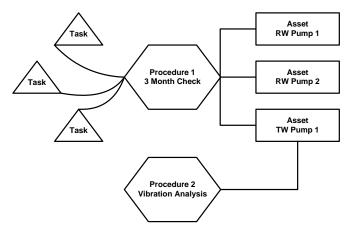
AI-07-MAINTENANCE PROCEDURES UPLOADING

Ver.1 Date: October 2014

1. SCOPE

This specification details the information required and format for Watercare Services Limited to add the maintenance tasks and procedures for new or replaced assets.

2. PROCEDURE STRUCTURE



A procedure is a list of maintenance tasks to be performed on a single asset.

A procedure can be triggered by calendar or hours.

Any given procedure can be linked to many assets within the same cost centre.

Costs are recorded against the asset.

There is one spreadsheet to be filled in:

• Maintenance Procedures Upload Sheet.

These are held in the Completion and Handover section of the PDM, linked to Handover Requirements

See Examples below in section 4

3. FIELDS USED TO IDENTIFY TASKS AND PROCEDURES

Note that the number of characters (including spaces) available in each field is indicated in brackets by the field headings on the spreadsheets. Data strings entered into a field must not contain more than the number of characters indicated.

All entered data must be in capital letters (Task notes can be lower case)

Fields shown shaded in blue on the spreadsheet will be filled in by Watercare. The consultant or contractor is required to fill in the remaining fields shaded in green. These are listed below.

3.1 PROCEDURE ID

Procedure IDs are up to eight characters long and are in the form:

Where: Water Treatment / Networks

	W T M TWP 01	 Water Tuakau (Indicates location) M (Mechanical), E (Electrical), C (Civil), I (Instrument) Identifies the type of asset, in this case TWP for Treated Water Pump Procedure 1 of 99 WTMTWP01
Where:	Wastewater Re	ticulation
	R N M ARV 01	 Wastewater Reticulation Network (Indicates location) M (Mechanical), E (Electrical), C (Civil), I (Instrument) Identifies the type of asset, in this case ARV for Air Release Valve Procedure 1 of 99 RNMARV01
Where:	Wastewater Tre	
	T M SPU 01	 Water (R = Wastewater Reticulation) M (Mechanical), E (Electrical), C (Civil), I (Instrument) Identifies the type of asset, in this case SPU for Submersible Pump Procedure 1 of 99 TMSPU01

3.2 DISCIPLINE

This will be mechanical, electrical, instrumentation, Civil, Operations etc.

3.3 SEQUENCE

This is used to distinguish superseding procedures which have the same procedure ID. You can leave this blank when entering a one off procedure which will not supersede any other, Sequence 0 is then assumed. To add a superseding procedure, you must enter a sequence number (1-99).

Interval based maintenance

- 0 Default for a one off procedure
- 1 Monthly
- 3 3 Monthly
- 6 6 Monthly
- 12 12 Monthly
- 24 24 Monthly
- 36 36 Monthly
- 60 60 Monthly
- 72 72 Monthly (may help with nesting)

The combination of Procedure ID and Sequence uniquely identifies a procedure e.g.

- WTMTWP01 6 could be the 6 monthly mechanical procedure No.1 on the Tuakau Treated Water Pumps
- WTETWP01 12 could be the 12 monthly electrical procedure No.1 on the Tuakau Treated Water Pumps
- WTETWP02 12 could be the 12 monthly electrical procedure No.2 on the Tuakau Treated Water Pumps

3.4 DURATION

Length of time required to carry out task.

3.5 FREQUENCY

This is the frequency at which the maintenance should be carried out.

Enter the maintenance frequency in the form:

- 01W Weekly
- 01M Monthly
- 03M Three Monthly
- 06M Six Monthly
- 36M Three Yearly

Maintenance for equipment operating regular hours each month can be initiated on a weekly/monthly basis.

Note to enable the superseding of schedules, combine the one monthly tasks with the three monthly tasks to create a three monthly schedule and then the three monthly with the six monthly to create a six monthly schedule.

For run hours based maintenance leave the cell blank.

3.6 PROCEDURE – SHORT NAME

This field is limited to 30 characters and should provide a short description of the procedure including the frequency what the check is and the asset e.g. 1M Mech Chk Alfriston P/S

3.7 PROCEDURE – FULL DESCRIPTION

This field can be up to 250 characters long and should provide a full description of the procedure including the frequency what the check is and the asset e.g. One Monthly mechanical check – Alfriston Pump Station. The procedure is for an asset.

3.8 WORK CENTRE

This field will be generated when the assets are uploaded into Mosaic.

3.9 ASSET ID AND TASK NO

The asset ID will be generated when the asset is uploaded in mosaic. The task no starts at 1 and a new number is assigned to each new task for that procedure. There is no limit on the number of tasks within a procedure.

3.10 SCHEDULE DATE

This is the first day of operation of the system and is used to schedule the maintenance rounds.

3.11 TASK DESCRIPTION

This field is limited to 40 characters and hence should be a short description of the task e.g. coupling check.

3.12 TASK NUMBER

This is an additional task number required by Mosaic to allow work orders to be generated and printed out for the field technicians. The task number should start at the letter A to differentiate from the previous task number.

3.13TASK NOTE DESCRIPTION

This is the detailed description of the task to be undertaken e.g. check condition of coupling and coupling pins. Where appropriate the relevant section of the original manufacturer's manual may be referenced.

3.14 COMMISSION DATE

This is the date the asset was handed over to Operations.

3.15 WARRANTY PERIOD -- COMMENT

This field shall include the length of the warranty period or defects liability period and specific instructions.

3.16 WARRANTY EXPIRY DATE

The date the warranty period or defects liability period ends.

000.1. EXAMPLES

ALOAD CHECKS PIR	PROCEDURE ID (8 Characters)	DISCIPLINE	SEQUENCE (Hrs)		PROCEDURE - SHORT NAME (30 character Max)	PROCEDURE FULL DESCRIPTION	REASON CODE	RESPONSIBILITY	BUDGET JOB	WORK CENTRE RIS FLAG		SCHEDULE DATE DDMM/YYYY	LOCATION	TASK DESCRIPTION (40 Characters)	TASK NUMBER	TASK NOTE DESCRIPTION	Commission Date	Warranty period - comments	Warranty Expiry Date
xample 1. Compl	lete details for columns coloured gr	green																	
	WPALEMON	M	1 2	0134	1 M MECH CHK ALFRISTON P/S	ONE MONTHLY MECHANICAL CHECK ALERISTON PUMP STATION	WP	WHES	WPAPPMM	WORP	235285								
	(Refer to WSL - Procedure naming convention)										1			ISOLATE EQUIPMENT	A	Ensure WSL tastation procedure is followed before work commences	15/11/2008	1 year Warranty period - must use OEM recommended lubrication as per task notes.	15/11/2009
											2			COUPLING CHECK COUPLING GUARD CHECK	8.	Check condition of coupling and coupling pire. Check condition of coupling guard.			
											3			COUPLING GUARD CHECK	C.	Check condition of coupling guard.			
											4			MECHANICAL SEAL CHECK	0.	Check for leakage from mechanical seal - Check operation of flushing line.			
											5			MOUNTING BASE CHECK	E.	Check condition of mounting base, check hold down boits are tight.			
											6			PROTECTION SHELDS CHECK		Check condition of all seal protection shields! Flange splash covers.			
											1			LABEL CHECKS MANUAL OPERATION CHECK	0	Check Equipment ID labels are correct, secure and legible			
														MANUAL OPERATION CHECK	H	Operate Pump in manual control - Check for ubration and noise			
													//	LUBRICATION CHECK		Lubricate pump bearings - Use Mobilith SHC 220 Quantity = 30 grams			
xample 2. To ena.	able superseding of schedules com	nbine the 1 Mo.	nthly tasks with the ac	ditional 3 Mon	hly tasks to create a 3 Mont.	hly schedule.								LUBRICATION CHECK		Lubricate pump bearings - Use Mobilith SHC 220 Quantity = 30 grams			
	able superseding of schedules com	mbine the 1 Mo	nthly tasks with the a	dditional 3 Mont	A DESCRIPTION OF A DESCRIPTION	THE MONTHLY MECHANICAL CHECK ALERISTON PUMP STATION	WP	WHES	WPAPPMM	WORP	235285								
		mbine the 1 Mc	nthly tasks with the av		A DESCRIPTION OF A DESCRIPTION	and the second	WP	WHES	WPAPPIIM	WORP	235285			INCLASE FOURIERST	×.	Ensure WSII, Isolation procedure is followed before work commences.			
		mbine the 1 Mc	nthly tasks with the au		A DESCRIPTION OF A DESCRIPTION	and the second	WP	WHES	WPAPPIII	WORP	9 225285 1 2			INCLASE FOURIERST	A B	Ensure WSL Isolation procedure is followed before work commences. Check condition of crupting and coupling pins.			
		mbine the 1 Mc	nthly tasks with the a		A DESCRIPTION OF A DESCRIPTION	and the second	WP	WMES	WPAPPMM	WORP	9 225285 1 2 3			INCLASE FOURIERST	A B C	Ensure WSL Isolation procedure is followed before work commences. Check condition of crupting and coupling pins.			
		mbine the 1 Mc	nthly tasks with the a		A DESCRIPTION OF A DESCRIPTION	and the second	WP	WHAT S	WPAPPMM	WORP	3 225285 1 2 3 4			HIGLATE EQUIPMENT COUPLING CHECK COUPLING CLARD CHECK MIRCHARICAL, SEA, CHECK	A B C D	Ensure Will, tocknon procedure is followed before work commences Okeck condition of coupling and coupling print. Okeck to hadway from michaeling guind. Okeck for hadway from michaeling all end. Oheck operation of fashing fire.			
		mbine the 1 Mc	nthly tasks with the a		A DESCRIPTION OF A DESCRIPTION	and the second	w	WHES	WPAPPIIM	WORP	9 235385 1 7 3 4 5			ISOLATE EQUIPMENT COUPLING ORECK COURTING ORECK MECHANICAL SEAL ORECK MOUNTING BASE ORECK	A B C D E	Ensure WTIL Isolation proceibus to followed Julius walk commences. Orack condition of cauging and cauging pins. Orack condition of cauging gains. Orack condition of cauging gains. Orack to halvage from nechanical and - Orack spendition of fashing fine. Orack condition of manufina Jana - Machine Isolation of the second Disk condition of manufina Jana - Machine Isolation of the second Disk condition of manufina Jana - Machine Isolation of the second Disk condition of manufina Jana - Machine Isolation of the second Disk condition of manufina Jana - Machine Isolation of the second Disk condition of manufina Jana - Machine Isolation of the second Disk condition of manufina Jana - Machine Isolation of the second Disk condition of the second Disk condition of the second Disk condition of the second Disk condition of the second Disk condition of the sec			
		mbine the 1 Mc	nthly tasks with the a		A DESCRIPTION OF A DESCRIPTION	and the second	WF	WHE'S.	WPAPPMM	WORP	225015 1 2 3 4 5 6			EIGLATE EQUIPMENT COUPLING CHECK COUPLING CHECK MCWATRUE BALCHECK MCWATRUE BALCHECK MOWTRUE BALECE CHECK	A B C D E F	Ensure Will, Isolation procedure is followed lafete work commences. Credit condition of coupling and coupling press. Device conditions of coupling game. Credit to Isolating them receivers at an 2-back operation of flashing time. Credit to Isolating them receivers at an 2-back operation are set of the Credit of all and procedure intellity. Them safety on comm.			
		mbine the 1 Mc	nthly tasks with the a		A DESCRIPTION OF A DESCRIPTION	and the second	Wap	WAR S.	WPAPPIII	WORP	9 235285 1 2 3 4 5 6 7			EIGLATE EQUIPMENT COUPLING CHECK COUPLING CHECK MCWATRUE BALCHECK MCWATRUE BALCHECK MOWTRUE BALECE CHECK	A B C D E F G	Ensure 1925. Indexes proceeds a Minused Johns work consistences Check condition of coupling and combination. One-do condition of coupling and Check to the Many both mechanical and - One-do question of flushing line. Check condition of mounting lase, check hold ann holts an sight Check condition of mounting lase, check hold annother an sight Check condition. If Minute are constrained to the set of the set Check condition of mounting lase, check hold annother an sight			
		mbine the 1 Mc	nthly tasks with the a		A DESCRIPTION OF A DESCRIPTION	and the second	WP	WAE'S.	WPAPPILL	WORP	9 235385 1 2 3 4 5 6 7 7 8			INCLATE EQUIPMENT COURTING OFECK COURTING OMOC PEECK MECHARICAL SEX OFECC MOUNTING SALE OFECC MOUNTING SALE OFECC MORE OFECC MORE OFECC	A B C D E F G H	Ensure Will, Isolation procedure is followed lafete work commences. Geod: condition of coupling and coupling pres. Geode: condition of coupling game. Geode isolation of monorchig lass, coupled with an entry of Couple of conditions of monorchig lass, coupled and process and couple for processing and an entry of the second Couple (condition of Propersis, Seguera and Proper parts.			
		with the 1 Mc	nthly tasks with the a		A DESCRIPTION OF A DESCRIPTION	and the second	w	WATAR S.	WPAPPini	WORP	2)5785 1 2 3 4 5 6 7 7 8 5			INCLATE EQUIPMENT COURTING DEEX MECHANEL SEAL CHECK MOUTING BASE CHECK MOUTING BASE CHECK MOUTING BASE CHECK MOUTING BASE CHECK LABEL CHECK UTTING SEAMENT CHECK	A B C D E F G H L	Ensure 1925. Indexes proceeds a Minused Johns work consistences Check condition of coupling and combination. One-do condition of coupling and Check to the Many both mechanical and - One-do question of flushing line. Check condition of mounting lase, check hold ann holts an sight Check condition of mounting lase, check hold annother an sight Check condition. If Minute are constrained to the set of the set Check condition of mounting lase, check hold annother an sight			
		umbine the 1 Mk	nthly tasks with the a		A DESCRIPTION OF A DESCRIPTION	and the second	Was	Whites	WPAPPHM	WoldP	225285 1 2 3 4 5 6 7 8 5 10			BOLATE EXXEMPLY COURTING CHECK COURTING CHECK MICHARCH, REAL CHECK MICHARCH, REAL CHECK MICHARCH, REAL CHECK MICHARCH, REAL CHECK MICHARCH, CH	A B C D E F Q H L J	Envorv 10% Indexion procedure to Mitowell Index wolk continuences Cenets conditions of coupling pand. Cenets conditions of coupling gand. Cenets conditions of coupling gand. Cenets conditions of all sample panes, check had been bein an taple. Cenets conditions of all sample panes, check had been bein an taple. Cenets conditions of all sample panes, check had been bein an taple. Cenets conditions of all sample panes. Cenets conditions of all sample panes. Cenets conditions of all sample panes. Cenets conditions of Planesias, Support and Plangs panes. Cenets conditions of the relatest and example.			
		umbine the 1 Mk	nthly tasks with the and a second s		A DESCRIPTION OF A DESCRIPTION	and the second	w	WALE S	WPAPPIII	wore	235385 1 2 3 4 5 6 7 8 5 5 10 11			INCLATE EQUIPMENT COURTING DEEX MECHANEL SEAL CHECK MOUTING BASE CHECK MOUTING BASE CHECK MOUTING BASE CHECK MOUTING BASE CHECK LABEL CHECK UTTING SEAMENT CHECK	- A B C D E F O H 1 - J K	Ensure Will, Isolanon procedure is followed lefter work commerces. Credit condition of coupling and coupling para. Credit condition of coupling and coupling para. Credit condition of moviming base, check hold enso that are tight. Credit condition of moviming base, check hold enso that are tight. Credit condition of moviming base, check hold enso that are tight. Credit Coupling of an and protection statical Planes patients. Credit Coupling of the static resource and pages. Credit Coupling of check are consist, accoupt and pages.			