

# City of Lacombe

Asset Management Implementation





# THE LORD OF THE RINGS

J·R·R·TOLKIEN

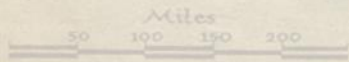


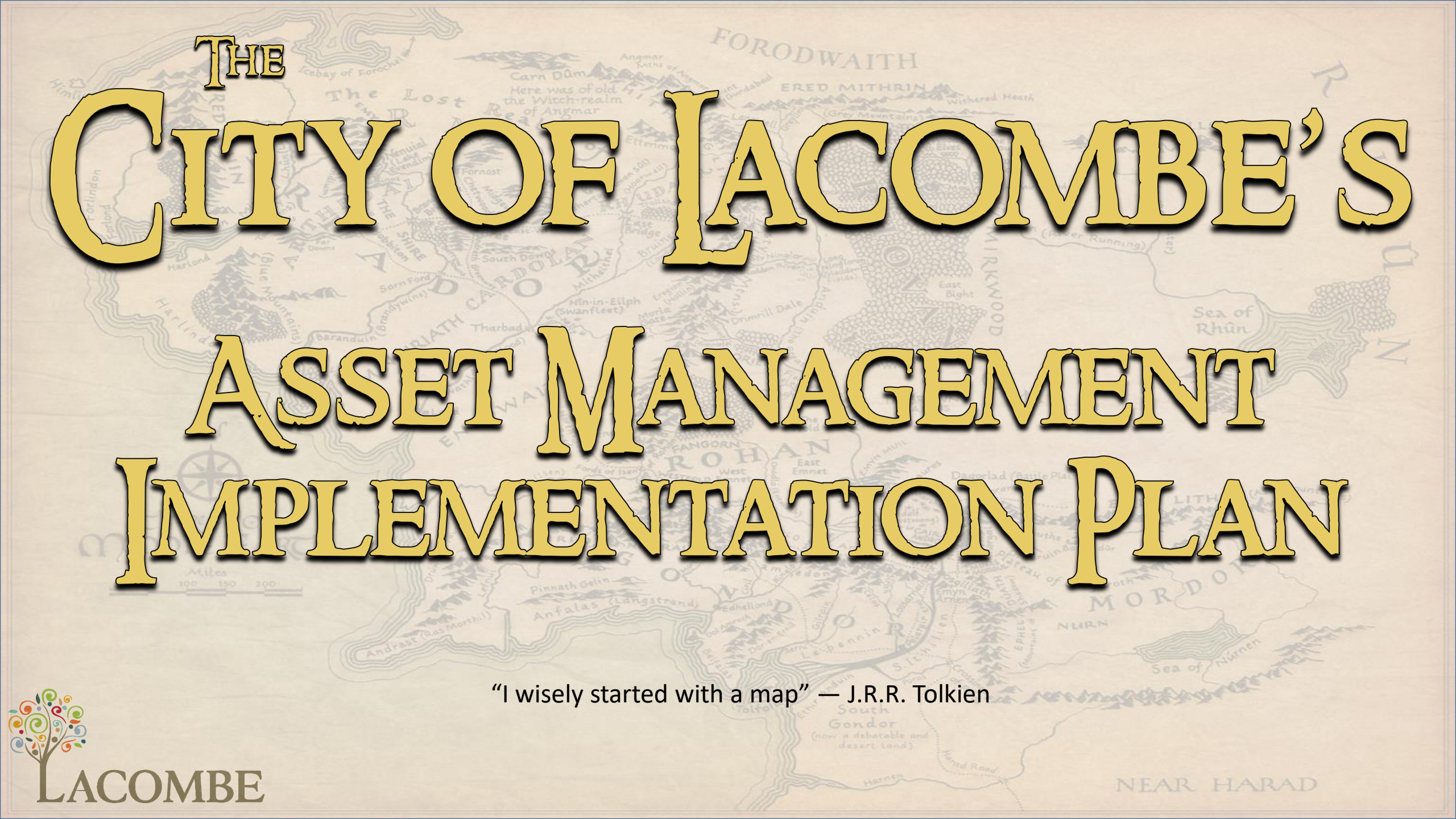
# Getting Started



*I'm going on an adventure!*

The Realm of  
MIDDLE EARTH





THE  
CITY OF LACOMBE'S

ASSET MANAGEMENT  
IMPLEMENTATION PLAN

"I wisely started with a map" — J.R.R. Tolkien

# THE AGENDA

This presentation is largely concerned with:

1. The City of Lacombe's Journey to a Municipal Asset Management Plan
2. Implementing that plan
3. Getting to one single source of truth for asset data

# Part I: The Journey

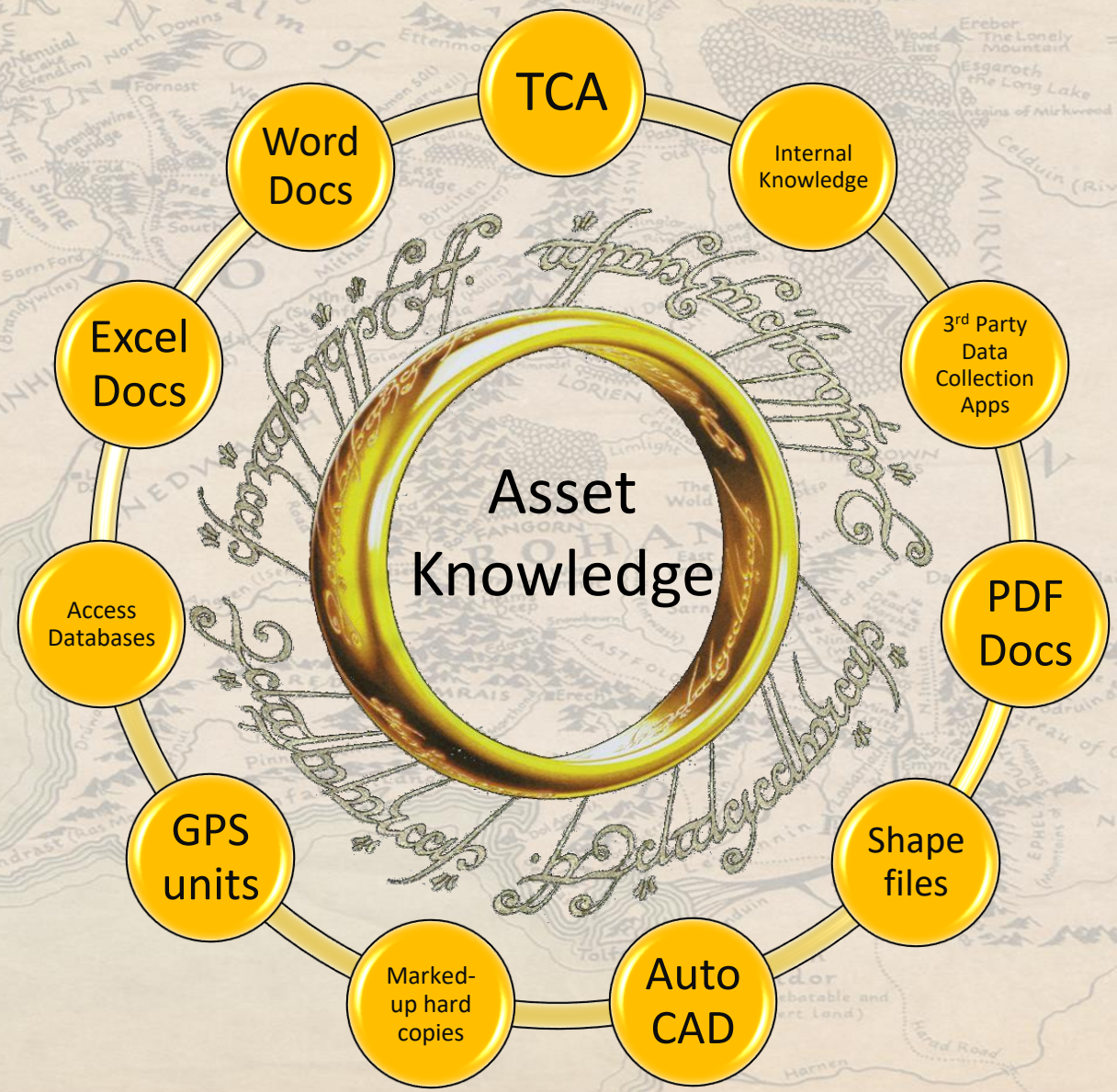
## THE FELLOWSHIP OF THE PLAN

The Asset Management Steering Committee

# THE JOURNEY

One Asset Management Strategy to rule them all, one strategy to find them, one strategy to bring them all and in a singular database to bind them

# THE JOURNEY



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
	Asset ID	Street / Avenue	From	To	Classification	Length	Width	Depth	Diameter	Material	(Sidewalk)	Quality Index	Acquisition Date	Expected Useful Life	Remaining Useful Life	Historical Cost	Disposal	
1																		
2	80000	Burriss Pointe Court	Burriss Pointe	End	Curbs & Gutters & Sidewalk	45					1.5	10	1-Aug-07	30	27	\$ 5,029.00		
3	80001	Burriss Pointe Court	Burriss Pointe	End	Roads - Surface	45	11	75		Asphalt		10	1-Aug-07	20	17	\$ 13,137.00		
4	80002	Burriss Pointe Court	Burriss Pointe	End	Roads - Subsurface	45	11	350		Gravel		10	1-Aug-07	40	37	\$ 14,232.00		
5	80003	Burriss Pointe Court	Burriss Pointe	End	Water Mains & Services	45			150	PVC		10	1-Jan-06	75	71	\$ 14,400.00		
6	80005	Burriss Pointe Court	Burriss Pointe	End	Wastewater Mains & Services	45			200	PVC		10	1-Jan-06	75	71	\$ 7,800.00		
7	80010	Burriss Pointe	Garden Road	Burriss Pointe	Curbs & Gutters & Sidewalk	204					1	10	1-Jan-07	30	27	\$ 64,795.00		
8	80011	Burriss Pointe	Garden Road	Burriss Pointe	Roads - Surface	102	11	75		Asphalt		8.3	1-Jan-07	20	17	\$ 29,777.00		
9	80012	Burriss Pointe	Garden Road	Burriss Pointe	Roads - Subsurface	102	11	350		Gravel		8.3	1-Jan-07	40	37	\$ 32,258.00		
10	80013	Burriss Pointe	Garden Road	Burriss Pointe	Water Mains & Services	91			200	PVC		10	1-Jan-03	75	68	\$ 23,690.00		
11	80014	Burriss Pointe	Garden Road	Burriss Pointe	Storm Mains & Services	102			450	PVC		10	1-Jan-03	50	43	\$ 17,359.00		
12	80015	Burriss Pointe	Garden Road	Burriss Pointe	Wastewater Mains & Services	102			200	PVC		10	1-Jan-03	75	68	\$ 25,364.00		
13	80020	Burriss Pointe	End (S)	End (N)	Curbs & Gutters & Sidewalk	373					1.5	10	1-Aug-07	30	27	\$ 157,525.00		
14	80021	Burriss Pointe	End (S)	End (N)	Roads - Surface	373	11	75		Asphalt		8.8	1-Aug-07	20	17	\$ 108,890.00		
15	80022	Burriss Pointe	End (S)	End (N)	Roads - Subsurface	373	11	350		Gravel		8.8	1-Aug-07	40	37	\$ 117,964.00		
16	80023	Burriss Pointe	End (S)	End (N)	Water Mains & Services	370			150	PVC		10	1-Jan-06	75	71	\$ 118,400.00		
17	80024	Burriss Pointe	End (S)	End (N)	Storm Mains & Services	121			300	PVC		10	1-Jan-06	75	71	\$ 31,173.00		
18	80025	Burriss Pointe	End (S)	End (N)	Wastewater Mains & Services	320			200	PVC		10	1-Jan-06	50	46	\$ 120,461.00		
19	80030	Woodland Dr	End	Garden Road	Curbs & Gutters & Sidewalk	115					1.5	10	1-Jan-07	30	24	\$ 48,567.00		
20	80031	Woodland Dr	End	Garden Road	Roads - Surface	115	11	75		Asphalt		9	1-Jan-07	20	16	\$ 33,572.00		
21	80032	Woodland Dr	End	Garden Road	Roads - Subsurface	115	11	350		Gravel		9	1-Jul-06	40	36	\$ 36,370.00		
22	80033	Woodland Dr	End	Garden Road	Water Mains & Services	115			300	PVC		10	1-Jan-07	75	72	\$ 49,378.00		
23	80034	Woodland Dr	End	Garden Road	Storm Mains & Services	115			300	PVC		10	1-Jan-07	50	47	\$ 29,627.00		
24	80035	Woodland Dr	End	Garden Road	Wastewater Mains & Services	115			300	PVC		10	1-Jan-07	75	72	\$ 47,349.00		
25	80040	Cameron Close	Woodland Dr	End	Curbs & Gutters & Sidewalk	306					1.5	10	1-Jan-03	30	23	\$ 85,367.00		
26	80041	Cameron Close	Woodland Dr	End	Roads - Surface	306	11	75		Asphalt		7.5	1-Jan-03	20	13	\$ 59,010.00		
27	80042	Cameron Close	Woodland Dr	End	Roads - Subsurface	306	11	350		Gravel		7.5	1-Jan-03	40	33	\$ 63,927.00		
28	80043	Cameron Close	Woodland Dr	End	Water Mains & Services	157			300	PVC		10	1-Jan-03	75	68	\$ 86,793.00		
29	80044	Cameron Close	Woodland Dr	End	Storm Mains & Services	200			375	PVC		10	1-Jan-03	50	43	\$ 34,037.00		
30	80045	Cameron Close	Woodland Dr	End	Wastewater Mains & Services	306			200	PVC		10	1-Jan-03	75	68	\$ 76,093.00		
31	80050	Garden Road	Burriss Pointe	Woodland Dr	Curbs & Gutters & Sidewalk	131					1.5	10	1-Jan-03	30	23	\$ 36,546.00		
32	80051	Garden Road	Burriss Pointe	Woodland Dr	Roads - Surface	131	11.2	100		Asphalt		9.4	1-Jan-03	20	13	\$ 25,262.00		
33	80052	Garden Road	Burriss Pointe	Woodland Dr	Roads - Subsurface	131	11.2	450		Gravel		9.4	1-Jan-03	40	33	\$ 27,865.00		
34	80053	Garden Road	Burriss Pointe	Woodland Dr	Water Mains & Services	131			200	PVC		10	1-Jan-03	75	68	\$ 34,103.00		
35	80054	Garden Road	Burriss Pointe	Woodland Dr	Storm Mains & Services	131			525	PVC		10	1-Jan-03	50	43	\$ 29,216.00		
36	80055	Garden Road	Burriss Pointe	Woodland Dr	Wastewater Mains & Services	131			200	PVC		10	1-Jan-03	75	68	\$ 32,576.00		
37	80060	Garden Road	Westview Dr	Burriss Pointe	Curbs & Gutters & Sidewalk	205					1.5	10	1-Dec-02	30	22	\$ 55,478.00		
38	80061	Garden Road	Westview Dr	Burriss Pointe	Roads - Surface	205	11.2	100		Asphalt		8.2	1-Dec-02	20	12	\$ 39,046.00		
39	80062	Garden Road	Westview Dr	Burriss Pointe	Roads - Subsurface	205	11.2	450		Gravel		8.2	1-Dec-02	40	32	\$ 43,433.00		
40	80063	Garden Road	Westview Dr	Burriss Pointe	Water Mains & Services	205			200	PVC		10	1-Dec-02	75	67	\$ 51,769.00		

File

Home

Insert

Page Layout

Formulas

Data

Review

View

Developer

ArcGIS Maps

ACROBAT

Power Pivot

Tell me what you want to do...

Jamie Hobbs

Share

Clipboard

Paste

Cut

Copy

Format Painter

Font

Arial 10

**B** *I* U

Alignment

Wrap Text

Merge & Center

Number

General

\$ % ' < > .00 > .00

Conditional Formatting

Format as Table

Styles

Style 1 Normal Bad

Good Neutral Calculation

Cells

Insert

Delete

Format

Editing

AutoSum

Fill

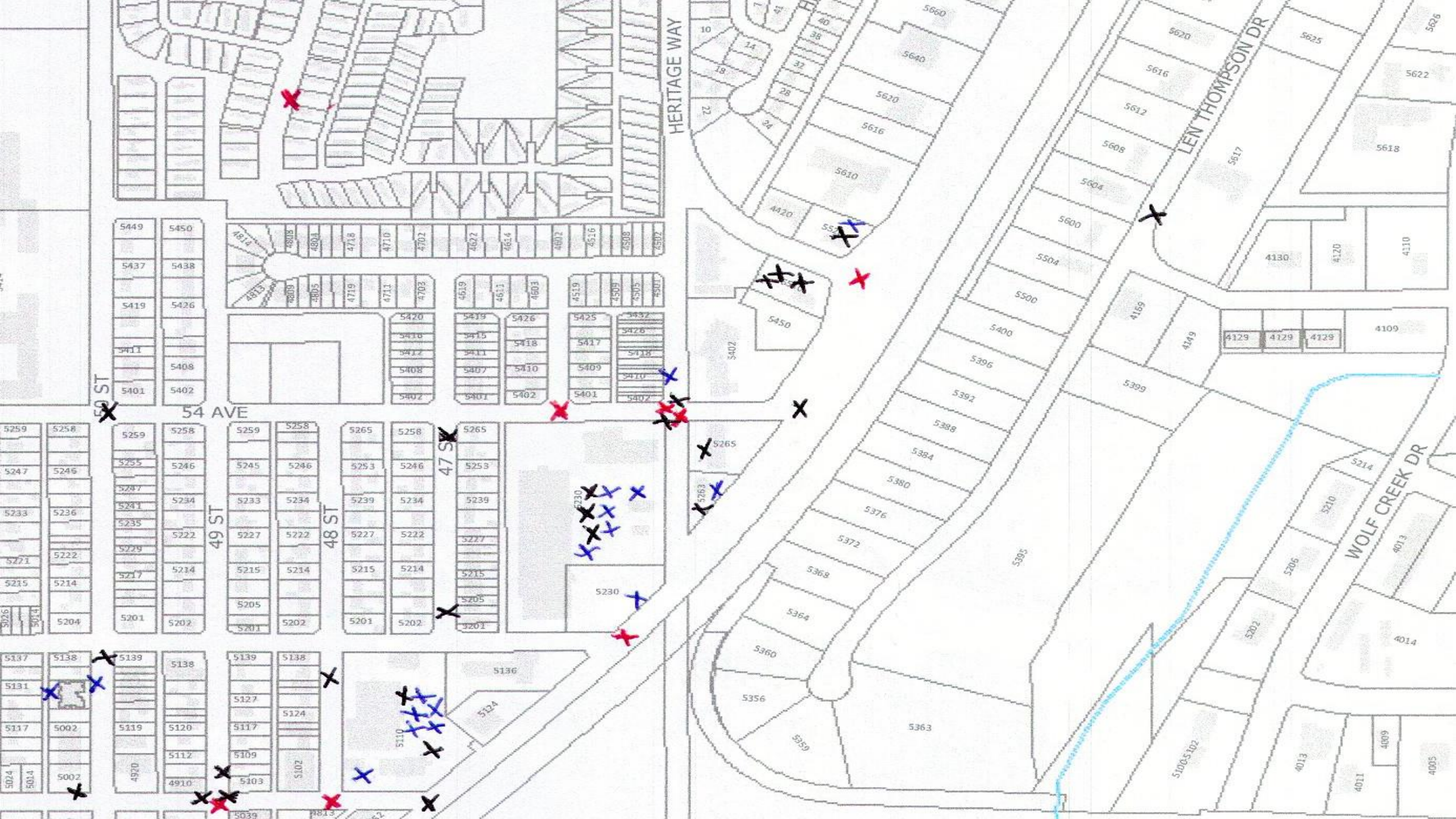
Clear

Sort & Filter

Find & Select

B17 W

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1			<b>IRON WOLF</b>											
2		DATE: 22/09/2017		SIGN	POST									
3		INSPECTED BY: JM, SM	SIGN VISIBLE IN WHAT DIRECTION	CONDITION	CONDITION	REPAIR								
4														
5	46 AVE/IRON WOLF BLVD	N	STOP	F		3								
6	"	NS	46 AVE/IRON WOLF BLVD											
7														
8	IRON WF BLVD/IRON WF RDG	W	YIELD											
9	"	W	IRN WF BLVD/IRON WF RDG											
10														
11	IRON WOLF BLVD/IRON WOLF CL	S	IRON WOLF BLVD/IRON WOLF CL											
12	"	S	YIELD											
13														
14	IRON WOLF BLVD/IRON WOLF CRT	S	YIELD											
15	"	S	IRON WOLF COURT/IRON WOLF BLVD											
16														
17	IRON WOLF BLVD/IRON WOLF PL	W	YIELD											
18	"	W	IRON WOLF BLVD/IRON WOLF PLACE											
19														
20	46 AVE/IRON WOLF BLVD	N	46 AVE/IRON WOLF BLVD											
21	"	N	STOP											
22														
23														
24														
25														
26														
27				B-BENT	B-BENT	1-NOW								
28				F-FADED	L-LEAN	2- IN 6 MONTHS								
29				H-HIDDEN	P-PAINT	3- IN 1 YEAR								
30														
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42														
43														
44														
45														



Asset Management Committee was formed consisting of:



**Finance**



**Administrative Staff**



**GIS Coordinator**



**Public Works**



**Senior Leadership**

**WE WILL CREATE, DEVELOP AND  
IMPLEMENT THE ASSET MANAGEMENT PLAN!**

**THOUGH, WE DO  
NOT EXACTLY KNOW HOW.**

imgflip.com



LACOMBE

NEAR HARAD

# THE JOURNEY



Consultant

# THE JOURNEY

Project Management approach was undertaken defining:

- Roles and Responsibilities
- Schedule with Milestones
- Deliverables

# Part 2: Implementing the plan

## TWO TOWERS

The Old Way vs The New Way

# IMPLEMENTATION

To change culture within the City, a paradigm shift in thinking, a shift in how we do things.



Old Way

New Way






City of Lacombe Overview **Members** Licenses Status Settings

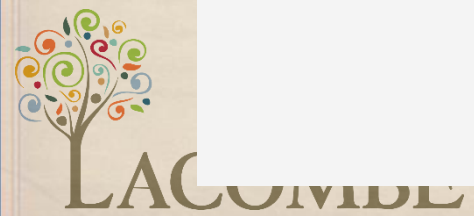
Invite members Pending members: 3 Search members Full name Table Last login Filter

Manage your members' licenses on this page. [Show more](#) Dismiss

- Filters**
- ▼ **User type**
    - Creator
    - Viewer
  - ▼ **Role**
    - Administrator
    - Data Editor
    - Publisher
    - User
    - Viewer

1 - 5 of 5

<input type="checkbox"/>	Member	Last login	User type	Role
<input type="checkbox"/>	 <b>Jamie Hobbs</b> jdhobbs	Today	Creator	Administrator
<input type="checkbox"/>	 <b>Ted MacLeod</b> tmacleod@lacombe.ca	Jun 3, 2019	Creator	Data Editor
<input type="checkbox"/>	 <b>Andrew Reed</b> ReedAndrew	Apr 3, 2019	Viewer	Viewer
<input type="checkbox"/>	 <b>Matt Tomnuk</b> MTomnuk	Mar 19, 2019	Viewer	Viewer
<input type="checkbox"/>	 <b>Brett Logsdon</b> blogsdon	Mar 6, 2019	Viewer	Viewer



ArcGIS Pro - City of Lacombe - Catalog

Project Catalog Insert Analysis View Imagery Share Databases

City of Lacombe Catalog

Project Databases COL-GIS01 (2).sde LacombeGIS.DBO.LacombeInfrastructure Search Project

Name	Type	Date
LacombeGIS.DBO.Bell	Enterprise Geodata	
LacombeGIS.DBO.BellLines	Enterprise Geodata	
LacombeGIS.DBO.CatchBasin	Enterprise Geodata	
LacombeGIS.DBO.Crosswalk	Enterprise Geodata	
LacombeGIS.DBO.CurbSidewalk	Enterprise Geodata	
LacombeGIS.DBO.FibreOptic	Enterprise Geodata	
LacombeGIS.DBO.FireHydrant	Enterprise Geodata	
LacombeGIS.DBO.Gaslines	Enterprise Geodata	
LacombeGIS.DBO.SanitaryLines	Enterprise Geodata	
LacombeGIS.DBO.SanitaryManholes	Enterprise Geodata	
LacombeGIS.DBO.StormLines	Enterprise Geodata	
LacombeGIS.DBO.StormManholes	Enterprise Geodata	
LacombeGIS.DBO.StreetLights	Enterprise Geodata	
LacombeGIS.DBO.StreetSigns	Enterprise Geodata	
LacombeGIS.DBO.Telus	Enterprise Geodata	
LacombeGIS.DBO.TelusLine	Enterprise Geodata	
LacombeGIS.DBO.WaterLines	Enterprise Geodata	
LacombeGIS.DBO.WaterValves	Enterprise Geodata	

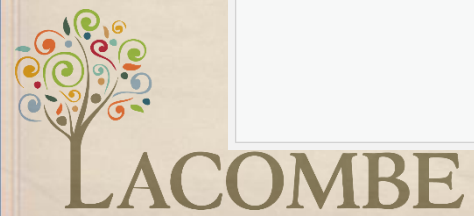
Select an item to view its metadata.

18 Items 0 Items Selected

Project Portal Favorites

Search

Maps  
Toolboxes  
Databases  
Layouts  
Styles  
Tasks  
Folders  
Locators



NEAR HARAD

# IMPLEMENTATION

Database Properties

General Domains Connections Editor Tracking

Domain Owner	Domain Name	Description
DBO	AnnotationStatus	Valid annotation state val
DBO	BooleanSymbolValue	Valid values are Yes and
DBO	ConditionRating	ConditionRating
DBO	HorizontalAlignment	Valid horizontal symbol ali
DBO	RoadSurfaceType	
DBO	TrailSurfaceType	Trail Surface Type
DBO	TreeCondition	TreeConditionRating
DBO	VerticalAlignment	Valid symbol vertical align

Domain Properties:

Field Type	Double
Domain Type	Coded Values
Split policy	Default Value
Merge policy	Default Value

Coded Values:

Code	Description
1	1 - Very Good
2	2 - Good
3	3 - Fair
4	4 - Poor
5	5 - Very Poor

OK Cancel Apply

Contents

Search

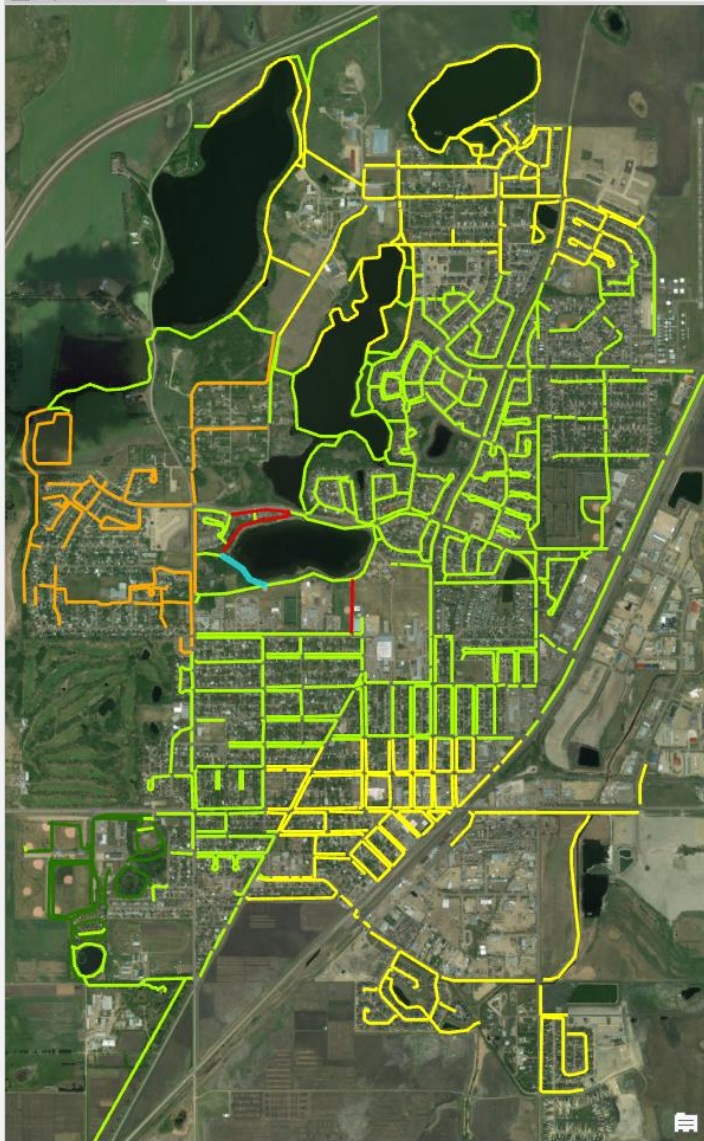
Drawing Order

City of Lacombe

Trails

- 1 - Very Good
- 2 - Good
- 3 - Fair
- 4 - Poor
- 5 - Very Poor

World Imagery



1:21,212

113.7041587°W 52.4550560°N

Selected Features: 1

Auto Apply

Attributes

Change the selection.

Trails (1)

Trail

Attributes

Attribute	Value
OBJECTID	3
Type	Trail
created_user	<Null>
created_date	2019-05-23 6:00:00 AM
last_edited_user	<Null>
last_edited_date	<Null>
SurfaceType	Asphalt
Condition	5 - Very Poor
AssetID	<Null>
GlobalID	1 - Very Good 2 - Good 3 - Fair 4 - Poor 5 - Very Poor
Shape_Length	

# Part 3: Single Source of Truth

ONE  
DATABASE  
TO RULE  
THEM  
ALL

The Realm of  
MIDDLE EARTH

Miles  
50 100 150 200

# SINGLE SOURCE OF TRUTH

With single source of truth the City was able to leverage that data into...

# SINGLE SOURCE OF TRUTH

1. Internal/External Mapping
2. Dashboards
3. Open Data Portal (Work in Progress)

# SINGLE SOURCE OF TRUTH

ArcGIS Pro - City of Lacombe - City of Lacombe

Project | Map | Insert | Analysis | View | Edit | Imagery | Share

Clipboard | Navigate | Layer | Selection | Inquiry | Labeling | Offline

Contents

City of Lacombe

- Trails
  - 1 - Very Good
  - 2 - Good
  - 3 - Fair
  - 4 - Poor
  - 5 - Very Poor
- World Imagery

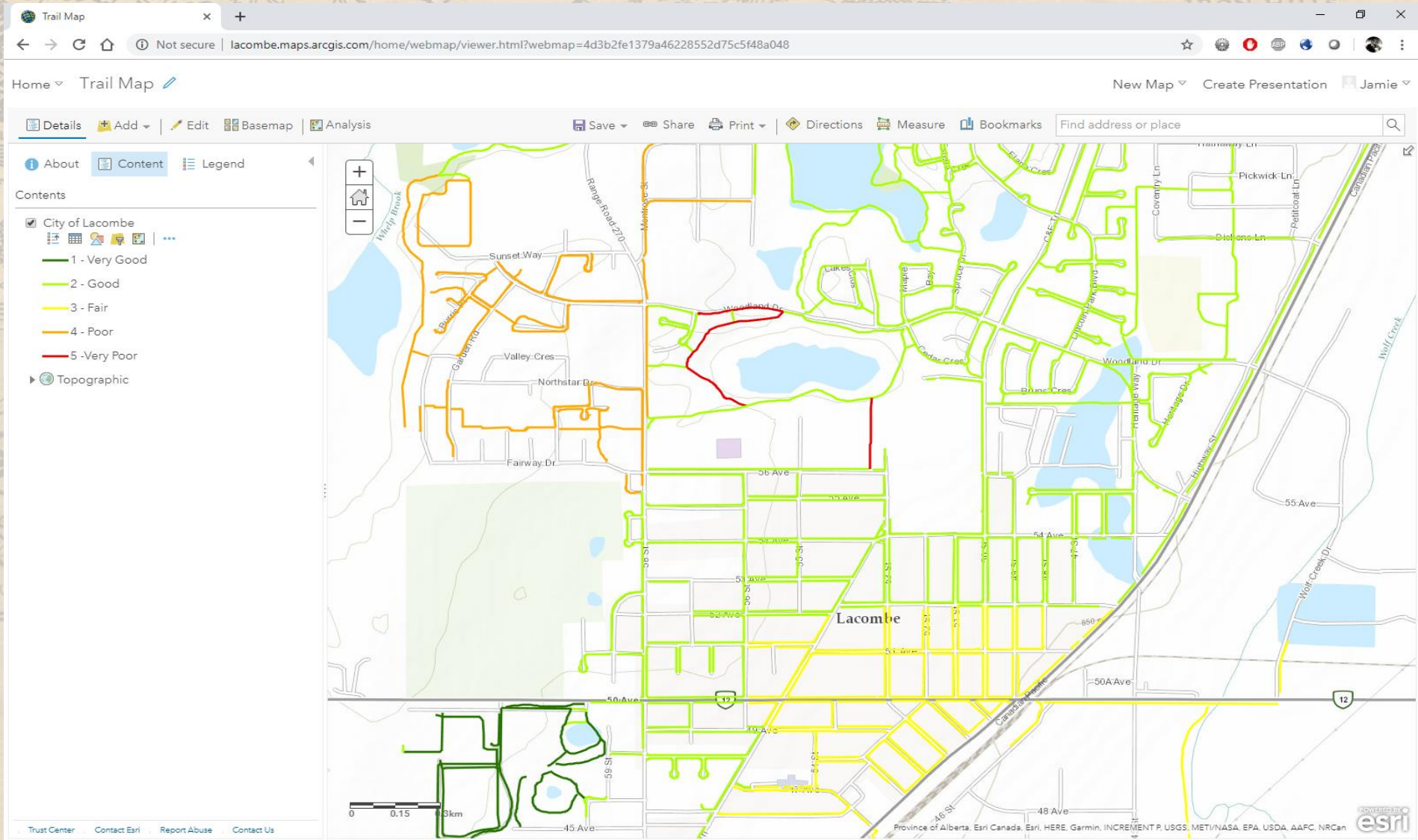
1:21,212 | 113.7635592°W 52.4949375°N | Selected Features: 0



LACOMBE

NEAR HARAD

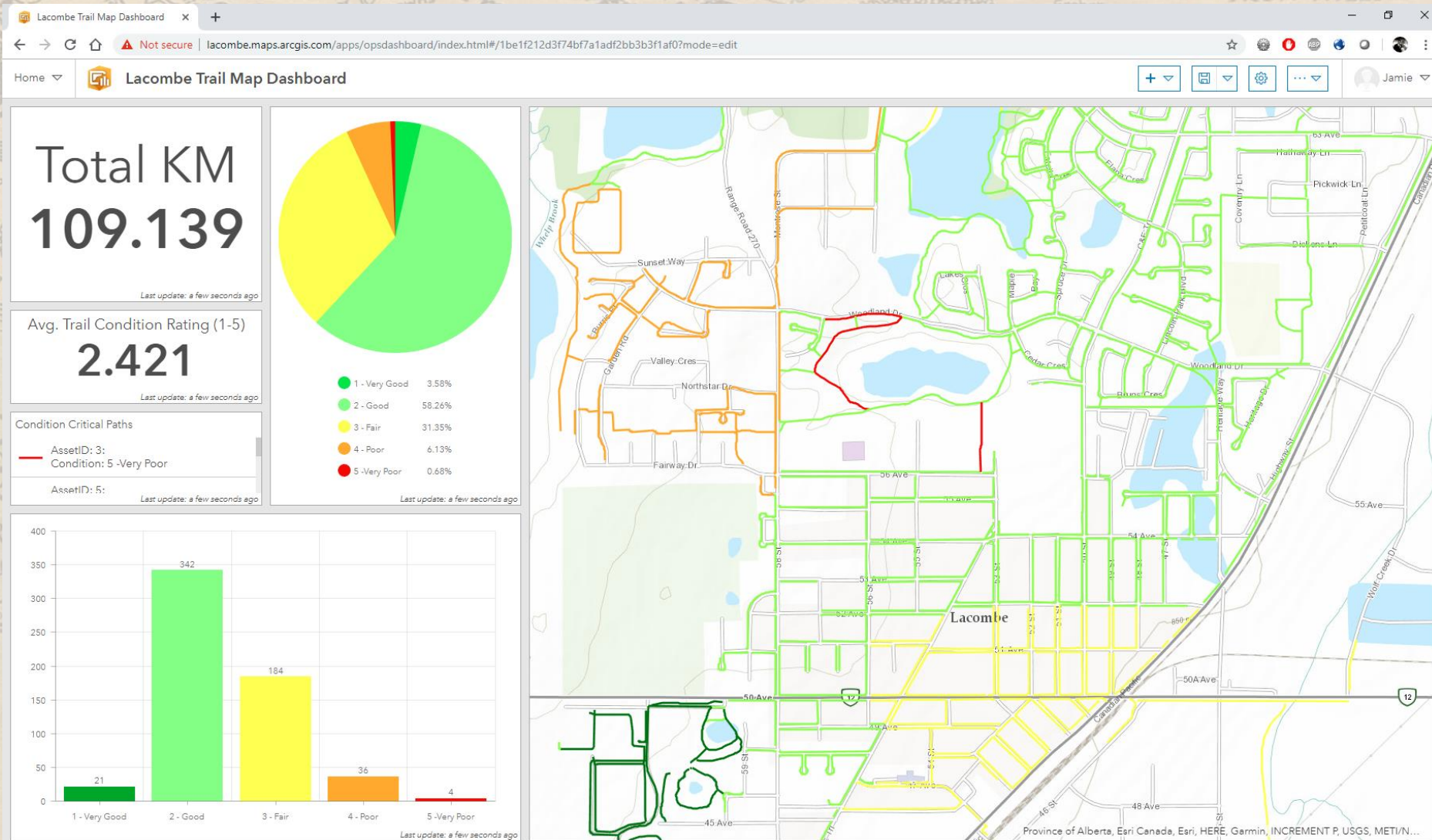
# SINGLE SOURCE OF TRUTH



LACOMBE

NEAR HARAD

# SINGLE SOURCE OF TRUTH



# SINGLE SOURCE OF TRUTH

The screenshot shows a web browser window with the URL <https://data-lacombe.opendata.arcgis.com>. The page features the City of Lacombe logo and navigation links. A dark blue banner contains the text: "This is the platform for exploring and downloading GIS data, discovering and building apps, and engaging others to solve important issues. You can analyze and combine datasets using maps, as well as develop new web and mobile applications. Let's achieve our goals together". Below this is a "Find Data" section with a search bar labeled "Search for Data". Underneath, the heading "Explore your data" is followed by a grid of icons representing various data categories: Agriculture (green leaf icon), Boundaries (orange map icon), Business (blue building icon), and Community Safety (yellow shopping bag icon). The background of the browser window is a topographic map of the Lacombe area.

# Recap:

1. Had a team with a common goal and purpose
2. All of the team needed to work together to achieve the goal even if split into smaller groups, they are united to achieve the main objective
3. Implementation required buy in and a culture/paradigm shift
4. One central source of data can be leveraged in many ways that are appropriate for the audience

Lessons Learned

# Stay Focused

**‘It’s the job that’s never started as takes longest to finish.’ – Samwise Gamgee**





Lessons Learned

# Sustainability

**‘Don’t adventures ever have an end? I suppose not. Someone else always has to carry on the story.’ – Bilbo Baggins**

**ONE DOES NOT SIMPLY END**

**A PRESENTATION WITHOUT A THANK YOU**

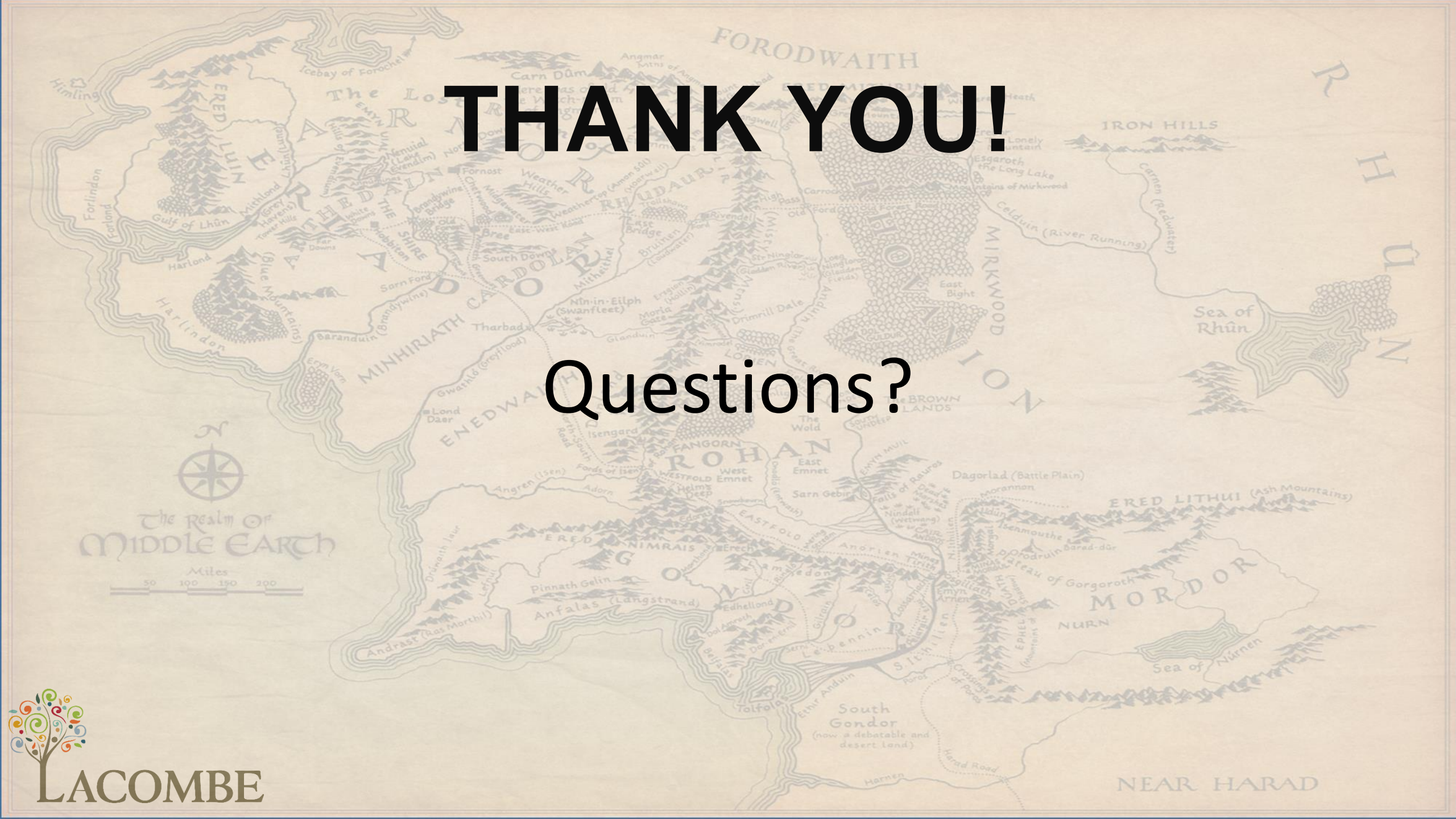
imgflip.com

# THANK YOU!

## Questions?

The realm of  
MIDDLE EARTH

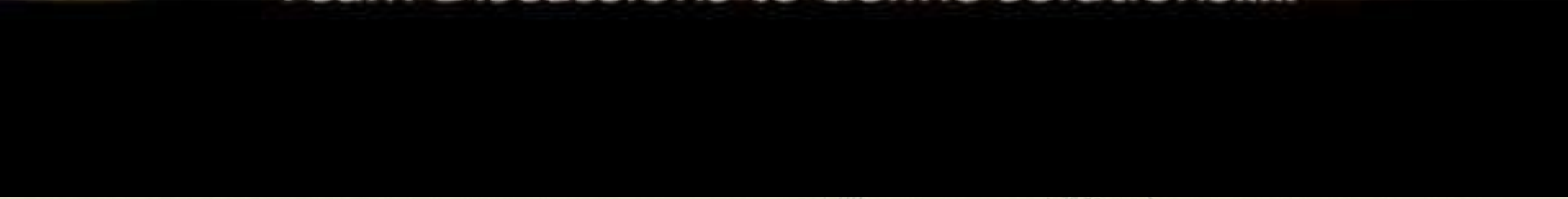
Miles  
50 100 150 200



FORODWAITH



Team Discussions to define solutions.....



LACOMBE

Harmen

NEAR HARAD