AGGREGATES & AGRICULTURE: UNDERSTANDING THE IMPACTS OF AGGREGATE PRODUCTION ON AGRICULTURE AND MITIGATING STRATEGIES

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BACKGROUND

- Aggregate (sand, gravel, hard rock) is necessary for *all* construction
- Aggregate extraction usually occurs on or beside prime agricultural land
- Legislation regulating extraction is only recent
 - Aggregate Resources Act, 1990 (incl. MAAP)
 - Niagara Escarpment Planning and Development Act, 1973
- Most literature examines *public* response to aggregate development
 - 974 hectare proposed Melancthon quarry widely reported

PURPOSE & OBJECTIVES

Research question(s):

What are farmers' attitudes toward local aggregate operations?

How do farmers perceive aggregate operations' effects on their farming business?

Main objective:

To understand the broad impacts of aggregate operations on local agriculture

METHODS

- Literature review & Jurisdictional Scan
 - Social, economic, environmental, and land use planning considerations
- Case studies
 - 5-8 Counties/Regions, 8-10 aggregate operations
- Survey of aggregate operators & farm operators
- Interviews
 - Aggregate & Farm Operators
 - Municipal, OMAFRA, MNRF Staff

IDENTIFYING CASE STUDIES

- Currently in the process of selecting case studies
- 5-8 Counties/Regions, 8-10 aggregate operations
 - Further examined for proximity to agriculture
 - Other filters and considerations...
- Dataset created to compare total aggregate sites against agricultural values

Number of Aggregate Operations vs. Total Farm Capital (by County, Region, District)

Currently missing data: Haldimand-Norfolk, Leeds & Grenville, Prescott & Russell, Stormont-Dundas-Glengarry

MAPPING & DATA TOOLS

Screen-shot of Ontario's 'Find Pits & Quarries' Map for Wellington County

Site ID	Client Name	Approval Type	Operation Type	Max. Annual Tonnage	Licensed Area (ha)
4469	Elmer Dennison	Class A Licence	Pit	120000	38
4491	THE MURRAY GROUP LIN	Class A Licence	Pit	800000	40.5
4495	Antonio Andrade and Mary	Class A Licence	Pit	100000	39.9
4508	JEFF and SUSAN SMALL	Class B Licence	Pit	20000	1.3
4511	Dan Selfried	Class B Licence	Pit	20000	5.3
4513	E. DENNISON CONTRACT	Class A Licence	Pit	40000	9.85
4514	D'Arcey Sand and Gravel L	Class A Licence	Pit	20000	12.7
4519	Harry, Betty and Nancy Joy	Class A Licence	Pit	100000	20.3
4522	HUSTONVILLE SAND & Gf	Class A Licence	Pit	500000	47
4719	THE MURRAY GROUP LIN	Class A Licence	Pit	1000000	58.7
4765	DONEGAN'S HAULAGE LI	Class A Licence	Pit	100000	80.97
5465	CAPITAL PAVING INC.	Class A Licence	Pit	(unlimited)	34.01
5472	Mulmur Aggregates Inc.	Class A Licence	Pit	(unlimited)	22.28
5482	Glen Christie Company Ltd	Class A Licence	Both (Pit and Quarry)	1000000	89.8
5483	DUFFERIN AGGREGATES	Class A Licence	Pit	500000	33.6
5490	CAPITAL PAVING INC.	Class A Licence	Pit	400000	32.21
5497	ST. MARYS CEMENT INC.	Class A Licence	Pit	(unlimited)	62.1
5514	LAFARGE CANADA INC.	Class A Licence	Both (Pit and Quarry)	2000000	142.34
5520	ST. MARYS CEMENT INC.	Class A Licence	Pit	(unlimited)	115.7
5531	UAJV DEVELOPMENTS IN	Class A Licence	Pit	500000	44.96
5551	Donkers Poultry Farms Inc	Class A Licence	Pit	20000	11.75
5552	Donkers Poultry Farms Inc	Class A Licence	Pit	20000	4.94
5563	ST. MARYS CEMENT INC.	Class A Licence	Pit	454000	22.3
5569	THE MURRAY GROUP LIN	Class A Licence	Pit	300000	27.14
5578	Mann Construction Group	Class B Licence	Pit	20000	19.12
5579	OUSTIC SAND & GRAVEL	Class A Licence	Pit	25000	20.25
5581	SAND HILL ESTATES LTD.	Class A Licence	Pit	500000	27.14
5587	Christian E. Dehn	Class B Licence	Pit	20000	9.64
5595	Mann Construction Group	Class A Licence	Pit	100000	29.3
5598	Halton Crushed Stone Ltd.	Class A Licence	Pit	725600	102.06
5602	James Dick Construction L	Class A Licence	Pit	925000	136.4
5609	DUFFERIN AGGREGATES	Class A Licence	Pit	1000000	78.1
5610	TGL LTD.	Class A Licence	Pit	273000	17.3

Screen-shot of exported aggregate data for Wellington County

SITE EXAMPLES

Large site in the Niagara Region

Small site in Wellington County

INTENDED OUTCOMES — TOOL KIT DEVELOPMENT

➤ Goals:

- Identify social, economic, and environmental impacts
- Identify best practices
- Contribute to an understanding of appropriate content for agricultural impact studies

➤ Tool Kit:

- Recommendations/best practices for agriculture/aggregate coexistence

CONCLUSIONS & MOVING FORWARD...

- We are very early in the research process with still more questions than answers
- We invite your input for case study and site selection:
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