

## HONIARA FLOODING

## HONIARA WATER SUPPLY

## SITUATION REPORT

### ISSUED 6 APRIL 2014 – DAY 0 + 2

#### Summary of Water Supply Status

- Calm weather over Saturday and Sunday have helped in our efforts to investigate our water supply problems and start making improvements to the operational situation.
- We have achieved an improvement in the quantity of water supplied from less than 30% of total capacity to approximately 44%. We estimate that approximately 40% of the population are now able to receive water but on a rationed basis or at low pressures.
- We have identified several serious pipe breakages and eliminated some concerns about other known vulnerable transmission pipes.
- However, the water supply system will remain under considerable pressure to meet demand over the coming weeks.
- Bacteriological water quality cannot be guaranteed under present circumstances and warnings continue to be issued.
- There remains a risk that blockage of the sewerage systems may give rise to effluent discharge from sewers. We have returned the Point Cruz pumping station to operation.
- Risks to health will remain elevated during the recovery period.

#### Water Sources – Condition and Status

1. Kongulai Source – Although access is still difficult, we have now assessed the source. Flooding has reduced by the turbidity of the water is still too high to be safe to introduce it to supply. However, the quality is now improving and providing there is no further heavy rainfall, we are optimistic that it will soon be suitable for use.

**Gravity Supply** (3000m<sup>3</sup>/day) – Feeds west Honiara and part of CBD – remains OFF. We have confirmed by a still limited assessment that the water main has been damaged in at least 3 places – each with 20 to 25 metre sections of the 200mm having been destroyed. Further investigation will continue. The difficulty of access, working conditions in and on the banks of the river will make repair difficult and slow. The importance of this supply cannot be underestimated and we will prioritize repairs as soon as we have the necessary fittings available. Estimated repair – 2 weeks.

**Pumped Supply** (12000m<sup>3</sup>/day) – Feeds along ridges to Tasahe, Titinge and Skyline. The pumping station is undamaged and may be operated when turbidity of water reduces sufficiently. This will depend on the absence of more heavy rainfall. The pipeline has now

been inspected and no issues have been identified. The electrical systems have been checked and the pumps test-run. Providing turbidity reduces to acceptable levels the source can be introduced into supply as soon as possible using the new higher capacity pumps of which installation was completed just before the crisis occurred.

2. Tasahe – New JICA borefields (3200m<sup>3</sup>/day). There is no change in the situation here and the facility remains inoperable – repair time 2 weeks.
3. Titinge – New JICA Borefield (3200m<sup>3</sup>/day) – The electrical problems with the 3-phase power supply have been resolved and the facility was operated from late Saturday evening. However, the production rate is apparently low. We are not sure what is the cause of the problem – either the boreholes are contusing to produce a lower than design capacity yield, or there is a severe mains burst in the transmission system fed by the new Titinge reservoir. Investigations of this problem will continue working with Kitano Construction.
4. Rove Gravity 2000m<sup>3</sup>/day) – The small lake has been cleared of debris and the screens cleaned today. A damaged section of 200mm cast iron main has been replaced with uPVC. The source has been returned to supply but flow is lower than normal indicating serious bloakage of the main with silt. Mains flushing is now being carried out to clear the pipeline. Currently pressures are low. This source feeds Rove prison, CBD and hotels.
5. Skyline – New JICA Borefield (3200m<sup>3</sup>/day) – The source has been operating at full capacity since 4 April. However, we are detecting lower than expected yields of the borefield. This will be investigated. It is impossible to maintain a high level in the treated water service reservoir. While lower properties are receiving water, properties at higher elevations have no water. Leakage may be a possible cause which will be investigated tomorrow.
6. Tuveruhu JICA boreholes 2200m<sup>3</sup>/day) - were operated today but 2 sections of 200mm main were discovered to be damaged. Work has been progressed to effect the repair but the excavation is deep and is taking time.
7. Tuveruhu SIWA boreholes (1700m<sup>3</sup>/day) were operated but an electrical fault occurred and operation was stopped temporarily. The problem has been rectified and operation is back to normal.
8. Borderline – New JICA Borefield (3200m<sup>3</sup>/day) – This is confirmed as being operational.
9. Kobito Borefield – (1300m<sup>3</sup>/day) – Operation continues.
10. Kobito Spring (3500m<sup>3</sup>/day) – Operation continues despite high turbidity. The use of Borderline water to feed to the west to the No 9 Hospital has freed this water for supply to the east to Ranadi and beyond although supplies will be rationed in these areas.
11. Panatina Borefield (1500m<sup>3</sup>/day) – Operation continues.

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### Drinking Water Quality

1. The policy remains as previously. SW will give top priority to disinfection of operating sources. Higher than normal chlorine residuals will be applied although this may give rise to taste problems. However, under current operating conditions we cannot guarantee the bacteriological safety of ANY water that we are supplying. SW has issued and will continue to issue “boiling orders” to the population. All water for human consumption must be boiled or treated with water purification tablets.

### Sewerage Situation

1. Point Cruz effluent PS Is now operating and the sewerage system is slowly being emptied.
2. Sewerage system will certainly suffer from blockages caused by silt and debris. We expect possible backing-up of the sewer network resulting in discharge from manholes and other openings. Potential health hazard.
3. King George VI – The pumping station is not operating but repair is planned for tomorrow.

### Administration and Crisis Management

1. Management of the recovery is working effectively. However, today we have not been able to publish the planned press releases, public information and public appeals as we had hoped. Corrective action will be taken tomorrow.

### Potential future problems

1. Increased leakage – as we bring our sources back into supply we expect that demand will be heavy due to a large number of new leaks and broken pipes and pipe joints. We will appeal to the public to report any leaks detected.
2. Rationing – Will be imposed in most areas to ensure that consumers receive at least a regular supply of water. The extent of rationing cannot be estimated at this time.
3. Revenue Deficit – We predict a deficit of revenue as the public recovers from the damage and losses. Government assistance may be required if revenue levels do not recover within a reasonable time.
4. Urgently required pipes, fittings and materials may need to be air-transported to Honiara. Unfortunately, despite great efforts by the New Zealand High Commission to get our requirements on their air transport flight from New Zealand arriving tomorrow, eventually it was not possible. We will investigate alternatives with the NZHC. We are grateful for their generous offer and efforts.

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