

# R2R IW RESULTS FRAMEWORK

Components	Outcomes	Indicator	Baseline	Targets End of Project	Source of Verification	Risks and Assumptions
1. Building on successful waste management systems approaches demonstrated in IWRM Project to safeguard groundwater and lagoon water quality	1.1 Improved municipal solid waste operations catalysed through demonstration of appropriate leachate management to reduce groundwater contamination on Nauru	Status of leachate of Municipal Tip	Municipal Tip is un-lined and releasing all contaminants into the receiving environment	Controlled municipal leachate management system demonstrated through liner installation at the Municipal Tip, reducing release of contaminants into receiving environment by 50%	Consultation meeting reports, including agreements on best practice	Resources available for the construction of liners at the tip
		Cost Benefit analysis of options with Recommendations	None	Success in sourcing funding for development of Lined Municipal Tip	Consultation meeting reports, including agreements on design, construction agreements, site selection and roles of stakeholders	Failure to secure funding
		NECC Endorsement	None	NECC supports Priority Funding of new lined Tip, Best Practice incorporated within Environment Legislation	Consultation meeting reports, including agreements on design, construction agreements, site selection and roles of stakeholders	failure to obtain NECC endorsement
		Best Practice operational	None	Functional Municipal tip with decreased environmental impact		Commitment to on-going operation of converted tip site
		Volume reduction in leachate entering receiving environment	None	Legislated monitoring and standards	Report on assessment of the operational status [Yr 3]	
	1.2 Improved municipal wastewater operations catalysed via demonstration of appropriate and effective methods for wastewater treatment to reduce groundwater and lagoon contamination on Nauru	Assessment and Treatment options Identified	There is currently no treatment for wastewater and is discharged directly to the receiving environment	Sustainable wastewater treatment demonstrated through installation of a constructed wetland treatment system, reducing nutrient and pathogen loads from wastewater discharging directly into the receiving environment by 30%	Consultation meeting reports, including agreements on design, construction agreements, site selection and roles of stakeholders	Resources available for the constructing wetland treatment systems
		Cost Benefit analysis of options with Recommendations	None	Success in sourcing funding for development of Septic Sludge Treatment		
		NECC Endorsement	None	NECC supports Priority Funding of new facility, incorporated within Environment Legislation	Report on assessment of the operational status [Yr 3]	Commitment to on-going maintenance of wetland treatment system
		Incentive Scheme Established	None	Functional sludge receivable and treatment facility operational		
		Number of Units and volume reduction in nutrient entering receiving environment	None	New and Existing home owners incentivised to install compost toilets		
		Volume reduction in nutrient and pathogens entering receiving environment	None	749kg/yr (34%) reduction of TN through constructed compost toilets serving 15 houses in demonstration area in Nauru		

Components	Outcomes	Indicator	Baseline	Targets End of Project	Source of Verification	Risks and Assumptions
	1.3 Improved options for sustainable on-site waste management of domestic pig pens	Level of pig management options identified	Limited data available on pig management systems in Nauru	Review and assessment of current pig management systems, identification of potential improvements and level of community awareness on alternative systems	Data collection reports, consultation meeting documents, assessment report	Residents willing to participate in data collection
		Cost Benefit analysis of options with Recommendations	None	Adoption of Best Practice		
		NECC Endorsement	None	Endorsed Best Practice incorporated within Environment Legislation	Final report [Yr 2]	Resource available for data collection and analysis
		Volume reduction in nutrients entering receiving environment	None	Reduction of TN through adoption of dry litter serving 15 houses in demonstration area in Nauru		
		Volume reduction in nutrient and pathogens entering receiving environment	None	Legislated monitoring and standard		
2. Integrating identification of significant heritage sites and traditional knowledge into national coastal planning.	2.1 Strengthened information base for identification and assessment of heritage sites of National significance.	Status of data collection programmes for 3 priority sites	Little data is available on the status of near shore fisheries habitats	Fisheries and habitat data collection programme operational to identify critical areas of fisheries habitats on Nauru	Monitoring results, analysis and research reports, comparative studies and final evaluation report [Yr 3]	Consistent use of standardised data collection methods and procedures
		Uptake of scientific recommendations			Nauru Fisheries Habitats document [Yr3]	
	2.2 Enhanced knowledge of linkage between heritage sites and traditional knowledge and coastal development planning	Status of data collection programmes for 3 priority sites	Little data available on coastal habitats, links between land-based contaminants and coastal water degradation and coastal habitat status	Ecosystem processes and coastal health data collection programmes operational to identify nutrient dynamics, threats from land-based contaminants to coastal waters and impacts on fisheries habitats at 3 priority sites on Nauru	Monitoring results, analysis and research reports, comparative studies and final evaluation report [Yr 3]	Untreated effluent disposal is negatively affecting coastal water quality
Degree for which scientific evidence demonstrates linkages to coastal ecological health		Limited understanding of aquaculture implications or sharing of information		Coastal Health Summary for Policy & Planning [Yr 3]	Resources are sufficiently available for reliable analysis and evaluation of contaminant dynamics to produce scientific results	

Components	Outcomes	Indicator	Baseline	Targets End of Project	Source of Verification	Risks and Assumptions	
	2.3 Strengthened cross-sectoral coordination of the assessment of priority heritage sites of National significance and their protection through the incorporation of protection provisions within coastal policy.	Continuity of government agency participation in NCLC meetings	Lack of cross-sectoral involvement in management of critical coastal areas and fisheries habitats	National Coastal Livelihoods Committee (NCLC) established and functional to oversee the development of coastal and fisheries management plans; identifying links to food security and sustainable livelihoods	NCLC terms of reference, membership lists and meeting reports, joint planning and management decisions	Willingness of environment, fisheries and public health sectors to engage in joint decision making and planning	
		Status of management plans				Resources available to undertake research	
		Volume of information generated and shared	Limited understanding of aquaculture implications or sharing of information	Partnerships with local aquaculture initiatives established to investigate environmental impacts and food security benefits of aquaculture	MoA, assessment and findings report	Collaborative arrangements can be established between agencies	
3. Incorporating ICM strategies into national coastal infrastructure planning and regulations	3.1 Identifying priority areas of action in coastal infrastructure planning and regulations	Volume of information compiled and synthesised	Lack of an integrated review on coastal infrastructure mechanisms	Review and synthesise existing local and national mechanisms for planning and regulation of coastal infrastructure, harbour blasting guidelines and coastal zoning laws; identify gaps in policy and regulation	Report on regulations and zoning, published review document,	Data on coastal infrastructure regulations and planning is freely available	
		Uptake of recommendations into policy guidelines					
	3.2 Enhanced policy guidance for improved management of coastal infrastructure impacts on coastal habitats	Status of guidelines	Environmental and social impacts of coastal infrastructure is not reflected in related national regulations	Coastal Infrastructure Development guidelines developed and agreed to through community and agency consultation; with a focus on adverse impacts of infrastructure development to coastal habitats	Community consultation meeting reports, agency meeting reports	Infrastructure sector is willing to engage with environmental and social issues	
		Guidelines contained within Regulations or endorsed by Cabinet					
		Guidelines being used in location and type of new coastal Infrastructure	None		Coastal Infrastructure Development Guideline published [Yr 3]		
			Status of 10 re-vegetated areas	Limited vegetated areas around vulnerable coastline areas	Coastal re-vegetation programme of salt and drought tolerant trees (Pacific Almond, Coconuts, Pandanus & Salt Bush trees) developed and implemented at 10 critical coastal sites around Nauru	Community consultation reports, site selection documents, Programme Implementation Plan and activity reports	Willingness of community to host and be involved in re-vegetation program
			Extent of area re-vegetated	None	10 ha of coastal area re-vegetated with salt and drought tolerant species at 10 critical sites in Nauru	Programme evaluation report	Resources available to re-vegetate critical areas