

Manitoba Ombudsman

REPORT UNDER

THE OMBUDSMAN ACT

CASE 2014-0379

RURAL MUNICIPALITY OF SPRINGFIELD

REPORT ISSUED ON AUGUST 10, 2017

CASE SUMMARY

A group of residents complained about water quality and capacity issues in the RM of Springfield. Specifically, the complainants were concerned about the operation of gravel pits close to the source of the Oak Bank/Dugald municipal water system, improper decommissioning of the Hillside Road landfill in 1997 and inadequate planning for increasing the capacity of the Oak Bank/Dugald water supply system to meet the ongoing needs of current and projected users. Throughout the course of our investigation, the RM took action to resolve the issues that that were raised and is taking steps to develop a comprehensive water supply plan.

OMBUDSMAN – ROLE AND RESPONSIBILITIES

Under the Ombudsman Act, Manitoba Ombudsman investigates administrative actions and decisions made by government departments and agencies, and municipalities, and their officers and employees. Investigations may be undertaken on the basis of a written complaint from a member of the public, or upon the ombudsman's own initiative.

Ombudsman investigations typically assess actions taken or decisions made against a benchmark established by government. Sometimes that benchmark is provincial legislation or a municipal by-law. On other occasions, it is written policy or established procedures implemented to give effect to legislative purpose. In cases concerning an impact on individual rights or benefits, we also examine the fairness of the action or decision.

A complaint can raise questions of procedural fairness, substantive fairness or relational fairness. Procedural fairness relates to how decisions are reached; the steps followed before, during and after decisions are made. Substantive fairness relates to the fairness of the decision itself and relational fairness relates to how people are treated during the decision making process.

In this instance, we reviewed the actions of the Rural Municipality of Springfield with regard to the three issues that were brought to our office. Our review of the complaint has determined that these issues also relate to the responsibilities and authority of the Office of Drinking Water (ODW) within Manitoba Conservation and Water Stewardship (MCWS), now known as Manitoba Sustainable Development (MSD).

THE COMPLAINT

A group of residents (the Concerned Citizens of Springfield) brought a complaint to our office comprised of three elements related to water quality and capacity issues in the RM of Springfield.

- The first relates to the operation of gravel pits close to the source of the Oak Bank/Dugald municipal water system. In addition to the concern about the proximity of the pits to these wells, the complainants are concerned that the owners are in violation of municipal By-law 73-22 with regard to the operation of gravel pits. Further, they are concerned that these municipal wells may be affected by the open water associated with the gravel pits.
- The complainants are concerned that the Hillside Road Landfill was not properly decommissioned in 1997 and that the RM is not providing adequate monitoring of this landfill as well as the impact the decommissioned landfill may have on the aquifer. They are concerned that the barrier containing this landfill has been allowed to degrade “such that toxic material may be leaching into the aquifer and contaminating the ground water.”
- The complainants are concerned that the RM has not properly planned for increasing the capacity of the Oak Bank/Dugald water supply system to meet the ongoing needs of current and projected users.

SCOPE OF THE INVESTIGATION

Manitoba Ombudsman undertook the following steps to collect information for this investigation:

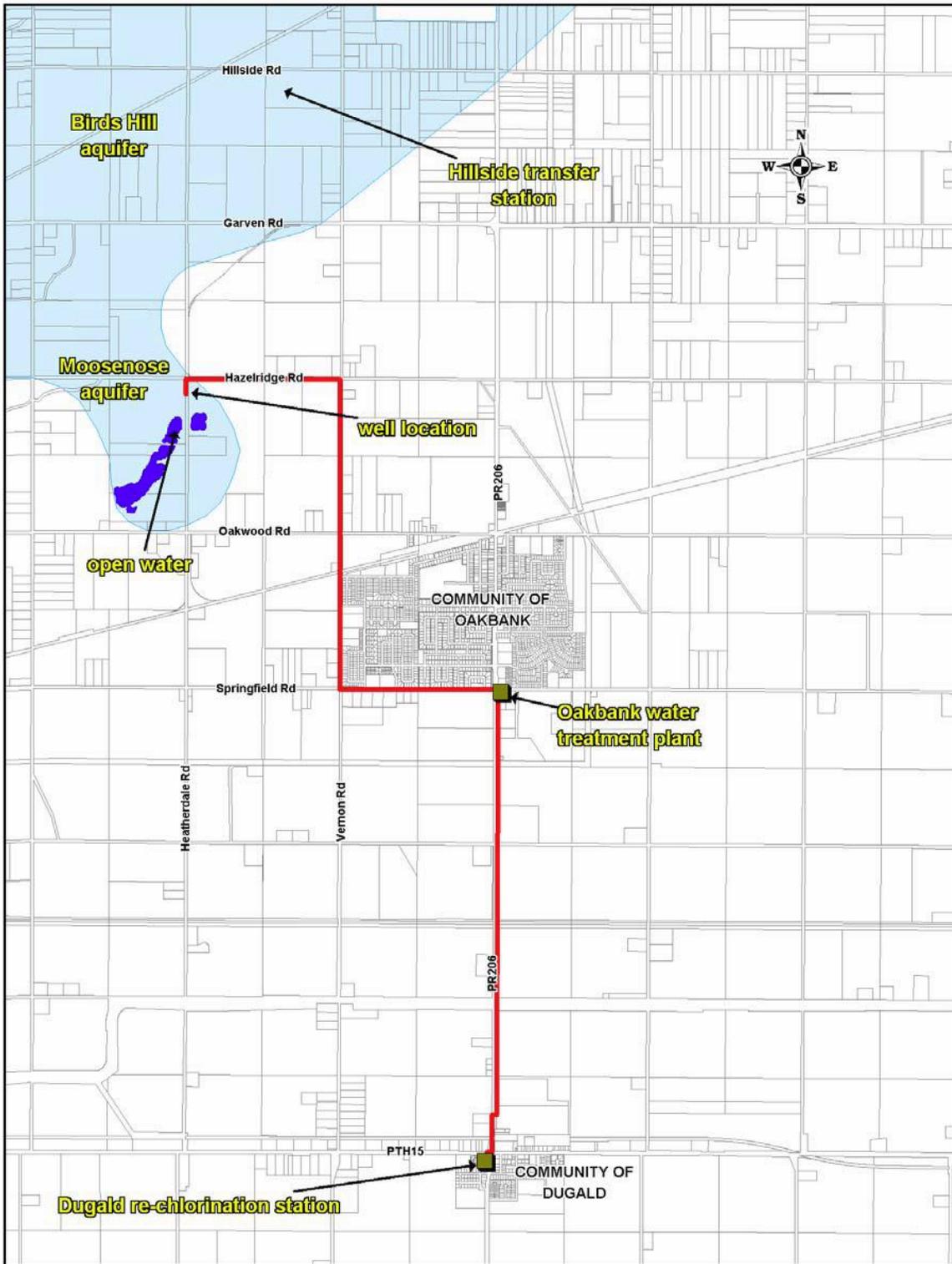
- Reviewed information provided by complainant
- Interview with complainant
- Reviewed legislation governing the ODW and relevant RM by-laws
- Reviewed an analysis of these issues by ODW
- Participated in a briefing provided by the ODW on ground water and water quality issues
- Conducted interviews with RM staff, including the interim and current CAO
- Organized and facilitated a roundtable session involving the complainant, RM staff and council members, and the RM’s engineering firm
- Monitored the progress being made by the RM to resolve these issues

BACKGROUND INFORMATION

According to information provided to our office by ODW, the Oakbank/Dugald water system is supplied by two wells, Well No. 1 South (drilled in 1994) and Well No. 2 North (drilled in 1996). The map on the following page provides a general overview of the water supply system, the aquifer and the location of the municipal wells.

The water supply wells (Well No. 1 South and Well No. 2 North) are located about 100 metres apart within the north eastern portion of NE30-11-5E, just west of Heatherdale Road. The natural clay and/or till cover above the aquifer and depth of the water intake zones protect the aquifer in the local area of the water supply wells from rapid vertical recharge by surface water or precipitation.

As described by ODW, the wells draw water from the Birds Hill complex which forms an important “partially confined” aquifer within the RM of Springfield. The Moosenose aquifer is part of the southern portion of the Birds Hill complex. The groundwater flow within the Birds Hill complex includes a significant vertical flow component through the sand and gravel to recharge the underlying Upper Carbonate aquifer. Groundwater flow within the Upper Carbonate aquifer beneath the sand and gravel occurs predominately as lateral movement. The major flow direction in the Upper Carbonate aquifer in the area of the Moosenose aquifer would be in a south-westerly direction.



Source: Concerned Citizens of Springfield

KEY ISSUES AND ANALYSIS

1. How does the RM plan on handling gravel pits and open water that are deemed to be too close to its municipal wells?

To ensure the safety of municipal water systems, there is a comprehensive regime of regulations to govern and protect municipal water sources. In this case, the complainants raised a concern regarding the proximity of nearby gravel pits to municipal wells and the impact the open water associated with these pits may have on the water supply.

According to the ODW, the areas of the gravel pits to the south of the wells may have been covered by a thin layer of glacial till prior to their development. Over time though, aggregate mining (gravel pits) within both 30-11-5E and 29-11-5E would have resulted in the removal of natural soils overlying and protecting the sand and gravel aquifer below.

Also, a significant portion of the upper soils have been mined to a depth below the groundwater table within the sand and gravel aquifer. The exposed sand and gravel aquifer within the areas of aggregate mining, in particular those areas mined below the groundwater table, is under the direct influence of surface water (groundwater that has a hydraulic connection to surface water).

According to the ODW, the risks to a well water system are generally greater if the well is subject to contamination from surface water run-off or a nearby surface water source and, in this case, the ODW determined that the surface water in the gravel pit was too close to the municipal well head. The Drinking Water Safety Regulation defines the circumstances in which groundwater from a well is considered under the direct influence of surface water or GUDI (Groundwater Under Direct Influence). GUDI wells have additional monitoring requirements and must meet additional water quality and treatment standards, similar to surface water sources.

An assessment, or GUDI screening, completed for the Oakbank-Dugald public water system by the Groundwater Management Section on November 12, 2012 found the wells to be potentially designated as GUDI. An amended operating licence was issued on April 13, 2013 that reflected the potentially GUDI designation and required additional daily raw water quality monitoring for turbidity, conductivity and temperature, in an attempt to confirm the GUDI classification.

On October 8, 2014, our office shared the comprehensive report supplied by the complainants with the Office of Drinking Water, which was forwarded to the Groundwater Management Section for review on October 14, 2014. The Groundwater Management Section reviewed their GUDI screening using the most recent Google map imagery from July 1, 2013 and May 26, 2014. The review confirmed the allegations, noting that one of the wells was now less than 200 metres from open water within the gravel pit and would therefore be considered GUDI in accordance with section 2(1)(b)(iii)(B) of regulations under the Drinking Water Safety Act.

The revised GUDI screening was forwarded to the RM on October 20, 2014 and an amended operating licence, reflecting the changes, was issued effective December 1, 2014. Consistent with current policy and processes established under section 9 of the Drinking Water Quality Standards Regulation, the amended operating licence requires the water system owner to submit a compliance plan to the ODW within four months, outlining how and when they intend to come

into compliance with the water quality and treatment standards that now apply to their water system.

The ombudsman's investigation of this matter has assisted the ODW in identifying areas where its program could be improved. For example, the ODW now completes an annual desktop review of water quality monitoring data for all potentially GUDI water systems to determine if the additional monitoring supports re-classification to either GUDI or secure groundwater. Moving forward, water supplies designated potential GUDI with surface water sources (such as gravel pits) within a 500m radius will have a well head inspection yearly during spring runoff when water levels are at their peak.

Further, water systems in known growth areas in municipalities with a history of intermittent permit applications will be reminded during routine inspections and as part of the audit process to apply for an ODW permit prior to construction. As part of the permitting process, project proponents will have to confirm that the water system has sufficient capacity to handle the additional demand prior to receiving approval for significant water-main extensions.

In addition to the measures undertaken above, the RM has established a working group with gravel pit owners and operators in order to address this issue and to bring the operation of all gravel pits into compliance with the municipal By-law 73-22, which governs the operation of gravel pits within the RM. In addition to other matters, this by-law sets out the conditions where a gravel pit is allowed and how it is to be operated. This is an issue that will require greater vigilance on the part of the RM to monitor the possible impact that this open water might have on the aquifer below. This would include enhanced monitoring on the part of the RM.

With the measures that are being undertaken by the RM and the ODW, we are satisfied that this situation is being addressed and will continue to receive the necessary monitoring by these two organizations. The complainants advised our office that these measures are also satisfactory to them.

2. What measures has the RM taken to deal with concerns about the decommissioned Hillside Landfill and its potential impact on the aquifer?

The RM decided to decommission a landfill on Hillside Road in 1997. The RM acknowledged to our office that the decommissioning process was plagued by a number of issues, including the lack of an approved closure plan, inconsistent management of the area, a failure to adequately cap the landfill, and a lack of consistent ground water monitoring for any contamination from the landfill.

The complainants also identified a number of specific issues with regard to the landfill and its potential impact on water quality within the Moosenose aquifer. This would include the unsupervised use of the landfill area for dumping of motor oil and farm chemical waste, which was then partially burned and bulldozed into an unconfined pit. As well, it is alleged that the area was used as an informal dumping site, including the shredded automobile remains that may have contained toxic chemicals (PCB, dioxins) which would leak into the groundwater or aquifer.

There is also a concern that the original monitoring wells had fallen into disrepair and were ineffective and that the landfill was improperly capped during the decommissioning process.

We were advised during the course of our investigation that the RM has taken steps to address the concerns raised by the complainants. The RM has worked with Environmental Compliance and Enforcement Branch (ECEB) at Manitoba Sustainable Development (MSD) to create an approved closure plan for the landfill. Clay capping of the landfill site was completed in 2014 and there are additional ground water testing wells in place. As part of this more rigorous ground water well monitoring regime, the RM also sends annual reports to ECEB at MSD. The RM has also budgeted for an additional groundwater modelling project and assessment of cap permeability in partnership with the University of Manitoba (subject to the approval of the project under federal funding).

Given the progress on this issue, our office is satisfied with the measures undertaken by the RM to address the concerns identified by the complainants with regard to the decommissioned landfill. We believe that significant progress has been made. It is our understanding that the complainants are also satisfied with these actions.

3. Has the RM been responsive to citizen concerns about water supply capacity?

Located adjacent to the City of Winnipeg, the RM of Springfield has been experiencing consistent residential growth for over 40 years. In addition to new subdivisions, the RM notes that the number of supporting services, such as schools and commercial districts, have also increased.

The complainants are concerned that the growth of new residential subdivisions has already exceeded the water capacity of the existing water supply system. The engineering firm formerly retained by the RM disagreed with this view, stating that there was sufficient supply for current needs. The ODW also concurred that there was sufficient supply for existing residential units with the caveat that the water required for a major fire event was not predictable. Regardless of these conflicting opinions, there is a consensus among RM officials that the capacity of the existing municipal water supply is at its limit and that proactive measures need to be taken in order to maintain the adequate supply of quality water.

According to RM officials, it is not only new subdivisions that need to be factored within a new water supply plan for the RM. Historically, many residents have chosen to use their own wells and septic tanks for their water supply and waste water handling. However, many of these residents are now considering the benefits of being attached to the municipal water system.

For example, almost all of Oakbank uses the sewer system but only approximately half of the community relies on private wells for their water supply needs. With the water supply distribution network existing in only half of the community, the RM has plans to install a distribution system in a phased manner for the rest of the community (the overall time period for the phase-in will depend on the availability of grant funding).

Changing building codes and standards also have an impact on developing a water supply plan. As discussed during the November 2015 roundtable session, which included the complainants, RM officials, and our office, a local high school needs to upgrade its sprinkler system and it is currently not part of the municipal water supply system. Joining the municipal water supply system would be part of this upgrade. Further, other large institutional users nearby are likely to want to join the municipal water supply system.

According to the reeve, the RM is now seized with the issues concerning the Oakbank/Dugald water supply system. In discussions with the CAO and in follow-up discussions with the complainants, it appears that the RM is moving forward with a process to develop a comprehensive water supply plan to meet current and projected water supply needs delivered by the Oakbank/Dugald water supply system. Even though there may be disagreement about the degree to which the current water supply is able to meet a high demand situation (such as high local domestic water use occurring at the same time the water is needed to fight a major fire), there is a consensus that the capacity of the water supply system is an urgent issue for the RM.

The RM has suggested that a low-cost near-term measure would be for the RM to apply for permission from the Water Use Licencing Section at MSD to redevelop the wells and upgrade pumping machinery. The RM also has budgeted for drilling test wells and developing a new production well at a different location in the 2017 budget.

According to the RM, the current water supply system apparently has the capacity to handle this additional supply, which could be obtained from drilling a third well. To us, this suggestion shows that the RM has set its mind to addressing the concerns that the complainants have brought forward.

Given that the RM is facing increased population growth, as well as increased interest in connecting to the municipal water system among households and institutions currently using a combination of well and septic systems, the RM has stated that the planning process needs to scope out the projected demand and the timeline for enhancing the water supply system.

It is important that local governments share information with residents when concerns about municipal infrastructure arise. While the previous RM council and administration were not, in the complainants' view, responsive to addressing citizen concerns in this area, a change in both council and senior administration appears to have resulted in a new approach.

We note that there has been ongoing communication between the complainant group and the new administration and council on these issues. It is our observation that the input of the group has been welcomed by the RM and that the RM is much more responsive to addressing the concerns that have been presented.

CONCLUSION

In discussion with our office in April 2017, the complainants expressed satisfaction that the RM has taken concrete action with regard to the issues that have been raised. We are pleased that these matters have been resolved. This concludes our investigation of the complaint.