

The background features a white area on the left and a blue area on the right, separated by a diagonal line. The blue area is composed of several overlapping geometric shapes in different shades of blue, creating a modern, abstract design.

# Public Sector Project Management Forum

A Look at Agile Versus Waterfall Project  
Management Methodologies

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# What is Project Management?

*“Project management is a process that allows project managers to plan, execute, track and complete projects with the help of a project team. To do so, they must use project management principles, skills, methodologies and tools to lead team members through each of the project management steps which are known as the project lifecycle.”*

**[www.projectmanager.com](http://www.projectmanager.com)**

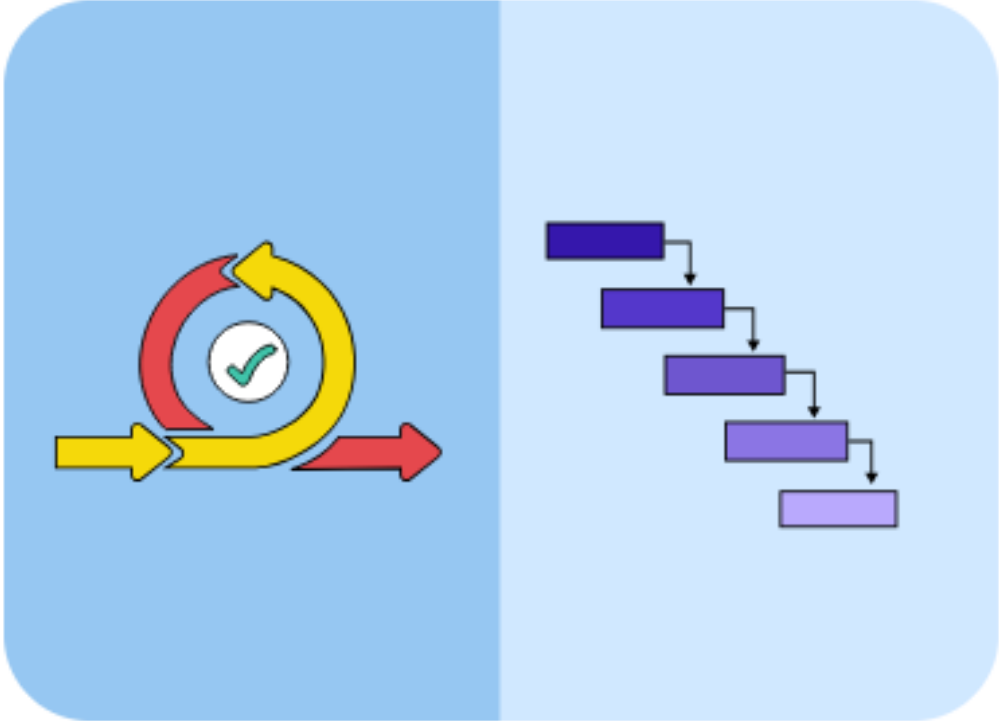
## A Closer Look..

*“Plan, execute, track and complete projects...” – the overall process of managing a project throughout its lifecycle*

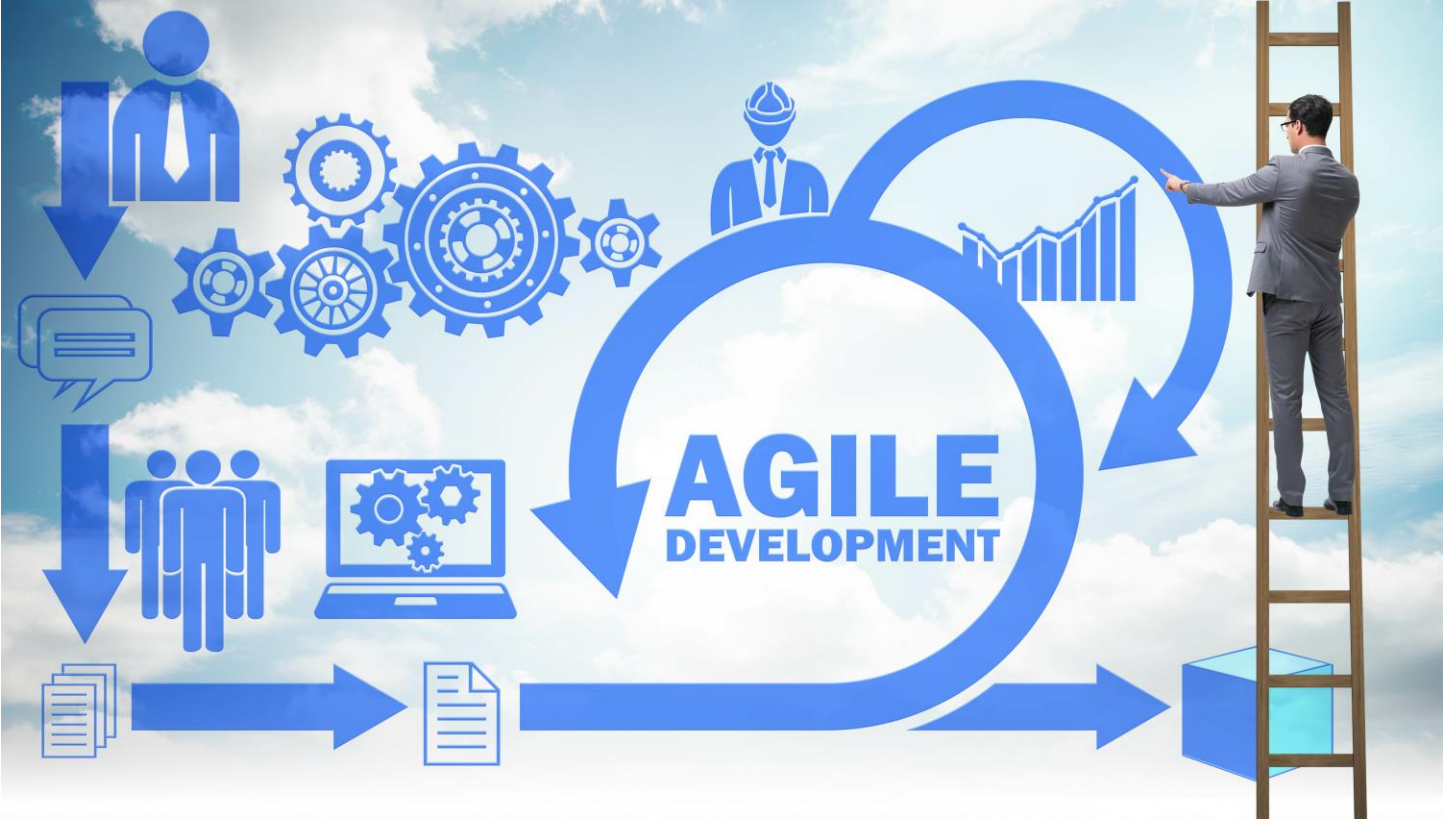
*“Tools...” – software, Post-It notes, notebook...*

*“Methodologies..” – this is where Agile and Waterfall reside*

# Agile vs Waterfall



# Agile



## Agile – A Brave New World!

- Flexible and iterative methodology.
- Good for complex and perhaps poorly understood deliverables.
- Can get to a Minimum Viable Product quicker, seeing faster results.
- Able to make changes mid-project to satisfy evolving requirements.
- Emphasis on smaller bite-size chunks of work among collaborative folks being completed in focused work activities.
- Often used for software or technical development projects.

# Agile



## Agile – What's Not to Like?

- Scope Creep!!
- Budget Uncertainty...
- Client Involvement Required Throughout the Project.
- Difficulty Understanding Future State.
- Project Manager Can Lose Control.



## Example of Agile Methodology – iMaps

- Enterprise mapping solution.
- Blank Sheet development.
- Very much an agile, iterative MVP approach.
- Able to stand-up initial solution in two weeks.
- Eventually iterated out to over 300 mapping layers.
- Launched externally with some data modifications (eMaps).

iMaps

CPS/Geospatial Solutions - Ros... NG9-1-1 Readiness Assessment

gdx.maps.mississauga.ca/Html5Viewer/index.html?viewer=iMaps.HTML5#

Google Home - CPS-Geosp... IZBL Mississauga GeoCortex Other Welcome to To Do Nomad Imported

MISSISSAUGA iMaps

Search...

Layers

Layer Themes - Default Layers

Filter Layers... Filter

- Facilities / Points Of Interest
- Infrastructure
- Engineering
- Planning
  - Road Bylaws
  - Zoning
  - Official Plan
    - Official Plan In Force
    - Official Plan Historical
    - Major Transit Station Areas (MTSA)
  - Existing Land Use
  - Applications
  - Natural Areas Survey
  - Invasive Species
  - Conservation Authority Regulatory Lines
  - Regional Core Greenlands Schedule A (In Effect)

I want to...

Scale 1: 2,257

0 20 40m

© Neamap U

# Waterfall



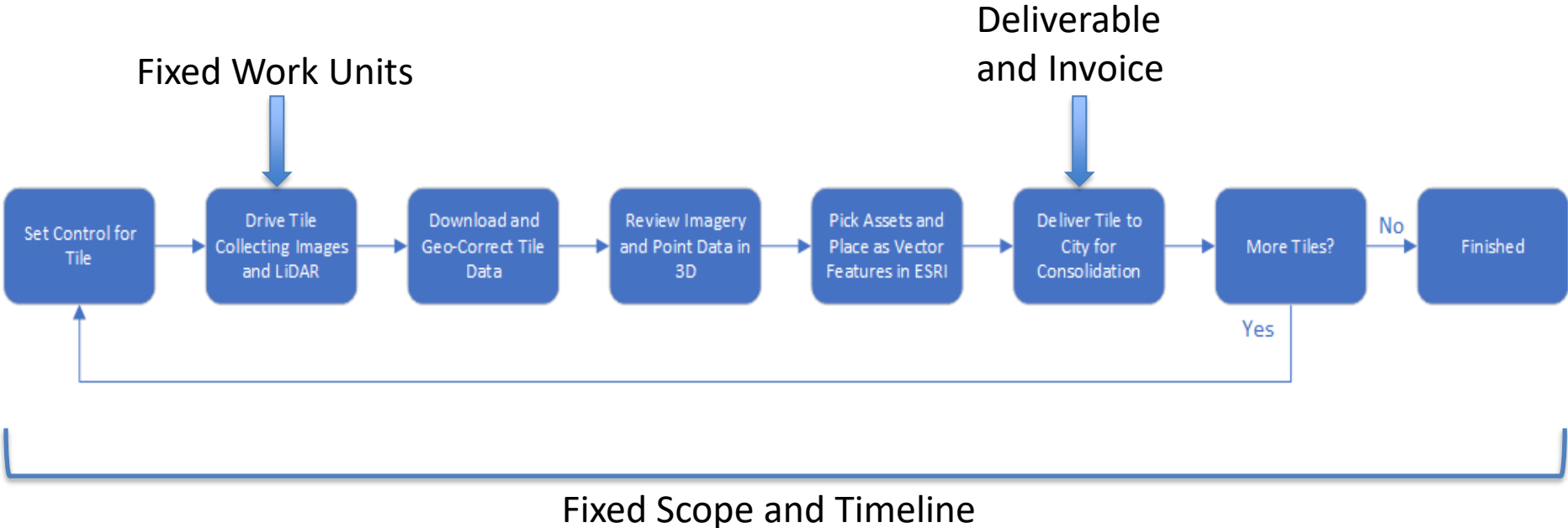
## Waterfall – It's Not Dead!!!

- Ideal for projects with clear tasks that can be sequenced in a linear fashion with well understood, structured processes.
- Typically, requirements are well defined and rigid.
- Predictable deliverables, invoicing, timelines and CLOSURE!
- Five steps:
  - Initiation
  - Planning
  - Execution
  - Monitoring
  - Closing

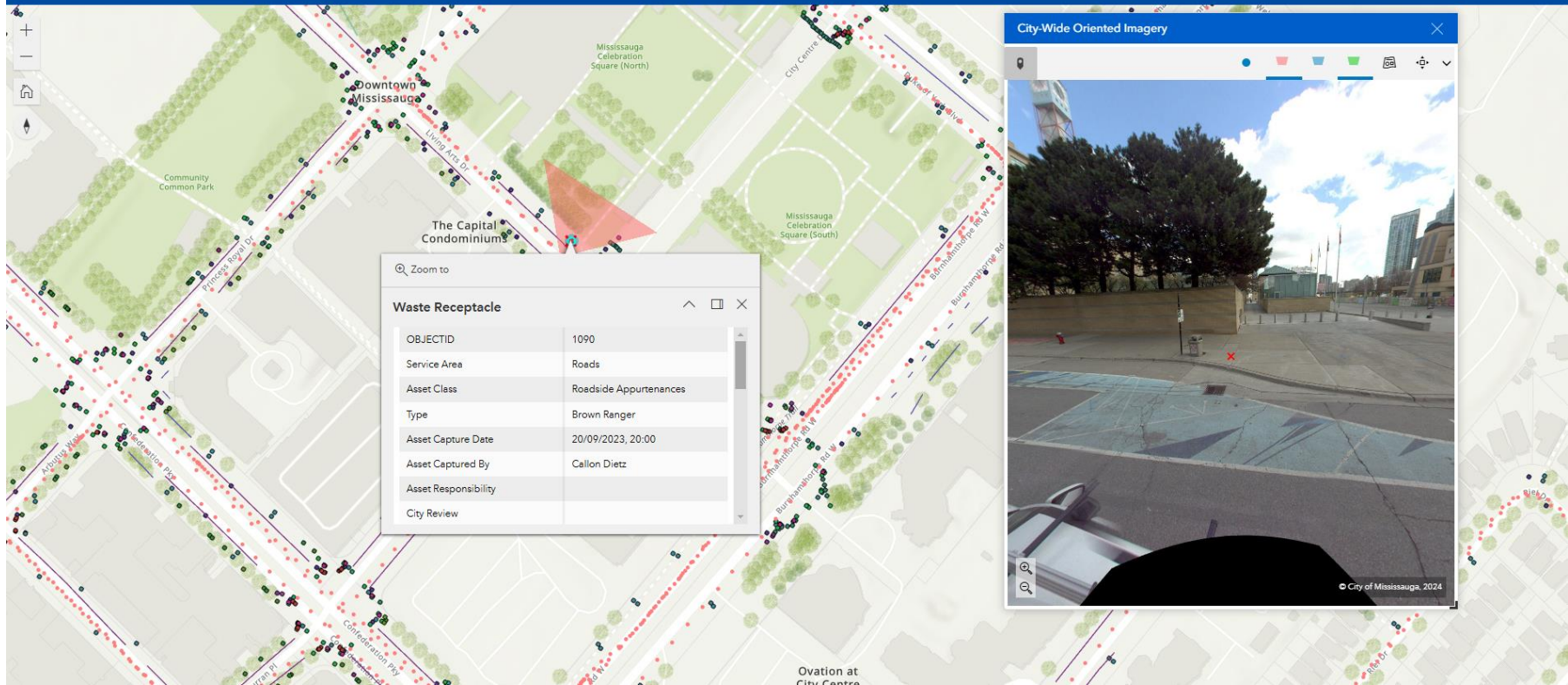
## Example of Waterfall – Mobile LiDAR Asset Collection

- Project involved collecting thirty-four asset types within the Rights-of-Way in the City.
- Technology, deliverables and processes were well understood.
- Project Steps:
  - Divide City into 79 tiles and plan data collection
  - Drive roadways shooting LiDAR and photography from truck
  - Correct data for systemic locational error
  - Locate assets in 3D in ESRI software
  - QC/QA
  - Delivery schedule and invoicing based on tile completion

# Waterfall







Zoom to

Waste Receptacle	
OBJECTID	1090
Service Area	Roads
Asset Class	Roadside Appurtenances
Type	Brown Ranger
Asset Capture Date	20/09/2023, 20:00
Asset Captured By	Callon Dietz
Asset Responsibility	City Review



## Final Notes...

- Don't Be Dogmatic.
  - Select the appropriate methodology for the project in question.
  - It's possible to blend styles in the same project.
- Waterfall may be comfortable until it goes off the rails.
- Keep an eye on the scope with Agile and have a plan for client pushback when the project needs to close.
- Communication is key regardless of methodology.
- Projects rarely go according to plan!



# All My Projects Be Like...



# Questions?

Thank you for attending!

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