

DIEPSLOOT WATER CONTAMINATION (UPDATE 23 April 2012)

BACKGROUND

On the 12th of April 2012 construction work on the sewer upgrade contract in Diepsloot resulted in that the water and sewer infrastructure were damaged at the same time and place. This resulted in sewer water mixing with the drinking water and led to the contamination of the drinking water.

OBJECTIVE

The objective is to update on actions being carried out in the Diepsloot Area to resolve the contamination of the drinking water.

SUMMARY

Operational Actions

Water supply into the Diepsloot area was closed from the 12th of April 2012 to repair the leak but was kept closed when on the 13th the possibility of contamination was discovered. Work started to repair the water and sewer infrastructure which was completed early Sunday morning the 15th of April 2012 with the finalization of the sewer manhole.

During Saturday the 14th of April 2012 the system was flushed but at low pressures due to construction work still going on. This was not effective in that the water did not reach all the places. Full pressure flushing started on Sunday the 15th of April 2012 followed by sampling at strategic points. (17 Samples were taken)

Sample results of samples taken on 15 April 2012 indicated serious drinking water contamination in Diepsloot West Ext 1, 2, 3, 4, 5, 6, 7, 9 and the reception area. The only area which samples did not show any contamination was Diepsloot West Proper.

The decision that was taken on the 16th of April 2012 was that we need to increase the chlorine content of the water which will speed up the process of disinfection and together with the flushing should start addressing the contamination in the water. Chlorine (10kg) was added into the bulk supply of Diepsloot late afternoon on the 16th of April 2012 and the system was again recharged into all the areas except Diepsloot West Proper. Samples were taken at 27 strategic points after flushing.

Results of samples taken late on the 16 and early 17 April 2012 still indicated Ecoli in the water at 22 of the 27 sampling points. However the count reduced drastically on the results of samples taken on the 15th. The highest counts for these samples were 38, where as before it was greater than 200.

The decision taken on the 17th of April 2012 was again to repeat the chlorination and flushing exercise however the chlorine dosing was doubled (20kg). All areas would be recharged till full and then flushed and samples taken at the same 27 strategic points. The only area that was excluded was Diepsloot West Proper.

Further decision was that the areas would not be drained afterwards due to the time delay of almost 10 hours to recharge the system. This will also assist in sanitation in that people can at least flush toilets with the water. Sample intervals were also changed to twice a day (8:00 and 16:00) to speed things up. Since Diepsloot West Proper was cleared the area was declared safe for human consumption and people in the area could use the water from the 18th of April 2012.

Sampling was concluded late afternoon on the 18th of April 2012 at 30 sampling points. The results indicated 21 of the 30 points failed. The failing samples were concentrated in Diepsloot West Ext 1, 2, 5, 7 and 9. Although still failing the results was still going down from the previous day's samples. The areas with the failing samples were flushed again on the 19th of April 2012 from the afternoon till 23:00. Rand Water was also approached on the 19th to increase the chlorine content of their water supply into the areas. They assisted and the

content which was as low as 0.1 improved to 0.4 during the day. As a precautionary measure 9 samples were taken at strategic points in the system to test for Protozoa on the 19th of April 2012. The tests will be conducted by Rand Water and results are expected early Sunday morning (48 hours after tests have started)

Since the sampling rounds were increased to twice a day, sample results of samples taken from 16:00 on the 18th of April 2012 were available early morning the 20th of April 2012. These results showed a remarkable improvement since only 3 of the 25 samples taken failed with the highest Ecoli being 1 and Coli form 15. It also indicated that the Reception Area, Diepsloot West Ext 6 and Tanganani were clear and safe for human consumption.

Decision based on the above results was that the Reception Area, Diepsloot West Ext 6 and Tanganani can be cleared for human consumption.

Samples results of samples taken from 16:00 on the 19th of April were available early morning of the 21st of April 2012. These results indicated further improvement with samples only failing in Diepsloot West Ext 2, 4 and 7. Samples taken on the 20th of April 2012 indicated that the entire area of Diepsloot was clean. Based on this a decision was taken on the 22nd of April 2012 that the people in the remainder of Diepsloot which could not consume the water can now consume the water.

A further decision as a precautionary measure was also taken on the 22nd of April 2012 that sampling will continue for at least a further week were after we will revert back to normal routine sampling.

Alternative Water Supply

Alternative water supply into the Diepsloot area is provided by 65 stationary tanks. The majority is permanently placed in the reception area with 27 being placed strategically in the other areas. 12 mobile tanker trucks are filling these stationary tanks. Problems are experienced with keeping the stationary tanks full which resulted in that on the 18th of April 2012 tanks will be repositioned to have a better coverage and stationary tanks will have

dedicated mobile tanker trucks filling them. JMPD assisted in escorting the trucks to prevent redirection of trucks by community members. With the Diepsloot West Proper are being declared safe for consumption tanker trucks fills up there instead of traveling all the way to Lion Park.

The alternative water supply through tankers is being suspended since the drinking water in the Diepsloot areas is now safe for human consumption. All temporary stationary tanks will be removed.

Alternative Sewer Services

Schools, Clinics, Crèches and Old Age Homes were supplied with 2 chemical toilets each since due to the no water the normal sanitation system is not operational. This however changed since the 18th of April when the entire system was commissioned and water could be used for sanitation purposes. Some of the chemical toilets were removed because of this.

Communication

Since Friday the 13th of April 2012 an extensive communication drive started in the Diepsloot area to inform the community as well as relevant stakeholders of the situation, actions being taken and progress on these actions. The communication included media releases on relevant SABC radio stations where continuous communication clips are run with news bulletins informing the community.

Over 40,000 pamphlets were distributed informing the community on the situation and warn them against water for human consumption. This is followed up by continuous loud hailing of the messages with the assistance of JMPD and Disaster Management.

All stakeholders including ward counselors, opposition parties and other community organizations are informed of the situation. This also includes stakeholders like the schools, clinics and old age homes. Disaster Management Services also convened a Joint Command Centre with all role players meeting on a daily basis to discuss progress and action plans.

On the 18th of April 2012 residents of Diepsloot West Proper were informed that they can consume the water. The same applied to the Reception Area, Diepsloot West Ext 6 and Tanganani from the 20th of April 2012. Communication mechanisms mentioned above are used for this purpose.

The Deputy Minister of Water Affairs also engaged with senior officials of the City of Johannesburg on the 19th of April 2012. The purpose was to inform the Deputy Minister of the situation, plans in place to address the situation as well as giving progress on the intervention plans. A joint media statement was also released after the meeting.

On the 22nd of April 2012 residents of Diepsloot were informed that the entire areas water is now safe for consumption.

Incidences

Health Department was approached to get the official incident cases over this period. Historical figures will also be requested to enable a trend analysis to be done.

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