

**THE CORPORATION OF THE
TOWNSHIP OF NORTH HURON**

BY-LAW NO. 22-2016

Being a by-law to adopt a Winter Operations Plan
for the Corporation of the Township of North Huron.

WHEREAS the Municipal Act, 2001, as amended permits the Councils of all municipalities to enter into certain agreements;

AND WHEREAS Council is desirous of executing a Winter Operations Plan for the Corporation of the Township of North Huron.

NOW THEREFORE, the Council of the Corporation of the Township of North Huron ENACTS the following:

1. The Reeve and Clerk to sign, on behalf of Council are hereby authorized to sign a Winter Operations Plan for the Corporation of the Township of North Huron.
2. A copy of the said Plan is attached hereto and designated as Schedule A to this By-law.
3. That this By-law shall come into force and takes effect on the day of the final passing thereof.

READ A FIRST AND SECOND TIME THIS 16TH DAY OF FEBRUARY, 2016.

READ A THIRD TIME AND PASSED THIS 16TH DAY OF JANUARY, 2015.

CORPORATE SEAL

Neil G. Vincent, Reeve

Kathy Adams, Clerk



Township of
North Huron

Winter Operations Plan

Township of North Huron

Approved by Council: (__ / __ / ____)

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Purpose

This Winter Operations Plan sets out a policy and procedural framework for ensuring that **Township of North Huron** continuously improves on the effective delivery of winter maintenance services and the management of road salt used in winter maintenance operations, as outlined in Environment Canada's Code of Practice for the Environmental Management of Road Salts.

The plan is meant to be dynamic, to allow the municipality to evaluate and phase-in any changes, new approaches and technologies in winter maintenance activities in a fiscally sound manner. At the same time, any modifications to municipal winter maintenance activities must ensure that roadway safety is not compromised.

As specified in the Code of Practice for the Environmental Management of Road Salts, the Winter Operations Plan for **Township of North Huron** was endorsed by council on the ____ day of _____ 20__

Definitions

Anti-icing.. means the application of liquid de-icers directly to the road surface in advance of a winter event.

De-icing.. means the application of solids, liquids, pre-treated material to the road surface after the on-set of the winter event.

Highway.. includes a common and public highway, street, avenue, parkway, driveway, square, place, bridge, viaduct or trestle, any part of which is intended for or used by the general public for the passage of vehicles and includes the area between the lateral property lines thereof.

Paved Road.. is a road with an asphalt surface, concrete surface, composite pavement, or portland cement.

Pre-treat.. means the application of liquids (calcium chloride, sodium chloride, etc) to dry sand or salt prior to being loaded for storage or applied to the road surface.

Pre-wetting.. means the application of liquids (calcium chloride, sodium chloride, etc) at the spinner of the truck just prior to application to the road surface.

Surface Treated Road.. is road with bituminous surface treatment comprised of one or two applications of asphalt emulsion and stone chips over a gravel road.

Unpaved Road.. is a weather condition affecting roads such as snowfall, wind blown snow, freezing rain, frost, black ice, etc to which a winter event response is required.

Winter Event.. is a weather condition affecting roads such as snowfall, wind blown snow, freezing rain, frost, black ice, etc to which a winter event response is required.

Winter Event Response .. is a series of winter control activities performed in response to a winter event.

- **Continuous Winter Event Response..** is a response to a winter event with full deployment of manpower and equipment that plow/salt/sand the entire system.

- **Spot Winter Event Response..** is a response to a winter event with only a part deployment of manpower and equipment or with full deployment to only part of the system.

Winter Event Response Hours .. are the total number of person-hours per year (plowing, salting/sanding, winging back, etc.) to respond to winter events.

1.0 Winter Operations Management - Objective

Township of North Huron is committed to improving winter maintenance operations while continuing to ensure public safety. Township of North Huron will optimize the use of winter maintenance materials containing chlorides on all municipal roads while striving to minimize negative impacts to the environment. Township of North Huron public works staff will strive, insofar as reasonably practicable, to provide safe winter road conditions for vehicular and pedestrian traffic as set out in the level of service policies and within the resources established by the Council of Township of North Huron.

2.0 Policy Statement

Township of North Huron will provide efficient and cost effective winter maintenance to ensure, insofar as reasonably practicable, the safety of users of the municipal road network in keeping with applicable provincial legislation and accepted standards while striving to minimize adverse impacts to the environment. These commitments will be met by:

- adhering to the procedures contained within the Winter Operations Plan;
- reviewing and upgrading the Winter Operations Plan on an annual basis to incorporate new technologies and new developments;
- committing to ongoing winter maintenance staff training and education; and
- monitoring on an annual basis, the present conditions of the winter maintenance program, as well as the effectiveness of the Winter Operations Plan.

3.0 Winter Maintenance Program

3.1.0 The System Maintained

The major activities related to winter maintenance are:

- anti-icing
- snow plowing
- salt /sand application
- salt and sand storage
- snow removal
- snow storage
- sidewalk plowing and de-icing

Township of North Huron is responsible for winter maintenance on:

Paved roads	<u>33 lane km</u>
Surface treated roads	<u>3 lane km</u>
Unpaved roads	<u>106 lane km</u>
Sidewalks	<u>25 km</u>
Paths and Trails	<u>0 km</u>

For the purposes of this winter operations plan, the highways under the jurisdiction of **Township of North Huron** have been classified (Class 1, 2, 3, 4, 5) as per the following table which is based on the Classification of Highways table included in O.Reg. 239/02.

Average Annual Daily Traffic (number of motor vehicles)	Posted or Statutory Speed Limit (kilometres per hour)						
	91 - 100	81 - 90	71 - 80	61 - 70	51 - 60	41 - 50	1 - 40
15,000 or more	1	1	1	2	2	2	2
12,000 - 14,999	1	1	1	2	2	3	3
10,000 - 11,999	1	1	2	2	3	3	3
8,000 - 9,999	1	1	2	3	3	3	3
6,000 - 7,999	1	2	2	3	3	3	3
5,000 - 5,999	1	2	2	3	3	3	3
4,000 - 4,999	1	2	3	3	3	3	4
3,000 - 3,999	1	2	3	3	3	4	4
2,000 - 2,999	1	2	3	3	4	4	4
1,000 - 1,999	1	3	3	3	4	4	5
500 - 999	1	3	4	4	4	4	5
200 - 499	1	3	4	4	5	5	5
50 - 199	1	3	4	5	5	5	5
0 - 49	1	3	6	6	6	6	6

For the purposes of the table above to this section, the average daily traffic on a

highway or part of a highway under the jurisdiction of Township of North Huron shall be determined:

- a. by counting and averaging the daily two-way traffic on the highway or part of the highway; or
- b. by estimating the average daily two-way traffic on the highway or part of the highway.

The table below summarizes the road system in Township of North Huron as follows:

	Paved Lane / KM		Surface Treated / KM		Unpaved Lane / KM	
	Rural	Urban	Rural	Urban	Rural	Urban
Class 1						
Class 2						
Class 3						
Class 4	9.21		3.68		105.32	
Class 5		24.52				1.82
Class 6						

3.2.0 Level of Service

Township of North Huron provides the following level of service during the winter maintenance season, as set out in 3.3.0, in response to a winter event.

Weather monitoring

3.1 (1) From October 1 to April 30, the minimum standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once every shift or three times per calendar day, whichever is more frequent, at intervals determined by the municipality.

(2) From May 1 to September 30, the minimum standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once per calendar day.

4. Section 4 of the Regulation is revoked and the following substituted:

Snow accumulation

4. (1) The minimum standard for addressing snow accumulation is,

(a) after becoming aware of the fact that the snow accumulation on a roadway is greater than the depth set out in the Table to this section, to deploy resources as soon as practicable to address the snow accumulation; and

(b) after the snow accumulation has ended, to address the snow accumulation so as to reduce the snow to a depth less than or equal to the depth set out in the Table within the time set out in the Table,

(i) to provide a minimum lane width of the lesser of three metres for each lane or the actual lane width, or

(ii) on a Class 4 or Class 5 highway with two lanes, to provide a total width of at least five metres.

(2) If the depth of snow accumulation on a roadway is less than or equal to the depth set out in the Table to this section, the roadway is deemed to be in a state of repair with respect to snow accumulation.

(3) For the purposes of this section, the depth of snow accumulation on a roadway may be determined in accordance with subsection (4) by a municipal employee, agent or contractor, whose duties or responsibilities include one or more of the following:

1. Patrolling highways.
2. Performing highway maintenance activities.
3. Supervising staff who perform activities described in paragraph 1 or 2.

(4) The depth of snow accumulation on a roadway may be determined by,

- (a) performing an actual measurement;
- (b) monitoring the weather; or
- (c) performing a visual estimate.

(5) For the purposes of this section, addressing snow accumulation on a roadway includes, but is not limited to,

- (a) plowing the roadway;
 - (b) salting the roadway;
 - (c) applying abrasive materials to the roadway; or
 - (d) any combination of the methods described in clauses (a), (b) and (c).
- (6) This section does not apply to that portion of the roadway designated for parking.

TABLE SNOW ACCUMULATION

The minimum standard for treating snow w.r.t time on roadways is:

Class of Highway	Depth	Time
1	2.5 cm	4 hours
2	5 cm	6 hours
3	8 cm	12 hours
4	8 cm	16 hours
5	10 cm	24 hours
6	50 cm	24 hours

5. Section 5 of the Regulation is revoked and the following substituted:

Ice formation on roadways and icy roadways

5. (1) The minimum standard for the prevention of ice formation on roadways is doing the following in the 24-hour period preceding an alleged formation of ice on a roadway:

1. Monitor the weather in accordance with section 3.1.

2. Patrol in accordance with section 3.

3. If the municipality determines, as a result of its activities under paragraph 1 or 2, that there is a substantial probability of ice forming on a roadway, treat the roadway to prevent ice formation within the time set out in the Table to this section, starting from the time that the municipality determines is the appropriate time to deploy resources for that purpose.

(2) If the municipality meets the minimum standard set out in subsection (1) and, despite such compliance, ice forms on a roadway, the roadway is deemed to be in a state of repair until the earlier of,

(a) the time that the municipality becomes aware of the fact that the roadway is icy; or

(b) the applicable time set out in the Table to this section for treating the roadway to prevent ice formation expires.

(3) The minimum standard for treating icy roadways after the municipality becomes aware of the fact that a roadway is icy is to treat the icy roadway within the time set out in the Table to this section, and an icy roadway is deemed to be in a state of repair until the applicable time set out in the Table for treating the icy roadway expires.

(4) For the purposes of this section, treating a roadway means applying material to the roadway, including but not limited to, salt, sand or any combination of salt and sand.

TABLE ICY ROADWAYS

The minimum standard for treating icy roadways is:

Class of Highway	Time
1	3 hours
2	4 hours
3	8 hours
4	12 hours
5	16 hours
6	48 hours

3.3.0 Winter Maintenance Season

The winter maintenance season within which Township of North Huron will perform winter highway maintenance commences on **November 1st, 2015** and is completed **May 1st, 2016**

3.4.0 Winter Preparations

In the months prior to the start of the winter maintenance season, as identified in 3.3.0, the Township of North Huron undertakes the following tasks to prepare for the upcoming winter season.

3.4.1 Prior to the Winter Season

Prior to the winter season, if required, prepare and call tenders for the supply of materials (salt, sand, liquid), replacement parts (for plows, solid and liquid application

equipment), value added meteorological services (VAMS) and contract equipment (plow trucks, spreader trucks, combination units).

Prior to the winter season **Township of North Huron** will

1. Conduct a mandatory training session for staff and contract operators where all policies, procedures, schedules, reporting procedures for callout, route maps, equipment training and safety precautions will be discussed. Any issues resulting from the meeting with regard to the policies, procedures, schedules, reporting procedures for callout, route maps, equipment training and safety precautions shall be resolved either at the meeting or prior to the winter season.
2. Train winter patrollers (or staff whose duties also include patrolling) on the route of representative roads to be patrolled between winter events, their duties during a winter event, recording keeping requirements and callout procedures and the de-icing chemicals to be applied for the forecast weather conditions.
3. Inspect equipment to ensure proper working order. Schedule and complete any and all equipment repairs.
4. Arrange for the delivery of materials (salt, sand and liquid solution) and begin filling storage facilities. If liquid solution is mixed on site, begin mixing and filling storage tanks.
5. Confirm that all guiderail, catchbasin, hazard and fire hydrant markers, if any, are in place. Any missing markers will be replaced prior to the winter session.

3.4.2 One Month Prior to the Winter Season

One month prior to the winter season **Township of North Huron** will

1. Post the winter shift schedule in accordance with the municipality's collective agreement, if any.
2. Assign equipment to staff.
3. Calibrate material application equipment.
4. Allow operators (staff and contract) time to familiarize themselves with any new equipment, material application rates, material application equipment and their route (driving the route and noting obstacles along the route).
5. Assign staff to monitor weather forecasts on a daily basis. Assign night patrol shift if forecast indicates an overnight winter event is probable. The patrol person will be authorized to initiate a winter event response if conditions warrant a response.
6. Have a 50 % of the fleet ready to respond to a winter event.
7. Have sufficient staff available to operate the fleet if conditions warrant a winter event response.

3.4.3 Two Weeks Prior to the Winter Season

Two weeks prior to the winter season **Township of North Huron** will

1. Begin regularly scheduled night patrol of representative roads that are maintenance class 1 and 2 roads.
2. Have the required complement of the fleet ready to respond to a winter event.
3. Have staff available to operate the required complement of the fleet if conditions warrant a winter event response

3.4.4 At the Start of the Winter Season

At the start of the winter season:

1. Implement the winter shift schedule.
2. Begin patrolling representative roads in all maintenance classes.
3. Respond to winter events as per the winter operations plan.

3.5.0 Winter Patrol

During the winter maintenance season, 3.3.0, Township of North Huron carries out a winter patrol on a route of representative roads twice daily, 7 days a week. Between winter events a patrol of representative roads will occur during daylight hours and a second night patrol will be also be scheduled. The purpose of the patrol is to monitor and record weather and road conditions and mobilize winter maintenance operators and equipment should a winter event be observed and a winter event response is required. On the approach of a winter event or during a winter event the route of representative roads may be modified, insofar as reasonably practicable, depending on the type and severity of winter event or the direction from which the storm approaches.

The patrol person will be familiar with local conditions in their patrol area, and prepare a condition log of road and weather conditions as well as any actions taken during the shift. The winter patrol schedule parallels the designated winter season.

3.6.0 Operations

3.6.1 Staffing and Hours of Work

Township of North Huron has a full time employee assigned to each vehicle used for winter operations. Each vehicle is assigned a route for sanding/salting and/or plowing.

Township of North Huron adheres to the hours of service as set out in the Highway Traffic Act, Reg.555/06.

Employee ID or Name	Equipment	Comments	Plow Routes
Scott Schiestel	VHT-06-06 tandem red plow	Scott is the Lead Hand for the rural operations and reports to Scott Price the Forman.	East Wawanosh Route #3, East Wawanosh weekend plow #2
Rob Kolkman	VHT-07-08 single axle plow truck	Rob is the Lead hand in Blyth, this is an urban community, Rob reports to Scott Price Forman	Blyth route #1
Lloyd Michie	--	Lloyd operates the tractor blower during winter operations and looks after parking lots and blowing snow from connecting link highway downtown Wingham	--
Jared Harkness	--	Jared is part time staff to plow in the rural ward of East Wawanosh Scott Schiestel is his leadhand	East Wawanosh weekend plow #1
Russell Baird	VHT-05-04 Yellow single axle plow truck	Russell operates a single axle snow plow during the winter months and is able to operate other equipment as needed.	Wingham Route #2
Nathan O'Neil	Kubota utility tractor	Nathan operates any and all equipment in the Blyth ward of North Huron.	Blyth route #1 sidewalks

Joe Hallahan	--	Joe is a part time operator on an on call basis, Joe drives the 1-ton dump during winter months to haul snow.	--
Sklar Whitehead	John Deere Grader	Sklar operates a grader for snow removal in the rural setting, he also has his DZ licence to operate the tandem plow truck.	East Wawanosh Route #1, East Wawanosh weekend plow #2
Roger Irvine	John Deere 344 Loader	Roger works out of the Wingham ward for the winter months, then transfers to work at the East Wawanosh ward for the summer.	--
Kevin Dunn	Trackless sidewalk plow/blower	Kevin operates the sidewalk clearing machine during the winter months and is the operator of the Wingham cemetery.	Wingham Route #1 sidewalks
Jason Dickert	Volvo grader	Jason is a part time snow plow operator, he is on an on call basis He takes his direction from Lead hand Scott Schiestel and works out of the East Wawanosh public Works Shed	East Wawanosh weekend plow #1, Eastwawanosh route #2
Scott Price	VHT-01-95 single axle Red plow truck	Scott Price is the Forman for the three wards in North Huron.	--

3.6.2 Winter Materials Used Annually

Material	2011/2012	5 Year Average**
Solids		
Rock salt (NaCl)	--	156 tonnes
Rock salt (NaCl)	--	156 tonnes
Sand	--	0 tonnes
Sand	--	0 tonnes
Sand and salt mix*	--	1434 tonnes
Sand and salt mix*	--	1434 tonnes
--	--	--
--	--	--
Liquids		
Salt brine (NaCl)	--	--
Salt brine (NaCl)	--	--
Calcium chloride(CaCl ₂)	--	--
Calcium chloride(CaCl ₂)	--	--
Magnesium chloride(MgCl ₂)	--	--
Magnesium chloride(MgCl ₂)	--	--
--	--	--
--	--	--
Pre-treated material***		
PRE-TREATED SAND	--	--
PRE-TREATED SAND	--	--
PRE-TREATED SALT	--	--
PRE-TREATED SALT	--	--
PRE-TREATED SAND AND SALT MIX	--	--
PRE-TREATED SAND AND SALT MIX	--	--
--	--	--
--	--	--

* Percentage of salt in sand/salt mix by weight % (industry standard 2 to 5 %)

(** If you do not have 5 years experience, then provide the average for your number of years' experience.

*** Percentage pre-treat material use 0 %

3.6.3 Application Rates

Solids	Spreading Rates per 2 lane km	
Highway Class	Salt	Sand
CLASS1	--	--
CLASS2	--	--
CLASS3	--	--
CLASS4	130 kg	570 kg
CLASS5	130 kg	570 kg
CLASS6	0 kg	0 kg
CLASS1	--	--
CLASS2	--	--
CLASS3	--	--
CLASS4	130 kg	570 kg
CLASS5	130 kg	570 kg
CLASS6	0 kg	0 kg

(Note: MTO Maintenance Manual MBP-703 suggests 130 to 170 kg salt for paved roads and 570 kg sand per 2 lane kilometer).

Liquids - Pre-wetting	Spreading Rates per 2 lane km Temperature		
	0 to -5 C	'-5 to -10oC'	'-10 to -18oC'
FREEZING RAIN	--	--	--
FREEZING RAIN	--	--	--
LIGHT SNOW	--	--	--
HEAVY SNOW	--	--	--
LIGHT SNOW	--	--	--
HEAVY SNOW	--	--	--
FROST	--	--	--
FROST	--	--	--

(Note: MTO Maintenance Manual MBP-705 suggests a range of application rates in litres/2lane km)

Liquids - Direct Application	Application Rates litres per lane km
FROST AND BLACK ICE PREVENTION	
Light Traffic/Low Volume	--
Heavy Traffic/High Volume	--

ANTI-ICING:PREVENTING OR REDUCING BOND TO ROAD SURFACE	
Light Traffic/Low Volume	--
Heavy Traffic/High Volume	--
FROST AND BLACK ICE PREVENTION	
Light Traffic/Low Volume	--
Heavy Traffic/High Volume	--
ANTI-ICING:PREVENTING OR REDUCING BOND TO ROAD SURFACE	
Light Traffic/Low Volume	--
Heavy Traffic/High Volume	--
DE-ICING	
Light Traffic/Low Volume	--
Heavy Traffic/High Volume	--
DE-ICING	
Light Traffic/Low Volume	--
Heavy Traffic/High Volume	--

3.6.4 Equipment - Winter Maintenance Fleet

The municipality provides winter maintenance services on 10 routes with the equipment listed below:

Route	Equipment	Staff
Wingham Route #1 sidewalks	Trackless sidewalk plow/blower	Kevin Dunn
East Wawanosh Route #3	VHT-06-06 tandem red plow	Scott Schiestel
Blyth route #1	VHT-07-08 single axle plow truck	Rob Kolkman
East Wawanosh weekend plow #1	Volvo grader	Jared Harkness, Jason Dickert
East Wawanosh weekend plow #2	VHT-06-06 tandem red plow, John Deere Grader	Scott Schiestel, Sklar Whitehead
Eastwawanosh route #2	Volvo grader	Jason Dickert
East Wawanosh Route #1	John Deere Grader	Sklar Whitehead
Blyth route #1 sidewalks	Kubota utility tractor	Nathan O'Neil
Wingham Route #2	VHT-05-04 Yellow single axle plow truck	Russell Baird
Wingham Route	VHT-01-95 single axle	

#1	Red plow truck	--
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For Equipment Details, See Appendix 3A

3.6.5 Yard Facilities

The municipality provides winter maintenance services from the patrol yards listed below. Each patrol yard has a front end loader capable of loading the winter maintenance fleet with sand or salt.

3.6.5.1 : Yard : Wingham Public Works Shed

Equipment Storage Details: 4 pre-engineered steel building, paved lot during the winter months and leading up to November the 1st. two snowplows are stored inside the newer shop, two trackless sidewalk machines a tractor with blade on the front and blower that can quick attach to the front as well as a blower on the back. John Deere 344 loader and a Case 580 loader are stored in the same shop . A tandem dump truck is also stored in the same shop.

Equipment Washing Details: 2 dedicated washing bay with oil and grit separator Trucks are washed in the back two bays, this section of the garage is newer and had a sump installed to remove the grit and oil.

Material Storage Details: sand/salt mixture is stored in a covered building on the same site, not the same building. salt is stored in the same building but kept separate, and used mainly on sidewalks. Gravel is also stored at this property but outside.

Site Drainage Details: storm water management has been addressed at this site.

3.6.5.2 : Yard : East Wawanosh Works Shed

Equipment Storage Details: 4 pre-engineered steel building, paved lot Two graders, one plow truck (tandem), case 580 loader, 1/2 ton patrol truck all stored inside when not in use.

Material Storage Details: sand/salt mixture is stored in a building on the same property but not connected to main building. some gravel is stored outside but very little. Township has a gravel pit and stockpile of gravel is stored there.

Site Drainage Details: natural drainage at this site.

3.6.5.3 : Yard : Blyth Public Works Shed

Equipment Storage Details: 4 pre-engineered steel building, paved lot two tractors, one with loader and one with loader that can be disconnected and a blower attached quickly as needed. Kubota utility tractor with attachments, snow plow (single axle) 1/2 ton patrol truck and 1-Ton truck to haul snow. Three lawnmowers and various attachments all stored inside.

Material Storage Details: sand/salt is stored in a building that is on the property but not attached, the building has overhead doors to keep weather out.

Site Drainage Details: Storm water management has been addressed and there is a catch basin with drainage.

3.6.6 Snow Removal and Disposal

Currently, municipal staff removes and hauls snow to the sites listed in the table below when the accumulation of piled snow impedes traffic on the road and/or sight lines at intersections.

Name	Location	Surface Paved	Run Off Controlled	Drainage/Run Off	Surrounding Land Use
North Huron Westcast Community Complex Yard	99 Kerr Drive	N	Y	Melted snow is directed to the adjacent ditch, and the land lends to that by being sloped naturally to the ditch.	North: R South: C East: R West: C
Arena Diamond	377 Gypsy	N	N	The snow that is hauled to this site is dumped in rows and not piled up, natural melting due to weather and natural runoff occurs	North: vacant South: vacant East: vacant West: R

C = Commercial; R = Residential

3.6.7 Sand/Salt and Plow Routes

Appendix 2 contains image files of the sand/salt routes, anti-icing routes and plow routes.

3.6.8 Vulnerable Areas

Township of North Huron does not fall under a Source Water Protection Region.

3.6.9 Weather Monitoring

- (1) From October 1 to April 30, the minimum standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once every shift or three times per calendar day, whichever is more frequent, at intervals determined by the municipality.
- (2) From May 1 to September 30, the minimum standard is to monitor the weather, both current and forecast to occur in the next 24 hours, once per calendar day.

In order to determine an effective winter event response and allocate the appropriate resources Township of North Huron supplements road patrol information with weather information from various sources which includes:

- Observations from municipal staff, communication with staff of adjacent municipalities and MTO contractors
- Monitoring websites www.theweathernetwork.com

3.6.10 Communications

All winter maintenance vehicles are equipped with two way communications (radios, cell phone, etc.). Municipal staff is responsible for reporting changing winter weather and/or road conditions as the changes are observed.

provides a call centre which serves as the main hub for in/outgoing calls from staff, emergency services and the general public.

The Call Center:

- Can be reached by calling 519-357-3550.
- Typical call timings (during winter season) are between 8:30a.m to 4:30p.m.

Municipality communicates important information to the public via:

- Media press releases
- Information posted on municipal website: www.northhuron.ca
- Other means of providing information on winter maintenance services and salt management practices: 24 hr. pager 519-530-9916 .

3.6.11 Call Out Procedures

Operational decisions will be made by **Scott Price (Patrol Supervisor)** or his/her designate with the aid of available forecasting, Level of Service policy, patrolling etc. However, it should be emphasized that decisions will be subjective and external input, whether in this plan or elsewhere, merely acts as an aid in determining if a call out of staff and equipment by the **Patrol Supervisor** to respond to a winter event is warranted. It is vital therefore that the **Patrol Supervisor** records the prevalent conditions and relevant information when he/she makes a decision.

The patrol person shall inform the **Patrol Supervisor** of changing of road and weather conditions observed in the field. When a winter event response is required the **Patrol Supervisor** will contact the call centre by radio. The call centre will contact staff as per the shift schedule and the direction given by the **Patrol Supervisor**. In the absence of the Patrol Supervisor the patrol person shall be his/her designate and initiate a call out in response to a winter event.

3.6.12 Road Closure Procedures

In the event a road must be closed due to a severe winter storm, **Ontario Provincial Police** will request signs be placed to close the road. Rb-92 Road Closed Signs on portable stands, TC-54 flexible drums and barricades will be available at the patrol yard. Upon receiving a request from **Ontario Provincial Police** to close a road to traffic, the Patrol Supervisor or his/her designate will organize manpower and equipment to place the signs and barricades. The Patrol Supervisor or his/her designate will contact the call centre and request that a media release (Appendix 4) be sent to the local news and radio stations advising of the road closure. Roads will be deemed to be closed once the signs and barricades are placed. When it is physically impossible to place signs and barricades to close a road, the Patrol Supervisor or his/her designate will advise **Ontario Provincial Police** and request **Ontario Provincial Police** permission to send the media release (Appendix 5).

3.7.0 Decommissioning Winter Operations

After the winter season (identified in 3.3.0) expires Township of North Huron

undertakes the following tasks to decommission winter operations.

3.7.1 Two Weeks After the Winter Season Ends

Two weeks after the winter season ends:

1. Cease regularly scheduled winter night patrols;
2. Continue monitoring weather forecasts. Assign night patrol shift if forecast indicates an overnight winter event is probable.
3. Decommission 50% % of the fleet

3.7.2 One Month After the Winter Season Ends

One month after the winter season ends cease all winter highway maintenance operations and decommission the remainder of the equipment providing weather forecasts warrant the decommissioning.

3.8.0 Training

Township of North Huron provides winter operations training for all staff involved in the delivery of winter services. It is compulsory for the municipal staff to attend the training sessions.

Staff, including contractor staff, will verify that the training was received by signing the "Record of Training" included in Appendix 6 or the night patroller "Record of Training" Appendix 7.

Current Winter Operations Trainings:

- Equipment Circle Check
- Record Keeping
- Health and Safety
- Yard and Equipment maintenance

Future Winter Operations Trainings:

- Equipment Calibration
- Level of Service - policies, practices and procedures
- Identification of Plow Routes - including variations for year to year and issues identified along the route
- Identification of vulnerable areas

3.9.0 Record Keeping

Full and accurate completion of the documents listed below, according to the applicable procedures, ensures that the municipality is protected from liability by providing solid documentation that procedures have been followed.

Staff is responsible for keeping the following records:

For Equipment Operators:

- Materials used (sand, salt, liquids)
- Route Plowed and strategy used (plow only, sand/salt only, anti-ice, combination plowing/sanding/salting)

For Patrollers:

- Winter Patrol Record
- Call Out Diary
- Weather and/or RWIS Information Received

For Operations Supervisors:

- Operations Diary
- Incident/Collision Reports
- Total materials used

The date will be recorded as Day/Month/Year. It will be written in a numerical format (27/09/12). The time shall be documented using the 24 hour clock format.

Always retain the original copy of documents regardless of their appearance. Writing must be legible for others to read and written in ink. Stains or dirt on the documents is not an issue. If a document requires correction then a line is to be placed through the incorrect information without making it illegible and continue writing on the original document. Initial corrections or change in the colour of ink in a case where you change writing pens.

Records will be completed daily and forwarded to the _____ weekly for retention.

4.0 Plan Improvements

The current winter maintenance policies, practices and procedures form the baseline or benchmark upon which improvements can be made to improve winter operations and/or the use and management of road salt.

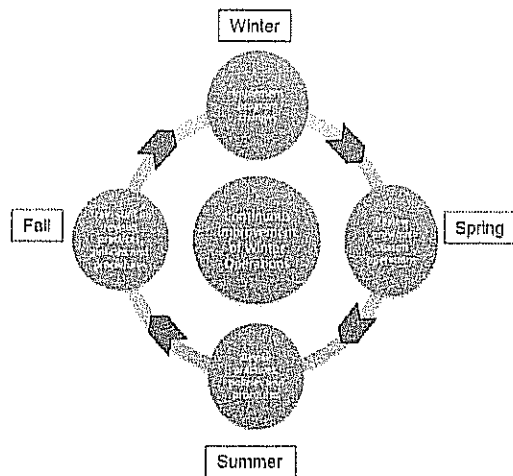
Over the next ten years Township of North Huron plans to undertake the improvements as listed in Table 1. This list will be reviewed and updated annually.

Table 1

Description	Implementation

5.0 Monitoring and Updating

The purpose of monitoring and updating is to provide a basis for continuous improvement of the winter operations plan and the winter maintenance policies, practices and procedures of the Township of North Huron.



At the end of the winter season, as identified in 3.3.0, a meeting to review winter operations will be held each year with all winter operations staff to itemize all issues that arose during the winter season and discuss how these issues may be resolved. Prior to the start of the next winter season and with sufficient lead time to implement any changes, the Township of North Huron shall train staff on the changes to equipment and/or winter maintenance policies, practices, and procedures.

The winter season of 2011/12 will be the benchmark year. Year over year achievement using the performance measures listed below will be measured against said benchmark year. Performance measures will be used to determine whether or not the objectives of the Winter Operations Plan and/or winter maintenance policies, practices, and procedures have been met.

Monitoring the severity of the winter season:

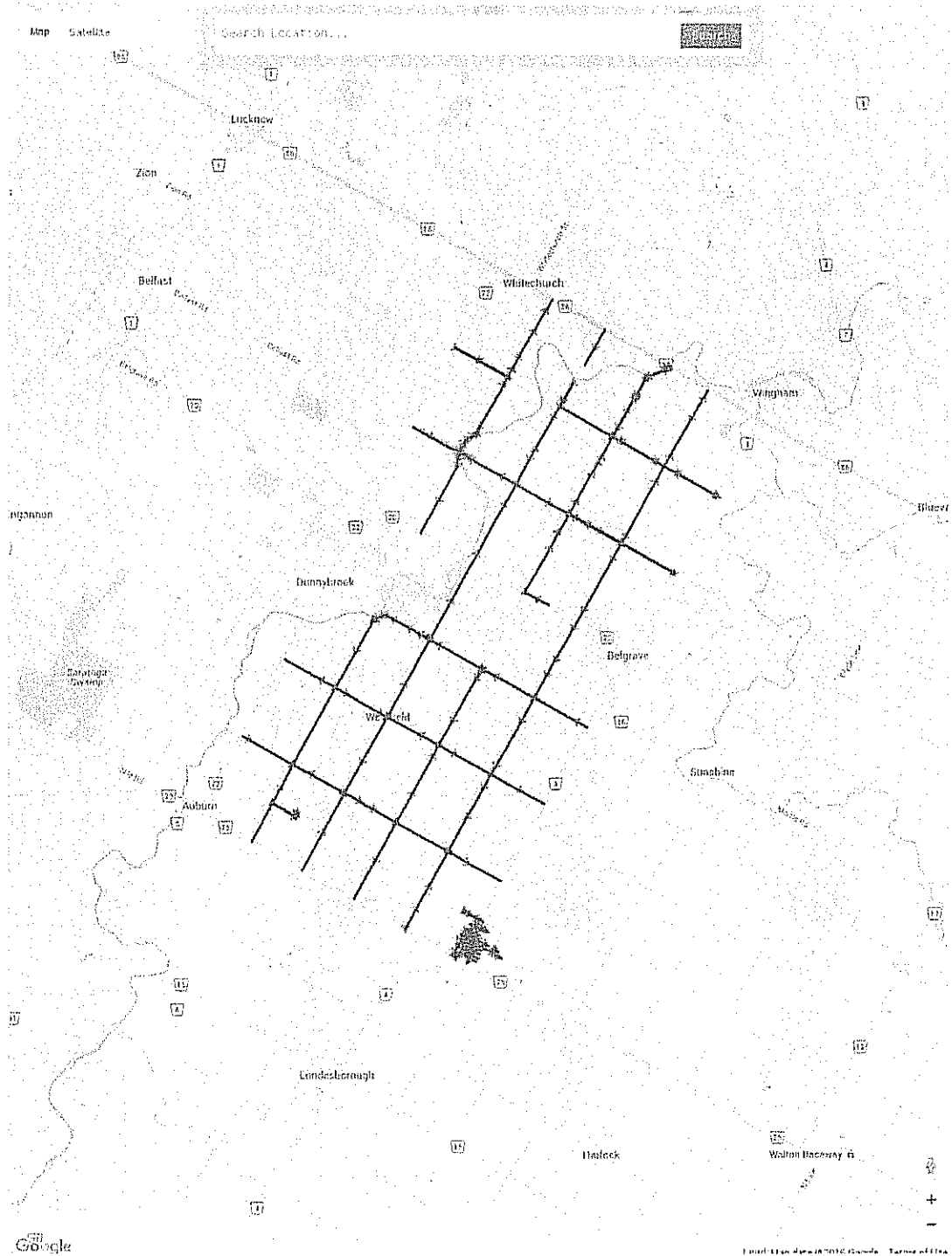
Monitoring the salt used:

Ensuring customer satisfaction

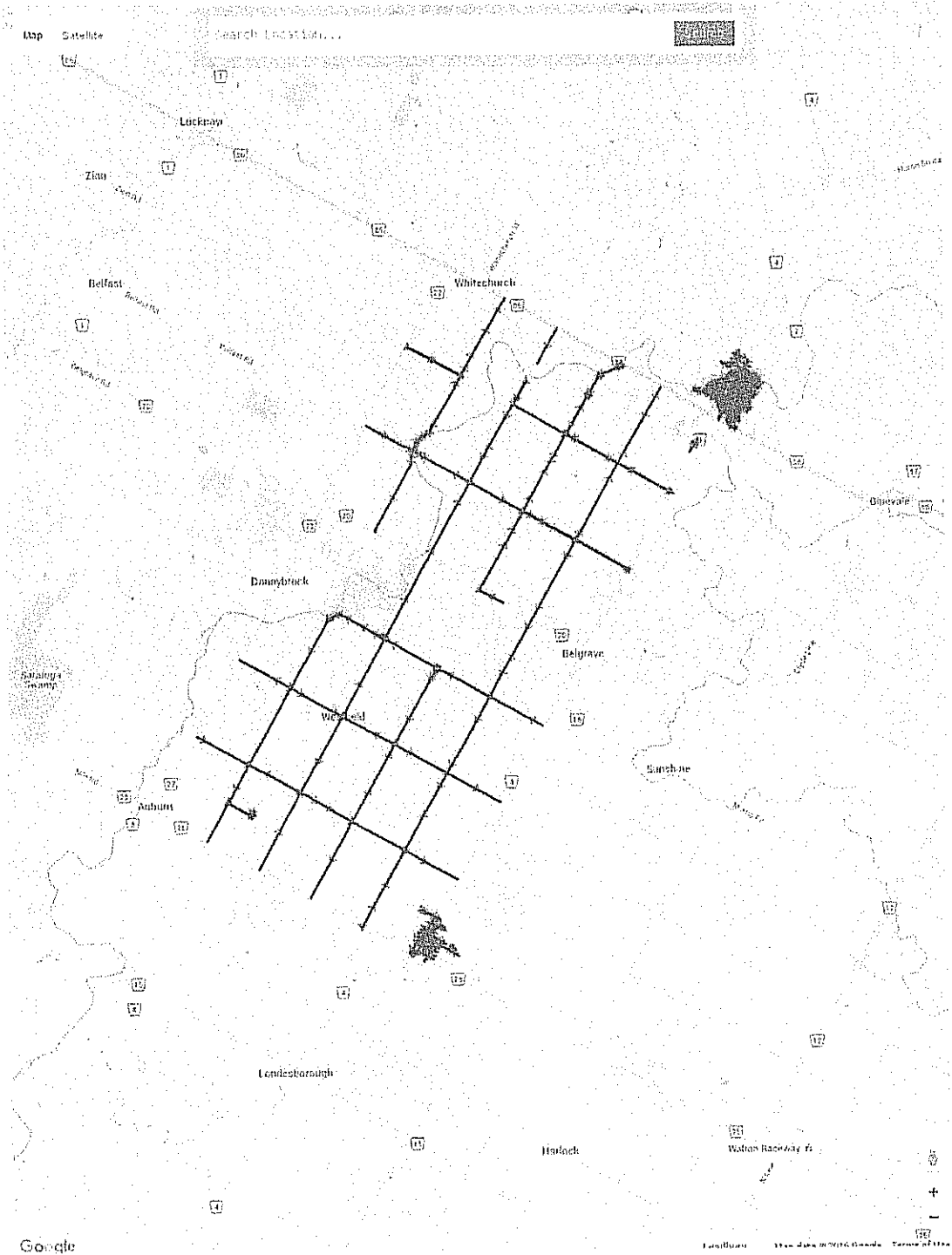
Appendix 1 - Route of Representative Roads East Wawanosh



Blyth



Wingham



Appendix 2 - Plow Routes

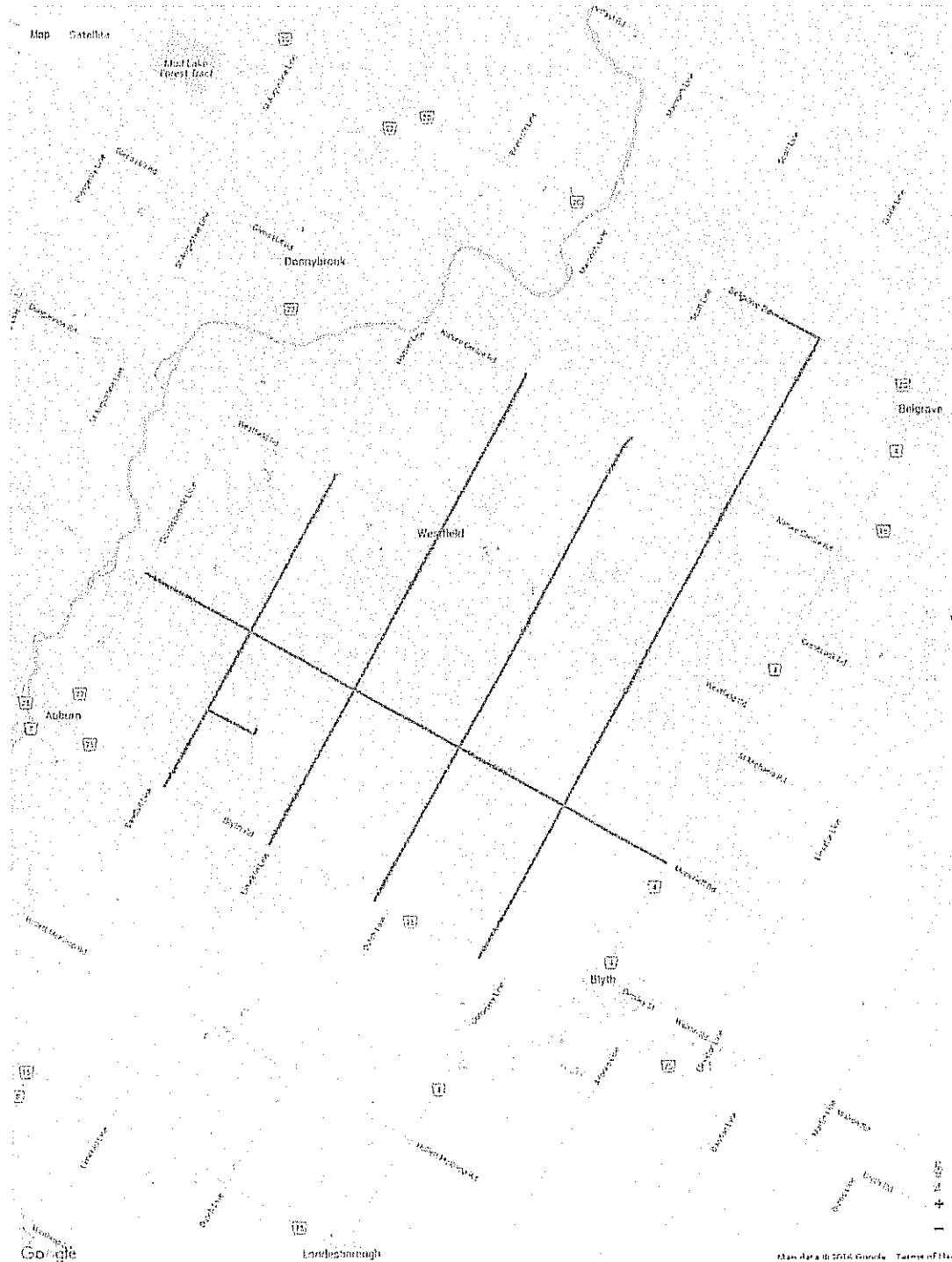
Wingham Route #1
sidewalks

0.0 Lane KM

14.78 Sidewalk
KM



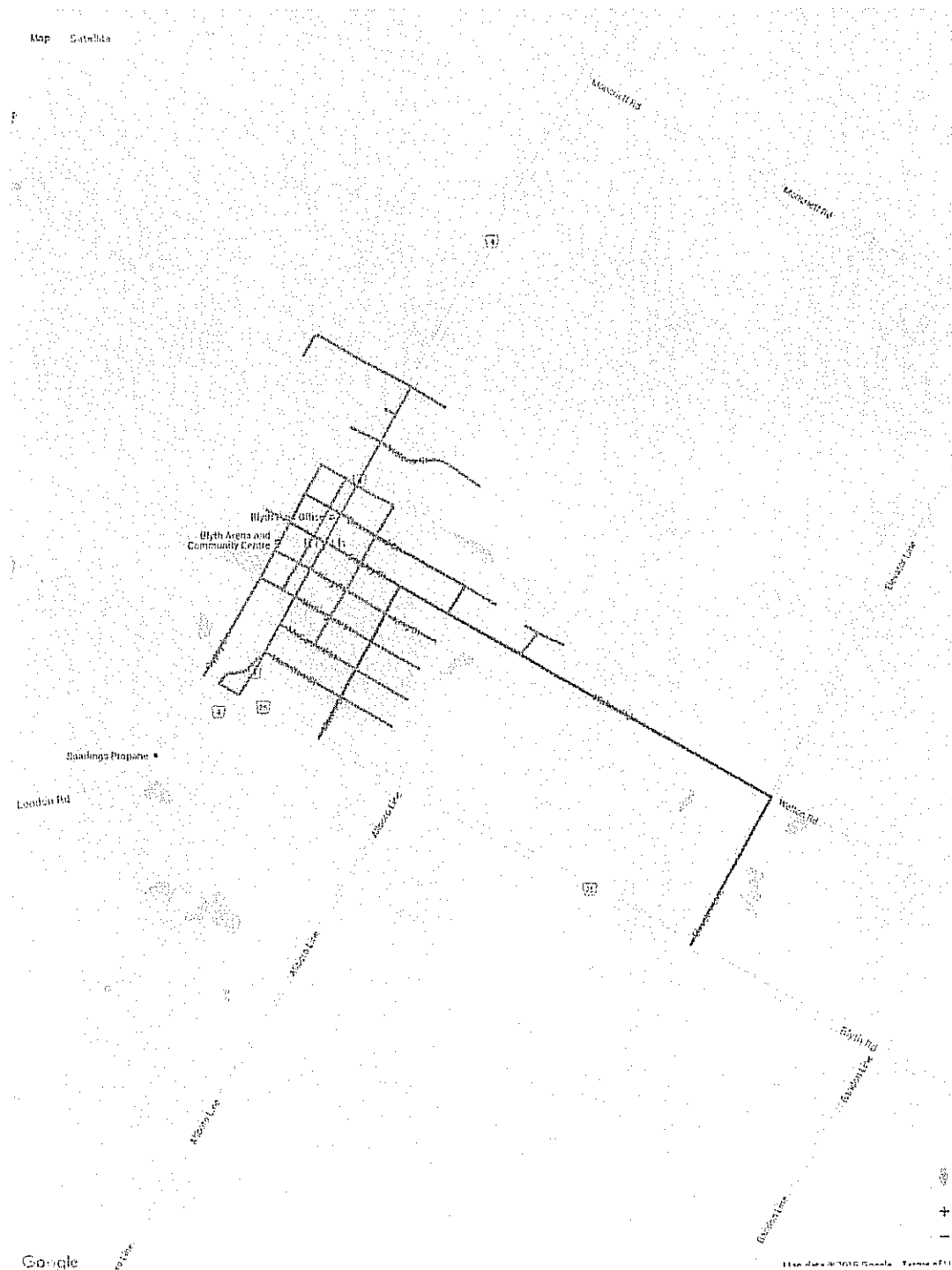
East Wawanosh Route 175.13 Lane KM 0.0 Sidewalk KM
#3



Blyth route #1

68.84 Lane KM

0.0 Sidewalk KM



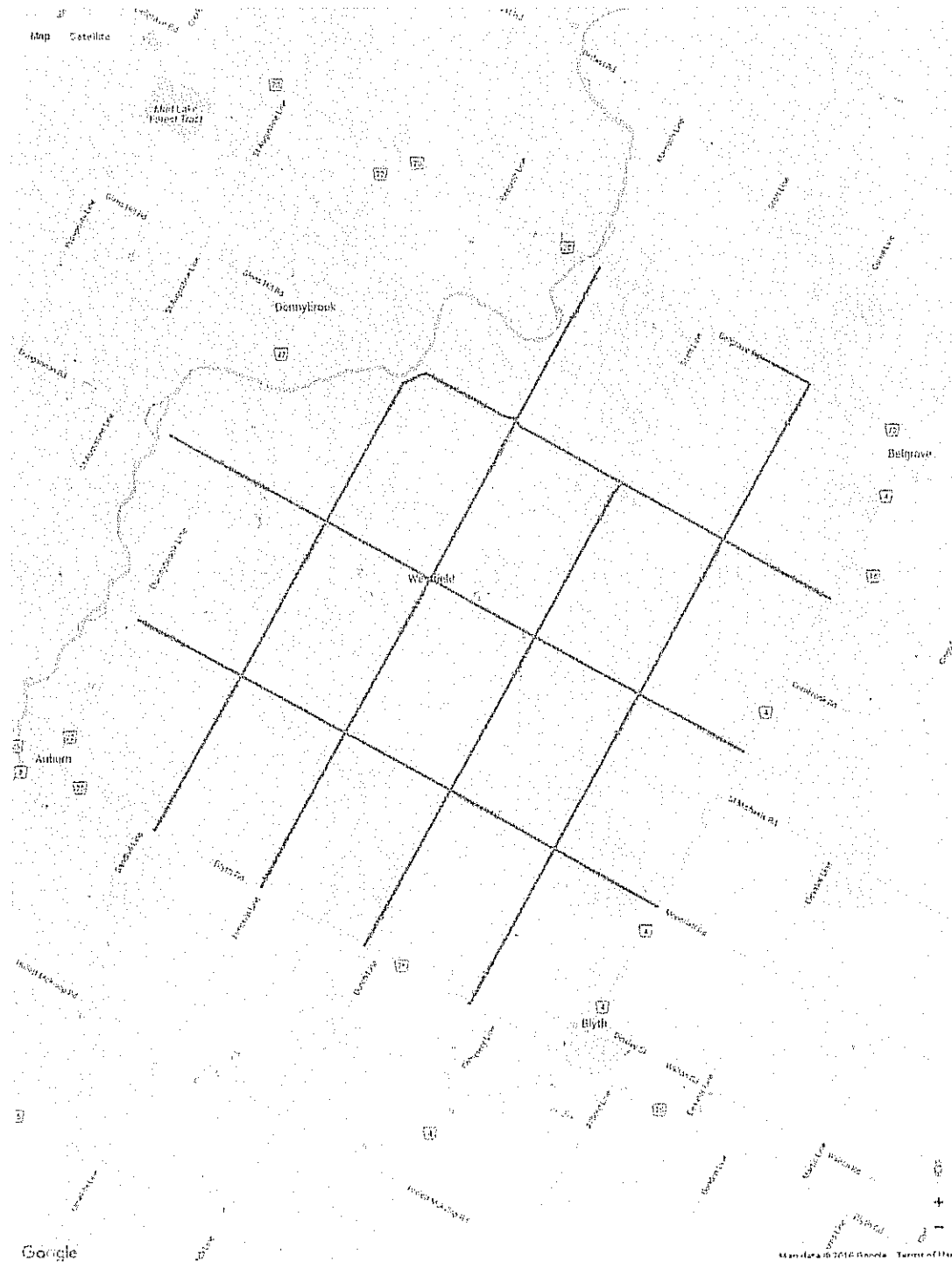
East Wawanosh
weekend plow #1

175.03 Lane KM 0.0 Sidewalk KM

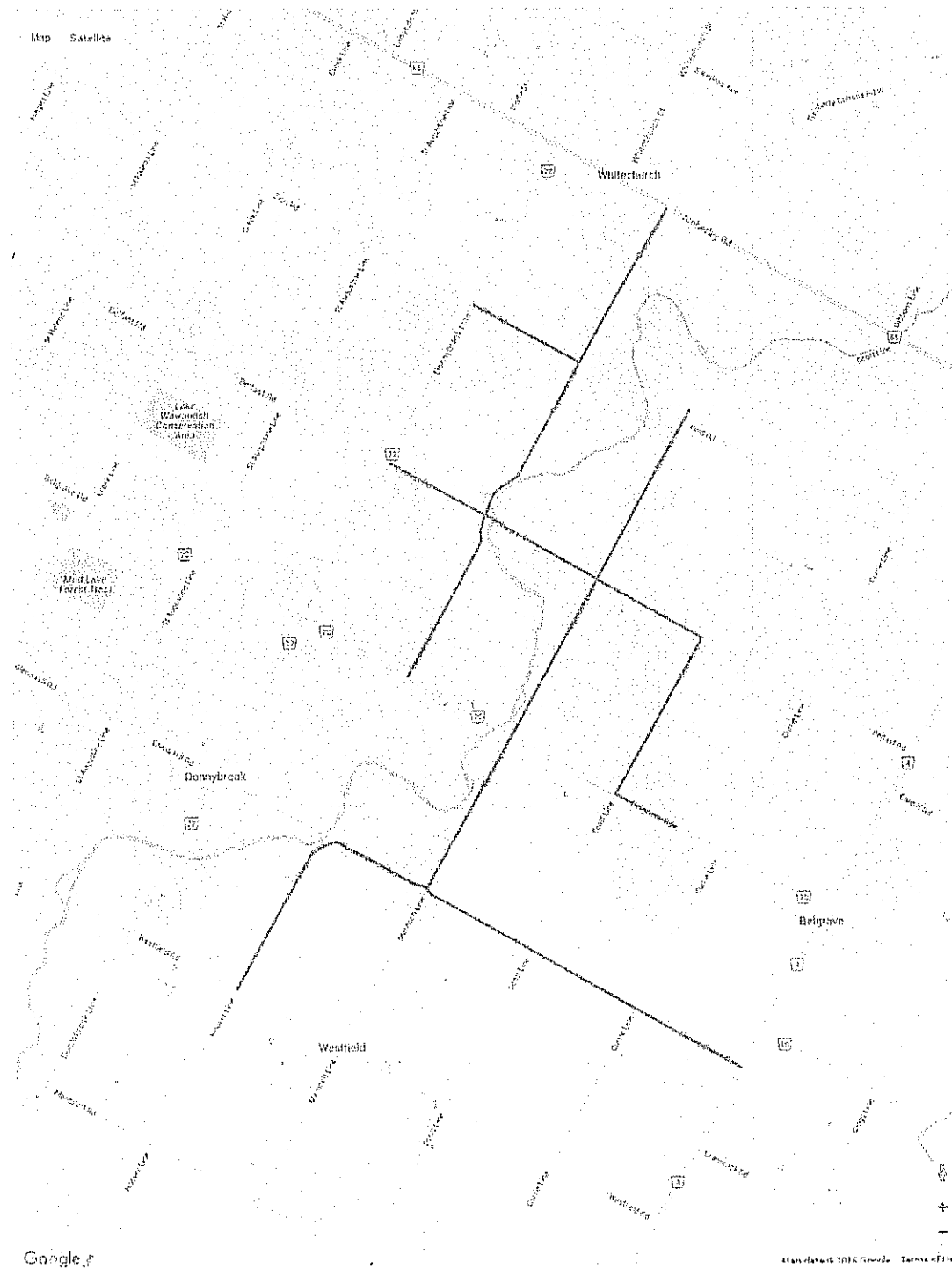


East Wawanosh
weekend plow #2

263.75 Lane KM 0.0 Sidewalk KM



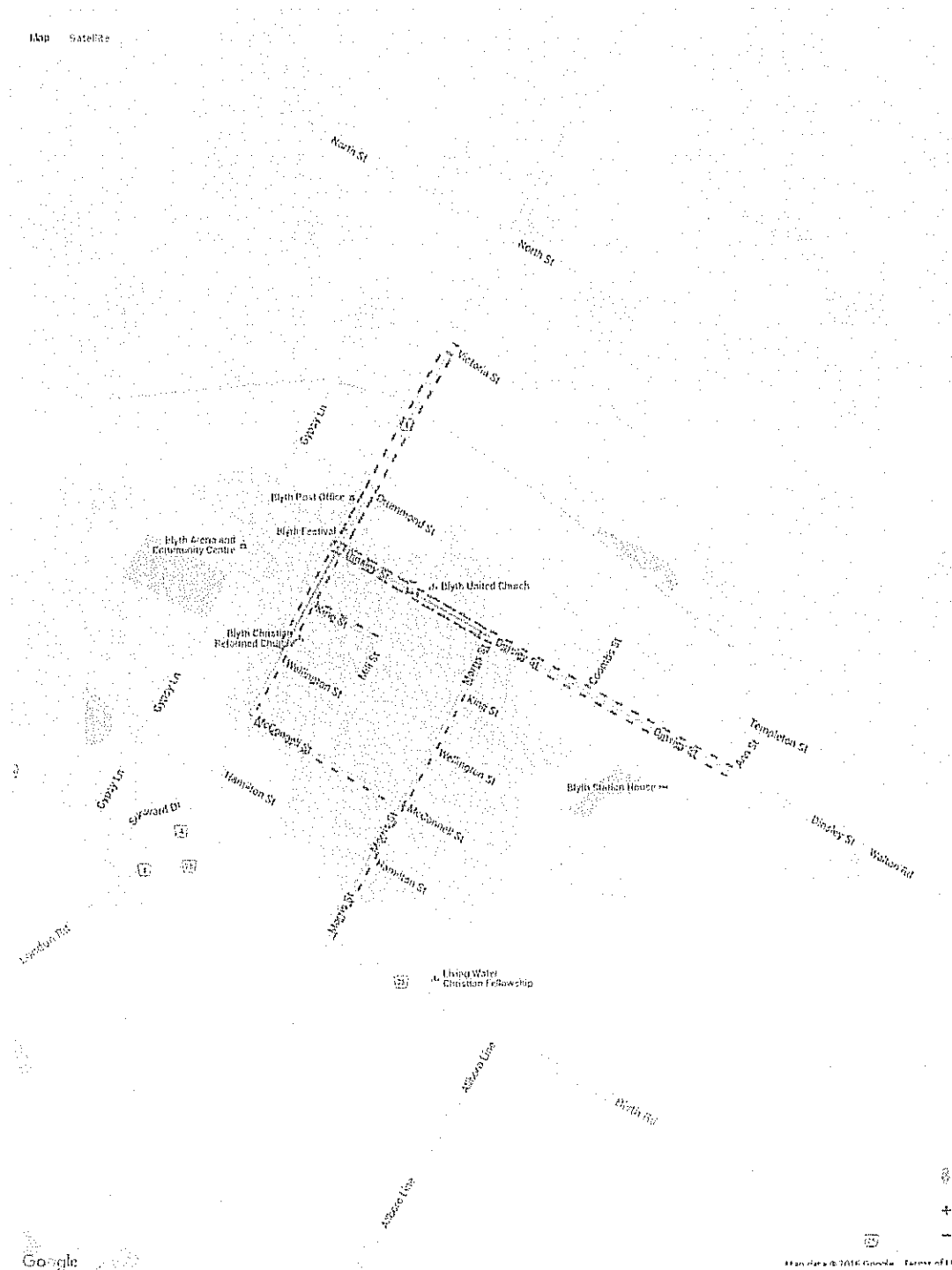
Eastwananosh route 150.92 Lane KM 0.0 Sidewalk KM
#2



Blyth route #1
sidewalks

0.0 Lane KM

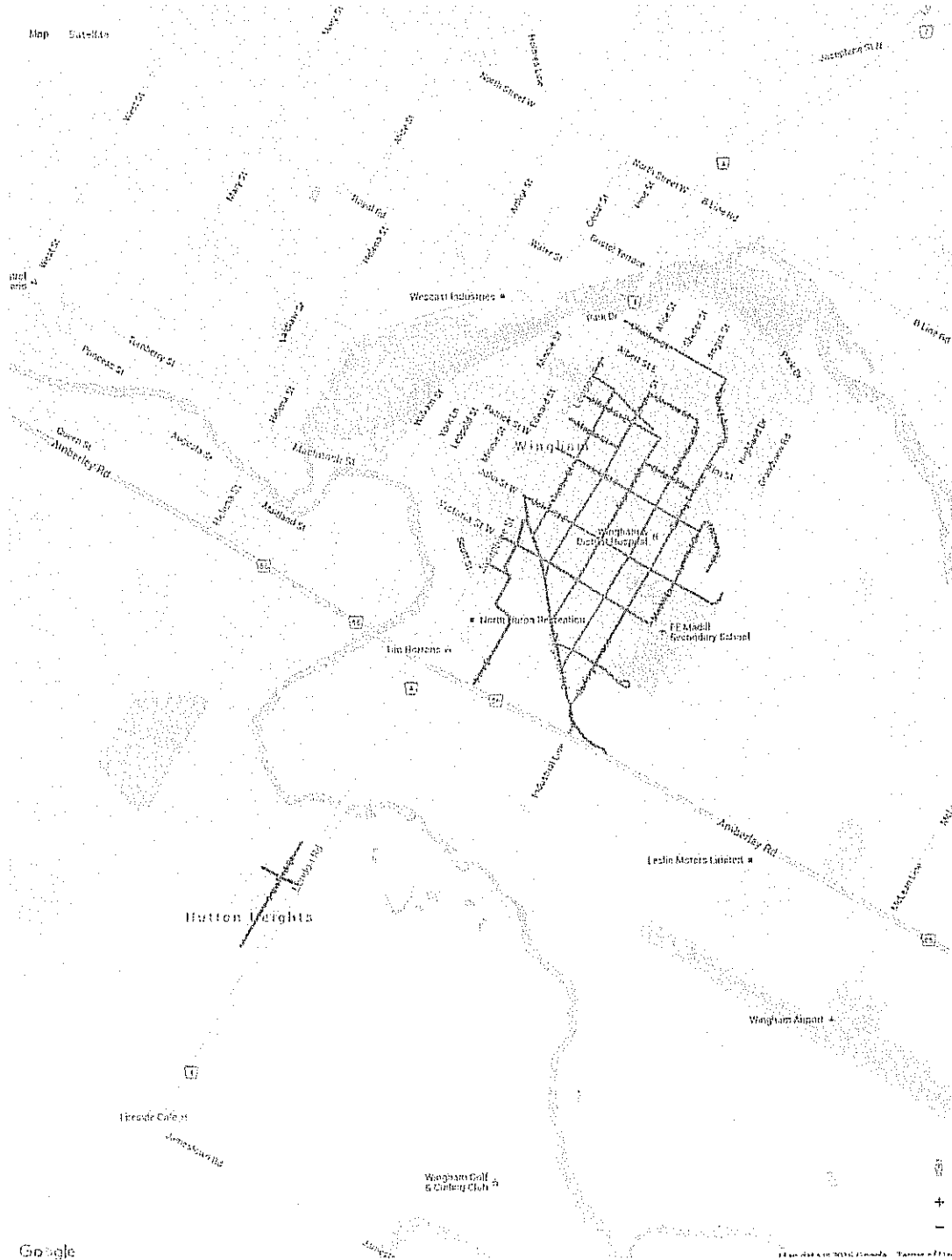
5.91 Sidewalk
KM



Wingham Route #2

38.13 Lane KM

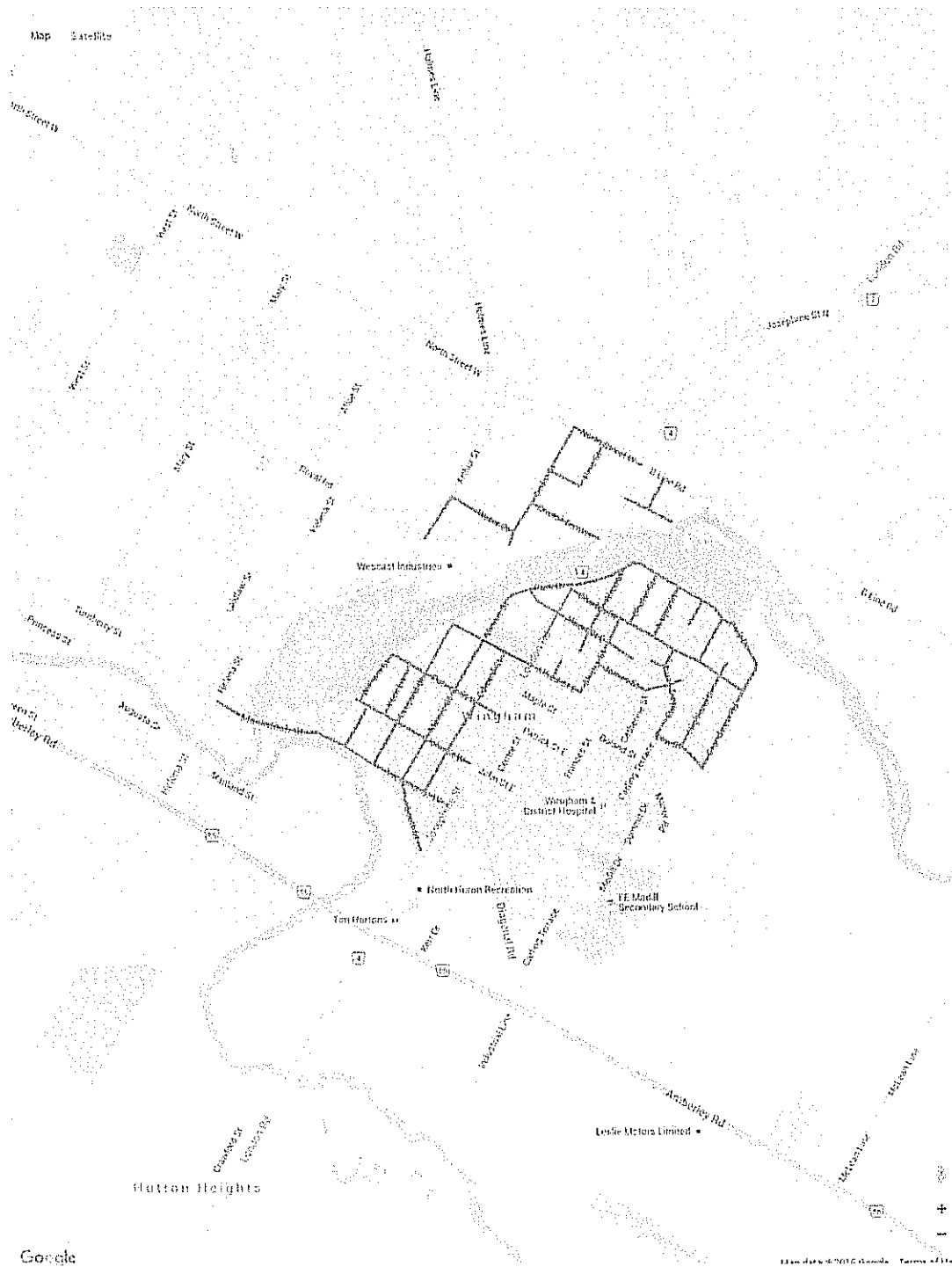
0.0 Sidewalk KM



Wingham Route #1

52.0 Lane KM

0.0 Sidewalk KM



Appendix 3 - Vulnerable Areas

Appendix 3A - Equipment

Equipment	Equipment Type	Electronic Controller	Calibration Date	Pre-wet Capability	Anti-icing capability	Liquid Capacity (L)	Infrared thermometers
VHT-01-95 single axle Red plow truck	Single Axle Combination Unit	--	--	--	--	--	--
VHT-05-04 Yellow single axle plow truck	Single Axle Combination Unit	--	--	--	--	--	--
VHT-07-08 single axle plow truck	Single Axle Combination Unit	--	--	--	--	--	--
John Deere 344 Loader	John Deere 344 front end loader	--	--	--	--	--	--
VHT-06-06 tandem red plow	Tandem Axle Combination Unit	--	--	--	--	--	--
John Deere Grader	Motor Grader	--	--	--	--	--	--
Volvo grader	Motor Grader	--	--	--	--	--	--
Trackless sidewalk plow/blower	sidewalk clearing machine, plow/blower	--	--	--	--	--	--
Kubota utility tractor	Kubota utility tractor with a straight positional blade and a front mounted blower with quick attach. The sanding/salting unit is on the rear three point hitch.	--	--	--	--	--	--

Appendix 4 - Media Release Road Closed



Township of North Huron

Date _____

Time _____

Media Release

Due to a severe winter storm Ontario Provincial Police advise that the following roads in Township of North Huron are impassable due to drifting and blowing snow and have been closed to traffic.

Street Name	From	To

Ontario Provincial Police advise that these roads will remain closed until the storm subsides and driving conditions improve.

Appendix 5 - Media Release Severe Weather



Township of North Huron

Date _____
Time _____

Media Release

Due to a severe winter storm **Ontario Provincial Police** advise that many roads in **Township of North Huron** are impassable due to drifting and blowing snow. **Ontario Provincial Police** advise that you do not drive until the storm subsides and driving conditions improve.

Appendix 6 - Record of Training



Township of North Huron

This statement certifies that the below named individual has successfully completed the in-house Winter Operations Training program as required by Township of North Huron Winter Operations Plan.

The Winter Operations Training program is comprised of the following modules:

- Equipment Circle Check
- Equipment Calibration
- Record Keeping
- Health and Safety
- Level of Service - policies, practices and procedures
- Identification of Plow Routes - including variations for year to year and issues identified along the route
- De-icing chemicals - application rates, storage and handling
- Identification of road salt vulnerable areas and the procedures to follow in those areas
- Yard and Equipment maintenance

Employee Name _____

Print Name

Employee Signature _____

Date _____

Trainer Signature _____

Supervisor Signature _____

Appendix 7 - Record of Training - Night Patroller



Township of North Huron

This certifies that _____ (employee name) has successfully completed the in-house Winter Operations - Night Patroller Training as required by Township of North Huron Winter Operations Plan.

The Winter Operations - Night Patroller Training workshop includes the following modules:

- Weather monitoring and forecasting results including: Road Weather Information System, Value Added Meteorological Service, eutectic temperature, pavement temperature, dew point
- Winter Schedules
- Record Keeping
- Health and Safety
- Level of Service - policies, practices and procedures
- Identification of Plow Routes - including variations for year to year and issues identified along the route
- De-icing chemicals - usage, application rates, storage and handling
- Identification of road salt vulnerable areas and the procedures to follow in those areas
- Call-out procedures
- Emergency contacts
- Yard and Equipment maintenance

Employee Name _____

Date of Training _____

Location of Training _____

Trainer Signature _____

Supervisor Signature _____

DISCLAIMER: The information contained within this document is not legal advice nor meant to take the place of legal advice. All OGRA members and others are encouraged to consult with independent legal counsel with respect to the information contained herein. Furthermore, the information and recommendations contained in this document are solely the opinion of OGRA, do not form legal "standards" and should not be viewed as such.