



Using GIS to create your Capital Improvement Program (CIP)



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Agenda

- What is the CIP?
- How we create the CIP:
 - Historical process
 - Current process
 - Future process
- Questions/Discussion



What is the CIP?

- 6-year plan for capital improvement projects (for utility project)
- Helps with coordination (internal/external)
- Helps tell a story (public/Council)
- Helps with rate increases
- Helps with transparency and accountability
- [Water, Sewer and Surface Water Capital](#)

[Improvement Program -The City of](#)

[Vancouver, WA](#)



Historical process for creating CIP

- Access database (stored cut sheet info)
- GIS (create polygons and manually create cutsheets)
- Excel (to create project lists/financials)
- Word (to create text documents)
- Adobe (to create pdfs)



Historical process for creating CIP

A Microsoft Access

database was built with a front end for data entry and a GIS process was built to export the “cutsheets”



PROJECT ID: 55-152

Vancouver 2019 - 2024 PUBLIC WORKS CAPITAL IMPROVEMENT PROGRAM

PROJECT: SOUTHSIDE INTERCEPTOR REHAB

PROJECT AREA MAP		PROJECT SUMMARY	
		Program/Discipline Type:	Sanitary Sewer
		Project Type:	Collection
		Project Status:	Active
PROJECT DESCRIPTION			
Project Justification / Priority Ranked as most critically needed repair by Interceptor Condition Assessment Report			
Project Description / Comments To provide design services for re-lining of 42" diameter concrete Southside Interceptor, from Westside Water Reclamation Facility headworks and upstream about 2,200 lineal feet. Proposed repairs to use trenchless technology.			
LEGEND		VICINITY MAP	FUNDING & SCHEDULE
<ul style="list-style-type: none"> Project Area Transportation Project Areas Sanitary Sewer Project Areas Surface Water Project Areas 	<ul style="list-style-type: none"> Water Project Areas SCIP Project Areas Vancouver City Limits Clark County 		<ul style="list-style-type: none"> Battle Ground Comas Washougal
			Budget / Proj. #: 083710 Budget / Proj. Task #: Total Project Cost: \$1,000,000.00 *Start of Const. (Year): 2019

Map created using ArcGIS. All GIS data is provided as a courtesy to the City of Vancouver. All GIS data is provided as a courtesy to the City of Vancouver. All GIS data is provided as a courtesy to the City of Vancouver.

Date: 10/1/2018

Historical process for creating CIP– Struggles and Lessons

- Too many cooks in the kitchen
 - Data entry in Access, creating project polygons in GIS, compiling cutsheets, creating PDF report
- Data integrity
 - With so many data entry points, we saw duplication of efforts and inconsistent data

Current process for creating CIP

- Moved Access database into GIS environment
- GIS (dashboard, Survey 123, Geocortex, FME)
 - Input project information and create cut sheets
- Excel (to create project lists/financials)
- Word (to create text documents)
- Adobe (to create pdfs)



Current process for creating CIP

- Process relied on ESRI Dashboard with embedded Survey123 survey
- Once survey was submitted, it was pushed to a backend process
- [Capital and Transportation Improvement Editor \(cityofvancouver.us\)](http://cityofvancouver.us)

Capital and Transportation Improvement Projects (Testing Layer)

Project ID

Project Name

Workday ID

Project Information

Program Type*

Transportation
 Sanitary Sewer
 Surface Water

Water
 Sewer Connection Incentive Program (SCIP)

Project Type

Status

Active

Future

Completed







Current Layer: CIP/TIP Infrastructure Projects

Visible	Read Only	Field Name	Alias
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	OBJECTID	OBJECTID
<input checked="" type="checkbox"/>	<input type="checkbox"/>	projid	Project ID
<input checked="" type="checkbox"/>	<input type="checkbox"/>	projtype	Project Type
<input checked="" type="checkbox"/>	<input type="checkbox"/>	projareatype	Project Area Type
<input checked="" type="checkbox"/>	<input type="checkbox"/>	projectsubtype	projectsubtype
<input checked="" type="checkbox"/>	<input type="checkbox"/>	plantype	plantype
<input checked="" type="checkbox"/>	<input type="checkbox"/>	status	status
<input checked="" type="checkbox"/>	<input type="checkbox"/>	workdayid	workdayid
<input checked="" type="checkbox"/>	<input type="checkbox"/>	projname	projname
<input checked="" type="checkbox"/>	<input type="checkbox"/>	projdesc	projdesc
<input checked="" type="checkbox"/>	<input type="checkbox"/>	comments	comments
<input checked="" type="checkbox"/>	<input type="checkbox"/>	gisstatus	gisstatus
<input checked="" type="checkbox"/>	<input type="checkbox"/>	fme_run_date	fme_run_date
<input checked="" type="checkbox"/>	<input type="checkbox"/>	estcost	estcost
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	projectstartextent	projectstartextent
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<input checked="" type="checkbox"/>	<input type="checkbox"/>	costrow	costrow
<input checked="" type="checkbox"/>	<input type="checkbox"/>	costpredesign	costpredesign
<input checked="" type="checkbox"/>	<input type="checkbox"/>	costdesign	costdesign

Current process for creating CIP

Solution Contents

>	 Pavement Moratoriums
>	 External Agency Projects
>	 Capital Project Plans
>	 Capital Project Review
>	 Capital Improvement Plan
>	 Capital Project Review Dashboard

- Tested an ESRI Solution
- “All in One” out of the box and ready to roll
- Datasets, dashboards, web pages, public and internal

[ArcGIS Solutions](#)

[Getting to Know the Capital Projects Solutions \(arcgis.com\)](#)

Future process for creating CIP

- GIS (Experience Builder)
 - View/edit project information and create cut sheets (Project managers can edit)
- Online version
- Still need to use:
 - Excel (to create project lists/financials)
 - Word (to create text documents)
 - Adobe (to create pdfs)



- [Capital and Transportation Improvement Project Editor \(cityofvancouver.us\)](#)
- <https://storymaps.arcgis.com/stories/e54e89a14bfe447589daef8488e5f358>



Thank You

Questions???

