

SeaChange Theme	Indicative timeframe DRAFT 31/08/2017			Funding Source
	Next 2 Years (2017-2019)	Next 5 Years (2017 - 2021)	Next 10 Years (2017-2028)	
Theme 1: Rebuilding fish Priority 2.3	Council may choose to advocate for change to fisheries management, but not in Council's direct mandate	<i>Program continues as embedded in Auckland Council and CCO work programs</i>		Not Applicable
Theme 2: Restoring habitats Priority 2.1	Role for Council in assessing habitats of importance through existing mechanisms such as SEAs - Marine	<i>Program continues as embedded in Auckland Council and CCO work programs</i>		Not Applicable
Theme 3: Aquaculture Priority 2.1	Submission to Ministry for Primary Industries on proposed National Environmental Standard for Marine Aquaculture	Unitary Plan rules for Aquaculture		Currently funded
	Unitary Plan Change to give affect to NES for Marine Aquaculture	<i>Program continues as embedded in Auckland Council and CCO work programs</i>		Currently funded
Theme 4: Restoring healthy functioning ecosystems Priority 2.2	SEAs (Marine) identify significant habitats for protection and enhancement - but need to be expanded to map region more comprehensively, particularly for subtidal areas. Improved ecosystem data would inform priorities for spatial protection and monitor change supported by research. Develop habitat assessment tools, new methods for rapid habitat assessments and remote habitat surveys.	<i>Program continues as embedded in Auckland Council and CCO work programs</i>		To be decided through LTP process
Theme 5: Protected, enhanced and restored habitats Priority 2.2	SEAs - Marine provide a means for council to identify significant environments for protection and enhancement. Their expansion would help inform MPA establishment. MPA establishment is best led by central Government.	<i>Program continues as embedded in Auckland Council and CCO work programs</i>		To be decided through LTP process
Theme 6: Restored species diversity and Priority 2.1	Active management of roosting and nesting areas in place in partnership with community groups and Parks	<i>Program continues as embedded in Auckland Council and CCO work programs</i>		To be decided through LTP process
	Unitary Plan identifies and protects bird habitat in SEA-Terrestrial and Marine			Currently funded
	Unitary Plan includes rules for the protection of fish passage			Currently funded
	Partner with Crown Research Institutes and Universities to implement seabird research program	<i>Program continues as embedded in Auckland Council and CCO work programs</i>		To be decided through LTP process
	Reinstate marine habitat monitoring program, and work to inform programme design and track trends (including monitoring criteria) (link to Theme 4)	<i>Program continues as embedded in Auckland Council and CCO work programs</i>		To be decided through LTP process
	Marine monitoring program (ecology, water quality and seabirds)	Seabird population and distribution monitoring		Currently funded but additional funding required
	Auckland Transport Sustainability Framework	Additional research to inform effectiveness and targeting of intervention, including additional work on habitat restoration on Hauraki Gulf Pest Free Islands (short term) and Great Barrier (long term).		Not currently funded but grant proposals made
Theme 8: Biosecurity Priority 2.1	Unitary Plan controls on discharge of biofouling from vessel cleaning and passive discharge			Currently funded
	Treasure Islands (protecting conservation islands in the Hauraki Gulf) initiative in partnership with Department of Conservation			
	Biosecurity investigations with MPI			To be decided through LTP process
	Management of Marine Biosecurity program	<i>Program continues as embedded in Auckland Council and CCO work programs</i>		
	Pest investigation, research and development	<i>Program continues as embedded in Auckland Council and CCO work programs</i>		
Theme 7: Marine debris Priority 1.1	Marine Litter Staff Working Group	Assess the appropriate approach to address marine litter		Currently funded
		Tetratrap on stormwater assets		Currently funded
		Funding of litter clean up and behaviour change initiatives		Currently funded but additional funding required
		Obtain better monitoring protocols to align organisations as well as with international standards		Not currently funded. New funding proposed for next LTP bid
	Street sweeping – AT contractors in 2015-16 prevented 6,000+ tonnes from entering the harbour via street sweeping, and Healthy Waters 6,000 tonnes from cleaning catchpits region wide.	Joint review of options/practices to increase the amount prevented from entering harbour for additional investment, and also separate volumes by Harbour/catchment.		Currently funded but additional funding required
	Approximately 3000 Tetratrap have been installed in catchpits jointly by Auckland Council / Auckland Transport and the Local Boards mainly around the Central area.			Currently funded but additional funding required
Theme 9: Sediment Priority 1.1	Integrated Watershed Management Plans as per NPSFM	<i>Program continues as embedded in Auckland Council and CCO work programs</i>		Currently funded but additional funding required
	Waterway protection fund	Unitary Plan supporting Water Sensitive Design, and technical guidance in GD04		Currently funded but additional funding required
	Undertake soil mapping	Fund allocation for catchment improvements that feed to Hauraki Gulf		Not currently funded. New funding proposed for next LTP bid
	Monitoring of sediment accumulation rates and sediment muddiness as well as ecological responses to increased muddiness	Soil mapping to help farmers understand soil productivity		Currently funded but additional funding required
		Expand monitoring Sediment Accumulation Rates to inform performance on SeaChange objectives		Currently pilot monitoring funded but will develop for next LTP bid
	Auckland Transport Road dust supression trial (Rodney)	Auckland Transport Regional road sealing program		Currently funded but additional funding required
		Auckland Transport Vegetation and table drains in rural areas (Sediment capture)		Currently funded but additional funding required
	Auckland Transport Asset Management Plan identifies requirements for management of stormwater assets			Currently funded
	Auckland Transport involved in water related workstreams (including Water Cluster Forum, Wai Ora program, Clean water working group)			Currently funded
Theme 10: Nutrients Priority 1.1	State of Environment Monitoring (In collaboration with WRC)	Integrated Watershed Management Plans as per NPSFM		Currently funded but additional funding required
	Water Sensitive Design requirements for new development included under the Unitary Plan	Expansion of monitoring to inform nutrient models for Hauraki Gulf (in collaboration with WRC)		Currently funded but additional funding required
Theme 11: Heavy metals Priority 1.1	Mapping of impervious surface are by catchment, transport designation and transport network impervious area.	<i>Program continues as embedded in Auckland Council and CCO work programs</i>		Currently funded but additional funding required
	Auckland Transport Water Action Plan	<i>Program continues as embedded in Auckland Council and CCO work programs</i>		Currently funded but additional funding required
	Assessment of transport requirements for urban growth and review of service level agreement for stormwater in road corridor	<i>Program continues as embedded in Auckland Council and CCO work programs</i>		Currently funded but additional funding required

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	Roads and Streets framework and Transport Design Manual development includes water sensitive design and developing design LoS for each road classification typologies	Program continues as embedded in Auckland Council and CCO work programs	Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required	
	St Mary's Bay Water quality improvement programme - project for tetrapods is a collaboration between AT and Healthy Waters	Program continues as embedded in Auckland Council and CCO work programs	Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required	
	AT supports the installation of water sensitive devices as a way of managing stormwater where appropriate. The future cost to operate and maintain devices, management of vegetation and its replacement and associated traffic management needs to be accounted for into the future.	Program continues as embedded in Auckland Council and CCO work programs	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Development of stormwater management plans for growth and championing at source treatment	Continuation and expansion of current programme	Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required	
	Investigation of how to retrofit water sensitive design into existing urban areas	Implement findings of the investigation	Program continues as embedded in Auckland Council and CCO work programs	Not currently funded. New funding proposed for next LTP bid	
	Management of landfills to ensure compliance with Unitary Plan (Closed Landfill Asset Management Plan - 2018 refresh)	Undertake further investigation on the contribution of marine vessels to heavy metal discharges	Program continues as embedded in Auckland Council and CCO work programs	Not currently funded. New funding proposed for next LTP bid	
		Consent compliance team inspecting industrial trade areas and new housing areas	Program continues as embedded in Auckland Council and CCO work programs	Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required
		Implementation of contaminant reduction strategy based on findings of integrated watershed plans	Program continues as embedded in Auckland Council and CCO work programs	Program continues as embedded in Auckland Council and CCO work programs	Not currently funded. New funding proposed for next LTP bid
		Monitoring of contaminants in marine environment as part of SOE monitoring	Expansion of monitoring into specific areas to monitor effectiveness of policies and interventions	Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required
		Use, upgrade and instalment of stormwater devices to trap contaminants (new and retrofitted to key areas) to reduce heavy metal contaminants in urban areas as part of infrastructure delivery	Development of integrated watersheds plans to determine loads of heavy metals based on land use	Program continues as embedded in Auckland Council and CCO work programs	Not currently funded. New funding proposed for next LTP bid
		Emptying of stormwater catchpits and ongoing maintenance of treatment devices	Use, upgrade and instalment of stormwater devices to trap contaminants (new and retrofitted to key areas) to reduce heavy metal contaminants in urban areas as part of infrastructure delivery	Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required
		Industrial Pollution Prevention Programmes being run by several local boards	Development of stormwater catchpits and ongoing maintenance of treatment devices	Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required
		Undertaking Whau water quality investigation to determine sources of heavy metals	Industrial Pollution Prevention Programmes being run by several local boards	Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required
		Undertaking various Local Board and community initiatives for monitoring and education of onsite wastewater management.	Undertaking Whau water quality investigation to determine sources of heavy metals	Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required
		Development of risk assessment model for onsite wastewater devices throughout Auckland	Undertaking various Local Board and community initiatives for monitoring and education of onsite wastewater management.	Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required
Completing review of onsite wastewater treatment management in the Auckland region		Development of risk assessment model for onsite wastewater devices throughout Auckland	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
Theme 12: Microbial pathogens Priority 1.1	Undertaking monitoring of closed waterways and other waterways graded as having poor water quality to identify source and then associated works to reduce contribution. This work may include I&I works, cross connection works, etc.	Development of integrated watersheds plans to determine loads of heavy metals based on land use	Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required	
	Undertaking infiltration and ingress works to improve network performance. Current works include Takapuna, Mellons Bay.	Use, upgrade and instalment of stormwater devices to trap contaminants (new and retrofitted to key areas) to reduce heavy metal contaminants in urban areas as part of infrastructure delivery	Program continues as embedded in Auckland Council and CCO work programs	Not Applicable	
	Investigation of proactive compliance regime for onsite wastewater systems for Auckland	Development of stormwater catchpits and ongoing maintenance of treatment devices	Program continues as embedded in Auckland Council and CCO work programs	Not Applicable	
	Development of industrial practice group for onsite wastewater devices	Emptying of stormwater catchpits and ongoing maintenance of treatment devices	Program continues as embedded in Auckland Council and CCO work programs	Not currently funded. New funding proposed for next LTP bid	
	Completion of catchment assessment for high risk catchments identified in the onsite waste risk assessment as validation	Industrial Pollution Prevention Programmes being run by several local boards	Program continues as embedded in Auckland Council and CCO work programs	Not currently funded. New funding proposed for next LTP bid	
	Roll out of region wide on-site stormwater bylaw or other proactive compliance scheme	Undertaking Whau water quality investigation to determine sources of heavy metals	Program continues as embedded in Auckland Council and CCO work programs	Not currently funded. New funding proposed for next LTP bid	
	Western Isthmus Water Quality Improvement Program	Undertaking various Local Board and community initiatives for monitoring and education of onsite wastewater management.	Program continues as embedded in Auckland Council and CCO work programs	Not currently funded. New funding proposed for next LTP bid	
	Unitary Plan requirements in place to limit the discharge from vessels	Development of risk assessment model for onsite wastewater devices throughout Auckland	Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required	
	Central Interceptor Tunnel, Link Sewers	Completing review of onsite wastewater treatment management in the Auckland region	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Northern Interceptor - Hobsonville to Rosedale	Undertaking monitoring of closed waterways and other waterways graded as having poor water quality to identify source and then associated works to reduce contribution. This work may include I&I works, cross connection works, etc.	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Fred Thomas Drive waste water pumping station and storage	Undertaking infiltration and ingress works to improve network performance. Current works include Takapuna, Mellons Bay.	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Wynyard Quarter waste water pumping station and storage	Investigation of proactive compliance regime for onsite wastewater systems for Auckland	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Glendowie Branch Sewer upgrade	Development of industrial practice group for onsite wastewater devices	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Wairau Wastewater Pumping station and rising main	Completion of catchment assessment for high risk catchments identified in the onsite waste risk assessment as validation	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	East Coast Bays link sewer upgrade	Roll out of region wide on-site stormwater bylaw or other proactive compliance scheme	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
Army Bay Treatment Plant Upgrade	Western Isthmus Water Quality Improvement Program	Program continues as embedded in Auckland Council and CCO work programs	Currently funded		
Warkworth/Snelis Beach Upgrade	Unitary Plan requirements in place to limit the discharge from vessels	Program continues as embedded in Auckland Council and CCO work programs	Currently funded		
Theme 13: Risks and threats to water quality Priority 1.2	Watershed Plans take a risk based approach, including the identification of risks and its assessment	Development of risk assessment model for onsite wastewater devices throughout Auckland	Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required	
	Auckland Council has the pollution response team which responds to spills (oil and chemical). Harbour Master has responsibility for coordinating tier 1 and 2 spills and works closely with Maritime NZ for larger scale spill preparedness and response	Completing review of onsite wastewater treatment management in the Auckland region	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Westhaven marina runs education programmes with local schools to teach them about the Blue Flag and Clean Marina programs and gets involved in clean-ups. Also run work programmes and cadetships.	Undertaking monitoring of closed waterways and other waterways graded as having poor water quality to identify source and then associated works to reduce contribution. This work may include I&I works, cross connection works, etc.	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Auckland Visitor Plan 2021: Auckland has an opportunity to reposition the Waitemata Harbour and Gulf Islands as a world class marine park offering a range of distinctive attractions and experiences that are easily accessible	Undertaking infiltration and ingress works to improve network performance. Current works include Takapuna, Mellons Bay.	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Omana Regional Park runs education programs on marine environments such as the Sea Shore Safari	Investigation of proactive compliance regime for onsite wastewater systems for Auckland	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Regional Parks water quality and shore health studies	Development of risk assessment model for onsite wastewater devices throughout Auckland	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Motukorea/Browns Island management and community volunteering days	Completing review of onsite wastewater treatment management in the Auckland region	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Mana Whenua engagement - Parks, Sport and Recreation run monthly hui to discuss upcoming projects and provide updates on existing projects.	Undertaking monitoring of closed waterways and other waterways graded as having poor water quality to identify source and then associated works to reduce contribution. This work may include I&I works, cross connection works, etc.	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Harbourmaster supports Coastguard at Safe Boating Week	Undertaking infiltration and ingress works to improve network performance. Current works include Takapuna, Mellons Bay.	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Te ara moana - Sea Kayak Trail, with campgrounds provided at regional parks along the South East coast, stretches from Howick to Kaiaua	Investigation of proactive compliance regime for onsite wastewater systems for Auckland	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
Theme 14: Inspiring the Hauraki Gulf Priority 3.2	Management Plan development for Motukorea/Brown's Island	Development of risk assessment model for onsite wastewater devices throughout Auckland	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Te Ara Hura Trail, Waiheke – a collection of walks to explore Waiheke Island and discover its natural beauty. The walking track network allows exploration of the coastline, native bush and historical sites.	Completing review of onsite wastewater treatment management in the Auckland region	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Recreational access to the Hauraki Gulf is provided through a wide range of wharves and jetties, accessible from parks and reserves, as well as a number of esplanade and beach reserves	Undertaking monitoring of closed waterways and other waterways graded as having poor water quality to identify source and then associated works to reduce contribution. This work may include I&I works, cross connection works, etc.	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	The regular Panuku Mana Whenua Forum enables a place-based approach to city centre waterfront planning and development. Mana Whenua have adopted goals for this area. Panuku plays a lead role in this location	Undertaking infiltration and ingress works to improve network performance. Current works include Takapuna, Mellons Bay.	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	The refresh of waterfront planning in the central wharves area (being led by Panuku) aims to enable growth in charter and tourism related boating which will support visitor access to the gulf	Investigation of proactive compliance regime for onsite wastewater systems for Auckland	Program continues as embedded in Auckland Council and CCO work programs	Currently funded	
	Theme 15: Providing access to the Hauraki Priority 3.1	Management Plan development for Motukorea/Brown's Island	Development of risk assessment model for onsite wastewater devices throughout Auckland	Program continues as embedded in Auckland Council and CCO work programs	Currently funded
		Te Ara Hura Trail, Waiheke – a collection of walks to explore Waiheke Island and discover its natural beauty. The walking track network allows exploration of the coastline, native bush and historical sites.	Completing review of onsite wastewater treatment management in the Auckland region	Program continues as embedded in Auckland Council and CCO work programs	Currently funded
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		The regular Panuku Mana Whenua Forum enables a place-based approach to city centre waterfront planning and development. Mana Whenua have adopted goals for this area. Panuku plays a lead role in this location	Undertaking infiltration and ingress works to improve network performance. Current works include Takapuna, Mellons Bay.	Program continues as embedded in Auckland Council and CCO work programs	Currently funded
		The refresh of waterfront planning in the central wharves area (being led by Panuku) aims to enable growth in charter and tourism related boating which will support visitor access to the gulf	Investigation of proactive compliance regime for onsite wastewater systems for Auckland	Program continues as embedded in Auckland Council and CCO work programs	Currently funded
		Management Plan development for Motukorea/Brown's Island	Development of risk assessment model for onsite wastewater devices throughout Auckland	Program continues as embedded in Auckland Council and CCO work programs	Currently funded
		Te Ara Hura Trail, Waiheke – a collection of walks to explore Waiheke Island and discover its natural beauty. The walking track network allows exploration of the coastline, native bush and historical sites.	Completing review of onsite wastewater treatment management in the Auckland region	Program continues as embedded in Auckland Council and CCO work programs	Currently funded
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		Management Plan development for Motukorea/Brown's Island	Development of risk assessment model for onsite wastewater devices throughout Auckland	Program continues as embedded in Auckland Council and CCO work programs	Currently funded

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		Auckland Transport is currently preparing a revised Ferry Strategy that will look at service and berthing requirements, frequency and associated infrastructure needs. The Strategy is scheduled for completion in mid-2018.		
	Auckland Transport Walking and Cycling Strategy			Currently funded
	Utilise Maori design advice available from within the Urban Design Strategy team of the ADO and application of Maori design principles (Te Aranga principles). Used by all of Auckland Council, including CCOs			Currently funded but additional funding required
		Skypath enabling works and Westhaven Promenade Stage 2, led by Panuku, will support this action		Funding from other sources available (External)
Theme 16: Designing coastal infrastructure Priority 3.2	Currently discussing with mana whenua the opportunity of and options around co-governance in relation to a proposed expansion of the Westhaven Marina	Program continues as embedded in Auckland Council and CCO work programs		Currently funded but additional funding required
	Contribute to the development of blue design principles and include these in the Auckland Design Manual	Program continues as embedded in Auckland Council and CCO work programs	Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required
	Auckland Transport Ferry Strategy proposed to include design and operation of land based assets		Program continues as embedded in Auckland Council and CCO work programs	Currently funded
	Provide advice on the establishment of a HGMP Design Panel using the existing urban design panels body of knowledge		Program continues as embedded in Auckland Council and CCO work programs	Currently funded but additional funding required
	Te Aranga Maori design principles used by Auckland Council and CCOs			Currently funded but additional funding required
	Stormwater Quality improvements as appropriate during transport projects (Auckland Transport)			Currently funded but additional funding required