Appendix 2:

Schedule 1: Specifications for Operator Supply of Potable Water

Schedule 1: Specification for operator supply of potable water

Water Supply Assessment Checklist

Complete one checklist for each water source being assessed.

A: SUPPLIER DETAILS

RMP No.	
Person who completed checklist	

B: WATER SOURCE

Tick the box representing your water source and then go to the appropriate part of the checklist as indicated.

☐ **Deep bore water** (i.e. bore greater than 10m deep) **– Go to B1**

☐ **Surface water** (e.g. bore less than 10m deep, spring, well, river, stream, dam, lake, reservoir) **– Go to B2**

☐ **Roof Water – Go to B3**

B1: DEEP BORE WATER (i.e. bore > 10m deep)

Tick the appropriate boxes in the table below and then move on to the relevant parts of the checklist as appropriate to the responses given.

Yes	No	Question
		Is the bore less than 10m deep?
		Is the soil/rock types such that contaminants could flow into the groundwater?
		Is surface water able to drain into the bore, due to the bore-head being inadequately sealed?
		Is the bore-head in an area prone to ponding and flooding?
		Do farmed animals have access to the bore-head?
		Is there any septic tank/long drop toilet outlet within 100 metres from the bore-head?
Do any of the following water characteristics change after rain? (you will need records of this to confirm these statements)		
		• Colour
		• Temperature
		• Turbidity
		• pH
		• *E. coli* or faecal coliform count

If all responses are NO, the water is secure, go to C, Water Storage

If any responses are YES, the water is not secure. Record details of problem(s) in row B1 of Table D. If the problems can be eliminated from the water supply permanently, eliminate the problem and then go to C, Water storage. If problems cannot be eliminated permanently, go to B2 and complete the questions for surface water.

If all responses are YES, the water is not secure - go to B2 and complete the questions for surface water.

B2: SURFACE WATER

e.g. Shallow bore (less than 10m), deep bore - not secure, spring, dam, lake, reservoir, stream

Tick the appropriate boxes in the table below and then move on to the relevant parts of the checklist as appropriate to the responses given.

Describe the water source (including name where appropriate)		
☐ Shallow bore……. ☐ Dam…….. ☐ Deep bore - not secure…..……. ☐ Lake……. ☐ Spring…….…… ☐ Reservoir……. ☐ Stream…….…… ☐ River……. ☐ Other (specify)….....		
Yes	No	Question
		Are any of the following within 50 metres of the water source?
		Offal pit / soak hole
		Animal effluent to pasture
		Sumps, stock yards or feed pads not connected to an approved effluent system
		Fuel tanks
		Timber treatment facility
		Abandoned or decommissioned wells
		Septic tank / long-drop toilet
		Land disposal site/refuse pit
		Silage stack
		Chemical preparation/storage
		Pesticide residues
Do you have any of the following water problems? You will need records of this to confirm these statements		
		Bacterial contamination
		Turbidity
		Sediment
		Colour
		Smell
		Taste
Do any of the following factors present risks to the water?		
		Spray drift
		Nearby factories
		Mining operations
		Material from effluent ponds or surface impoundments (waste ponds or lagoons) - either treated discharge or leakage
		Contaminants washed into source during irrigation
		Geothermal contaminants (e.g. arsenic, boron, lithium etc)
		Saline water
		Possible flooding (consider council land information/LIM reports)
		Other factors (Specify here);

If all responses are NO, continue with B2

If any responses are YES, record details of problem(s) in row B2 of Table D then continue with B2

B2: SURFACE WATER (Continued)

Tick the appropriate boxes in the tables below and then move on to the relevant parts of the checklist as appropriate to the responses given.

Describe the surface water type	
☐	**Flowing water** (e.g. unsecure bores, rivers, streams, springs) **– Go to B2(i)**
☐	**Confined water** (e.g. dams, lakes, reservoirs) **– Go to B2(ii)**

B2(i): FLOWING SURFACE WATER

Yes	No	Question
		Is effluent discharged less than 2 km upstream of the water intake and if yes, is effluent discharged less than 4 hours before water is taken from that source? If Yes to both statements, state water source ……..
		Do farmed animals have access to within 10m of the water intake?
		Is industrial or urban stormwater discharged to the source water upstream of the intake?

If all responses are NO, go to C, Water Storage

If any response is YES, record details of problem(s) in row B2(i) of Table D and then go to C, Water Storage

B2(ii): CONFINED SURFACE WATER

Yes	No	Question
		Is the water accessible to farmed animals?
		Is effluent discharged into the dam/lake/reservoir?
		Is industrial or urban stormwater discharged into the dam/lake/reservoir?

If all responses are NO, go to C, Water Storage

If any response is YES, record details of problem(s) in row B2(ii) of Table D then go to C, Water Storage

B3: ROOF WATER

Tick the appropriate boxes in the table below and then move on to the relevant parts of the checklist as appropriate to the responses given.

Yes	No	Question
		Roofing Materials: Are any of the following materials used on the water collection surfaces?
		Galvanised iron?
		Lead materials (lead nails, flashings, paint)?
		Asbestos materials?
		Paint or other surface treatment in poor condition?
		Roof environment
		Is the roof overhung by trees?
		Are there any other factors that could encourage birds or other pests to move about or settle on the roof?
		Atmospheric fall out
		Are there industrial (including agricultural chemicals) or natural sources of atmospheric fall out?
		Is there any ash/soot deposit on the roof?
		Roof maintenance
		Are the gutterings left for more than a month before cleaning them out?

If all responses are NO, go to C, Water Storage

If any response is YES, record details of problem in row B3 of Table D and then go to C, Water Storage

C: WATER STORAGE

Describe Water Storage Facilities
☐ **Do not have holding tanks – Go to Table D if problems have been identified in the previous parts, or E if no problems have been identified in the previous parts.**
☐ **Have holding tanks – Go to C1**

C1: HOLDING TANKS

If there is more than one storage facility, copy and fill out this section for each storage facility.

Yes	No	Question
		Is the outlet of the holding tank below or level with the base of the tank, allowing any debris that has settled to be sucked out with the water?
		Is the water in holding tanks prone to stagnation that results in deterioration of water quality?
		Are holding tanks inspected and maintained less than once per year?
		Are holding tanks dirty and not cleaned when necessary?
		Are holding tanks uncovered allowing access by animals, or other debris or other contaminants into the tanks?

If all responses are No, the water STORAGE is satisfactory. Go to table D and check that any other problems identified in the checklist are followed up.

If any response is Yes, the water STORAGE is not satisfactory. Record details of problem in row C1 of Table D then fill out rest of Table D.

Table D: CORRECTIVE ACTION

Wherever there was a "Yes" answer in the part of the checklist referred to, write the details of the problem identified into the correct row of this table. Fill out the rest of the table to show whether or not the problem is a source of contamination; and where possible what you have done to eliminate the problem and permanently prevent the contamination from occurring (e.g. preventing animal access, no longer using chemicals in the vicinity of the collection area, resurfacing roof etc).

				Problem	
Ref	**Problems identified**	**Biological hazard, chemical hazard or turbidity issue caused by the problem(s)**	**Action taken to address problem(s)**	**Eliminated (✓)**	**Still Remains (✓)**
B1 Deep bore water					
B2 Surface water					
B2(i) Flowing surface water					
B2(ii) Confined surface water					
B3 Roof Water					
C1 Holding Tanks					
E Initial water testing					

If problems have been permanently eliminated, a water management plan is not needed. Go to E

If some problems still exist, record the problem in the first row of D1 and then fill out the rest of D1 with how this problem will be managed on an ongoing basis.

D1: WATER MANAGEMENT PLAN

A water management plan is required where there are any problems that are not managed with your water supply.

This water management plan covers the routine, ongoing water treatment undertaken or actions to ensure that the water is potable, or it may include routine testing conducted to demonstrate that the problem (that cannot be permanently eliminated) is being controlled on an ongoing basis such that treatment is not needed.

A separate D1 should be completed for each problem that needs to be managed from Table D.

Document and implement a water management plan.

Remaining problem from Table D:

Method to manage the identified problem

- ☐ Filtration
- ☐ Chlorination
- ☐ Ultraviolet light
- ☐ Ozone
- ☐ Routine ongoing testing to demonstrate control
- ☐ Other (Specify)……..

The treatment is done in accordance with the procedures:

- ☐ provided by the manufacturer / supplier of the water treatment system *(attach)*; or
- ☐ given below:
  (enter details where relevant, e.g.- equipment type, equipment maintenance (frequency, activity and method, e.g. for replacement or cleaning filters or replacement of UV lights),- other control measures, (e.g. addition of chorine or ozone, frequency, method, any limits (e .g. concentration of chlorine, monitoring frequency)), what is checked (e.g. chlorine level, turbidity) and method, corrective action to be taken when limits exceeded or not met):

OR

- ☐ Details of the routine testing to demonstrate that the problem is being controlled on an ongoing basis (test, frequency).

Other ongoing control measures (either frequency, activity and method, e.g. for routine cleaning of roof or tanks):

↓

Once this table is completed, go to E

E: INITIAL WATER TESTING

Yes	No	Question
		Has a microbiological test for *E.coli* or faecal coliforms been done on this source within the last month?
		If a particular chemical hazard was identified as likely to occur during completion of this checklist, has a relevant chemical test been done on this source within the last month?

If any response is NO, get the relevant tests done, then

If all responses are YES

Name the laboratory which did each test

Yes	No	Question
		Does the water satisfy the microbiological criteria in Table 1: Quality of Potable Water?
		For any additional chemical tests done, does the water satisfy the requirements of the current DWSNZ?

If any response is No, Go to Table D and review / improve the corrective actions taken. Repeat the testing and corrective action process until the water is satisfactory

If all responses are yes

The water is satisfactory. No further action is needed until reassessment of the water supply is required (see clause 4, reassessment of the water supply) or further water testing is required in accordance with the requirements of Table 2, Frequency of Ongoing Testing.