Improving Knowledge Management through GIS

Maryland Port Administration

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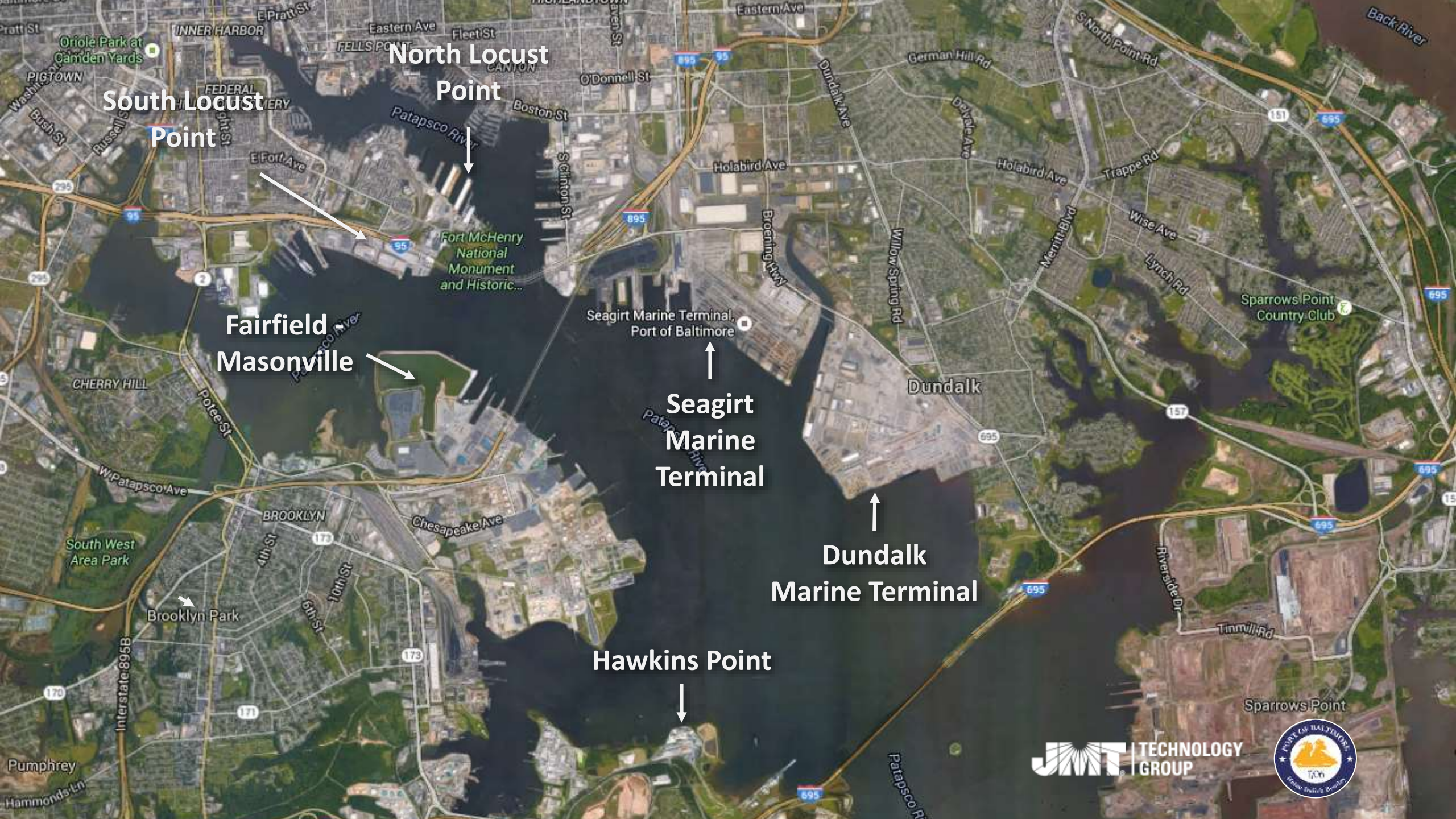
North Locust Point
South Locust Point
Fairfield - Masonville
Seagirt Marine Terminal
Dundalk Marine Terminal
Hawkins Point
Seagirt Marine Terminal, Port of Baltimore
Fort McHenry National Monument and Historic...
Oriole Park at Camden Yards
INNER HARBOR
FELLS POINT
CANTON
FEDERAL HILL
PIGTOWN
CHERRY HILL
BROOKLYN
Dundalk
Sparrows Point Country Club
Sparrows Point
South West Area Park
Brooklyn Park
Pumphrey
Patapsco River
Eastern Ave
E Pratt St
Fleet St
O'Donnell St
Boston St
E Fort Ave
Holabird Ave
Broening Hwy
Dundalk Ave
German Hill Rd
S North Point Rd
Back River
Trappe Rd
Wise Ave
Lynch Rd
Merritt Blvd
Willow Spring Rd
S Clinton St
Potee St
W Patapsco Ave
Chesapeake Ave
4th St
6th St
10th St
Riverside Dr
Tinmill Rd
Hammonds Ln
Interstate 895B
95
895
695
295
2
151
157
170
171
173
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MPA by the Numbers

Terminal	Size (acres)	No. of Berths / Piers			No. of Cranes	Rail
		General Cargo	Container	Pier		
Dundalk Marine Terminal	570	6	7	-	9	8 miles of rail inside secure facility; served by CSX and Norfolk Southern
Fairfield-Masonville	150	-	-	2	0	CSX spur adjacent
North Locust Point	90	-	-	5	3	Direct connection to terminal by CSXT
South Locust Point	79	3	-	-	1	Direct connection to terminal by CSXT
Seagirt Marine Terminal	284	-	4	-	23	Direct connection to adjacent ICTF by CSXT
Total	**1,173**	**9**	**11**	**7**	**36**	

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MPA by the Numbers (cont'd)

Terminal	Types of Cargo						
	Containers	Breakbulk	Forest Products	Paper	Ro/Ro	Project Cargo	Farm & Construction Equipment
Dundalk Marine Terminal	✓	✓	✓		✓	✓	✓
Fairfield-Masonville					✓		
North Locust Point	✓		✓	✓			
South Locust Point			✓				
Seagirt Marine Terminal	✓						

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Port View Application Drivers

- Governor Martin O'Malley's Open Data Initiative
- Desire to make GIS data at the Port Administration easily accessible by non-GIS users
- Need to facilitate asset management
- Use maps to quickly convey information at all levels
- Start with data that is most in demand and that supports decision making

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Port View Application

- JavaScript HTML 5 web application
- Built with ArcGIS API for JavaScript
- Accessible only to those with access to MPA network
- Simple, intuitive design
- Utilizes concept of contents to limit the number of layers and tools users encounter

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Demonstration

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Port View

Welcome to the Port Administration's web mapping application. The purpose of this enterprise GIS (eGIS) application is to provide MPA staff with access to geospatial information and tools to support decision making. Please contact Mr. Carl Henderson with any questions or feedback.


Dundalk Marine Terminal


Seagirt Marine Terminal


Locust Point Marine Terminal


Hawkins Point Marine Terminal

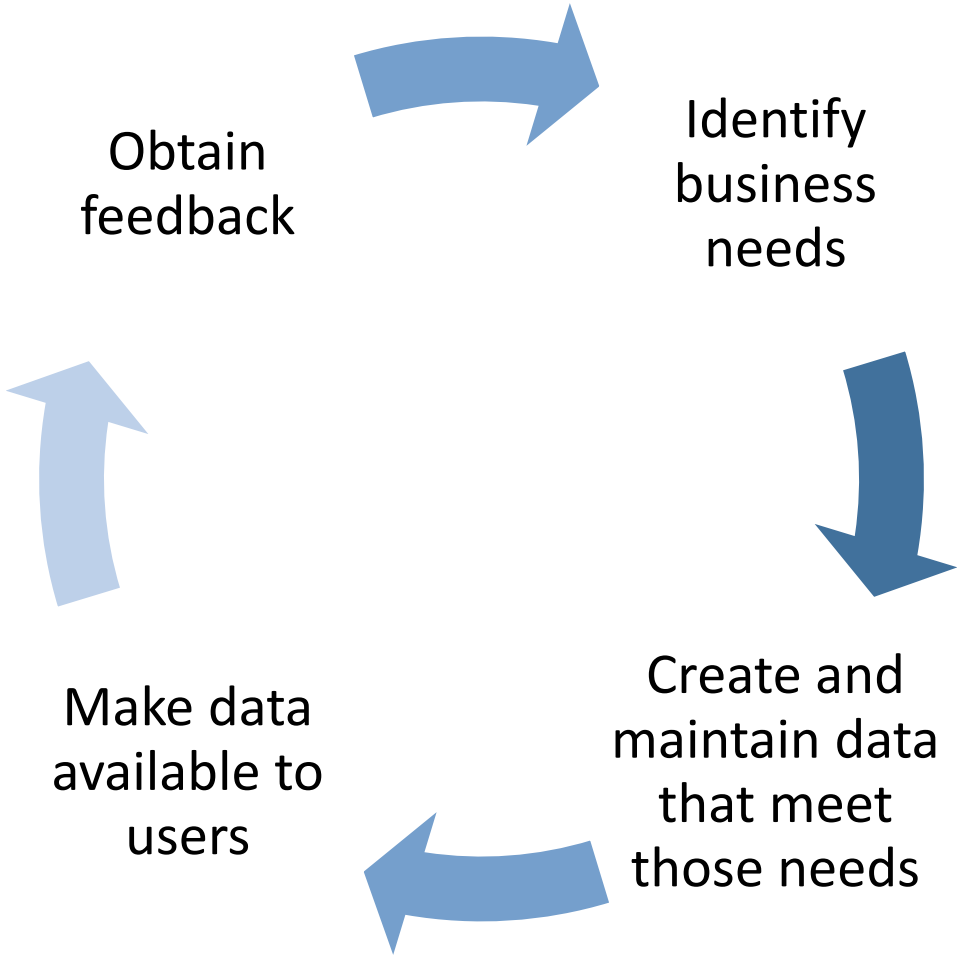

Fairfield/Masonville Marine Terminal


Offsite Facilities

DMCFS

World Trade C

MPA Spatial Data Management



Integration of CAD and GIS

- Most spatial data produced for MPA is in CAD format (Bentley Microstation)
- MPA CAD and GIS standards align with business needs
  - CAD and GIS crosswalk
- Easy for consultants to meet CAD standards
  - Every DGN file in ProjectWise inherits the MPA CAD standards
  - Workspace is customized based on the type of work being performed (Arch, Civil, or Survey)
  - Custom tools exist to attribute features and validate layer names and attributes
- Standardized CAD data is easily converted into GIS and vice versa through the use of FME

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The Way Ahead

- Continue to expand quantity and quality of geospatial data
- Provide external access to Port View app
- Create an asset management dashboard
- Expand contents to include Signs, Security, and Environment
- Add related files such as photos and documents
- Expand available tools
  - Markup map
  - Conflict detection
  - Search
  - Reports
  - Charts
- Integrate with ProjectWise

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Q&A

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