environmental & human history of the harbour and coast, and how to be a responsible, respectful visitor.	Possible action resulting from the ICM process
	2.3.9	Increase the area of native biodiversity under protection.	Possible action resulting from the ICM process
	2.3.10	Celebrate STOP, PFD, OPERA, OPBG, Halo Project, City Sanctuary, Pukekura Trust, and others for their habitat restoration, pest management, and species conservation efforts.	Possible action resulting from the ICM process
	2.3.11	Work with private landowners to increase native vegetation cover on the Otago Peninsula.	Possible action resulting from the ICM process
	2.3.12	Provide support to progress the Sustainable Peninsula concept.	Possible action resulting from the ICM process
	2.3.13	Youth engagement and volunteer drive (beyond Enviroschools). Provide equitable access (e.g., Monarch shuttle to bring kids from town; Councils/community board provide/fund as an act of manaakitanga). Undertake review of what's already happening, what has & hasn't worked, work with schools to identify opportunities to weave this into the curriculum. Enable year round participation in the 'fun stuff' – monitoring (learning with ecologists/specialists), participating & planting	Possible action resulting from the ICM process
	2.3.14	Mana Whenua to lead the progression of a Fisheries Management Plan for the harbour, including but not exclusive to tuaki, scallops, fin fish and kōura.	Possible action resulting from the ICM process
	2.3.15	Enable and support manawhenua to rejuvenate and lead the sustainable management of tuaki populations.	Possible action resulting from the ICM process
	2.3.16	Extend the Mātaitai to whole harbour.	Possible action resulting from the ICM process
	2.3.17	Mana Whenua and UoO investigate the possibilities for regenerative ocean farming to create commercial opportunities balanced with methods of farming that regenerate fishing grounds, filter water and store carbon.	Possible action resulting from the ICM process
	2.3.18	Develop a conservation management strategy for mahika kai (species harvested for food sources), keystone (essential to healthy ecosystem structure and function), and flagship (conservation 'icons' for community engagement) species of Te Awa Ōtākou catchment.	Possible action resulting from the ICM process
2.4 Pollution reduction The harbour receives a wide variety of pollutants often transported via the stormwater network. This includes heavy metals, hydrocarbons, sediments, litter and wastewater. Change in practice and education is needed to support infrastructure improvements and better decision making by Councils, community, business, industry and transport agencies.	2.4.1	Work with Keep Ōtepoti Beautiful, University of Otago Student Association to identify/manage litter from the student precinct.	Possible action resulting from the ICM process
	2.4.2	Work with DCC to investigate solutions to wind-blown litter pollution & ongoing improvement of disposal and recycling infrastructure/services.	Possible action resulting from the ICM process
	2.4.3	Rubbish education programme. Collaborate with Keep Ōtepoti Dunedin Beautiful and Para Kore. This could tie to the revitalised Yellowfish campaign.	Possible action resulting from the ICM process
	2.4.4	Ensure that the District Plan and DCC's Te Ao Tūroa – The Natural World Strategy directly address stormwater quality and volume in Te awa Ōtākou catchment with specific policies and rules.	DCC Planning Team
	2.4.5	Investigate opportunities to provide treatment for the existing Portobello Road pump station flows.	DCC Three Waters Team
	2.4.6	Woka Kotahi and DCC to work together to ensure transport projects integrate best practice.	DCC Roading Team
	2.4.7	Investigate options and funding for ongoing retrofitting of stormwater management interventions across existing urban areas.	DCC Three Waters Team
	2.4.8	Continue ongoing investigations and targeted improvements to reduce the frequency and severity of wastewater discharges to the stormwater network.	DCC Three Waters Team
	2.4.9	Develop improved, locally relevant Erosion and Sediment Control guidance and standards.	DCC Three Waters Team
3. TOURISM - There is significant opportunity to enhance the region's appeal as a premier tourist destination while ensuring that growth is sustainable, contextually appropriate and strategically phased. **Issues** - Seasonality and Climate - Market Challenges for Operators - Access & Connectivity - Authenticity vs. Commercialisation - Underutilisation of Tourism Assets			
3.1 Building on the Destination Ōtepoti Strategy There is significant opportunity to enhance the region's appeal as a premier tourist destination while ensuring that growth is sustainable, contextually appropriate and strategically phased. Issues. All relevant parties should be brought together —tourism operators, businesses, governing bodies, and Mana Whenua, port Otago—under a shared vision for the harbour's tourism future.	3.1.1	Embrace the existing Tourism Growth Framework by DunedinHOST to ensure that key ambitions are translated into specific, actionable steps, aligning efforts across the region to fully realise the harbour's tourism potential.	Enterprise Dunedin
	3.1.2	Embody Mana Whenua values and practices and ensure that these are integral to this effort.	Enterprise Dunedin
	3.1.3	Be phased with clearly defined ownership and allocation of responsibilities. A phased approach also provides flexibility, enabling the strategy to adapt to changing conditions and emerging opportunities.	Enterprise Dunedin
	3.1.4	Balance tourism growth with environmental conservation efforts to maintain the harbour's natural beauty and ecological health, ensuring its long-term appeal as a destination. Balancing tourism growth with community wellbeing and identity is also vital to ensure sustainability.	Enterprise Dunedin
	3.1.5	Focus development on the enhancement of attractions and services that operate year-round, embracing and celebrating the Otago climate, to help mitigate the impacts of seasonality and provide more stable economic opportunities for local businesses.	Enterprise Dunedin
	3.1.6	Ensure that Mana Whenua lead the curation and development of experiences that promote the rich Māori heritage of the harbour in an authentic manner, which centres mana whenua ownership and agency. Mana Whenua could develop these as purchasable standalone resources for self-guided tours, for use by operators under license, or developed as tourism destinations.	Enterprise Dunedin
3.2 Support for Small Operators There are multiple small niche operators that are most vulnerable to a	3.2.1	Promoting Visibility: Building on DunedinHOST's marketing platforms to ensure small businesses are integrated into the region's wider tourism narrative.	Enterprise Dunedin

variety of factors - seasonal weather, pandemics, economic climate (current recession), and so on. A focus on supporting them through marketing, upgrade of shared infrastructure and use of other resources would improve their resilience and optimise the marketing of their shared tourism experience they provide.	3.2.2	Collaborative Resources: Facilitating cooperative ventures such as shared marketing, transport, or booking systems to reduce operational overheads.	Enterprise Dunedin
	3.2.3	Encouraging Innovation: Developing incentives to support new offerings aligned with the harbour's unique natural and cultural context, including eco-tourism and low-season activities.	Enterprise Dunedin
3.3 Enhancing Infrastructure and Connectivity The provision of high quality visitor experience is reliant on safe, visually appealing and comfortable visitor infrastructure from wharfs to visitor centres and signage.	3.3.1	Upgrade amenities and signage at key attractions, such as The Mole, Aramoana, and other underutilized sites, to enhance visitor experiences.	DOC and DCC are developing storytelling signage with help from Mana Whenua.
3.4 Diversifying Tourism Offerings There are opportunities to support the long-term resilience and growth of tourism at Te awa Ōtākou, by diversifying tourism offerings, aiming to continue to attract a wide range of visitors and repeat visits in a sustainable manner. This growth must maintain the authenticity and integrity of the harbour's natural and cultral assets. It should be informed by a a carrying capacity assessment.	3.4.1	Adventure and Recreational Tourism: Cater more specifically for adventure tourism activities that take advantage of the harbour's natural landscapes, such as water-based activities (kayaking, sailing, and paddleboarding) or land-based activities (hiking/tramping, mountain biking, camping or off-grid experiences).	Enterprise Dunedin
	3.4.2	Food and Creative Markets: Expand successful events like the Port Chalmers Seafood Festival into a broader initiative celebrating local cuisine, art, and cultural experiences.	Ara Toi
	3.4.3	Dark Sky Tourism - Optimise the harbour's low light pollution by pomoting dark sky tourism around the Southern Lights (Aurora Australis), stargazing, night tours, and aurora viewings.	Enterprise Dunedin
3.5 Environmental and Cultural Stewardship	3.5.1	Ensure that Mana Whenua values and practices are embedded in tourism initiatives, allowing them to lead the curation of Māori heritage experiences.	Enterprise Dunedin
	3.5.2	Promoting education on sustainable tourism practices for visitors and operators to minimise the environmental footprint of tourism activities.	Enterprise Dunedin
4. ARTS AND CULTURE - As acknowledged in the report, consultation with the creative community is yet to, and must happen for this kaupapa, given how integral this community is to the harbour and vice versa. However, several opportunities were identified through preliminary consultation. **Issues** - There is a need for more art, sculpture and cultural design to celebrate the harbour and to elevate the cultural value of the landscape to the audience. - There is a lack of Mana Whenua representation (including arts) around harbour, which has stemmed from a legacy of colonial practices that have marginalised Mana Whenua and privileged the 'Scottish' heritage of the city, resulting in a diminished visible cultural identity and connection to place for Mana Whenua. - Limited public funding for arts and culture poses a barrier to improving the visibility of both around the harbour.			
4.1 Funding and Support Use the revision of Ara Toi Ōtepoti (Dunedin's arts and culture strategy) to identify opportunities to increase support to the sector and enhance collaboration with Mana Whenua for enhanced representation of cultural values and connections to the harbour.	4.1.1	Promote collaboration between DCC Creative Partnerships and Mana Whenua to identify further key areas for creative representation.	Ara Toi
	4.1.2	Explore avenues to improve the availability and sustainability of funding, in recognition of the benefits returned to the harbour and its communities.	Ara Toi
	4.1.3	Enhance the structure and promotion of community grants and funding. Identify barriers to applying for and securing funding and address these through consultation with the community.	Ara Toi
	4.1.4	Ara Toi Ōtepoti (DCC's city-wide arts and culture strategy) is 10 years old in 2025. When the strategy is refreshed, this process should seek to interface with the kaupapa of this report and its recommendations – seeking opportunities for the arts and culture to thrive in a way that celebrates and benefits Te Awa Ōtakou.	Ara Toi
	4.2.1	A waterfront regeneration project could shine a spotlight on the Ōtepoti arts community, providing opportunities for the creative sector to contribute both in conceptualising what regeneration could look like, and in bringing that vision to life. The Ōtepoti arts community could be instrumental in identifying how space can be created for the arts to thrive in a revitalised waterfront precinct.	DCC Central City Plan
	4.2.2	Explore the feasibility of a sculpture trail to connect the city to the coast along Portobello Road – Harrington Point Road and SH88 - Aramoana Road, enhancing cultural and recreational offerings. This should include elements to engage rakatahi such as interactive installations.	DCC Parks & Recreation Team
5. INFRASTRUCTURE RESILLIENCE - Access to and protection of the harbour and its surroundings is dependent on several types of key infrastructure, including: access routes, protection and erosion control, marine and port operations, water and environmental management, streamworks. These systems are vital to the daily lives of residents, visitors, and the businesses that depend on them and the services they provide. A key challenge lies in their management, as fragmented ownership and unclear allocation of responsibility can make coordination difficult. Many of the systems are also vulnerable to the harsh coastal environment, rising sea levels, changing climate and ongoing maintenance needs.			
5.1 Integrated Infrastructure and Access Strategy Building on ongoing initiatives by DCC, ORC, and Port Otago, an integrated approach to infrastructure and access will ensure cohesion for harbour infrastructure. Existing efforts such as the DCC Infrastructure Strategy, Otago Harbour Reserves Management Plan, and Harbour Arterial Project have laid valuable groundwork. Stakeholder suggestions are to expand and coordinating efforts responding to patterns of use / demand, to address gaps and ensure equitable outcomes.	5.1.1	Leverage existing plans: Build on the DCC Infrastructure Strategy and the Otago Harbour Reserves Management Plan to shape a unified approach to wharves, moorings, parking, and public facilities at these key nodes to ensure cohesive and efficient development. This will ensure alignment with broader citywide goals and facilitate cohesive development.	Otago Harbour Reserves Management Plan - implementation plan
	5.1.2	Hierarchy of use: Prioritise high-use areas where improved access will benefit the greatest number of users, guiding targeted investment and ensuring immediate improvements in critical areas.	Otago Harbour Reserves Management Plan - implementation plan
	5.1.3	Phased development: Focus initially on key locations such as Dunedin City, Port Chalmers, and Portobello, with future expansion to Pukekura. This phased approach allows decision-makers to target infrastructure that maximises socio-economic benefits and system resilience.	DCC Transport Team, Tracks Trails Network, Otepoti Tracks and Trails Trust
	5.1.4	Address historic inequities, particularly in communities, such as Harwood and Ōtākou, where infrastructure improvements have been neglected. Peninsula Connection roading improvements bypassed these areas, leaving roads in poor condition. Additionally, the Te Aka Ōtākou cycleway ceases at Portobello, excluding the kāik community that contributed to the cycle network's name.	DCC Transport Team
5.2 Stormwater and Wastewater System Upgrades The aging stormwater and wastewater systems require significant upgrades to meet the demands of urban development around the harbour. These upgrades align with ongoing efforts under the DCC Infrastructure Strategy and ORC's Three Waters initiatives, which focus on addressing critical infrastructure challenges across Dunedin. These upgrades will form a critical component of the intergenerational mission to eliminate wastewater and heavy metal contamination in Te Awa Ōtākou.	5.2.1	Stormwater and wastewater capacity: The aging stormwater and wastewater systems require significant upgrades to meet the demands of urban development around the harbour. Upgrade existing stormwater and wastewater systems to handle heavy rain events and rising groundwater levels to safeguard water quality and prevent pollution. These upgrades, along with operational maintenance regimes, are critical to eliminating wastewater and heavy metal contamination from urban areas in Te Awa Ōtākou.	DCC Three Waters Team
	5.2.2	Address unreticulated systems: Beyond Portobello, wastewater reticulation remains absent, with reliance on domestic septic tanks. Developing resilient long-term solutions for these systems is essential.	DCC Three Waters Team
	5.2.3	Focus on redevelopment: Current rules in the District Plan emphasise 'new development mapped areas,' which are largely outside the harbour catchment. There is a need for clear and unambiguous rules to support intensified redevelopment of existing residential and commercial areas, ensuring continuous improvement in water quality outcomes at all scales.	DCC Three Waters Team

	5.2.4	Incorporate innovative practices: Build on efforts under the DCC Infrastructure Strategy to prioritise water-sensitive design principles, such as raingardens, constructed wetlands, and incentivised water-sensitive practices.	DCC Three Waters Team
	5.2.5	Ensure all upgrades on existing piped streams (Toitu and Ōpoho) recognise the cultural and ecological value of these systems as connectors to remnant headwater ecosystems. Long term strategies for daylight reaches (e.g. as part of a waterfront redevelopment project) could improve ecological connectivity and should be integrated into asset plans.	DCC Three Waters Team
	5.2.6	Leverage the South Dunedin Future programme: Acknowledge the progress under this programme and explore ways to integrate stormwater management improvements with coastal resilience projects, such as constructing wetlands.	DCC Three Waters Team
5.3 Diversifying Active Transport Offering There is an opportunity to build on the recent developments to enhance public active transport opportunities - including further enhancement of cycling and other sustainable options.	5.3.1	Build on existing initiatives: Reference the success of the cycleways and ORC's additional bus services for cruise ship arrivals as a foundation for expanding active transport offerings.	DCC Roading Team
	5.3.2	Engaging the community and stakeholders in consultations can help assess the potential benefits, which include easing pressure on existing road infrastructure, reducing congestion, and promoting sustainable living. Involving residents ensures new active transport options are tailored to local needs while advancing environmental and resilience goals.	DCC Roading Team
6. CLIMATE RESILIENCE - The October 2024 storm events were a timely reminder that community education and action are urgently needed to address both the current poor state of the health of the harbour, and resilience of the harbour landscape and infrastructure as we face imminent challenges assocaited with climate change. Collaboration, partnerships, working groups, community initiatives, governance solutions, legislative ideas - macro and micro solutions - are all required. **Issues** - Vulnerability of low-lying communities - Wāhi tūpuna and coastal archaeology at risk from flooding and erosion - Climate change models isolated from mātauraka māori - Rising marine and terrestrial temperatures - Community private structures that have not been designed in regard to climate change - Aramoana sandspit dredging and erosion			
6.1 Increasing Resilience Build understanding and consideration of Mātauraka Māori experiential, ecological and climatic indicators along with DCC and ORC climate risk assessments, and take learnings from the South Dunedin project to inform ecologically sensitive, long-term solutions that bolster resilience.	6.1.1	Mātauraka Māori is a rich kete holding experiential, ecological and climatic indicators gathered over generations and bound to place, which has much to teach us in our preparation for the changes to come. It is fundamental that mana whenua participate in climate change risk assessment and mitigation planning initiatives, including technical modelling, looking through the lenses of matāuraka Māori and empirical science as they complement one another. Te Tahū o te Whāriki, the Ngāi Tahu Climate Change strategy sets the framework to achieve this.	DCC city wide and South Dunedin adaptation team
	6.1.2	The drivers and long-term need for erosion mitigation along Harwood and at Te Rauone Reserve need to be clarified. Any ongoing mitigation measures must be ecologically sensitive, long-term solutions that bolster resilience.	DCC city wide and South Dunedin adaptation team
	6.1.3	The Sustainable Peninsula concept could explore opportunities for the Otago Peninsula to go off-grid. This could greatly improve resilience of the communities along the peninsula in the face of a natural disaster.	DCC city wide and South Dunedin adaptation team
	6.1.4	Mapping and monitoring of invasive pest plant species will be essential to inform adaptive management and protect the gains achieved through restoration efforts.	Possible action resulting from the ICM process
7. GOVERNANCE - Given the dynamic nature of the harbour at the interface of the land, ocean, and freshwater, and its complex web of users and multiple values, the need for coordination was expressed a primary overarching need. The commissioning of this work by ORC and the authentic partnership with DCC and mana whenua leading the narrative in this first step demonstrates intent and serves as a solid foundation for taking this mahi forward. The ORC's Integrated Catchment Management (ICM) Programme provides the blueprint for making ths happen. **Issues** - Lack of a holistic vision and action plan - Lack of a Coordinating Institutional Structure - Regulatory-driven decision making - Tension between societal landscape outcomes and personal property rights - Access to finance and resources - Fragmented policy framework diminishes Mana Whenua capacity to engage meaningfully and particpate in decision making - Lack of transparency and accountability in decision making - Access to information			
7.1 Develop an Integrated Wide Catchment Group As per the ICM process, development of a representative Integrated Catchment Group (ICG) is a key first step in ensuring effective representation in the development of a Catchment Action Plan (CAP) for the harbour. The ICG structure should serve to facilitate coordinated decision making in giving effect to the overarching vision and objectives. Formation of the ICG will go a long way to confirming the council's commitment to the community, shown by this foundational work.	7.1.1	Ensure that formation of the Integrated Catchment Group recognises Mana Whenua not as mere stakeholders, but as equal partners with protected and enabled rakatirataka. The commissioning of this work by ORC and the authentic partnership with DCC and Mana Whenua leading the narrative voice in this first phase, demonstrates intent and serves as a solid foundation for achieving this. The establishment of a governance structure that provides strategic oversight, guidance and regular review of the progress is an option for strengthening this partnership.	ICM process
	7.1.2	Promote involvement of the Port and University of Otago in the ICM process. These two organisations are notable for their long history with and play an important role. Early engagement would enhance involvement of these key organisations in the next phase.	ICM process
	7.1.3	Identify and look to optimise/build on any existing relationships and institutional structures, both formal and informal, several of which were noted across the report. These may morph into working groups for each of the themes.	Possible action resulting from the ICM process
	7.1.4	Utilise the stakeholder database produced alongside the Te Awa Ōtākou Issues and Opportunities Report as a starting point for identifying key players and structuring engagement.	ICM process
	7.1.5	Consider establishing an appropriate legal entity that serves as the co-ordinating organisation, or delegate this to an appropriate existing organisation. It is preferable that the institution be of a type and nature that is able to receive and administer funding. It is similarly beneficial if the entity is not a government organisation, primarily to align with the community ownership, but also to avoid bureaucracy and provide resilience against changes associated with political change and short-term cycles.	Possible action resulting from the ICM process
7.2 Develop a Harbour Catchment Action Plan Build on the work to date - including the relationships fostered - to develop a Catchment Action Plan. Consider identifying and prioritising actions that are proven successes, desired by the majority of stakeholders, and have limited barriers (consent/funding) to progressing them in the immediate/short term. Nothing demonstrate commitment like action, and so quick wins should be identifed and prioritised.	7.2.1	Provide the time, space, and resources to assist the Integreated Catchment Group with developing a Catchment Action Plan.	ICM process
	7.2.2	Ensure that the Catchment Action Plan is co-developed with Mana Whenua at the forefront.	ICM process
	7.2.3	The vision should include objectives and outcomes against which success can be measured. These high-level objectives should also serve as a basis against which to prioritise actions.	ICM process
	7.2.4	The mahi should be supported by principles that guide the way role-players work together in subsequent action planning and implementation. These principles should be imbedded in the institutional mechanism and arrangements that are developed to enable and sustain collaborative and inclusive relationships across the user and interest groups.	ICM process

	7.2.5	Ensure that the Catchment Action Plan is intergenerational and accounts for a complex and dynamic system where changes are often beyond the control of any one agency. Emsure that the Catchment Action Plan is responsive to remain relevant and effective. A monitoring and evaluation framework that also includes reflection on the strength, effectiveness and health of the governance arrangements and relationships they support will be important to ensure this is acheived.	ICM process
7.3 Develop a Communications Plan and Platform Along with the importance of information, are the systems to share information in an accessible and timely manner so that stakeholders are able to know about events, have the information to inform input to planning processes, share information and learnings, and connect with other people and organisations.	7.3.1	Develop a Communications Plan and supporting tools (websites, social media) and processes (meeting structures and communication protocols) to support the effective coordination and collaboration of role-players across the harbour. Lean into the many community-led platforms that already exist, including Facebook groups and networks connected to schools and boating clubs etc.	ICM process
	7.3.2	Share succesess and learnings broadly across role-players to maintain energy, interest and momentum and motivation for attracting additional funding (a successful track record is an important criterion for funders).	ICM process
7.4 Develop Financial Instruments to incentivise Conservation and Land-use Management Build on the significant body of work internationally around the development of market-based and other financial instruments to incentivise biodiversity restoration and conservation on private land and test these in a local context.	7.4.1	Prioritise the testing and piloting of these instruments to support unlocking of access to private land to achieve landscape level objectives, through appropriate compensation for the associated opportunity cost.	Possible action resulting from the ICM process
	7.4.2	Ensure that these instruments ensure the effective accomodation of Mana Whenua realities, such as collectively owned land and intergenerational equity.	Possible action resulting from the ICM process
	7.4.3	Develop a database of funding opportunities.	Possible action resulting from the ICM process