

Whitevale Groundwater Supply Well Survey

Questions for WSP / Region of Durham

General

- What is/are the specific objective(s) of this study/survey?
- How many wells will be tested?
- Will the survey/testing include all wells on the east and west side of Whitevale in addition to the private homeowners within the Seaton planning area?
- Will residents who are tenants of the provincial government be included in this survey?

Testing Methodology

- Please explain the testing process and what the expected outcome(s) will be.
 - ✓ Will the testing require that the homeowner be present at any time?
 - ✓ What will the access requirements to the well during the course of the study be?
 - ✓ What is the length of time over which this monitoring program will be carried out?
 - ✓ Will a visual survey of each property be undertaken to see the position of the well with respect to property lines, house and other site features (they can locate wells and other features quickly with GPS)?
 - ✓ Will properties be surveyed to identify abandoned wells?
 - ✓ What is the plan to deal with site specific issues such as:
 - Exterior water sources that are 'post water treatment'?
 - Wells that are difficult/challenging to access?
- Given that 2016 has been an unseasonably dry summer (and not typical) will the study include multi-year and seasonal analysis in order to achieve an appropriate/representative baseline?
- Will volatility be included in the baseline?

- What are all of the water quality parameters that will be analyzed as part of this study? Specifically;
 - ✓ What will be tested,
 - ✓ Quantity / flow?
 - ✓ Chemicals and heavy metals? Specifically which ones?
 - Will this include the same chemicals that were test in the SNC-Lavalin report?
 - ✓ Bacteria? Specifically which ones?
 - ✓ Other?
- How will it/they be tested?
- How often will these tests occur?
- Over what time frame?
- Please explain the testing process and what the expected outcome(s) will be.
- After the baseline is complete, will well monitoring continue to measure:
 - ✓ Water levels/flow?
 - ✓ Water quality (chemicals, metals and bacteria)?
 - ✓ If yes, for how long and how frequently?
 - ✓ What would be the expected timeframe(post construction) for water quality/quantity issues as a result of the development to become apparent?

Variables

- If development is delayed, will testing for quality and quantity continue for a period of time to ensure that testing is only discontinued once all development complete?
 - ✓ If not, why not?
- Some residents have heard that the process of filling the gravel pits north of Whitevale could begin in near future (prior to the completion of the water survey or during the data collection phase). If this is the case, how will this be factored into the study?

- Do wells need to be sealed or will they be sealed during the data collection phase?
 - ✓ If so how do residents access wells if they need to;
 - Fill if dry
 - Do their own testing if necessary
 - ✓ If the well is opened after it is sealed, does this nullify the data

Information Sharing

- Can the WDRA be provided with the study design?
- Your promotional material advises that participating residents will be provided with a “Well Condition Assessment”. Could you provide more detailed information, specifically;
 - ✓ Could the WDRA be provided with examples of what will be assessed?
 - ✓ What is the objective of this assessment?
 - ✓ Will residents be given individual “well condition assessment” reports?
 - ✓ If there are well deficiencies identified, will residents be given the opportunity to fix/address the deficiency prior to the commencement of the study?
 - ✓ What other steps would be taken?
 - ✓ Would there be any follow up to ensure remedial work is done?
 - ✓ Who, other than the resident, will receive the “well condition assessment” report?
- Will each resident/well owner be given a copy of any report/summary of findings from the survey which relate to their specific well? And if yes;
 - ✓ What information will this report include?
 - ✓ Will this or any information from the survey as it relates to individual well, become part of the public record?
- The WDRA has been advised by WSP that we can have access to the data from the study in order to conduct our own peer review?
 - ✓ Specifically what data will be provided?
 - ✓ In what form will the data be provided?

- Will the Region of Durham be undertaking a peer review of the data?
 - ✓ If yes, can the WDRA be involved in the selection of the consultant for the peer review?
- In the event of a problem with either flow/quantity or quality of groundwater after the construction of Seaton, will the baseline survey be available to residents or their agents for use in any future investigation?

Related Studies

- Will modeling be done to assess the potential impact of the development of Seaton on Whitevale?
 - ✓ What type of model?
 - ✓ Can the WDRA have access to the modeling methodology and the results?
- Has a hydrologic model been developed from data already collected at monitoring wells located around Whitevale?
- Has modeling on potential drawdown of the aquifers due to changes in infiltration and grading?
- Has dewatering relating to construction of services been considered, what are measures to mitigate this that may be recommended or required during construction?
- Has filling of the pit been modeled and its potential impact considered?
- What is WSP's opinion regarding the gravel pit related to groundwater resource in Whitevale area?
- Does this study consider the cumulative impacts of the Seaton Development on Whitevale wells?
 - ✓ Is there an assumption on what the impact of this development will have on the wells in Whitevale?
 - ✓ If yes, can the WDRA be provided with this information?
- Has a similar monitoring program been executed elsewhere?
 - ✓ If so, can you share an example?

- Duffins Creek is one of the best studied groundwater systems in southern Ontario – will you be making use of other existing and long-term data sets?
 - ✓ Can this information be made available to the WDRA?

Future Planning

- Is there a larger monitoring plan for the groundwater resource?
 - ✓ If so, what is included in the larger monitoring plan and how/when is this information being gathered?
 - ✓ How will it/they be tested?
 - ✓ How often will these tests occur?
 - ✓ Over what time frame?
- What is the Region of Durham's plan for Whitevale water if issues arise with respect to water quality or quantity as a result of the Seaton Development?
 - ✓ If there isn't a plan currently in place, when will this be discussed with residents?

Limitations and Liabilities

- If a resident decides they do not wish to take part of the survey, what are the potential repercussions if they were to experience issues with their water in the future (post development)?
- What are the legal obligations, restrictions or liabilities on the part of the Region of Durham, WSP, North Pickering Community Management Inc., and the current residents?