

Task No.	Category	Task Description	Scheme	Associated Risk ID	Time Frame	Responsibility	Status	Cost Est.	Comments
1	Asset Condition & Information	Review of access to and integrity of reservoir at Koumala	Koumala				Completed	\$ 5,000	Review of access complete with interim measures put in place.
2	Asset Condition & Information	Review clear-water tank cleaning and maintenance schedule and methodology for Nebo Road WTP	Mackay	M26	2nd Half, FY 16/17	Treatment Engineer	Pending	\$ 5,000	Works to be conducted in FY 17/18. 01 September 2015 Pinch Point Workshop maintenance task number 5.
3	Asset Condition & Information	Review Sarina WTP clear water tank cleaning and maintenance schedule and methodology	Sarina			Treatment Engineer	Closed		Decision made June 2016 that Sarina WTP clear water tank cleaning and maintenance would not be conducted with the current strategy being to supply water to Sarina from Nebo Rd WTP.
4	Asset Condition & Information	Capture details on pipe materials, sizes, approximate lengths and ages	Eton		1st Half, FY 16/17	Mackay Water Management	Pending	TBA	Assetic is currently being populated with data and each scheme will be reviewed in turn.
5	Asset Condition & Information	Capture details on pipe materials, sizes, approximate lengths and ages	Bloomsbury		1st Half, FY 16/17	Mackay Water Management	Pending	TBA	Assetic is currently being populated with data and each scheme will be reviewed in turn.
6	Asset Condition & Information	Capture details on pipe materials, sizes, approximate lengths and ages	Calen		1st Half, FY 16/17	Mackay Water Management	Pending	TBA	Assetic is currently being populated with data and each scheme will be reviewed in turn.
7	Asset Condition & Information	Capture details on pipe materials, sizes, approximate lengths and ages	Koumala		1st Half, FY 16/17	Mackay Water Management	Pending	TBA	Assetic is currently being populated with data and each scheme will be reviewed in turn.
8	Asset Condition & Information	Capture details on pipe materials, sizes, approximate lengths and ages	Midge Point		1st Half, FY 16/17	Mackay Water Management	Pending	TBA	Assetic is currently being populated with data and each scheme will be reviewed in turn.
9	Asset Condition & Information	Capture details on pipe materials, sizes, approximate lengths and ages	Finch Hatton		1st Half, FY 16/17	Mackay Water Management	Pending	TBA	Assetic is currently being populated with data and each scheme will be reviewed in turn.
10	Asset Condition & Information	Capture details on pipe materials, sizes, approximate lengths and ages	Marian		1st Half, FY 16/17	Mackay Water Management	Pending	TBA	Assetic is currently being populated with data and each scheme will be reviewed in turn.
11	Asset Condition & Information	Capture details on pipe materials, sizes, approximate lengths and ages	Mirani		1st Half, FY 16/17	Mackay Water Management	Pending	TBA	Assetic is currently being populated with data and each scheme will be reviewed in turn.
12	Asset Condition & Information	Capture details on pipe materials, sizes, approximate lengths and ages	Gargett		1st Half, FY 16/17	Mackay Water Management	Pending	TBA	Assetic is currently being populated with data and each scheme will be reviewed in turn.
13	Data Collection	Review MRC Statistical Management System	General			Manager - Business Services	Completed		Monitor Pro computer system has been implemented.
14	Data Collection	Review of water quality monitoring program for Midge Point	Midge Point			Principal Scientist	Completed		Monitoring schedule reviewed and updated as part of DWQMP 2016 review.
15	Data Collection	Continuation of monitoring to collect more data from Bloomsbury WTP and verify improvement works have addressed water quality issues	Bloomsbury				Completed	\$ 2,000	Collection of samples is ongoing with no water quality issues identified to date. Item to be closed in March after wet season if monitoring continues to show no water quality problems.
16	Data Collection	Review sampling points locations and numbers for the water quality monitoring program	General			Principal Scientist	Completed		Drinking Water Monitoring Program reviewed and updated as part of DWQMP 2016 review.
17	Data Collection	Complete hydraulic model of Mackay	Mackay	M31	Completed. Ongoing maintenance of models now required.	Mackay Water Management	Ongoing	\$ 500,000	Improvement of the hydraulic modelling is ongoing.
18	Data Collection	Review of water quality monitoring program for Koumala	Koumala			Principal Scientist	Completed		Monitoring schedule reviewed and updated as part of DWQMP 2016 review.
19	Data Collection	Gap analysis of information management and communication protocols	General	GL3	2nd Half, FY 16/17	Mackay Water Management	In progress	Staff Time	Information Management Plan being developed, as part of process a gap analysis and risk based approach is being applied.
20	Data Collection	Review data accessibility for users	General			Manager - Water Treatment	Ongoing	Staff Time	Component of MonitorPro administration.
21	Data Collection	Review maintenance schedules within asset management system for network	General	GL4	1st half, FY 16/17	Mackay Water Management	In progress	TBC	Maintenance schedules are continuing to be developed, a specialist maintenance planner has been employed.
22	Data Collection	Review maintenance schedules within asset management system for treatment	General	GL4	2nd Half, FY 16/17	Manager - Water Treatment	In progress	TBC	Being reviewed as part of the development of the asset management plans.
23	Data Collection	Review of specifications and supply sources for all critical chemical suppliers and other suppliers	General	GL5	1st half, FY 16/17	Manager - Water Treatment	Ongoing	Staff Time	
24	Data Collection	Complete hydraulic model of Sarina	Sarina	S30	Completed. Ongoing maintenance of model now required.	Mackay Water Management	Ongoing	\$ 200,000	Improvement of the hydraulic modelling is ongoing.
25	Data Collection	Review of water quality monitoring program for Bloomsbury	Bloomsbury			Principal Scientist	Completed		Monitoring schedule reviewed and updated as part of DWQMP 2016 review.
26	Disaster Management/ System Reliability	MRC to review Disaster Management Plan (DMP) & Incident and Emergency Response Plan (I&ERP)	General	PRB2, PRB3, PRB4, PRB8, PRB9, PRB10, M3, S7, PB6	Ongoing	Mackay Water Management	Ongoing	\$ 25,000	Review occurs on an annual basis.
27	Disaster Management/ System Reliability	Upgrade raw water pumps and pump station at Dumbleton including a permanent onsite generator	Mackay	M7			Completed	\$ 10,000,000	Dumbleton Raw Water Supply Project completed end of 2012.
28	Disaster Management/ System Reliability	MRC to complete implementation of 24h radio telemetry monitoring system of network pump stations	Mackay	PRB4	Complete	Mackay Water Management	Completed	\$ 565,000	FY 15/16 is final year of 5yr program.
29	Disaster Management/ System Reliability	In March 2011 a project was implemented to investigate and install re-chlorination stations throughout the distribution network. The aim of the project is to minimise the risk of low residual chlorine levels.	Mackay		2nd Half, FY 14/15	Manager - Infrastructure Delivery	Completed		Re-chlorination facility for Seaforth completed September 2015.
30	Disaster Management/ System Reliability	Complete design of new raw water pump screens and install new screens at Dumbleton Weir Mackay	Mackay	M5			Completed		
31	Disaster Management/ System Reliability	Implement online chlorine meter feedback control at Nebo Rd WTP	Mackay	M17			Completed	\$ 25,000	

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32	Disaster Management/ System Reliability	Review integrity of mains seals at Dumbleton Weir Mackay	Mackay	M6			Completed		Reactive maintenance currently undertaken. It will be very costly to address all issues.
33	Distribution System Operation	Review system operation for long detention time and low pressure areas etc	Eton				Completed		Flow and pressure testing completed.
34	Distribution System Operation	Review system operation for long detention time and low pressure areas etc	Finch Hatton				Completed		Flow and pressure testing completed.
35	Distribution System Operation	Review system operation for long detention time and low pressure areas etc	Gargett				Completed		Flow and pressure testing completed.
36	Distribution System Operation	Review system operation for long detention time and low pressure areas etc	Koumala				Completed		Flow and pressure testing completed.
37	Distribution System Operation	Review system operation for long detention time and low pressure areas etc	Calen				Completed		Flow and pressure testing completed.
38	Distribution System Operation	Review system operation for long detention time and low pressure areas etc	Bloomsbury				Completed		Flow and pressure testing completed.
39	Distribution System Operation	Review system operation for long detention time and low pressure areas etc	Midge Point				Completed		Flow and pressure testing completed.
40	Maintenance Improvement (Mains Clearing)	Review cleaning and maintenance schedule and program for Midge Point scheme	Midge Point	MP3, MP4	1st Half, FY 16/17	Mackay Water Management	In progress	TBA	This is being updated as a result of condition assessments on reservoirs with increasing understanding of assets.
41	Maintenance Improvement (Mains Clearing)	Review cleaning and maintenance schedule and program for Eton scheme	Eton	E5, E6	1st Half, FY 16/17	Mackay Water Management	In progress	TBA	This is being updated as a result of condition assessments on reservoirs with increasing understanding of assets.
42	Maintenance Improvement (Mains Clearing)	Review cleaning and maintenance schedule and program for Calen scheme	Calen	C4, C5	1st Half, FY 16/17	Mackay Water Management	In progress	TBA	This is being updated as a result of condition assessments on reservoirs with increasing understanding of assets.
43	Maintenance Improvement (Mains Clearing)	Review cleaning and maintenance schedule and program for Finch Hatton scheme	Finch Hatton	F4, F5	1st Half, FY 16/17	Mackay Water Management	In progress	TBA	This is being updated as a result of condition assessments on reservoirs with increasing understanding of assets.
44	Maintenance Improvement (Mains Clearing)	Review cleaning and maintenance schedule and program for Gargett scheme	Gargett	G4, G5	1st Half, FY 16/17	Mackay Water Management	In progress	TBA	This is being updated as a result of condition assessments on reservoirs with increasing understanding of assets.
45	Maintenance Improvement (Mains Clearing)	Review cleaning and maintenance schedule and program for Marian scheme	Marian	MA4, MA5, MA38, MA39	1st Half, FY 16/17	Mackay Water Management	In progress	TBA	This is being updated as a result of condition assessments on reservoirs with increasing understanding of assets.
46	Maintenance Improvement (Mains Clearing)	Review cleaning and maintenance schedule and program for Mirani scheme	Mirani			Manager - Planning & Sustainability	Closed		Task closed out as Mirani scheme now amalgamated with Marian
47	Data Collection	Review access for sampling of raw water at O'Connell River Bores	Bloomsbury			Manager - Water Treatment	Closed		Appropriate sampling access available. Sampling undertaken as per the DWQMP Monitoring Program.
48	Maintenance Improvement (Mains Clearing)	Review cleaning and maintenance schedule and program for Mackay scheme	Mackay		1st Half, FY 16/17	Mackay Water Management	In progress	TBA	This is being updated as a result of condition assessments on reservoirs with increasing understanding of assets.
49	Maintenance Improvement (Mains Clearing)	Review cleaning and maintenance schedule and program for Sarina scheme	Sarina	S29	1st Half, FY 16/17	Mackay Water Management	In progress	TBA	This is being updated as a result of condition assessments on reservoirs with increasing understanding of assets.
50	Maintenance Improvement (Mains Clearing)	Review cleaning and maintenance schedule and program for Bloomsbury scheme	Bloomsbury	B5	1st Half, FY 16/17	Mackay Water Management	In progress	TBA	This is being updated as a result of condition assessments on reservoirs with increasing understanding of assets.
51	Maintenance Improvement (Mains Clearing)	Consider investigative monitoring of Bloomsbury system looking at pipe/biofilm integrity and system operation	Bloomsbury	B5	1st Half, FY 16/17	Mackay Water Management	Pending	TBA	
52	Maintenance Improvement (Other)	Review new main installation operating procedures (incl. the SOPs are being enforced)	General	GL12	1st Half, FY 16/17	Mackay Water Management	In progress	TBA	Ongoing as part of Information System population and review process
53	Maintenance Improvement (Other)	MRC Asset Management System	General	M39, S34, GL3, GL4	1st Half, FY 16/17	Mackay Water Management	Ongoing	\$ 4,000,000	Upgrade of MRC asset management system in progress as multi year progress. Active involvement from Water Services ongoing. This project is still in process, with potential to move to a new platform or version of the system. Have been some advancements for example issuing work tickets for planned maintenance.
54	Maintenance Improvement (Other)	Consider relining of mains in Mackay	Mackay	M6	Ongoing	Mackay Water Management	Pending	TBA	Improving the rigour of the water mains renewals process continues. Understanding risk to service standards and quality are drivers of this project. It is ongoing.
55	Maintenance Improvement (Other)	Consider review of infrastructure integrity notably balance tank, reservoir and pump station at Eton	Eton	E4			Completed		New Eton treatment facility constructed and operational from August 2013.
56	Midge Point Water Outlets	Implementation of online monitoring and control of chlorine dosing system including alarms and automatic shutdown of bores for Midge Point In March 2011 a project was implemented to investigate and install re-chlorination stations throughout the distribution network. The aim of the project was to minimise the risk of low residual chlorine levels.	Midge Point	MP1	2nd Half FY 14/15	Manager - Infrastructure Delivery	Completed		Rechlorination facility at Midge Point reservoir completed September 2015.
57	Midge Point Water Outlets	Consider investigative monitoring of system looking at pipe/biofilm integrity and system operation at Midge Point	Midge Point	MP3, MP4	1st Half, FY 16/17	Mackay Water Management	Pending		
57	Midge Point Water Outlets	Re-evaluate risks after further Midge Point monitoring data has been captured	Midge Point	MP1, MP3, MP4	2nd Half, FY 16/17	Manager - Water Treatment	Pending	Staff Time	
59	Midge Point Water Outlets	Review treatment options for Midge Point	Midge Point	PB7			Completed		Rechlorination facility to be constructed at Midge Point reservoir in 2014/15
60	Operational Procedures	Review O&M Manuals for schemes systems	General	GL2	2nd Half, FY 16/17	Treatment Engineer	Pending	Staff Time	O&M Manual templates under review at June 2016.
61	Operational Procedures	Review mains repair procedure to ensure that current best practice recommendations are captured including isolation and disinfection prior to returning main to service	General	GL8			Completed		
62	Operational Procedures	Review operation of reticulation system and reservoirs in Mackay scheme including possible rechlorination stations to ensure appropriate procedures etc are in place	Mackay				Completed		

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63	Operational Procedures	Formalise procedure for inspecting for Algae before releasing water from Middle Creek Dam	Sarina	PCB10			Completed		
64	Process Review	Process review of Sarina scheme including operating philosophy of the system	Sarina	S4, S31, S32			Completed	\$ 10,000	Report has been finalised and issued. Water Services to decide what options are to be programmed from report.
65	Process Review	Review operation of Calen softener and establish a periodic review schedule	Calen			Manager - Water Treatment	Closed		Now covered by Task No. 184
66	Process Review	Process review of Sarina WTP	Sarina	S17, S18, S19, S20, S21, S22			Completed		
67	Process Review	Implement a study to investigate improvements that can be made to operations at Nebo Road WTP	Mackay	M34, M35			Completed	\$ 10,000	Study completed and Water Services are implementing measures to improve operations.
68	Process Review	Review of filtered water turbidity setpoints/limits for Sarina	Sarina	S5			Completed		
69	Process Review	Review escalation and notification actions in relation to CCP exceedances at Sarina	Sarina	S22			Completed		
70	Process Review	Complete chlorination system upgrade at Sarina WTP	Sarina	S24			Completed		
71	Process Review	Process review of Koumala scheme including operating philosophy of the system	Koumala	K3			Completed	\$ 5,000	Scheme operation review completed by Zemek Environmental.
72	Process Review	Review chemical dosing systems and dosing pumps operation and redundancy for Sarina	Sarina	S13, S15			Completed		Report has been finalised and issued. Water Services to decide what options are to be programmed from report.
73	Process Review	Review need for online chlorine analysers with regard to current upgrade works at Sarina	Sarina	S21, S22			Completed		Report has been finalised and issued. Water Services to decide what options are to be programmed from report.
74	Process Review	Complete fluoridation system commissioning at Sarina	Sarina				Completed		No associated risk as task completed
75	Process Review	Review water quality monitoring program for Mackay	Mackay	M19, M36, M42			Completed		
76	Risk Mitigation Measures, Rural Schemes	Implementation of online monitoring and control of chlorine dosing system including alarms and automatic shutdown of bores for Calen	Calen	C2			Completed		Upgrade works included in Rural Water Supply Upgrade Project - completed December 2014.
77	Risk Mitigation Measures, Rural Schemes	Re-evaluate risks after further monitoring data has been captured at Bloomsbury WTP	Bloomsbury	B1, B2, B3, B5	1st Half, FY 16/17	Principal Scientist	Pending	Staff Time	To be undertaken as part of a drinking water quality risk assessment workshop
78	Risk Mitigation Measures, Rural Schemes	Re-evaluate risks after further Midge Point monitoring data has been captured	Midge Point	MP1, MP3, MP4	1st Half, FY 16/17	Principal Scientist	Pending	Staff Time	To be undertaken as part of a drinking water quality risk assessment workshop
79	Risk Mitigation Measures, Rural Schemes	Re-evaluate risks after further Eton monitoring data has been captured	Eton	E5, E6	1st Half, FY 16/17	Principal Scientist	Pending	Staff Time	To be undertaken as part of a drinking water quality risk assessment workshop
80	Risk Mitigation Measures, Rural Schemes	Re-evaluate risks after further Calen monitoring data has been captured	Calen	C2, C3, C4, C5, C6	1st Half, FY 16/17	Principal Scientist	Pending	Staff Time	To be undertaken as part of a drinking water quality risk assessment workshop
81	Risk Mitigation Measures, Rural Schemes	Re-evaluate risks after further Finch Hatton monitoring data has been captured	Finch Hatton	F4, F5	1st Half, FY 16/17	Principal Scientist	Pending	Staff Time	To be undertaken as part of a drinking water quality risk assessment workshop
82	Risk Mitigation Measures, Rural Schemes	Re-evaluate risks after further Gargett monitoring data has been captured	Gargett	G4, G5	1st Half, FY 16/17	Principal Scientist	Pending	Staff Time	To be undertaken as part of a drinking water quality risk assessment workshop
83	Risk Mitigation Measures, Rural Schemes	Re-evaluate risks after further Marian monitoring data has been captured	Marian	MA4, MA5, MA38, MA39	1st Half, FY 16/17	Principal Scientist	Pending	Staff Time	To be undertaken as part of a drinking water quality risk assessment workshop
84	Risk Mitigation Measures, Rural Schemes	Re-evaluate risks after further Mirani monitoring data has been captured	Mirani			Principal Scientist	Closed		
85	Site Security	Review security measures of all components of Mackay	Mackay	M38	2nd Half, FY 16/17	Senior Network Engineer	Ongoing		Better management of keys to gain access to sites and infrastructure is being implemented. Security Level Padlocks are being investigated and costed.
86	Site Security	Review security measures of all components of Sarina	Sarina	S36	2nd Half, FY 16/17	Senior Network Engineer	Ongoing		Better management of keys to gain access to sites and infrastructure is being implemented. Security Level Padlocks are being investigated and costed.
87	Site Security	Review security measures of all components of all schemes	General			Chief Operating Officer - Water & Waste Services	Closed		
88	Site Security	Review security measures around bores at Midge Point	Midge Point	MP2	2nd Half, FY 16/17	Senior Network Engineer	Pending	TBA	
89	Site Security	Review security measures for access to water source	Bloomsbury	ORB 6	2nd Half, FY 16/17	Manager - Water Treatment	Pending	TBA	
90	Skills	Review cross-training of standby operators	General	GL2	2nd Half, FY 16/17	Manager - Water Treatment	Pending	TBA	To be undertaken as part of SOP review project and resource allocation.
91	Skills	Investigate involvement in national training program	General			Chief Operating Officer - Water & Waste Services	Completed		Participated in feedback regarding the development of a national training program through Queensland Water Directorate.
92	Source Water - Bores	Review raw groundwater monitoring of Mackay bores	Mackay		1st Half, FY 16/17	Principal Scientist	Pending		Monitoring schedule to be set up in MonitorPro once monitoring bore has been instated.
93	Source Water - Bores	Review raw groundwater monitoring of bore	Bloomsbury			Principal Scientist	Completed		Monitoring schedule reviewed and updated as part of DWQMP 2016 review.
94	Data Collection	Review of water quality monitoring program for Sarina	Sarina			Principal Scientist	Completed		Monitoring schedule reviewed and updated as part of DWQMP 2016 review.
95	Data Collection	Review of water quality monitoring program for Eton	Eton			Principal Scientist	Completed		Monitoring schedule reviewed and updated as part of DWQMP 2016 review.
96	Data Collection	Review of water quality monitoring program for Finch Hatton	Finch Hatton			Principal Scientist	Completed		Monitoring schedule reviewed and updated as part of DWQMP 2016 review.
97	Data Collection	Review of water quality monitoring program for Gargett	Gargett			Principal Scientist	Completed		Monitoring schedule reviewed and updated as part of DWQMP 2016 review.
98	Data Collection	Review of water quality monitoring program for Marian	Marian			Principal Scientist	Completed		Monitoring schedule reviewed and updated as part of DWQMP 2016 review.
99	Source Water - Bores	Review of water quality monitoring program for Mirani	Mirani			Principal Scientist	Closed		Task closed out as Mirani scheme now amalgamated with Marian.
100	Source Water - Bores	Review historical salinity/TDS levels to ascertain the condition of the Sarina aquifer	Sarina	S1			Completed		Marwood bores show elevated salinity and are on the edge of the Saltwater intrusion zone maps produced by DNRM. The Mackay-Sarina pipeline presents contingency.
101	Data Collection	Review of water quality monitoring program for Calen	Calen			Principal Scientist	Completed		Monitoring schedule reviewed and updated as part of DWQMP 2016 review.
102	Source Water - Bores	Undertake detailed condition report assessment of Nebo Road bores	Mackay		Completed	Manager - Planning & Sustainability	Completed		

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103	Source Water - Bores	Review information and details captured on bores and assess possible further information that could be captured	General				Completed		
104	Source Water - Management	Review possible expansion of testing & monitoring at Hogan's Pocket in relation to water quality	Mackay			Principal Scientist	Completed		Testing and monitoring regime at Hogan's Pocket expanded
105	Source Water - Management	Review controls in contract with contractor regarding water quality at Hogan's Pocket	Mackay	PRB7	Ongoing	Manager - Waste Services	Ongoing	Staff Time	
106	Source Water - Management	Review signage and contractual agreements with raw water customers.	Mackay	M33	1st Half, FY 16/17	Mackay Water Management	Pending	Staff Time	
107	Source Water - Management	MRC to provide information/education to septic tank users (e.g. information leaflet sent out with rates)	General	PRB3	2nd Half, FY 16/17	Mackay Water Management	Pending	TBA	
108	Source Water - Management	Formalise procedures and communication protocols regarding catchment risks such as liaisons with disaster management team	General			Chief Operating Officer - Water & Waste Services	Completed		Procedures and communication protocols covered in DMP & I&ERP
109	Source Water - Partnerships	Investigate possibility of formal agreement between Reef Catchments and MRC regarding sharing of information and communications for Finch Hatton	Finch Hatton			Manager - Business Services	Completed		Following investigation it was decided that a formal agreement between Reef Catchment and MRC would not be made.
110	Source Water - Partnerships	Investigate possibility of formal agreement between Reef Catchments and MRC regarding sharing of information and communications for Bloomsbury	Bloomsbury			Manager - Business Services	Completed		Following investigation it was decided that a formal agreement between Reef Catchment and MRC would not be made.
111	Source Water - Partnerships	MRC to communicate with Reef Catchments about problem areas to focus on regarding Reef Rescue Programs	Mackay	PRB5	2nd Half, FY 16/17	Mackay Water Management	Pending	Staff Time	
112	Source Water - Partnerships	Review communication/notification protocols between SunWater and MRC for Pioneer WSS	Mackay			Manager - Water Treatment	Completed		Decision made that there would be no communication/notification between SunWater and MRC regarding quality of water supply as SunWater does not guarantee water quality.
113	Source Water - Partnerships	Review communication/notification protocols between SunWater and MRC for Prosperpine WSS	Bloomsbury			Manager - Water Treatment	Completed		Decision made that there would be no communication/notification between SunWater and MRC regarding quality of water supply as SunWater does not guarantee water quality.
114	Source Water - Partnerships	MRC to communicate with Reef Catchments about problem areas to focus on regarding Riparian Vegetation Fencing & Off-stream Watering Program	Mackay	PRB2	2nd Half, FY 16/17	Mackay Water Management	Pending	Staff Time	
115	Source Water - Partnerships	Investigate possibility of formal agreement between Reef Catchments and MRC regarding sharing of information and communications for Mackay	Mackay			Manager - Business Services	Completed		Following investigation it was decided that a formal agreement between Reef Catchment and MRC would not be made.
116	Source Water - Partnerships	Investigate possibility of formal agreement between Reef Catchments and MRC regarding sharing of information and communications for Koumala	Koumala			Manager - Business Services	Completed		Following investigation it was decided that a formal agreement between Reef Catchment and MRC would not be made.
117	Source Water - Partnerships	Review communication/notification protocols between SunWater and MRC for Midge Point	Midge Point			Manager - Business Services	Completed		Decision made that there would be no communication/notification between SunWater and MRC regarding quality of water supply as SunWater does not guarantee water quality.
118	Source Water - Partnerships	Investigate possibility of formal agreement between Reef Catchments and MRC regarding sharing of information and communications for Eton	Eton			Manager - Business Services	Completed		Following investigation it was decided that a formal agreement between Reef Catchment and MRC would not be made.
119	Source Water - Partnerships	Investigate possibility of formal agreement between Reef Catchments and MRC regarding sharing of information and communications for Gargett	Gargett			Manager - Business Services	Completed		Following investigation it was decided that a formal agreement between Reef Catchment and MRC would not be made.
120	Source Water - Partnerships	Investigate possibility of formal agreement between Reef Catchments and MRC regarding sharing of information and communications for Marian	Marian			Manager - Business Services	Completed		Following investigation it was decided that a formal agreement between Reef Catchment and MRC would not be made.
121	Source Water - Partnerships	Investigate possibility of formal agreement between Reef Catchments and MRC regarding sharing of information and communications for Mirani	Mirani			Manager - Business Services	Closed		Task closed out as Mirani scheme now amalgamated with Marian.
122	Source Water - Partnerships	Investigate possibility of formal agreement between Reef Catchments and MRC regarding sharing of information and communications for Sarina	Sarina			Manager - Business Services	Completed		Following investigation it was decided that a formal agreement between Reef Catchment and MRC would not be made.
123	Source Water - Partnerships	Review communication/notification protocols between SunWater and MRC for Midge Point	Midge Point			Manager - Business Services	Closed		Duplicate of task no. 117
124	Operational Procedures	Review list of SOPs and SOPs to investigate possible revisions and additional SOPs that may be produced	General	GL6	2nd Half FY 16/17	Manager - Water Treatment	Ongoing		Review as part of SOP project
125	New WTP	Investigate, plan and design new WTP to treat surface water and supply Mirani and Marian	Mirani			Manager - Infrastructure Delivery	Completed		Project proof of performance testing completed May 2015.
126	Maintenance Improvement (Other)	Reservoir reroofing project to reduce drinking water contamination risk	Sarina				Completed		Sarina reservoir roof replaced.
127	Operational Procedures	Develop operating procedure for treatment plant	Sarina			Treatment Engineer	Closed		Decision made June 2016 that procedures would not be developed for Sarina WTP with the current strategy being to supply water to Sarina from Nebo Rd WTP.
128	Operational Procedures	Develop operating procedure for treatment plant	Bloomsbury			Treatment Engineer	Completed		SOPs developed.
129	Risk Mitigation Measures, Rural Schemes	Implementation of online monitoring and control of chlorine dosing system including alarms for rural schemes.	Bloomsbury		1st Half, FY 14/15	Manager - Infrastructure Delivery	Completed		Rural Water Supply Upgrade Project completed December 2014.
130	Risk Mitigation Measures, Rural Schemes	Implementation of online monitoring and control of chlorine dosing system including alarms for rural schemes.	Calen		1st Half, FY 14/15	Manager - Infrastructure Delivery	Completed		Rural Water Supply Upgrade Project completed December 2014.
131	Risk Mitigation Measures, Rural Schemes	Implementation of online monitoring and control of chlorine dosing system including alarms for rural schemes.	Eton		1st Half, FY 14/15	Manager - Infrastructure Delivery	Completed		Rural Water Supply Upgrade Project completed December 2014.

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132	Risk Mitigation Measures, Rural Schemes	Implementation of online monitoring and control of chlorine dosing system including alarms for rural schemes.	Finch Hatton		1st Half, FY 14/15	Manager - Infrastructure Delivery	Completed		Rural Water Supply Upgrade Project completed December 2014.
133	Risk Mitigation Measures, Rural Schemes	Implementation of online monitoring and control of chlorine dosing system including alarms for rural schemes.	Gargett		1st Half, FY 14/15	Manager - Infrastructure Delivery	Completed		Rural Water Supply Upgrade Project completed December 2014.
134	Risk Mitigation Measures, Rural Schemes	Implementation of online monitoring and control of chlorine dosing system including alarms for rural schemes.	Koumala		1st Half, FY 14/15	Manager - Infrastructure Delivery	Completed		Rural Water Supply Upgrade Project completed December 2014.
135	Risk Mitigation Measures, Rural Schemes	Implementation of online monitoring and control of chlorine dosing system including alarms for rural schemes.	Armstrong Beach, Sarina		1st Half, FY 14/15	Manager - Infrastructure Delivery	Completed		Rural Water Supply Upgrade Project completed December 2014.
136	New WTP	Investigate, plan and design new WTP to treat surface water and supply Mirani and Marian	Marian		2nd Half, FY 14/15	Manager - Infrastructure Delivery	Completed		Construction and commissioning completed mid 2015
137	Distribution System Operation	Investigate chlorine residual levels in reticulation network	Mackay			Manager Planning and Sustainability	Completed		Report on network chlorine residual modelling finalised.
138	Maintenance Improvement (Other)	Review and update maintenance schedule for chlorine dosing systems, including pumps	General			Manager - Water Treatment	Completed		3 year service level agreement made with Evoqua. First round of servicing undertaken March/April 2016.
139	Process Review	Review detention times for chlorine in reticulation network	Gargett			Principal Scientist	Completed		City Water Report completed.
140	Process Review	Review detention times for chlorine in reticulation network	Marian			Principal Scientist	Completed		City Water Report completed.
141	Risk Mitigation Measures, Rural Schemes	Review of lead data and investigate potential source of lead in drinking water	Eton		1st Half, FY 16/17	Principal Scientist	Pending	Staff Time	To be undertaken as part of a drinking water quality risk assessment workshop
142	Risk Mitigation Measures, Rural Schemes	Review of lead data and investigate potential source of lead in drinking water	Marian		1st Half, FY 16/17	Principal Scientist	Pending	Staff Time	To be undertaken as part of a drinking water quality risk assessment workshop
143	Risk Mitigation Measures, Rural Schemes	Review of lead data and investigate potential source of lead in drinking water	Mirani			Principal Scientist	Closed		Task closed out as Mirani scheme now amalgamated with Marian.
144	Risk Mitigation Measures, Rural Schemes	Review of lead data and investigate potential source of lead in drinking water	Finch Hatton		1st Half, FY 16/17	Principal Scientist	Pending	Staff Time	To be undertaken as part of a drinking water quality risk assessment workshop
145	Risk Mitigation Measures, Rural Schemes	Review of lead data and investigate potential source of lead in drinking water	Gargett		1st Half, FY 16/17	Principal Scientist	Pending	Staff Time	To be undertaken as part of a drinking water quality risk assessment workshop
146	Risk Mitigation Measures, Rural Schemes	Review of lead data and investigate potential source of lead in drinking water	Calen		1st Half, FY 16/17	Principal Scientist	Pending	Staff Time	To be undertaken as part of a drinking water quality risk assessment workshop
147	Risk Mitigation Measures, Rural Schemes	Review of lead data and investigate potential source of lead in drinking water	Bloomsbury		1st Half, FY 16/17	Principal Scientist	Pending	Staff Time	To be undertaken as part of a drinking water quality risk assessment workshop
148	Risk Mitigation Measures, Rural Schemes	Review of lead data and investigate potential source of lead in drinking water	Midge Point		1st Half, FY 16/17	Principal Scientist	Pending	Staff Time	To be undertaken as part of a drinking water quality risk assessment workshop
149	Maintenance Improvement (Other)	Capture further details of the bore head arrangement including a photograph	Eton		2nd Half, FY 16/17	Mackay Water Management	Pending	Staff Time	
150	Maintenance Improvement (Other)	Capture further details of the bore head arrangement including a photograph	Calen		2nd Half, FY 16/17	Mackay Water Management	Pending	Staff Time	
151	Maintenance Improvement (Other)	Capture further details of the bore head arrangement including a photograph	Midge Point		2nd Half, FY 16/17	Mackay Water Management	Pending	Staff Time	
152	Process Review	Investigate and capture the details regarding the event of a filter backwash failure and what actions are (to be) undertaken	Mackay		2nd Half, FY 16/17	Treatment Engineer	Pending	Staff Time	Based on template to be developed for Marian WTP. OCP's also to be established.
153	Process Review	Investigate and capture the details regarding the event of a filter backwash failure and what actions are (to be) undertaken	Bloomsbury		2nd Half, FY 16/17	Treatment Engineer	Pending	Staff Time	Based on template to be developed for Marian WTP. OCP's also to be established.
154	Process Review	Investigate the levels of organics in the treated water and raw water at Nebo Road WTP to review risks related to organics	Mackay				Completed		Organics monitoring of UV254 has been implemented at the WTP
155	Operational Procedures	Develop reservoir cleaning procedure and ensure that current best practice recommendations are captured including isolation and disinfection prior to returning service	General				Completed		MRC uses contract divers who are specialists in cleaning and assessing reservoirs. Each reservoir will be considered separately at the time of maintenance regarding isolations and disinfection requirements.
156	Operational Procedures	Reference SOPs in Risk Register where appropriate when SOPs have been collated	General		2nd half, FY16/17	Environmental Officer	Ongoing	Staff Time	
157	Data Collection	Gather WQ monitoring data for a period of at least 12 months from 1 July 2012 to 31 June 2013 for update of DWQMP water quality data summary, risk register review and annual report to DEWS.	General				Completed		
158	Distribution System Operation	Review risk register in relation to hazards and risks associated with water age and low pressure areas.	General		2nd Half, FY 16/17	Mackay Water Management	Pending	Staff Time	
159	Source Water - Management	Develop Bushfire/Flooding/Soil type mapping information and interpretation relating to impact on raw water quality.	General			Senior Environmental Officer	Completed		
160	Risk Matrix	Progress report on the Alignment of Enterprise Risk Assessment matrix and Water Services risk assessment matrix is required.	General			Chief Operating Officer - Water & Waste Services	Completed		There was a decision made that there would not be alignment between the Enterprise Risk Assessment matrix and the Water Services risk assessment matrix. Water services risk assessment matrix has been developed as per the ADWG.
161	Data Collection	Update the Drinking Water Quality Monitoring Program with particular focus on online monitoring. Apply target, alert and critical limits accordingly.	General		2nd Half, FY14/15	Treatment Engineer	Completed		DWQMP and CCP procedures updated as part of June/July 2016 amendments
162	Source Water - Bores	Decommission Mackay Bore 4	Mackay			Treatment Engineer	Completed		
163	Fluoride monitoring	Ensure fluoride monitoring data required as per the Code of Practice is captured in MonitorPro	Mackay and Sarina		2nd half, FY16/17	Environmental Officer	In progress	Staff Time	
164	Configuration Strategy	Documentation of the operation of the performance and operation of the water network. Understanding and having available the right information (eg. Critical valves) to make better decision.	Mackay		2 nd half, FY16/17	Senior Network Engineer	In progress	\$ 100,000	Currently started, with stakeholder engagement to occur as part of project.
165	Process Review	Alligator Creek pump station review	Sarina		1st half, FY16/17	Mackay Water Management	In progress	TBA	
166	Disaster Management/ System Reliability	Investigate options for upgrade of disinfection processes within the Sarina water supply scheme	Sarina		1st half, FY16/17	Mackay Water Management	In progress	Staff Time	

Task No.	Category	Task Description	Scheme	Associated Risk ID	Time Frame	Responsibility	Status	Cost Est.	Comments
167	Operational Procedures	Develop Operational/Quality Control Point (OCP/QCP) Procedures	General		2nd half, FY16/17	Environmental Officer	In progress	Staff Time	
168	Operational Procedures	Update Drinking Water Quality Management Emergency Action Plan	General		2nd half, FY16/17	Environmental Officer	In progress	Staff Time	
169	Disaster Management/ System Reliability	Pre-planning investigation for modification of valve pit pipework at Koumala Bore WPS due to excessive corrosion and risk of pipe-line failure due to excessive corrosion and risk of pipe-line failure	Koumala		2nd half, FY16/17	Mackay Water Management	In progress	TBA	
170	Disaster Management/ System Reliability	Pre-planning investigation into replacement and renewal of pipework at Koumala Reservoir	Koumala		2nd half, FY16/17	Mackay Water Management	In progress	TBA	
171	Source water - Dumbleton Weir	Reinstate raw water main continuous flow monitoring to operational monitoring requirements	Mackay		2nd half, FY16/17	Mackay Water Management	In progress	TBA	
172	Site Security	Review security measures of all components of Eton	Eton		2nd half, FY16/17	Mackay Water Management	Ongoing		
173	Site Security	Review security measures of all components of Finch Hatton	Finch Hatton		2nd half, FY16/17	Mackay Water Management	Ongoing		
174	Site Security	Review security measures of all components of Gargett	Gargett		2nd half, FY16/17	Mackay Water Management	Ongoing		
175	Site Security	Review security measures of all components of Koumala	Koumala		2nd half, FY16/17	Mackay Water Management	Ongoing		
176	Site Security	Review security measures of all components of Calen	Calen		2nd half, FY16/17	Mackay Water Management	Ongoing		
177	Site Security	Review security measures of all components of Marian	Marian		2nd half, FY16/17	Mackay Water Management	Ongoing		
178	Online Monitoring	Relocation of the chlorine online analyser points for Calen, Midge Point and re-chlorination points within the Mackay network.	Calen, Mackay, Midge Point		2nd half, FY16/17	Senior Network Engineer	In progress	TBA	
179	Operational Procedures	Develop procedures for chlorine disinfection operation for Calen, Midge Point and re-chlorination points within the Mackay network	Calen, Mackay, Midge Point		2nd half, FY16/17	Senior Network Engineer	In progress	Staff Time	
180	Process Review	Implement a sampling program to determine the effectiveness of the re-chlorination at Walkerston water pump station.	Mackay		2nd half, FY16/17	Senior Network Engineer	In progress	TBA	
181	Process Review	Assess the need for re-chlorination of water at the Walkerston water pump station based on results of the sampling program.	Mackay		2nd half, FY16/17	Senior Network Engineer	In progress	TBA	
182	Water quality monitoring	Formalise procedure for inspecting for Algae before releasing water from Middle Creek Dam.	Sarina			Treatment Engineer	Completed		Procedures outlined in Middle Creek Emergency Response Plan.
183	Online Monitoring	Transition to ClearSCADA	Mackay		1st Half, FY 16/17	Treatment Engineer	In progress	TBA	
184	Rural Scheme	Investigate upgrades to the Calen water supply scheme	Calen		2nd half, FY16/17	Treatment Engineer	In progress	TBA	
185	Online Monitoring	Relocate online analyser from Eton disinfection facility to Eton Reservoir (actual CCP point). Amend Eton Disinfection CCP procedure to reflect monitoring location change.	Eton		2nd half, FY16/17	Water Treatment Plant Coordinator	Pending	TBA	
186	Disaster Management/ System Reliability	Increase chlorine storage tank volume at Alligator Creek	Sarina				Completed		
187	Review of Treatment Processes	Investigate risks associated with the potential contamination of the Finch Hatton bore by nearby toilet block and septic tank and implement improvement actions if identified. Investigation to be workshoped with potential improvement actions to consider including pump out and inspection of septic tank.	Finch Hatton		2nd half, FY16/17	Mackay Water Management	Pending	Staff Time	Identified in the DWQMP 2016 audit as an opportunity for improvement
188	Water quality monitoring	Investigate possibility of expanding space provided for the Mackay Water and Waste Laboratory Services	General		2nd half, FY16/17	Principal Scientist	Pending	Staff Time	Identified in the DWQMP 2016 audit as an opportunity for improvement
189	Water quality monitoring	Formalise some of the cross-checking verification, calibration and maintenance tasks relating to critical limit monitoring instruments	General		1st half, FY16/17	Principal Scientist	Pending	Staff Time	Identified in the DWQMP 2016 audit as an opportunity for improvement
190	Operational Procedures	Investigate the possible improvement of accessibility to the flanking clarifiers at Marian WTP to help with routine cleaning, maintenance and inspection tasks	Marian		2nd half, FY16/17	Water Treatment Plant Coordinator	Pending	Staff Time	Identified in the DWQMP 2016 audit as an opportunity for improvement
191	Operational Procedures	Investigate the option of moving to a more sophisticated organics removal system than powdered activates carbon dosing	General		2nd half, FY16/17	Manager - Water Treatment	Pending	Staff Time	Identified in the DWQMP 2016 audit as an opportunity for improvement
192	Source Water - Bores	Maintain bore water access for backup as per the Nebo Road Bores report PPB-026	Mackay		Ongoing	Mackay Water Management	Ongoing	TBA	01 September 2015 Pinch Point Workshop maintenance task number 1
193	Source Water - Bores	Finalise Nebo Road Bores report PPB-026	Mackay		1st half, FY16/17	Senior Planning Engineer/ Water and Sewer Planning Engineer	Pending	TBA	
194	Asset Condition & Information	Carry out calibrated vibration analysis on the pumps and pipework at Nebo Rd WTP	Mackay		2nd half, FY16/17	Treatment Engineer	Ongoing	\$ 25,000	01 September 2015 Pinch Point Workshop maintenance task number 2
195	Maintenance Improvement (Other)	Carry out filter repair on Filter 12 at Nebo Rd WTP and check filter media loss in the filters and top up if required Replace level sensors at Nebo Rd WTP. City Water to provide work that has been done to date	Mackay		1st half, FY16/17	Manager - Planning & Sustainability	Ongoing	TBA	01 September 2015 Pinch Point Workshop maintenance task number 3
196	Maintenance Improvement (Other)	Ensure filters are cleaned on their required schedule at Nebo Rd WTP.	Mackay		1st half, FY16/17	Treatment Engineer	Ongoing	TBA	01 September 2015 Pinch Point Workshop maintenance task number 4
197	Treatment Process update	Install additional mixer for better mixing at Nebo Rd WTP	Mackay		1st half, FY16/17	Treatment Engineer	Ongoing	TBA	01 September 2015 Pinch Point Workshop maintenance task number 6
198	Maintenance Improvement (Other)	Nebo Rd WTP - Requirement raised is to empty the tank and check the rake operation. Provide better access to the launder for maintenance cleaning.	Mackay		2nd half, FY16/17	Nebo Road Water Treatment Plant Supervisor	Ongoing	TBA	01 September 2015 Pinch Point Workshop maintenance task number 7
199	Data Collection	Review Nebo Rd WTP operating procedures and log sheets/flow sheets to find any informational gaps that need to be addressed	Mackay		1st half, FY16/17	Treatment Engineer	Ongoing	TBA	01 September 2015 Pinch Point Workshop maintenance task number 8

Task No.	Category	Task Description	Scheme	Associated Risk ID	Time Frame	Responsibility	Status	Cost Est.	Comments
200	Design Envelope	Nebo Rd WTP Design Envelopes to be further developed/ confirmed for design purposes for sizing the equipment for costing to achieve 75 ML/d WTP production capacity. Resource implications need to be identified and review during the design stage	Mackay		2nd half, FY16/17	Mackay Water Management	Ongoing	TBA	01 September 2015 Pinch Point Workshop task number 1
201	Source Water - Bores	Review bore water quality to understand treatment requirements	Mackay		Ongoing	Manager - Water Treatment and Treatment Engineer	Ongoing	Ongoing	01 September 2015 Pinch Point Workshop task number 3A
202	Process Review	Analyse treatment options for Nebo Rd WTP based on legislative requirements, capital costs, and operational costs	Mackay		2nd half, FY16/17	Mackay Water Management	Ongoing	Staff Time	01 September 2015 Pinch Point Workshop task number 3B
203	Network Configuration	Understand network demand and operation through network configuration strategy	Mackay		2nd half, FY16/17	Water and Sewer Planning Engineer	Ongoing	Staff Time	01 September 2015 Pinch Point Workshop task number 4
204	Power Supply	Nebo Rd WTP - Investigate upgrade power supply arrangements with Ergon at pump station (to be able to run any combination of pump configurations unrestricted) to meet 75 ML/d & 90 ML/d WTP outputs	Mackay		2nd half, FY16/17	Senior Planning Engineer	Ongoing	Staff Time	01 September 2015 Pinch Point Workshop task number 5A
205	Power Supply	Review assumptions used in BC14-03 to determine the risk with backup generation to verify if these are still valid	Mackay		2nd half, FY16/17	Senior Planning Engineer	Ongoing	Staff Time	01 September 2015 Pinch Point Workshop task number 5B
206	Asset Condition & Information	Perform pipe performance assessment and failure likelihood. Also, have a better understanding of what failure will look like.	Mackay		2nd half, FY16/17	Water and Sewer Planning Engineer	Ongoing	TBA	01 September 2015 Pinch Point Workshop task number 7
207	Disaster Management/ System Reliability	Perform a risk assessment & management plan in event of main (new main) failure	Mackay		2nd half, FY16/17	Water and Sewer Planning Engineer/ Treatment Engineer	Ongoing	Staff Time	01 September 2015 Pinch Point Workshop task number 8
208	Distribution System Operation	Understand number and volume of current and future of offtake/ commitments from Raw Water Main which will affect delivery capacity	Mackay		2nd half, FY16/17	Mackay Water Management	Ongoing	Staff Time	01 September 2015 Pinch Point Workshop task number 9
209	Operational Procedures	Investigate Atrazine removal and possible jar testing with different PAC products @ 20 & 30 min contact times or with oxidants	Mackay		1st half, FY16/17	Manager - Water Treatment / Treatment Engineer	Ongoing	TBA	01 September 2015 Pinch Point Workshop task number 10
210	Treatment Process update	Cost options to maximize the surface loading rate of the clarifiers to meet 75 ML/d & 90 ML/d outputs with various qualities of raw water	Mackay		2nd half, FY16/17	Mackay Water Management	Ongoing	TBA	01 September 2015 Pinch Point Workshop maintenance task number 11
211	Treatment Process update	Investigate modifications required to upgrade bore filters for river water (SCADA modifications)	Mackay		2nd half, FY16/17	Treatment Engineer	Ongoing	Staff Time	01 September 2015 Pinch Point Workshop task number 12
212	Treatment Process update	Obtain costs for two x 15 kg/h Duty/Standby chlorinators required for 75 ML/d & 90 ML/d outputs from Nebo Rd WTP. Consider additional chlorinator to top up the residual chlorine at the outlet of the HL pump station. Investigate requirement for Duty/Standby Booster pumps	Mackay		2nd half, FY16/17	Treatment Engineer	Ongoing	TBA	01 September 2015 Pinch Point Workshop maintenance task number 13
215	Costing	Costing for 75ML/Day Requirement of larger batching system at Nebo Rd WTP	Mackay		TBA	Mackay Water Management		Staff Time	01 September 2015 Pinch Point Workshop maintenance task number 17
216	Source water - Dumbleton Weir	Carry out testing out Nebo Rd WTP HL pump combinations to determine the maximum achievable output	Mackay		TBA	Mackay Water Management		Staff Time	01 September 2015 Pinch Point Workshop maintenance task number 18
217	Network upgrades	Further investigation required for the additional storage tank to supply South Mackay	Mackay		TBA	Mackay Water Management		Staff Time	01 September 2015 Pinch Point Workshop maintenance task number 19
218	Network upgrades	Summarize demand requirements for South Mackay storage tank from Cardnos and MWH work as part of Network strategy	Mackay		TBA	Mackay Water Management		Staff Time	01 September 2015 Pinch Point Workshop maintenance task number 20
219	Design Envelope/ Costing	For increased plant throughput (at Nebo Rd WTP) and higher solids a second thickener would be required though space restricted. Re-investigate options based on refined design envelope. Provide a cost estimate on this requirement	Mackay		TBA	Mackay Water Management		Staff Time	01 September 2015 Pinch Point Workshop maintenance task number 21
220	Design Envelope/ Costing	For increased plant throughput (at Nebo Rd WTP) and higher solids a second thickened sludge tank would be required though space restricted. Re-investigate options based on refined design envelope. Provide a cost estimate on this requirement.	Mackay		TBA	Mackay Water Management		Staff Time	01 September 2015 Pinch Point Workshop maintenance task number 22
221	Treatment Process Update	Calculate size/spacing requirements of centrifuge required (at Nebo Rd WTP)	Mackay		2nd half, FY16/17	Mackay Water Management		TBA	01 September 2015 Pinch Point Workshop maintenance task number 23
222	Costing	Provide cost estimate based on pinch point task 23 while considering compatibility of equipment if additional centrifuge added for critical spares	Mackay		2nd half, FY16/17	Mackay Water Management		Staff Time	01 September 2015 Pinch Point Workshop maintenance task number 24
223	Source water - Dumbleton Weir	Install/maintain flow monitors to provide accurate flow balance from Dumbleton Weir to output into network to include the supernatant	Mackay		2nd half, FY16/17	Treatment Engineer		TBA	01 September 2015 Pinch Point Workshop maintenance task number 25
224	Online Monitoring	Telemetry Improvements required. Treatment to advise P&S on requirements for telemetry	Mackay		2nd half, FY16/17	Treatment Engineer		TBA	01 September 2015 Pinch Point Workshop maintenance task number 26
225	Land acquisition	Future planning needs to identify potential constraints/issues with future land acquisition requirements and DTMR upgrades to surrounding roads	Mackay		2nd half, FY16/17	Mackay Water Management		Staff Time	01 September 2015 Pinch Point Workshop maintenance task number 27
226	Source Water - Pioneer River	Project development of advanced water quality monitoring prediction tool in Pioneer River catchment using online analytics and current data collection.	Marian and Mackay		2nd half, FY16/17	Treatment Engineer	Pending	TBA	
227	Process Review	Investigate and capture the details regarding the event of a filter backwash failure and what actions are (to be) undertaken	Mackay		2nd Half, FY 16/17	Treatment Engineer	Pending	Staff Time	Based on template to be developed for Marian WTP. OCP's also to be established.
228	Disaster Management/ System Reliability	Develop incident response procedure for power outage of Marian weir intake infrastructure	Marian	MA29	Medium	2nd Half, FY 16/17	Manager - Water Treatment	Pending	Staff Time