Improving Knowledge Management through GIS

Maryland Port Administration
# MPA by the Numbers

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Size (acres)</th>
<th>No. of Berths / Piers</th>
<th>No. of Cranes</th>
<th>Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>General Cargo</td>
<td>Container</td>
<td>Pier</td>
</tr>
<tr>
<td>Dundalk Marine Terminal</td>
<td>570</td>
<td>6</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fairfield-Masonville</td>
<td>150</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>North Locust Point</td>
<td>90</td>
<td>-</td>
<td>-</td>
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<tr>
<td>South Locust Point</td>
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<td>3</td>
<td>-</td>
<td>-</td>
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<td></td>
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<td></td>
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<tr>
<td>Seagirt Marine Terminal</td>
<td>284</td>
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<td>4</td>
<td>-</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,173</strong></td>
<td><strong>9</strong></td>
<td><strong>11</strong></td>
<td><strong>7</strong></td>
</tr>
</tbody>
</table>
### MPA by the Numbers (cont’d)

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Containers</th>
<th>Breakbulk</th>
<th>Forest Products</th>
<th>Paper</th>
<th>Ro/Ro</th>
<th>Project Cargo</th>
<th>Farm &amp; Construction Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dundalk Marine Terminal</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Fairfield-Masonville</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
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<td></td>
</tr>
<tr>
<td>North Locust Point</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
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<td>✓</td>
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<td>South Locust Point</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Seagirt Marine Terminal</td>
<td>✓</td>
<td></td>
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</tr>
</tbody>
</table>
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
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
Demonstration
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

- Utilities
- Cargo
- CTP & Other Projects
- Geotechnical
- Assets
- Tenants, Plats, Deeds, & Boundaries
- Signs
- Security
- Environment

UNDER CONSTRUCTION coming soon
MPA Spatial Data Management

- Obtain feedback
- Identify business needs
- Create and maintain data that meet those needs
- Make data available to users

Obtain feedback → Identify business needs → Create and maintain data that meet those needs → Make data available to users
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
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 and Environment
- Add related files such as photos and documents
- Expand available tools
  - Markup map
  - Conflict detection
  - Search
  - Reports
  - Charts
- Integrate with ProjectWise
Q&A

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