



AGGREGATE POLICY REVIEW STUDY

PART ONE:

RESIDENT AND OPERATOR SURVEY RESULTS

Aggregate Policy Review
**SURVEY FOR
RESIDENTS**

Aggregate Policy Review
**SURVEY FOR
OPERATORS**

Table of Contents

| | |
|---|--------|
| Executive Summary | Pg. 1 |
| Background | Pg. 4 |
| Section 1.0 Resident's Survey | Pg. 5 |
| i) Purpose | Pg. 5 |
| ii) Methodology | Pg. 5 |
| Section 1.1: Respondent Characteristics | Pg. 6 |
| Section 1.2: Description of Impact | Pg. 8 |
| Section 1.3: Conflict Management | Pg. 11 |
| Section 1.4: Industry Best Practices | Pg. 13 |
| Section 1.5: Rehabilitation | Pg. 15 |
| Section 1.6: Open-ended Summary Questions | Pg. 16 |
| Section 2.0 Operator's Survey | Pg. 18 |
| i) Purpose | Pg. 18 |
| ii) Methodology | Pg. 18 |
| Section 2.1: Respondent Characteristics | Pg. 19 |
| Section 2.2: Impact Mitigation | Pg. 20 |
| Section 2.3: Conflict Management | Pg. 21 |
| Section 2.4: Rehabilitation and License Surrender | Pg. 23 |
| Section 2.5: Industry Best Practices | Pg. 26 |
| Section 2.6: Compatibility | Pg. 28 |
| Section 3.0 Final Summary | Pg. 29 |
| Appendix 1: Resident's Survey | |
| Appendix 2: Operator's Survey | |

EXECUTIVE SUMMARY

On January 13th, 2015 Council passed an Interim Control By-law (ICB) on all lands south of Road 74 within the Township of Zorra for the purpose of prohibiting all new or expanded mineral aggregate operations and new temporary or permanent concrete and asphalt recycling/batching plants, for a period up to one (1) year.

Council also passed a resolution requiring the completion of a policy review for the purpose of developing recommendations for appropriate amendments to the County Official Plan and Township of Zorra Zoning By-law, and that such recommendations be brought forward for consideration by County and Township Council within one (1) year of passing the interim control by-law.

Since January, staff have undertaken a public consultation programme to gather the opinions, experiences and suggestions of County residents, aggregate operators and public agencies to assist in the policy review. One part of the public consultation program was the administration of two surveys by the Community and Strategic Planning Office. One survey was intended to target County residents with an interest in aggregate extraction, while the other survey was intended to target operators of sand and gravel pits and/or quarries located within the County of Oxford. The County of Oxford Public Health and Emergency Services Department assisted with the design and analysis of the surveys.

In total, 67 resident survey responses were received. The majority of the residents indicated that they live in either the Township of Zorra or the Town of Ingersoll, within 1000 m (1 km) of an existing pit / quarry and moved to that location before the pit / quarry began operating. Further, most of the residents indicated that they were usually at home during the day.

With respect to the operator survey, of the 50 individual Pit / Quarry owners in the County responsible for approximately 79 licensed extraction sites, only 11 operators responded to the survey. Of the 11 operator respondents, most indicated that they have made license applications since 1997 (last time the Aggregate Resources Act was revised) and most indicate that they are considering expanding or opening a new Pit / Quarry in the next 10 years within Oxford County.

While the relatively low number of respondents means that the survey results can not to be interpreted as providing statistically representative samples, it does provide a window into the experiences and opinions of the respondents. Indeed, a number of common themes were consistently raised within both the operator and resident surveys. Further, as both surveys touched on similar topics, the results of both surveys are surprising in both their similarities and their differences respecting:

Impact

- Residents consistently attributed pit / quarry operations to negative impacts on the ability to enjoy personal outdoor amenity space (i.e. backyard/nature) and driving (due to road safety and infrastructure damage attributed to pit / quarry trucks).
- Resident respondents identified most frequently being 'very concerned' with the potential impact pit / quarry operations have on ground water quality.

AND:

- Noise, dust and traffic complaints were the most frequently noted sources of complaints cited by operators.

- 10 of 11 operators indicated that mitigating the potential impacts to ground water quality was 'very important'.

Conflict Management

- Less than half of the resident respondents (26) indicated that they have tried to contact someone with a concern or a question regarding a pit / quarry in Oxford County, but of those, only 10 were satisfied with the result of their communication.
- Most resident respondents wanted more information both before and after a pit / quarry operation began.
- Some resident respondents voiced frustration respecting with a perceived lack of enforcement / monitoring, jurisdictional overlaps and meaningful response respecting concerns / questions related to pits / quarries.

AND:

- All of the operators indicated that they would characterize their relationship with their neighbours as 'excellent' or 'good for the most part'.
- 9 of 11 operators indicated that they receive either none or only a few complaints in a typical year.
- Both residents and operators identified increased communication as a means of improving relations between Pit / Quarry operators and neighbours

Rehabilitation

- Resident respondents most frequently indicated general support for aggregate rehabilitation for the purpose of providing naturalized areas (with native plantings), passive recreation, agricultural areas for pasture, and naturalized water features.

AND:

- Operator respondents most frequently indicated that they were 'very supportive' of the following after-uses for an above-the-water-table pit / quarry: agricultural uses for pasture, field and hay.
- Operator respondents most frequently indicated that they were 'very supportive' of the following after-uses for a below-the-water-table pit / quarry: a pond (not constructed to support aquatic species), a naturalized water course, and a naturalized water feature.

Best Practices

- Generally, the resident respondents indicated that they 'didn't know' whether a best management practice was being undertaken by a pit /quarry in their area.

AND:

- The majority of operator respondents indicated that they currently undertake or expect to undertake many of the best management practices noted in the survey.

Compatibility

- Operator respondents indicated that agricultural and active recreational uses were generally the most compatible land uses with extraction sites. The least compatible land uses were indicated

to be non-farm rural residential lots, urban and rural settlement areas (including rural clusters), and industrial / commercial uses.

The common themes found within the survey results will be used by staff to assist in the development of recommendations for amendments to the Official Plan.

Finally, these surveys and their results could provide other municipalities interested in this issue with a useful baseline upon which further survey work could be undertaken. In particular, a more targeted door drop survey of residents who live within 1000 m (1 km) of pits / quarries would provide a more fulsome understanding of impacts and experiences of residents living in proximity to pits and or quarries and how the type and nature of such impacts may change based on proximity.

BACKGROUND

On January 13th, 2015 Council passed an Interim Control By-law (ICB) on all lands south of Road 74 within the Township of Zorra for the purpose of prohibiting all new or expanded mineral aggregate operations and new temporary or permanent concrete and asphalt recycling/batching plants, for a period up to one (1) year.

Council also passed a resolution requiring the completion of a policy review for the purpose of developing recommendations for appropriate amendments to the County Official Plan and Township of Zorra Zoning By-law, and that such recommendations be brought forward for consideration by County and Township Council within one (1) year of passing the interim control by-law.

Since January, staff have undertaken a public consultation programme to gather the opinions, experiences and suggestions of County residents, aggregate operators and public agencies to assist in the policy review.

The Community and Strategic Planning Office released two surveys on April 20th, 2015 as part of the public consultation programme. One survey was intended to target County residents with an interest in aggregate extraction, while the other survey was intended to target operators of sand and gravel pits and/or quarries located within the County of Oxford. The County of Oxford Public Health and Emergency Services Department assisted with the design and analysis of the survey.

Residents and operators were given eight weeks to respond to the surveys, between April 20th and June 20th, 2015.

Both surveys were advertised in the following media forums multiple times over the eight week survey period:

- County and local municipal websites (i.e. Speak Up Oxford, Township of Zorra)
- Local radio (Heart FM, Easy 101)
- Local newsprints (Village Voice, Zorra Now, Oxford Review, Woodstock Sentinel Review)
- Local television (Roger's Daytime TV)
- Print posters (placed in all local municipal offices and libraries)
- Social Media: Township of Zorra Facebook and Twitter feeds

In addition, all owners of Pits and Quarries within the County of Oxford were mailed an invitation to complete the survey and, a few weeks thereafter, a survey reminder.

This report presents the findings of both the resident and operator surveys. Both surveys are attached, as an Appendix, to the end of the report.

SECTION 1.0 RESIDENT SURVEY

Purpose

This section of the report summarizes the results of the **Resident Survey**. The intent of the Resident Survey was to give County residents interested in aggregate extraction an opportunity to voice their concerns and provide information to the County and the Township about their opinions, experiences and knowledge of the industry as it operates locally. The survey focused on four main themes, being: perceived impacts, conflict management, industry best practices, and rehabilitation. The survey was intended to provide background context to staff to assist in the completion of the Aggregate Policy Review Study.

In total, 67 resident survey responses were received between April 20th and June 20th, 2015. The majority of surveys were returned on-line, while 14 were returned in-person or by mail. Of the 67 resident surveys received, 8 were submitted incomplete with, in most cases, the last four survey questions left unanswered (Question 13, 14, 15 and 16). Multiple surveys from a single IP address were not permitted based an intent to avoid a single person submitting more than one survey.

While the relatively low number of respondents means that the survey results can not to be interpreted as providing a statistically representative sample of the opinions of the County population at large, it does provide a window into the experiences and opinions of the respondents. Indeed, a number of common themes were consistently raised by respondents and this insight will assist in guiding the development of recommendations for amendments to the Official Plan and Zoning By-law.

Methodology

The online version of the survey was created using Survey Monkey. A hardcopy version of the survey was also made available at every municipal office and library in the County. Staff manually inputted data from questionnaires completed in hard copy using the online version of the survey. All quantitative data was exported using Microsoft Excel 2010 and analyzed using SPSS version 22. Univariate analyses were completed for each question. Percentages were calculated using either the total number of respondents as the denominator or the total number of people exposed or not exposed, depending on the type of analysis undertaken. Qualitative responses were collated and summarized by staff.

The survey results should be used to provide insight into the experiences and opinions of the residents who responded to the survey.

RESIDENT SURVEY ANALYSIS

SECTION 1.1: RESPONDENT CHARACTERISTICS

This section of the survey was intended to obtain information about the characteristics of the respondents.

Question 1: Where do you live?

| Municipality | Number of People | Percent |
|----------------------------------|------------------|-------------|
| Township of Zorra | 38 | 56.7% |
| Township of East Zorra-Tavistock | 0 | 0% |
| Township of Blandford-Blenheim | 0 | 0% |
| Township of Norwich | 1 | 1.5% |
| Township of South-West Oxford | 9 | 13.4% |
| City of Woodstock | 1 | 1.5% |
| Town of Ingersoll | 18 | 26.9% |
| Town of Tillsonburg | 0 | 0% |
| TOTAL | 67 | 100% |

Discussion:

- The majority of respondents (56.7%) indicated that they live in Zorra Township.
- Twenty-six percent (26.9%) of respondents indicated that they live in Ingersoll.

Question 2: How close do you live to a Pit or Quarry?

| Distance to Pit/Quarry | Number of People | Percent |
|-------------------------|------------------|-------------|
| Less than 1000 m (1 km) | 41 | 61.2% |
| More than 1000 m (1 km) | 26 | 38.8% |
| TOTAL | 67 | 100% |

Discussion:

- The majority of respondents (61.2%) indicated that they live within 1000 m of a Pit/Quarry.

Question 3: If you live within 1000m (1 km) to a Pit/Quarry, when did you move there?

| When did you move there? | Number of People | Percent |
|--|------------------|-------------|
| Before Pit/Quarry Operations began | 26 | 60.4% |
| After Pit/Quarry Operations began and there have been no new Pits / Quarries near me since | 9 | 20.9% |
| After some Pit/Quarry Operations began, but then operations began in other areas near me too | 8 | 18.6% |
| TOTAL | 43 | 100% |

Discussion:

- 60% of the respondents who described themselves as living within 1000 m (1 km) of a pit or quarry, indicated that they moved to their current location before operations began.

Question 4: In your opinion, are there benefits to living within 1000m (1 km) of an existing or rehabilitated aggregate operation?

| Benefits | Number of People | Percent |
|--------------|------------------|-------------|
| Yes | 8 | 11.9% |
| No | 43 | 64.2% |
| Don't know | 16 | 23.9% |
| TOTAL | 67 | 100% |

Discussion:

- The majority of respondents (64%) stated that, in their opinion, there were no benefits to living within 1000 m (1 km) of an existing or rehabilitated aggregate operation.

However, respondents who answered 'yes' to this question were then asked the following open-ended question:

Question 4B) If 'Yes', please describe:

One (1) respondent stated they did not know. The remaining seven (7) responses were categorized and divided into three themes:

- Rehabilitation provides opportunity to make positive improvements to the natural environment (4)
- Local operations enable residents to access local resources (2)
- Roads are more likely to be paved near a pit/quarry (1)

Question 5: Are you directly employed by an aggregate operation?

| Employed By Aggregate Operation | Number of People | Percent |
|---------------------------------|------------------|-------------|
| No | 65 | 97% |
| Yes | 2 | 3% |
| TOTAL | 67 | 100% |

Discussion:

- Two (2) respondents indicated that they were directly employed by an aggregate operation.

Question 6: Do you lease lands to an aggregate operation?

Discussion:

- Approximately 95% of respondents indicated that they did not lease lands to an aggregate operation.

Question 7: Are you usually at home during the day?

| Usually at Home? | Number of People | Percent |
|------------------|-----------------------|-----------------------------|
| No | 20 | 29.9% |
| Yes | 46 | 68.7% |
| TOTAL | 66 (1 missing) | 98.5% (1.5% missing) |

Discussion:

- The majority of respondents (68.7%) indicated that they were usually home during the day.

SECTION 1.2: DESCRIPTION OF IMPACT

This section of the survey was intended to obtain information about the experiences of respondents relative to the operation of pits and quarries in Oxford County.

Question 8: If you participate in any of the following activities, please describe how you have been impacted by existing Pit / Quarry operations in the area. Respondents were provided with a list of activities. The list of activities has been sorted in descending order based on ‘%’ negatively impacted.

| Activity | Negatively Impacted | No Impact | Positively Impacted | Not applicable | Total Responses |
|---------------------------------|---------------------|------------|---------------------|----------------|-----------------|
| Enjoying Nature | 43 (64.2%) | 16 (23.9%) | 2 (3%) | 3 (4.5%) | 64 |
| Relaxing outside on my property | 42 (62.7%) | 21 (31.3%) | 2 (3%) | 2 (3%) | 67 |
| Entertaining Outside | 37 (55.2%) | 22 (32.8%) | 1 (1.5%) | 2 (3%) | 62 |
| Yard Work | 29 (43.3%) | 30 (44.8%) | 1 (1.5%) | 3 (4.5%) | 63 |
| Indoor Housekeeping | 29 (43.3%) | 29 (43.3%) | 2 (3%) | 3 (4.5%) | 63 |
| Walking / Running | 28 (41.8%) | 27 (40.3%) | 1 (1.5%) | 6 (9.0%) | 62 |
| Playing Outside | 28 (41.8%) | 26 (38.8%) | 1 (1.5%) | 4 (6.0%) | 59 |
| Chores | 27 (40.3%) | 32 (47.8%) | 1 (1.5%) | 3 (4.5%) | 63 |
| Cycling | 26 (38.8%) | 23 (34.3%) | 1 (1.5%) | 11 (16.4%) | 61 |
| Hiking | 20 (29.9%) | 27 (40.3%) | 1 (1.5%) | 12 (17.9%) | 60 |
| Outdoor Sports | 19 (28.4%) | 27 (40.3%) | 1 (1.5%) | 9 (13.4%) | 56 |

Discussion:

- The top three activities that were identified by respondents as being negatively impacted by existing Pit/Quarry operations were:
 - 1) Enjoying nature (64.2%)
 - 2) Relaxing outside on my property (62.7%)
 - 3) Entertaining outside (55.2%)

Question 9A: In your opinion, have you been impacted in some other not mentioned above?

| Impacted in some way | Number of People | Percent |
|----------------------|-----------------------|-------------------------|
| Yes | 35 | 52.2% |
| No | 17 | 25.4% |
| Don't know | 13 | 19.4% |
| TOTAL | 65 (2 missing) | 97% (3% missing) |

Discussion:

- Over half of the respondents (52.2%) advised that they thought they had been impacted in some ‘other’ way not mentioned in the above.
- Twenty-five percent (25.4%) stated that they had not been impacted in some ‘other’ way.

Respondents who answered ‘yes’ were then asked the following open-ended question:

Question 9B): If ‘Yes’, please describe.

The thirty five (35) respondents who answered Question 9 with a ‘yes’, described the various additional impacts, often noting more than just one impact for a total of 59 individually described impacts. The open-ended responses were categorized and divided into themes.

| Impact | Number of People |
|--|------------------|
| Property Values | 4 |
| Road Safety | 13 |
| Road Infrastructure | 9 |
| Property Damage | 11 |
| Health Impacts | 8 |
| Misc (dust, noise, landfill, trespass, visual, non-adherence to haul route, agricultural productivity) | 13 |
| Positive Impact (access to material) | 1 |
| Note: 59 total responses to this question from the 35 respondents. Some responses mentioned a number of impacts, and each was categorized separately. | |

Discussion:

- Four (4) respondents attributed the operations of pits/quarries with negative impacts on their property values.
- Twenty-two (22) respondents indicated that it was their opinion that ‘driving’ as an activity had been negatively impacted by truck traffic associated with the operation of pits and quarries due to road safety and road infrastructure (including the increasing the cost to local ratepayers for the repair and maintenance of such roads).
- Eleven (11) respondents attributed the operations of pits/quarries to property damage.
- Eight (8) respondents attributed the operation of pits/quarries with negative health impacts to themselves or family members.
- Respondents also attributed the operation of the pits / quarries to negative impacts on agricultural operations (increase of weeds in fields, spooking of livestock, and loss of farmland).
- Additional comments categorized as ‘miscellaneous’ attributed the operation of pits / quarries with a general negative increase in noise, dust, and trespass incidents and stated that such operations diminish the visual character of an area.
- One (1) respondent cited a positive impact associated with pits / quarries, being the ability to access aggregate locally at a reduced cost due to lower transportation costs.

Question 10: How concerned are you about the following potential impacts of Pits/Quarries?

Respondents were provided with a list of potential impacts. The list of impacts has been sorted in descending order based on the 'very concerned' category.

| | Very Concerned | Somewhat Concerned | Somewhat Unconcerned | Not concerned | Total |
|---|----------------|--------------------|----------------------|---------------|------------|
| Ground Water Quality | 52 (77.6%) | 4 (6.0%) | 3 (4.5%) | 6 (9.0%) | 65 (97.0%) |
| Ground Water Quantity | 49 (73.1%) | 7 (10.4%) | 3 (4.5%) | 6 (9.0%) | 65 (97.0%) |
| Dust | 48 (71.6%) | 10 (14.9%) | 3 (4.5%) | 5 (7.5%) | 66 (98.5%) |
| Road Infrastructure | 48 (71.6%) | 12 (17.9%) | 3 (4.5%) | 3 (4.5%) | 66 (98.5%) |
| Usability/Enjoyment of Private Property | 45 (67.2%) | 10 (14.9%) | 2 (3.0%) | 6 (9.0%) | 63 (94.0%) |
| Surface Water Quality | 44 (65.7%) | 10 (14.9%) | 3 (4.5%) | 6 (9.0%) | 63 (94.0%) |
| Agricultural Productivity | 41 (61.2%) | 10 (14.9%) | 8 (11.9%) | 4 (6.0%) | 63 (94.0%) |
| Natural Features (plant and animal species) | 41 (61.2%) | 14 (20.9%) | 5 (7.5%) | 5 (7.5%) | 65 (97.0%) |
| Appearance/Maintenance of Site | 40 (59.7%) | 17 (25.4%) | 2 (3.0%) | 6 (9.0%) | 65 (97.0%) |
| Surface Water Quantity | 39 (58.2%) | 14 (20.9%) | 3 (4.5%) | 6 (9.0%) | 62 (92.5%) |
| Landscape Character | 38 (56.7%) | 15 (22.4%) | 4 (6.0%) | 6 (9.0%) | 63 (94.0%) |
| Noise | 38 (56.7%) | 19 (28.4%) | 1 (1.5%) | 8 (11.9%) | 66 (98.5%) |
| Surface Drainage | 37 (55.2%) | 16 (23.9%) | 5 (7.5%) | 4 (6.0%) | 62 (92.5%) |
| Hours of Operation | 36 (53.7%) | 19 (28.4%) | 6 (9.0%) | 5 (7.5%) | 66 (98.5%) |

Discussion:

- Respondents indicated that the top four potential impacts they were 'very concerned' with as being (in descending order):
 - 1) Ground Water Quality (77.6%)
 - 2) Ground Water Quantity (73.1%)
 - 3) Dust, 3) Road Infrastructure (71.6%)
 - 4) Usability / Enjoyment of Private Property (67.2%)
- Combining 'very concerned' and 'somewhat concerned' responses results in a slightly different list of the top four (4) potential impacts respondents are concerned with (in descending order):
 - 1) Road Infrastructure (89.5%)
 - 2) Dust (86.6%)
 - 3) Noise, 3) Appearance of Site (85%)
 - 4) Ground Water Quality, 4) Ground Water Quantity (83.6%)

Respondents to this question were also asked to identify any other potential impacts they were concerned with that were not otherwise identified in the question. Responses were described as below:

Six (6) respondents described additional impacts: cumulative effects of all impacts (1); noise and dust pollution (1); property damage (1); road safety (1); future landfill potential (1); and all aspects of extraction operations (1).

SECTION 1.3: CONFLICT MANAGEMENT

This section of the survey was intended to obtain information about the experiences of respondents relative to the how they have managed in the event of a concern or question regarding the operation of a Pit / Quarry in Oxford County.

Question 11A: Have you tried to contact someone with a concern/question regarding a Pit/Quarry?

| Tried Contacting? | Number of People | Percent |
|-------------------|-----------------------|-----------------------------|
| Yes | 26 | 38.8% |
| No | 38 | 56.7% |
| TOTAL | 64 (3 missing) | 95.5% (4.5% missing) |

Discussion:

- The majority of respondents (56.7%) indicated that they had not tried to contact someone with a concern/question regarding a Pit/Quarry.
- Twenty-six (26) respondents (38.8%) had tried to contact someone with a concern/question regarding a Pit/Quarry.

Respondents who answered 'yes' were then asked the following open-ended question:

Question 11 B): If 'Yes', to the above, who have you tried to contact?

| Who have you tried to contact? | Number of People | Percent |
|---|------------------|---------|
| Provincial Ministry | 11 | 19.6% |
| Municipal Staff | 13 | 23.3% |
| Municipal Representative | 11 | 19.6% |
| 3 rd Party Advocacy Group | 7 | 12.5% |
| Operator | 12 | 21.4% |
| Other (O.P.P) | 2 | 3.6% |
| Note: 25 respondents responded to Q.11B. Some respondents mentioned trying to contact a number of people so responses fell into multiple categories for a total of 56 total responses for this question. | | |

Discussion:

- Of the 26 respondents who indicated that they tried to contact someone with a concern or question, only 25 respondents responded to Question 11B and indicated who they tried to contact.
- Respondents most often tried to contact a provincial ministry, municipal staff and/or representative, and the operator of a pit/quarry.

Question 11C: Were you able to reach a person respecting your concern / question?

| Able to Reach? | Number of People | Percent |
|----------------|------------------|-------------|
| Yes | 17 | 63% |
| No | 2 | 7% |
| Some, not all | 8 | 30% |
| TOTAL | 27 | 100% |

Discussion:

- While 26 respondents indicated that they had tried to contact someone with a question or concern about a pit / quarry, 27 people responded to the question whether they were able to reach someone respecting their concern / question.
- Of the respondents who indicated that they had tried to contact someone with a question/concern about a pit / quarry, sixty-three percent (63%) indicated that they were able to reach someone.
- However, thirty-seven percent (37%) of those who tried to contact someone, indicated that they were either unable to reach anyone or were unable to reach all of the people whom they wished to contact.

Question 11D: Were you satisfied with the result of your communication?

| Satisfied? | Number of People | Percent |
|------------|------------------|---------|
| Yes | 10 | 38.5% |
| No | 16 | 61.5% |
| TOTAL | 26 | 100% |

Discussion:

- The majority of respondents (61.5%) who indicated that they had tried to contact someone were not satisfied with the result of their communication.
- Thirty-eight percent (38%) of respondents who indicated that they had tried to contact someone indicated that they were satisfied with the result of their communication.

Respondents who answered ‘no’ were then asked the following open-ended question:

Question 11D.B) If ‘No’ to the above, why not?

The sixteen (16) respondents who responded ‘no’ to this question, identified multiple reasons for their dissatisfaction. Staff categorized and divided the responses into three themes:

- i. Lack of response/meaningful response (8)
- ii. Ineffective (6)
- iii. Jurisdictional issues (3)

Discussion:

- Eight (8) respondents noted that they did not get an adequate response to their question or concern or that they received only a ‘canned’ response.
- Six (6) respondents indicated that, in their opinion, the response was ineffective. For example, several responses noted that a corrective action did not stay in effect for very long, or that, despite their concerns, the action continued or the license was approved.
- Three (3) respondents voiced frustration respecting the perceived lack of jurisdiction agencies have to enforce certain activities associated with pit/quarry operations.

Question 12: Would you like to have more opportunity to voice concerns or ask questions?

| Opportunity to Voice Concerns? | Number of People | Percent |
|--|-----------------------|-----------------------------|
| Yes, before Pit/Quarry operations begins | 15 | 22.4% |
| Yes, after Pit/Quarry operations begins | 0 | 0% |
| Yes, both before and after Pit/Quarry operations | 41 | 61.2% |
| No | 8 | 11.9% |
| TOTAL | 64 (3 missing) | 95.5% (4.5% missing) |

Discussion:

- The majority of respondents (61%) indicated that they would like more opportunity to voice concerns or ask questions about pits and quarries, both before and after operations begin.
- Twenty-two percent of respondents (22%) indicated that they would like more opportunity to voice concerns or ask questions about pits and quarries before operations begin.
- Only 8 respondents (12%) indicated that they do not wish to have more opportunity to voice concerns or ask questions about a pit or quarry.

SECTION 1.4: INDUSTRY BEST PRACTICES

This section of the survey was intended to obtain information about how knowledgeable respondents were respecting the operations of Pits / Quarries in Oxford County.

Question 13: In your opinion, are any of the following practices undertaken by the Pits / Quarries in your area? Respondents were provided with a list of activities generally considered to be industry ‘best management practices (BMP’s)’. It is noted that not all BMP’s would apply to every pit / quarry operation due to the size, location and nature of the operation and further, some BMP’s are more visible to the public than others.

| Activity | Yes | No | Don’t Know | Total |
|--|------------|------------|------------|------------|
| Public engagement before site licensed | 25 (37.3%) | 11 (16.4%) | 20 (29.9%) | 56 (83.6%) |
| Public engagement after site licensed | 9 (13.4%) | 20 (29.9%) | 27 (40.3%) | 56 (83.6%) |
| Formal complaint protocol | 12 (17.9%) | 12 (17.9%) | 31 (46.3%) | 55 (82.1%) |
| Continuously maintains pit / quarry appearance | 14 (20.9%) | 18 (26.9%) | 23 (34.3%) | 55 (82.1%) |
| Continuously monitors on-site and off-site impacts after extraction | 10 (14.3%) | 20 (29.8%) | 24 (35.8%) | 54 (80.1%) |
| Continuously monitors on-site and off-site impacts during extraction | 10 (14.3%) | 19 (28.4%) | 25 (37.3%) | 54 (80.1%) |
| Plan to immediately remedy potential on-site/off-site impacts | 6 (9%) | 20 (29.9%) | 28 (41.8%) | 54 (80.1%) |
| Limits size of extraction at any one point in time | 14 (20.9%) | 9 (13.4%) | 32 (47.8%) | 55 (82.1%) |
| Informs local municipality of impacts immediately | 6 (9%) | 13 (19.4%) | 35 (52.2%) | 54 (80.1%) |
| Minimizes dust beyond minimum requirements | 7 (10.5%) | 28 (41.8%) | 20 (29.9%) | 55 (82.1%) |
| Minimizes noise and vibration beyond minimum requirements | 9 (13.4%) | 27 (40.3%) | 19 (28.4%) | 55 (82.1%) |
| Monitors quality/quantity of surface water | 12 (17.9%) | 12 (17.9%) | 31 (46.3%) | 55 (82.1%) |
| Monitors quality/quantity of ground water | 12 (17.9%) | 12 (17.9%) | 31 (46.3%) | 55 (82.1%) |

| | | | | |
|--|------------|------------|------------|------------|
| Monitors air quality | 8 (11.9%) | 21 (31.3%) | 26 (38.8%) | 55 (82.1%) |
| Share in cost of maintaining/repairing road infrastructure | 4 (6%) | 20 (29.9%) | 31 (46.3%) | 55 (82.1%) |
| Makes use of trees to screen views of Pit/Quarry | 24 (35.8%) | 21 (31.3%) | 9 (13.4%) | 54 (80.1%) |
| Native species used in rehabilitation | 10 (14.9%) | 13 (19.4%) | 32 (47.8%) | 55 (82.1%) |
| Uses soil remediation practices in rehabilitation | 10 (14.9%) | 12 (19.9%) | 33 (49.3%) | 55 (82.1%) |
| Ponds constructed to support aquatic plant and animals | 10 (14.9%) | 16 (23.9%) | 29 (43.3%) | 55 (82.1%) |

Discussion:

- The top four (4) activities identified by respondents as being undertaken by pits / quarries in the area include (in descending order):
 1. Public engagement before the site is licensed (37.3%)
 2. The use of trees to screen views of Pits/Quarry(s) (35.8%)
 3. Continuously maintains Pit/Quarry Appearance; and 3) Limits the size of the extraction area at any one point in time (20.9%)
 4. Formal Complaint Protocol; 4) Monitors quality/quantity of surface water; and 4) Monitors quality/quantity of ground water (17.9%)

- The top four (4) activities identified by respondents as not being undertaken by pits / quarries in the area include (in descending order):
 1. Minimizes dust beyond minimum requirements (41.8%)
 2. Minimizes noise and vibration beyond minimum requirements (40.3%)
 3. Monitors air quality; 3) Makes use of trees to screen views of Pits/Quarry (31.3%)
 4. Public engagement after a license is issued; 4) Continuously monitors on-site and off-site impacts after extraction; 4) share cost or maintaining/repairing road infrastructure; 4) a plan to immediately remedy potential on-site and off-site impacts (29.9%)

- Respondents indicated that they don't know whether the following top four (4) activities were being undertaken by pits / quarries in the area include (in descending order):
 1. Informs local municipality of impact immediately (52.2%)
 2. Uses soil remediation practices in rehabilitation (49.3%)
 3. Native species used in rehabilitation; 3) Limits the size of extraction at any one point in time (47.8%)
 4. Formal complaint protocol; 4) Monitors quality/quantity of surface water; 4) Monitors quality/quantity of ground water; share in cost or maintaining/repairing road infrastructure; (46.3%)

- Generally, respondents were more likely to indicate that they 'don't know' whether an activity was being undertaken by a pit / quarry in their area than that 'they knew' or 'didn't know' whether an activity undertaken by a pit / quarry.

SECTION 1.5: REHABILITATION

This section of the survey was intended to obtain information about the rehabilitation preferences of the respondents. Respondents were provided with a list of ‘after-uses’.

Question 14: At the end of the life of an aggregate pit, how supportive are you of the following after-uses? Respondents were provided with a list of after-uses.

| After-Use | Very Supportive | Somewhat Supportive | Somewhat Unsupportive | Very Unsupportive | Total |
|--------------------------------|-----------------|---------------------|-----------------------|-------------------|------------|
| Naturalized Areas – Native | 54 (80.6%) | 4 (6.0%) | 1 (1.5%) | 0 | 59 (88.1%) |
| Naturalized Areas – Non-Native | 22 (32.8%) | 19 (28.4%) | 7 (10.4%) | 8 (11.9%) | 56 (83.6%) |
| Agriculture-Pasture | 37 (55.2%) | 19 (28.4%) | 1 (1.5%) | 1 (1.5%) | 58 (86.6%) |
| Agriculture-Field Crops | 40 (59.7%) | 12 (17.9%) | 5 (7.5%) | 1 (1.5%) | 58 (86.6%) |
| Agriculture-Hay | 36 (53.7%) | 16 (23.9%) | 3 (4.5%) | 1 (1.5%) | 56 (83.6%) |
| Open Space | 10 (14.9%) | 21 (31.3%) | 14 (20.9%) | 7 (10.4%) | 52 (77.6%) |
| Naturalized Water Course | 40 (59.7%) | 14 (20.9%) | 1 (1.5%) | 2 (3.0%) | 57 (85.1%) |
| Naturalized Water Feature | 38 (56.7%) | 9 (13.4%) | 4 (6.0%) | 5 (7.5%) | 56 (83.6%) |
| Pond | 10 (14.9%) | 12 (17.9%) | 16 (23.9%) | 16 (23.9%) | 54 (80.6%) |
| Active Recreation | 25 (37.3%) | 23 (34.3%) | 4 (6.0%) | 3 (4.5%) | 55 (82.1%) |
| Passive Recreation | 40 (59.7%) | 17 (25.4%) | 2 (3.0%) | 0 | 59 (88.1%) |

Discussion:

- The top four (4) after-uses respondents identified as being ‘very supportive’ or ‘somewhat supportive’ of (in descending order):
 1. Naturalized Areas - Native (86.6%)
 2. Passive Recreation - (85.1%)
 3. Agriculture – Pasture (83.6%)
 4. Naturalized water feature (80.1%)

- The top four (4) after-uses respondents identified being ‘very unsupportive’ or ‘somewhat unsupportive’ of (in descending order):
 1. Pond (47.8%)
 2. Open Space (31.3%)
 3. Naturalize Area – Non Native (22.4%)
 4. Naturalized Water Feature (13.4%)

SECTION 1.6: OPEN-ENDED SUMMARY QUESTIONS

This section of the survey was intended to provide respondents with an opportunity to expand on previous responses and to provide additional comments not otherwise brought forward earlier.

Question 15. In your opinion, are there measures that could assist in improving relations between neighbours and Pit/Quarry operations? If so, please describe below: (open ended comment field).

Responses to this question were categorized into several themes by staff, as follows:

| Reason | Number of People |
|---|------------------|
| Improvements related to road safety (obey traffic rules, lower speed limits, make infrastructure improvements) | 8 |
| Operational improvements (obey hours of operation, more visual screening, earlier rehabilitation) | 12 |
| No landfill as an after-use | 7 |
| More Enforcement | 3 |
| Better communication | 8 |
| Stop/Close Pits & Quarries | 4 |
| Other | 7 |
| Note: 33 total respondents for this question. Some respondents mentioned a variety of reasons and so they fell into multiple categories. Some of the responses were accounted for in more than one category for a total of 49 responses. | |

Discussion:

- Respondents identified three key measures that could improve relationships between residents and pits / quarries including:
 - increase communication including: more regular communication between operators and residents, including pit tours; a public liaison committee/a monitored online committee; publication of monitoring information; more municipal engagement with the public; and, more information before a pit is licensed.
 - operational improvements such as: obeying hours of operations; increasing and maintaining visual screening features; earlier rehabilitation; increased separation between pits/quarries and residential areas; and, discourage trespass occurrences.
 - improvements to road safety, including: obeying or lowering speed limits along haul routes; improving and maintaining road infrastructure to enhance safety along haul route; and obeying haul routes.

- Additional comments of note include the following suggestions:
 - Operators should be more active in the community in which they operate;
 - Ministry of Environment and Climate Change (MOECC) and the Ministry of Natural Resources and Forestry (MNRF) should increase enforcement/monitoring activities;
 - Assessment of pit and quarry applications and activities should be science-based.

- Several respondents commented that a landfill/dump is not an appropriate after-use of a pit/quarry and that pits and quarries are generally not a desirable land use.

Question 16: Please share with us any final comments or suggestions (open-ended field comment).

Responses to this question were categorized into several themes by staff, as follows:

| Reason | Number of People |
|---|------------------|
| Road Safety (enforce or lower speed limits, infrastructure maintenance repair not at taxpayers cost), obey haul route) | 8 |
| Rehabilitation (Enforce rehabilitation, earlier rehabilitation, appropriate after-use) | 6 |
| No more pits/quarries/landfills/dumps | 6 |
| Regulatory Changes (allow more municipal control, MOECC, MNR increase enforcement, increase tonnage tax levy to municipalities) | 7 |
| Other (operational changes, increase separation between excavation and residential areas, respect pit / quarry neighbours | 7 |
| Note: 25 total respondents for this question. Some respondents mentioned a variety of reasons and so they fell into multiple categories. Some of the responses were accounted for in more than one category for a total of 34 responses. | |

Discussion:

- Respondents offered numerous comments and suggestions similar to those noted in Question 15.
- Six (6) respondents stated that pits and quarries should not be used as landfills/dumps.
- Seven (7) respondents stated that regulatory changes should be made respecting the way pits/quarries are licensed, monitored and enforced. It was suggested that municipalities should have more control over the licensing and operation of pits and quarries and that the MOECC and the MNR should increase enforcement/monitoring activities.
- Eight (8) respondents conveyed their safety concerns related to trucks associated with pit operations, comments similar to those noted in the previous question.
- Six (6) respondents noted that pits/quarries should be rehabilitated earlier in the operation; that they should not be allowed to remain idle for years without rehabilitation.
- 'Other' comments related to suggestions for improved communication, complaints related to noise (back up beepers), increased separation between pits and residential areas, and general comments on the survey, including that the survey should have been more widely circulated.

SECTION 2.0 OPERATOR'S SURVEY

Purpose

This section of the report summarizes the results of the **Operator's Survey**. The intent of the Operator Survey was to give operators of Pits and Quarries in the County of Oxford an opportunity to provide information about their experiences, concerns and preferences relating to the industry as it operates locally.

The survey was focused on several themes, being: impact mitigation, conflict management, industry best practices, rehabilitation / after-uses, and land use compatibility. The survey was intended to provide background context to staff to assist in the completion of the Aggregate Policy Review Study.

There are 50 individual pit and quarry owners in the County responsible for approximately 79 licensed extraction sites. Out of the 50 owners, 11 survey responses were received. All of the surveys were returned on-line. Of the 11 surveys received, 3 were submitted incomplete. Multiple surveys from a single IP address were not permitted based an intent to avoid a single person submitting more than one survey.

Like the resident survey, the low number of respondents means that the survey results can not to be interpreted as providing a statistically representative sample, but it does provide a window into the experiences and opinions of the respondents. The feedback gained from this survey provides invaluable insight into a number of common themes that will assist the development of recommendations for amendments to the Official Plan and Zoning By-law.

Methodology

The online version of the survey was created using Survey Monkey. Staff manually inputted data from questionnaires completed in hard copy using the online version of the survey. All quantitative data was exported using Microsoft Excel 2010 and analyzed using simple frequency analysis. Qualitative responses were collated and summarized by staff.

OPERATOR SURVEY ANALYSIS

SECTION 2.1: RESPONDENT CHARACTERISTICS

This section of the survey was intended to obtain information about the characteristics of the respondents.

Question 1: How many Pits and / or Quarries do you operate in Oxford County?

| Number | Number of People |
|--------------|-----------------------|
| 1 | 3 |
| 2-5 | 4 |
| More than 5 | 3 |
| TOTAL | 10 (1 Missing) |

Discussion:

- The respondents were fairly evenly divided between those that operated 1, 2-5 and more than 5 pits in Oxford County.

Question 2: With respect to your Pits / Quarries in Oxford County, does your license(s) provide for extraction above or below the water table?

| Extraction above or below the water table | Number of People |
|---|------------------|
| Above the water table | 3 |
| Below the water table | 1 |
| Both above and below the water table | 7 |
| TOTAL | 11 |

Discussion:

- 7 of the 11 respondents indicated that they hold licenses that provide for extraction both above and below the water table.
- 3 of the respondents indicate that they hold licenses that provide for extraction above the water table only.

Question 3: With respect to your operations in Oxford County, how many license applications have you made since 1997? The year 1997 is important as it was the last time the Aggregate Resources Act was amended.

| Number of licenses? | Number of People |
|---------------------|------------------|
| 1 | 4 |
| 2-5 | 3 |
| More than 5 | 2 |
| None | 2 |
| TOTAL | 11 |

Discussion:

- 7 of the 11 respondents indicated that they had made between 1- 5 license applications since 1997.
- 2 respondents indicated that they had made more than 5 license applications since 1997.
- 2 respondents indicated that they had made no applications since 1997.

Question 4: Do you anticipate expanding or opening a new Pit / Quarry in the next 10 years in Oxford County?

| Benefits | Number of People |
|--------------|------------------|
| Yes | 6 |
| No | 2 |
| Maybe | 3 |
| TOTAL | 11 |

Discussion:

- 6 of the 11 respondents indicated that they anticipated expanding or opening a new pit / quarry in the next 10 years in Oxford County.
- 2 respondents stated that they did not anticipate expanding or opening a new pit / quarry in the next 10 years in Oxford County.
- 3 respondents stated that they might expand or open a new pit / quarry in the next 10 years in Oxford County.

Question 5: Generally, what is your ownership preference?

| Employed By Aggregate Operation | Number of People |
|---------------------------------|-----------------------|
| Ownership | 3 |
| Lease | 0 |
| No preference | 7 |
| TOTAL | 10 (1 Missing) |

Discussion:

- 7 of the 11 respondents indicated that they did not have an ownership preference.
- 3 of the 11 respondents indicated that preferred to own the pit / quarry.

SECTION 2.2: IMPORTANCE OF IMPACT MITIGATION

This section of the survey was intended to obtain information about the importance of mitigating potential impacts associated the operation of pits and quarries in Oxford County.

Question 6: How important is it to you as an Operator, that the following potential impacts be mitigated to the extent possible. Respondents were provided with a list of potential impacts.

| | Very Important | Somewhat Important | Somewhat Unimportant | Not Important | Total |
|---|----------------|--------------------|----------------------|---------------|-------|
| Ground Water Quality | 10 | 1 | 0 | 0 | 11 |
| Ground Water Quantity | 7 | 3 | 0 | 0 | 10 |
| Dust | 6 | 4 | 1 | 0 | 11 |
| Road Infrastructure | 6 | 5 | 0 | 0 | 11 |
| Usability/Enjoyment of Private Property | 6 | 2 | 2 | 1 | 11 |
| Surface Water Quality | 7 | 3 | 1 | 0 | 11 |
| Agricultural Productivity | 7 | 3 | 1 | 0 | 11 |
| Natural Features (plant and animal species) | 6 | 3 | 2 | 0 | 11 |
| Appearance/Maintenance of Site | 6 | 5 | 0 | 0 | 11 |

| | | | | | |
|------------------------|---|---|---|---|----|
| Surface Water Quantity | 6 | 4 | 0 | 0 | 10 |
| Landscape Character | 3 | 5 | 2 | 1 | 11 |
| Noise | 7 | 2 | 2 | 0 | 11 |
| Surface Drainage | 5 | 6 | 0 | 0 | 11 |

Discussion:

- 10 of 11 respondents indicated that mitigating potential impacts to ground water quality was 'very important'.
- 7 of 11 respondents indicated that mitigating potential impacts related to noise, agricultural productivity, surface water quality, and ground water quantity was 'very important'.
- 3 respondents indicated that mitigating potential impacts on the usability / enjoyment of private property and landscape character was either 'somewhat unimportant' or 'unimportant'.

SECTION 2.3: CONFLICT MANAGEMENT

This section of the survey was intended to obtain information about the nature and management of conflict relating to the operation of a pit / quarry in Oxford County.

Question 7: Identify the three (3) issues about which your Pits / Quarries receives the most number of complaints / concerns regarding (Open-ended). The open-ended responses were categorized into themes by staff.

| Issue | Number of People |
|---------|------------------|
| Noise | 6 |
| Dust | 5 |
| Traffic | 4 |
| Visual | 1 |
| Water | 1 |

Note: 17 total responses for this question. Two (2) respondents skipped this question. Not all respondents mentioned three issues, some mentioned only one or two issues.

Discussion:

- Noise, dust and traffic complaints were the most frequently noted sources of complaints cited by respondents.

Question 8A: Do you have a formal complaint protocol in place for your Pits / Quarries in Oxford County?

| Complaint Protocol? | Number of People |
|---------------------|------------------|
| Yes | 3 |
| No | 2 |
| For some | 1 |
| Informal protocol | 5 |
| TOTAL | 11 |

Discussion:

- 5 of the 11 respondents indicated that they have an informal protocol for taking complaints related to Pit(s) / Quarry(s) in Oxford County.
- 4 of the respondents indicated that they have a complaint protocol for all or some of the pits / Quarries in Oxford County.

- 2 respondents indicated that they did not have in place a complaint protocol.

Question 8B: Respecting your Pits / Quarries in Oxford County, how many complaints do you receive in a typical year?

| Number of Complaints? | Number of People |
|-----------------------|-----------------------|
| None | 5 |
| A few per year | 4 |
| A few per month | 0 |
| Several per month | 0 |
| Unknown | 1 |
| TOTAL | 10 (1 Missing) |

Discussion:

- 5 respondents indicated that in a typical year they did not receive any complaints.
- 4 respondents indicated that in a typical year they would receive a few complaints.
- 1 respondent indicated that they did not know how many complaints were received in a typical year.

Question 8C: Respecting your Pits / Quarries in Oxford County, identify the main source of complaints? Respondents were provided with a list of potential complaint sources.

| Source of Complaints? | Number of People |
|--|------------------|
| Directly from neighbouring residents | 6 |
| Provincial ministry (MNRF / MOECC) | 4 |
| Municipal staff | 0 |
| Municipal representative | 0 |
| 3 rd party advocacy groups | 0 |
| Other (please specify) | 2 |
| Note: 12 total responses for this question. Three (3) respondents skipped this question. Some of the respondents noted more than one source of complaint. | |

Discussion:

- 6 respondents indicated that most of the complaints come directly from neighbouring residents
- The 2 respondents who noted 'other', stated that they did not receive complaints.
- The remaining complaints were identified as coming from Provincial Ministry staff, such as the Ministry of Natural Resources and Forestry (MNRF) and the Ministry of Environment and Climate Change (MOECC).

Question 9: How would you characterize your relationship to people living within 1000 m (1 km) of your Pits / Quarries?

| Characterization of Relationship? | Number of People |
|-----------------------------------|-----------------------|
| Excellent | 7 |
| Good for the most part | 3 |
| Needs improvement | 0 |
| Very challenging | 0 |
| TOTAL | 10 (1 missing) |

Discussion:

- All of the respondents indicated that their relationship to people living within 1000 m (1 km) of their pits / quarries was either 'excellent' or 'good for the most part'.

Question 10A: In your opinion, are there measures that could assist in improving relations between neighbours and Pit / Quarry operations?

| Are there measures to improve relations? | Number of People |
|--|-----------------------|
| Yes | 2 |
| No | 2 |
| Don't know | 6 |
| TOTAL | 10 (1 missing) |

Discussion:

- 6 of the 10 respondents indicated that they did not know if there were measures that could assist in improving relations between neighbours and pit / quarry operations.
- 2 of the 10 respondents indicated that there were measures that could assist in improving relations between neighbours and pit / quarry operations

Respondents who answered 'yes' were then asked the following open-ended question:

Question 10 B): If 'Yes', please describe.

- 2 respondents indicated that increased communication measures could improve relations between pit / quarry operators and neighbouring land owners.

SECTION 2.4: REHABILITATION and LICENSE SURRENDER

This section of the survey was intended to obtain information about the rehabilitation considerations and preferences of the respondents.

Question 11: What are the THREE (3) most important factors you take into consideration during the development of a rehabilitation plan (Open – ended)? The open-ended responses were categorized and divided into themes by staff.

| Factors Important to Development of a Rehabilitation Plan? | Number of People |
|--|------------------|
| Cost | 2 |
| Future use | 3 |
| Biodiversity | 3 |
| Benefit to community | 3 |
| Visual / landscape compatibility | 4 |
| Agricultural productivity | 2 |
| Drainage | 2 |
| Feasibility | 1 |
| Note: 20 total respondents to this question. Two (2) respondents skipped this question. Some of the respondents noted three factors, while others only identified one or two factors for a total of 20 responses. | |

Discussion:

- Respondents noted a number of factors important to the development of a rehabilitation plan, including: if the rehabilitation will be visually compatible with its surroundings; the cost of the rehabilitation; if the rehabilitation plan will accommodate the site’s intended future use; if the rehabilitation plan increases biodiversity; and, if the rehabilitation plan will benefit the local community.

Question 12: What are the THREE (3) most important factors you take into consideration when determining when to surrender a license (Open-ended)? The open-ended responses were categorized and divided into themes by staff.

| Factors Important to Consideration on When to Surrender a License? | Number of People |
|--|------------------|
| Reserve has been extracted | 6 |
| Rehabilitation completed per site plans | 3 |
| Satisfaction of owner | 2 |
| Satisfaction of MNR / Township | 2 |
| Future use | 1 |
| Agricultural productivity | 1 |
| Drainage | 1 |
| No options for expansion | 1 |
| Would I buy this land? | 1 |

Note: 18 total responses for this question. Three (3) respondents skipped this question. Some of the respondents noted three factors, while others only identified only one or two factors.

Discussion:

- Respondents most frequently noted that they take into consideration whether the reserve has been completely extracted when determining when to surrender an extraction license.
- Respondents to this question also identified numerous additional factors that they take into consideration when determining when to surrender an extraction license.

Question 13A: In your opinion, are there benefits to living within 1000 m (1 km) of an existing or rehabilitated aggregate operation?

| Benefits to living within 1000 m? | Number of People |
|-----------------------------------|-----------------------|
| Yes | 3 |
| No | 3 |
| Don’t know | 4 |
| TOTAL | 10 (1 missing) |

Discussion:

- 6 of the 10 respondents indicated that they did not know if there were benefits to living within 1000 m (1 km) of a pit / quarry operation.
- 3 of the 10 respondents indicated that they thought that there were benefits to living within 1000 m (1 km) of a pit / quarry operation

Respondents who answered ‘yes’ were then asked the following open-ended question:

Question 13 B): If 'Yes', please describe.

- 3 respondents indicated that there were benefits to living within 1000 m (1 km) of an existing or rehabilitated aggregate operation, of those responses:
 - 2 indicated that that close to market reserves reduced the number of trucks on the road.
 - 1 indicated that a rehabilitated pit / quarry can provide a quiet and visually appealing landscape.

Question 14: Notwithstanding your existing rehabilitation plan, how supportive are you of the following types of after-uses for an ABOVE THE WATER TABLE Pit / Quarry in Oxford County?
Respondents were provided with a list of potential after-uses.

| After-Use | Very Supportive | Somewhat Supportive | Somewhat Unsupportive | Very Unsupportive | Total |
|--|-----------------|---------------------|-----------------------|-------------------|-------|
| Naturalized Areas (Native Plantings) | 6 | 3 | 0 | 0 | 9 |
| Naturalized Areas (Non-Native Plantings) | 5 | 3 | 1 | 0 | 9 |
| Agriculture-Pasture | 8 | 1 | 0 | 0 | 9 |
| Agriculture-Field Crops | 8 | 0 | 1 | 0 | 9 |
| Agriculture-Hay | 8 | 0 | 1 | 0 | 9 |
| Open Space | 3 | 2 | 2 | 2 | 9 |
| Naturalized Water Course | 5 | 3 | 1 | 0 | 9 |
| Naturalized Water Feature | 5 | 3 | 1 | 0 | 9 |
| Pond | 4 | 3 | 2 | 0 | 9 |
| Active Recreation | 6 | 2 | 1 | 0 | 9 |
| Passive Recreation | 6 | 2 | 1 | 0 | 9 |

Discussion:

- The top three (3) after-uses respondents identified most frequently as being 'very supportive' of for an above-the-water table pit / quarry (in descending order) were: agriculture for pasture, agriculture for field crops and agriculture for hay.
- The after-use that respondents identified most frequently as being 'very unsupportive' or 'somewhat unsupportive' of for an above-the-water table pit / quarry was open space (defined, in the survey, as consisting of lawn, exposed resource and no plantings).

Question 15: Notwithstanding your existing rehabilitation plan, how supportive are you of the following types of after-uses for a BELOW THE WATER TABLE Pit / Quarry in Oxford County?
Respondents were provided with a list of potential after-uses.

| After-Use | Very Supportive | Somewhat Supportive | Somewhat Unsupportive | Very Unsupportive | Total |
|--|-----------------|---------------------|-----------------------|-------------------|-------|
| Naturalized Areas (Native Plantings) | 4 | 3 | 1 | 1 | 9 |
| Naturalized Areas (Non-Native Plantings) | 3 | 4 | 1 | 1 | 9 |
| Agriculture-Pasture | 4 | 0 | 2 | 3 | 9 |
| Agriculture-Field Crops | 3 | 0 | 2 | 4 | 9 |

| | | | | | |
|---------------------------|---|---|---|---|---|
| Agriculture-Hay | 3 | 0 | 2 | 4 | 9 |
| Open Space | 2 | 1 | 2 | 4 | 9 |
| Naturalized Water Course | 6 | 1 | 1 | 1 | 9 |
| Naturalized Water Feature | 6 | 1 | 1 | 1 | 9 |
| Pond | 7 | 2 | 0 | 0 | 9 |
| Active Recreation | 4 | 2 | 1 | 2 | 9 |
| Passive Recreation | 5 | 2 | 1 | 1 | 9 |

Discussion:

- The top three (3) after-uses respondents identified most frequently as being ‘very supportive’ of for a below-the-water table pit / quarry (in descending order) were: pond (isolated pond not constructed to support aquatic species, a naturalized water course and a naturalized water feature (both constructed to support aquatic species).
- The after-uses that respondents identified most frequently as being ‘very unsupportive’ or ‘somewhat unsupportive’ of for a below-the-water table pit / quarry was agriculture for field crops, agriculture for hay and open space (defined as consisting of lawn, exposed resource and no plantings).

SECTION 2.5: INDUSTRY BEST PRACTICES

This section of the survey was intended to obtain information about the best management practices undertaken by operators of Pits / Quarries in Oxford County in the past, present and future.

Question 16: Identify which of the following practices you undertake in Oxford County. Respondents were provided with a list of activities generally considered to be industry ‘best management practices (BMP’s)’. It is noted that not all BMP’s would apply to every pit / quarry operation due to the size, location and nature of the operation.

| Activity | Have Not Undertaken and Do Not Expect to Undertake Activity | Currently Undertake | Have Undertaken in the Past | Expect to Undertake in the Future | Not Applicable | Total |
|---|---|---------------------|-----------------------------|-----------------------------------|----------------|-------|
| Public Engagement Before Site Licensed | 1 | 4 | 0 | 2 | 1 | 8 |
| Public Engagement After Site Licensed | 1 | 3 | 2 | 1 | 1 | 8 |
| Formal Complaint Protocol | 2 | 3 | 1 | 2 | 0 | 8 |
| Continuously Maintains Pit / Quarry Appearance | 0 | 6 | 0 | 1 | 0 | 7 |
| Continuously Monitors on-site and off-site impacts After Extraction | 1 | 5 | 0 | 1 | 0 | 7 |
| Continuously Monitors on-site and | 1 | 5 | 0 | 1 | 0 | 7 |

| | | | | | | |
|--|---|---|---|---|---|---|
| off-site impacts During Extraction | | | | | | |
| Plan to Immediately remedy Potential On-site/Off-site Impacts | 0 | 5 | 0 | 2 | 0 | 7 |
| Limits size of extraction at any one point in time | 1 | 4 | 0 | 0 | 2 | 7 |
| Informs local municipality of impacts immediately | 0 | 5 | 1 | 1 | 0 | 7 |
| Minimizes dust beyond minimum requirements | 0 | 6 | 0 | 1 | 0 | 7 |
| Minimizes noise and vibration beyond minimum requirements | 1 | 6 | 0 | 0 | 0 | 7 |
| Monitors quality/quantity of surface water | 1 | 6 | 0 | 0 | 0 | 7 |
| Monitors quality/quantity of ground water | 1 | 6 | 0 | 0 | 0 | 7 |
| Share in cost of maintaining/repairing road infrastructure | 3 | 4 | 0 | 0 | 0 | 7 |
| Makes use of trees to screen views of Pit/Quarry | 2 | 4 | 1 | 0 | 0 | 7 |
| Native species used in rehabilitation | 1 | 5 | 0 | 1 | 1 | 7 |
| Uses soil remediation practices in rehabilitation | 1 | 4 | 1 | 1 | 0 | 7 |
| Ponds constructed to support aquatic plant and animals | 1 | 2 | 1 | 2 | 1 | 7 |

Discussion:

- The majority of respondents indicated that they currently undertake or expect to undertake many of the best management practices described above.

SECTION 2.6: COMPATIBILITY

This section of the survey was intended to obtain information about the how compatible operators perceived certain types of land uses.

Question 17: With respect to the following uses, to what degree do you find such uses compatible with Pits / Quarries in Oxford County. Respondents were provided with a list of land uses.

| After-Use | Very Compatible | Somewhat Compatible | Somewhat Incompatible | Very Incompatible | Total |
|---|-----------------|---------------------|-----------------------|-------------------|-------|
| Agricultural uses – field crops / hay | 6 | 0 | 0 | 1 | 7 |
| Agricultural uses – pastures | 6 | 0 | 0 | 1 | 7 |
| Agricultural uses – intensive livestock | 6 | 1 | 0 | 1 | 8 |
| Farm residential | 6 | 0 | 0 | 1 | |
| Non-farm Residential (single lots) | 1 | 3 | 1 | 2 | 7 |
| Agriculturally related businesses | 3 | 2 | 1 | 1 | 7 |
| Non-agriculturally related businesses | 3 | 2 | 2 | 0 | 7 |
| Urban settlement areas | 2 | 3 | 0 | 2 | 7 |
| Rural settlement areas / rural clusters | 1 | 3 | 2 | 1 | 7 |
| Active recreation uses | 1 | 6 | 0 | 0 | 7 |
| Passive recreation uses | 1 | 5 | 1 | 0 | 7 |
| Conservation areas | 2 | 5 | 0 | 0 | 7 |
| Industrial / commercial uses | 1 | 3 | 3 | 0 | 7 |

Discussion:

- The most frequently identified land uses considered to be ‘very compatible’ with pits and quarries were: agricultural uses for pasture, field crops and hay, and intensive livestock.
- By combining the ‘very compatible’ and ‘somewhat compatible’ categories, active recreation as a land use became one of the most frequently cited compatible land use.
- The most frequently identified land uses considered to be ‘very incompatible’ with pits and quarries were: non-farm residential lots and urban settlement areas.
- By combining the ‘very incompatible’ and ‘somewhat incompatible’ categories, non-farm residential lots, rural settlement area / rural clusters, and industrial / commercial uses became the most frequently identified incompatible land uses.

Question 18. Do you have any final comments or suggestions - (open-ended).

None of the respondents provided comments to this question.

SECTION 3.0 FINAL SUMMARY OF RESIDENT AND OPERATOR SURVEYS

While the relatively low number of respondents means that the survey results can not to be interpreted as providing statistically representative samples, it does provide a window into the experiences and opinions of the respondents. Indeed, a number of common themes were consistently raised within both the operator and resident surveys. Further, as both surveys touched on similar topics, the results of both surveys are surprising in both their similarities and their differences respecting:

Impact

- Residents consistently attributed pit / quarry operations to negative impacts on the ability to enjoy personal outdoor amenity space (i.e. backyard/nature) and driving (due to road safety and infrastructure damage attributed to pit / quarry trucks).
- Resident respondents identified most frequently being 'very concerned' with the potential impact pit / quarry operations have on ground water quality.

AND:

- Noise, dust and traffic complaints were the most frequently noted sources of complaints cited by operators.
- 10 of 11 operators indicated that mitigating the potential impacts to ground water quality was 'very important'.

Conflict Management

- Less than half of the resident respondents (26) indicated that they have tried to contact someone with a concern or a question regarding a pit / quarry in Oxford County, but of those, only 10 were satisfied with the result of their communication.
- Most resident respondents wanted more information both before and after a pit / quarry operation began.
- Some resident respondents voiced frustration respecting with a perceived lack of enforcement / monitoring, jurisdictional overlaps and meaningful response respecting concerns / questions related to pits / quarries.

AND:

- All of the operators indicated that they would characterize their relationship with their neighbours as 'excellent' or 'good for the most part'.
- 9 of 11 operators indicated that they receive either none or only a few complaints in a typical year.
- Both residents and operators identified increased communication as a means of improving relations between Pit / Quarry operators and neighbours

Rehabilitation

- Resident respondents most frequently indicated general support for aggregate rehabilitation for the purpose of providing naturalized areas (with native plantings), passive recreation, agricultural areas for pasture, and naturalized water features.

AND:

- Operator respondents most frequently indicated that they were ‘very supportive’ of the following after-uses for an above-the-water-table pit / quarry: agricultural uses for pasture, field and hay.
- Operator respondents most frequently indicated that they were ‘very supportive’ of the following after-uses for a below-the-water-table pit / quarry: a pond (not constructed to support aquatic species), a naturalized water course, and a naturalized water feature.

Best Practices

- Generally, the resident respondents indicated that they ‘didn’t know’ whether a best management practice was being undertaken by a pit / quarry in their area.

AND:

- The majority of operator respondents indicated that they currently undertake or expect to undertake many of the best management practices noted in the survey.

Compatibility

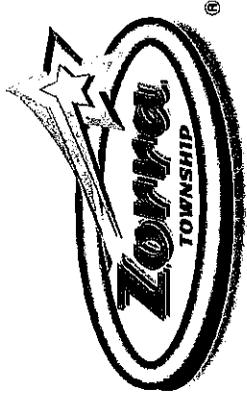
- Operator respondents indicated that agricultural and active recreational uses were generally the most compatible land uses with extraction sites. The least compatible land uses were indicated to be non-farm rural residential lots, urban and rural settlement areas (including rural clusters), and industrial / commercial uses.

The common themes found within the survey results will be used by staff to assist in the development of recommendations for amendments to the Official Plan.

Finally, these surveys and their results could provide other municipalities interested in this issue with a useful baseline upon which further survey work could be undertaken. In particular, a more targeted door drop survey of residents who live within 1000 m (1 km) of pits / quarries would provide a more fulsome understanding of impacts and experiences of residents living in proximity to pits and or quarries and how the type and nature of such impacts may change based on proximity.

APPENDIX 1:

RESIDENT'S SURVEY



AGGREGATE POLICY REVIEW

RESIDENTS SURVEY

The Township of Zorra, with assistance from the County of Oxford, is undertaking a review of policies in the Official Plan that relate to Sand and Gravel Pits, Quarries and Related-uses. This review is called the 'Aggregate Policy Review Study', and its objective is to ensure social, economic and environmental impacts of new Sand and Gravel Pits, Quarries and Related-uses are minimized to the extent possible, while protecting the aggregate resource for long-term use.

Part of the public consultation component of the Aggregate Policy Review Study includes two surveys - one intended for Residents of Oxford County, the other for Operators of Pits and Quarries in Oxford County. The questions contained in both surveys focus on four (4) themes:

- 1) identification of issues and impacts;
- 2) conflict resolution;
- 3) rehabilitation, and;
- 4) best practices.

Residents of Oxford County are being asked to complete this questionnaire to make sure that community interests are included in the policy review. The survey should take between 7 to 10 minutes to complete.

Responses to these questions will remain confidential. All responses will be summarized and no response will be disclosed in a way that could identify you.

Thank you for participating in our survey. Your feedback is important to us!

Please place your completed survey in the drop box located at your nearest local municipal office or public library, or mail to:

Township of Zorra C/O Jennifer Huff
274620 27th Line
P.O. Box 306
Ingersoll, ON N5C 3K5.

If you have any questions about the survey or the project, please contact:

Jennifer Huff, Development Planner
County of Oxford Community and Strategic Planning Office
519 539 9800 ext. 3219 or jhuff@oxfordcounty.ca

**Please return by
June 21st, 2015**

Aggregate Policy Review - Residents

1. Where do you live?

- Township of Zorra
 - Township of East Zorra - Tavistock
 - Township of Blandford-Blenheim
 - Township of Norwich
 - Township of South-West Oxford
 - City of Woodstock
 - Town of Ingersoll
 - Town of Tillsonburg
 - Other (please specify)
-

2. How close do you live to an existing Sand / Gravel Pit or Quarry?

- | | | | |
|----------------------|--------------------------|-----------------------|-------------------------|
| | Less than 500 m (1/2 KM) | 501 m - 1000 m (1 KM) | More than 1000 m (1 KM) |
| To Sand / Gravel Pit | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| To a Quarry | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

3. If you live within 1000 m (1 KM) to a Pit / Quarry, when did you move there?

- I moved to my location before Pit / Quarry operations began.
- I moved to my location after some Pit / Quarry operations began, but then operations began in other areas near me too.
- I moved to my location after Pit / Quarry operations began and there have been no new Pits or Quarries near me since then.
- I live farther than 1000 m (1 KM) to a Pit / Quarry.

4. A) In your opinion, are there benefits to living within 1000 m (1 KM) of an existing or rehabilitated aggregate operation?

- Yes
- No
- Don't know

B) If 'Yes', please describe.

5. Are you directly employed by an aggregate operation?

- Yes
- No

6. Do you lease lands to an aggregate operation?

- Yes
- No

7. Are you usually at home during the day?

Yes

No

8. If you participate in any of the following activities, please describe how you have been impacted by existing Pit and / or Quarry operations in the area.

| | Negatively impacted | No impact | Positively impacted | Not applicable |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Walking / running | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Cycling | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Hiking | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Enjoying nature | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Yard work | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Relaxing outside on my property | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Playing outside | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Entertaining outside | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Outdoor sports | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Chores (putting out garbage / mail / drying clothes) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Indoor housekeeping | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

9. A) In your opinion, have you been impacted in some way not mentioned above?

Yes

No

Don't know

B) If 'yes' to the above, please describe.

10. How concerned are you about the following potential impacts of Pits and Quarries?

| | Very concerned | Somewhat concerned | Somewhat unconcerned | Not concerned |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| Noise | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Dust | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Surface Water Quality | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ground Water Quality | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Surface Water Quantity | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ground Water Quantity | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Natural Features (plant and animal species) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Landscape Character | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Agricultural Productivity | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Usability / Enjoyment of Private Property | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Appearance / Maintenance of Site | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Road Infrastructure | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Hours of Operation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Surface Drainage | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (please specify) | | | | |

11. A) Have you ever tried to contact someone with a concern / question regarding a Pit / Quarry?

- Yes
 No (please skip to Question #12)

B) If 'yes' to the above, who have you tried to contact?

- Provincial ministry (MNRF / MOE)
 Municipal staff
 Municipal representative (Councillor / Mayor)
 3rd party advocacy group
 Operator
 Other (please specify)

C) Were you able to reach a person respecting your concern / question?

- Yes
 No
 Some, not all

D) Were you satisfied with the result of your communication?

- Yes
 No

E) If 'no' to the above, why not?

12. Would you like to have more opportunity to voice concerns or ask questions?

- Yes, before Pit / Quarry operations begins
 Yes, after Pit / Quarry operations begins
 Yes, both before and after Pit / Quarry operations
 No

13. In your opinion, are any of the following practices undertaken by the Pit(s) / Quarry(s) in your area?

| | Yes | No | Don't know |
|---|-----------------------|-----------------------|-----------------------|
| Public engagement before a license is issued | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Public engagement after a license is issued | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A formal complaint protocol | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Continuously maintains Pit / Quarry appearance | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Continuously monitors on-site and off-site impacts after extraction | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Continuously monitors on-site and off-site impacts during extraction | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| A plan to immediately remedy potential on-site or off-site impacts | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Limits the size of extraction area at any one point in time | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Informs local municipality of impacts immediately | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Minimizes dust beyond minimum requirements | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Minimizes noise and vibration beyond minimum requirements | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Monitors quality / quantity of surface water | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Monitors quality / quantity of ground water | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Monitors air quality | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Share cost of maintaining / repairing road infrastructure beyond tonnage fees | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Makes use of trees to screen views of Pit / Quarry operation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Native species used in rehabilitation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Uses soil remediation practices in rehabilitation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Ponds constructed to support aquatic plant and animal species | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Other (please specify)

14. At the end of the life of an aggregate pit, how supportive are you of the following types of after-uses?

| | Very supportive | Somewhat supportive | Somewhat unsupportive | Very unsupportive |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Naturalized Areas - Native (planting of native species) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Naturalized Areas - Non-Native (planting of non-native species / natural re-generation) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Agriculture - pasture | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Agriculture - field crops | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Agriculture - hay | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Open Space (lawn, exposed resource, no plantings) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Naturalized Water Course (restored watercourse, wetland, marsh) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Naturalized Water Feature (isolated pond constructed to support aquatic plant and or animal species) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Pond (isolated pond NOT constructed to support aquatic plant and / or animal species) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Active Recreation (public park, sports field, golf course, playground) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Passive Recreation (trails, nature reserve, conservation area) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (please specify) | | | | |

15. In your opinion, are there measures that could assist in improving relations between neighbours and Pit / Quarry operations? If so, please describe below.

16. Please share with us any final comments or suggestions.

Thank you for taking the time to fill out this survey!

Additional information on the Aggregate Policy Review Study will be posted regularly on the Township of Zorra's website - www.zorra.on.ca. Survey results will be available in the Fall 2015. If you have any questions or additional comments, please contact Jennifer Huff at 519-539-9800 ext. 3219 or by email at jhuff@oxfordcounty.ca.

APPENDIX 2:

OPERATOR'S SURVEY



AGGREGATE POLICY REVIEW

OPERATORS SURVEY

The Township of Zorra, with assistance from the County of Oxford, is undertaking a review of policies in the Official Plan that relate to Sand and Gravel Pits, Quarries and Related-uses. This review is called the 'Aggregate Policy Review Study', and its objective is to ensure social, economic and environmental impacts of new Sand and Gravel Pits, Quarries and Related-uses are minimized to the extent possible, while protecting the aggregate resource for long-term use.

Part of the public consultation component of the Aggregate Policy Review Study includes two surveys - one intended for Residents of Oxford County, the other for Operators of Pits and Quarries in Oxford County. The questions contained in both surveys focus on four (4) themes:

- 1) identification of issues and impacts;
- 2) conflict resolution;
- 3) rehabilitation, and;
- 4) best practices.

Operators of Pits and Quarries in Oxford County are being asked to complete this questionnaire to make sure that operator interests are included in the policy review. The survey should take between 7 to 10 minutes to complete.

Responses to these questions will remain confidential. All responses will be summarized and no response will be disclosed in a way that could identify you or your Pit / Quarry.

Thank you for participating in our survey. Your feedback is important to us!

Please place your completed survey in the drop box located at your nearest local municipal office or public library, or mail to:

Township of Zorra C/O Jennifer Huff
274620 27th Line
P.O. Box 306
Ingersoll, ON N5C 3K5.

If you have any questions about the survey or the project, please contact:

Jennifer Huff, Development Planner
County of Oxford Community and Strategic Planning Office
519 539 9800 ext. 3219 or jhuff@oxfordcounty.ca

**Please return by
June 21st, 2015**

Aggregate Policy Review - Operators

1. How many Sand and Gravel Pits and / or Quarries do you operate in Oxford County?
- 1
- 2-5
- More than 5
2. With respect to your Pit(s) / Quarry(s) in Oxford County, does your license(s) provide for extraction above or below the water table?
- Above the water table
- Below the water table
- Both above and below the water table
3. With respect to your operations in Oxford County, how many license applications have you made since 1997?
- 1
- 2-5
- More than 5
- None
4. Do you anticipate expanding or opening a new pit / quarry in the next 10 years in Oxford County?
- Yes
- No
- Don't know
5. Generally, what is your ownership preference?
- To own the Pit(s) / Quarry(s)
- To lease the land for the Pit(s) / Quarry(s)
- I don't have a preference

6. How important is it to you, as a Pit Operator, that the following potential impacts be mitigated to the extent possible?

| | Very important | Somewhat important | Somewhat unimportant | Not important |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| Noise | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Dust | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Impact on Surface Water Quality | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Impact on Ground Water Quality | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Impact on Surface Water Quantity | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Impact on Ground Water Quantity | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Impact on Natural Features (plants and animals) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Impact on Landscape Character | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Impact on Agricultural Productivity | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Impact on Usability / Enjoyment of Private Property | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Appearance / Maintenance of Site | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Impact on Road Infrastructure | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Surface Drainage | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

7. Identify the THREE (3) issues about which your Pit(s) / Quarry(s) receives the most number of complaints / concerns regarding.

1.
2.
3.

8. A) Do you have a formal complaint protocol in place for your Pits(s) / Quarry(s) in Oxford County?

- Yes
 No
 For some
 More of an informal protocol

B) Respecting your Pit(s) and Quarry(s) in Oxford County, how many complaints do you receive in a typical year?

- None
 A few per year
 A few per month
 Several per month
 Unknown

C) Respecting your Pit(s) and Quarry(s) in Oxford County, identify the main source of complaints:

- Directly from neighbouring residents
 Provincial ministry (MNRF / MOE)
 Municipal staff
 Municipal representative (Councillor / Mayor)
 3rd party advocacy groups
 Other

Other (please specify)

9. How would you characterize your relationship to people living within 1000 m (1 KM) of your Pit(s) / Quarry(s)?

- Excellent
 Good for the most part
 Needs improvement
 Very challenging

10. A) In your opinion, are there measures that could assist in improving relations between neighbours and Pit / Quarry operations?

- Yes
 No
 Don't know

B) If 'Yes' to the above, please describe the measures that, in your opinion, could improve relations.

11. What are the THREE (3) most important factors you take into consideration during the development of a rehabilitation plan?

1

2

3

12. What are the THREE (3) most important factors you take into consideration when determining when to surrender a license?

1

2

3

13. A) In your opinion, are there benefits to living within 1000 m (1 KM) of an existing or rehabilitated aggregate operation?

- Yes
 No
 Don't know

B) If 'Yes', please describe.

14. Notwithstanding your existing rehabilitation plan, how supportive are you of the following types of after-uses for an ABOVE THE WATER TABLE Pit / Quarry in Oxford County?

| | Very supportive | Somewhat supportive | Somewhat unsupportive | Very unsupportive |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Naturalized Areas - Native (planting native species) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Naturalized Area - Non native (planting non-native speices, natural re-generation) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Agriculture - pasture | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Agriculture - field crops | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Agriculture - hay | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Open Space (lawn, exposed resource, no plantings) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Naturalized Water Course (restored water course, wetland, marsh) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Naturalized Water Feature (isolated pond constructed to support aquatic plant and / or animal species) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Pond (isolated pond NOT constructed to support aquatic plant and / or animal species) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Active Recreation (public park, sports field, golf course, playground) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Passive Recreation (trails, nature reserve, conservation area) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (please specify) | | | | |

15. Notwithstanding your existing rehabilitation plan, how supportive are you of the following types of after-uses for a BELOW THE WATER TABLE Pit / Quarry in Oxford County?

| | Very supportive | Somewhat supportive | Somewhat unsupportive | Very unsupportive |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Naturalized Areas - Native (planting of native species) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Naturalized Area - Non native (planting non-native species / natural re-generation) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Agriculture - pasture | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Agriculture - field crops | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Agriculture - hay | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Open Space (lawn, exposed resource, no plantings) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Naturalized Water Course (restored water course, wetland, marsh) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Naturalized Water Feature (isolated pond constructed to support aquatic plant and / or animal species) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Pond (isolated pond NOT constructed to support aquatic plant and / or animal species) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Active Recreation (public park, sports field, golf course, playground) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Passive Recreation (trails, nature reserve, conservation area) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Other (please specify) | | | | |

16. Identify which of the following practices you undertake in Oxford County?

| | I have not undertaken and do not expect to undertake | Currently undertake | Have undertaken in the past | Expect to undertake in the future | Not applicable |
|---|--|--------------------------|-----------------------------|-----------------------------------|--------------------------|
| Public engagement before a license is issued | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Public engagement after a license is issued | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Have in place a formal complaint protocol | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Continuously maintains appearance of Pit / Quarry | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Continuously monitors on-site and off-site impacts after extraction | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Continuously monitors on-site and off-site impacts during extraction | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Have a plan to immediately remedy potential on-site or off-site impacts | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Limits the size of extraction area at any one point in time | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Informs local municipality of impacts immediately | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Minimizes dust beyond minimum requirements | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Minimizes noise and vibration beyond minimum requirements | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Monitors quality / quantity of surface water | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Monitors quality / quantity of ground water | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Shares in cost of maintaining / repairing road infrastructure beyond tonnage fees | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Makes use of plant screenings as visual buffer | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Native species used in rehabilitation plans | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Uses soil remediation practices (i.e. cover-crops/hay) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Ponds engineered / constructed to support aquatic plant and animal species | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Other (please specify)

17. With respect to the following uses, to what degree do you find such uses compatible with Pit(s) / Quarry(s) in Oxford County?

| | Very compatible | Somewhat compatible | Somewhat incompatible | Very incompatible |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| Agricultural uses - field crops / hay | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Agricultural uses - pasture | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Agricultural uses - intensive livestock | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Farm residential | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Non-farm residential (single lots) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Agriculturally related businesses | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Non-agriculturally related businesses | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Urban settlement areas | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Rural settlement areas / rural clusters | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Active recreational uses | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Passive recreational uses | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Conservation areas | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Industrial / commercial uses | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

18. Do you have any final comments or suggestions?

Thank you for taking the time to fill out this survey!

Additional information on the Aggregate Policy Review Study will be posted regularly on the Township of Zorra's website - www.zorra.on.ca. Survey results will be available in the Fall 2015. If you have any questions or additional comments, please contact Jennifer Huff at 519-539-9800 ext. 3219 or by email at jhuff@oxfordcounty.ca

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