



TECHNICAL MEMORANDUM

DATE October 21, 2024

Project No. 19129150 (2300)

TO David Hanratty
CBM Aggregates (CBM), a Division of St. Marys Cement Inc. (Canada)

CC Mike Lebreton (CBM)

FROM Greg Padusenko, George Schneider

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CALEDON PIT / QUARRY – WATER WELL COMPLAINT RESPONSE PLAN

This water well complaint response plan is intended to help ensure CBM can promptly respond to and remedy, if necessary, potential water supply impacts to any neighbouring private water well user (referred to herein as “resident”) should their water supply be affected by the future proposed Caledon Pit / Quarry aggregate operation. As indicated in the Water Report (Golder, 2022), there is a potential for adverse effects to a small number of neighbouring private wells as a result of the proposed aggregate operations.

It should be noted that a water monitoring program (Section 9 of the Water Report; Golder, 2022) shall be implemented throughout the operation of the pit / quarry. The data collected through the monitoring program will allow the aggregate operator to identify the potential for impacts to neighbouring private water wells before they occur. This will provide the aggregate operator with relevant information to proactively address potential interference with neighbouring water supplies before impacts occur. Furthermore, an additional private well survey shall be conducted prior to the start of aggregate operations at the Site, to help establish water use, well construction details, the available drawdown within each neighbouring private well, and (if possible) baseline water quality.

Well complaints in the neighbouring area shall be evaluated on a case by case basis and the appropriate actions shall be undertaken to address the issue, as is the current practice by CBM at all its pits and quarries. Although the potential impacts on wells related to the proposed pit / quarry development is generally expected to be minimal, CBM shall respond to well complaints in accordance with the procedures proposed herein. The process is described below.

WATER WELL INTERFERENCE PROCESS

If a water well complaint (quantity or quality) is received by CBM for a private well located within the estimated zone of influence (within 1,000 m) the following actions shall be taken:

- A representative from CBM shall meet with the resident within 24 hours and discuss the complaint. If warranted, CBM shall contact a local well contractor, and the resident shall be supplied a temporary water source within 24 hours if the issue cannot be easily determined and rectified (see steps below).
- If the issue raised by the resident is related to a loss of water supply, CBM shall have a consultant / well contractor determine the likely causes of the loss of water supply, which can result from a number of factors,

including pump failure, extended overuse of the well or lowering of the water level in the well from potential aggregate operations interference. If the issue raised is related to water quality concerns, CBM shall have a consultant / well contractor evaluate the complaint and assess the potential cause. In either case, the assessment process would be carried out at the expense of the aggregate operator and the results of the assessment shall be provided to the resident.

Loss of Water Supply

- The consultant / well contractor will be able to readily determine if pump failure is the cause of the loss of water supply and, should the resident choose to have the pump repaired or replaced at their expense, the well contractor would correct the situation for the resident. If well capacity in relation to the demand being placed on the well by the resident (i.e., extended overuse) is determined to be the cause of the loss of water supply by the consultant / well contractor, recommendations shall be provided to the resident for their consideration, implementation of which would be at their expense.
- If, however, the loss of water supply is determined to potentially have been caused by CBM aggregate extraction and dewatering activities, then water well supply mitigation options shall be reviewed with the resident and the best course of action to restore an equivalent water supply to the resident shall be implemented at CBM's expense. For instance, if the water level in the well is lowered to a point where it has interfered with pumping, then potential solutions shall be evaluated including adjusting the pump pressure and / or lowering the pump level in the well.
- In the event that the well is incapable of providing an adequate supply of water (i.e., the water level is too low in comparison to the depth of the well), or the repair to the pumping system will be more than a day, the consultant / well contractor shall continue to supply a potable water source to the resident (until restoration of the well is complete). These actions would be carried out at the expense of CBM. In rare cases where the water level in the well has been lowered significantly, the well may have to be deepened, widened or relocated (also at CBM's expense). A replacement well will be constructed to O.Reg.903, as amended standards.
- For issues deemed to be related to CBM aggregate extraction and dewatering activities then CBM shall immediately notify the Peel District office of the Ministry of Environment, Conservation and Parks (MECP) at 800-335-5906 to notify them of the issue. Follow-up correspondence will be provided to the MECP to indicate what mitigation measures were implemented and that the issue has been resolved.

Water Quality

- The consultant / well contractor will investigate the water quality complaint to determine the nature of the water quality issue. A water sample will be collected from the well to assess water quality at the well and compare it relative to water quality baseline data (if available) and water quality monitoring data at the Site.
- If the investigation indicates that water quality at the well is consistent with water quality baseline and monitoring data, and indicates that CBM aggregate extraction and dewatering activities have not impacted water quality, recommendations shall be provided to the resident for their consideration, implementation of which would be at their expense.
- If the investigation indicates that water quality potentially has been impacted by CBM aggregate extraction and dewatering activities, then water well supply mitigation options shall be reviewed with the resident and the

best course of action to restore an equivalent water supply to the resident shall be implemented at CBM's expense.

- If the investigation indicates that CBM aggregate extraction and dewatering activities has resulted in contaminants entering the groundwater system at concentrations above baseline water quality and exceeding Ontario Drinking Water Standards (ODWS), then CBM shall immediately notify the Peel District office of the Ministry of Environment, Conservation and Parks (MECP) at 800-335-5906 and Peel Public Health at 905-799-7700.
- Further information on water quality testing, the interpretation of water quality test results and commonly available treatment methods for private water wells is available online at Ontario [Testing and treating private water wells](https://www.ontario.ca/page/testing-and-treating-private-water-wells) (<https://www.ontario.ca/page/testing-and-treating-private-water-wells>).

SUMMARY

Should mitigation options be required as a result of CBM's extraction and dewatering activities negatively affecting neighbouring water levels or water quality, the following options could potentially be implemented:

- 1) lowering of the pump to take advantage of existing storage within the well;
- 2) deepening of the well to increase the available water column;
- 3) widening of the well to increase the available storage of water;
- 4) relocation of the well to another area on the property;
- 5) the installation of multiple wells that would collectively deliver the required water supply to the resident;
- 6) adding a water treatment system to the well; and/or
- 7) remediating the source of groundwater contamination.

The requirement for any of these mitigation measures would be determined based on the results of the groundwater monitoring program and the assessment of the specific private water supply well in question. It would also take into account the recommendation of the consultant and/or well contractor that were involved in the assessment. All well or well system modifications will be completed in accordance with O.Reg 903, as amended.

Contact Information

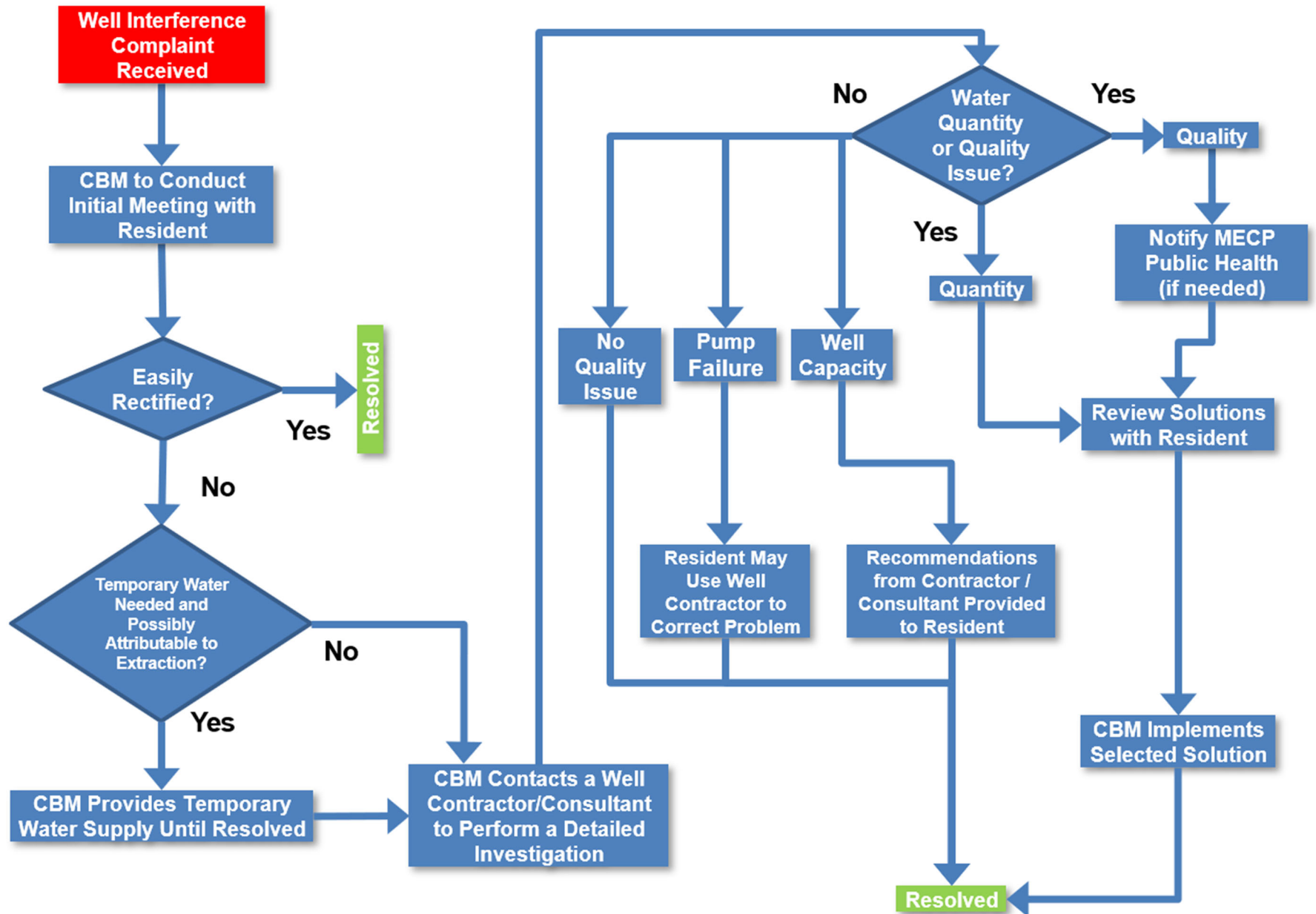
The public would be provided with contact information for CBM employees in the following positions at the start of operations:

- 1) Land & Resource Manager
- 2) Area Manager
- 3) Plant Manager

Contact information, including cell phone number and email address, would be provided for each person filling these positions at the start of operations and would be updated, as needed, during the duration of the operation.

Attachments: Well Interference Complaint Response Flow Chart

[https://wsonline.sharepoint.com/sites/gld-114392/project files/6 deliverables/ph 2300-hydrogeology/503 water report addendum/s2-4 updated well response plan to mecp gw-12 tc-3f/19129150 cbm well complaint response plan r1a october 2024.docx](https://wsonline.sharepoint.com/sites/gld-114392/project%20files/6%20deliverables/ph%202300-hydrogeology/503%20water%20report%20addendum/s2-4%20updated%20well%20response%20plan%20to%20mecp%20gw-12%20tc-3f/19129150%20cbm%20well%20complaint%20response%20plan%20r1a%20october%202024.docx)



CBM AGGREGATES (CBM), A DIVISION OF ST. MARYS CEMENT INC. (CANADA)

Caledon Pit and Quarry



PREPARED BY: 2024-10-21
 REVIEWED BY: PGM
 CHECKED BY: PGM
 APPROVED BY: GRP
 APPROVED BY: GWS

Well Interference Complaint Response Flow Chart

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM A3/A4