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# GIS STEERING COMMITTEE

3/3/2016

Hosted by the District Department of Transportation

[DCGISSteering.Committee@dc.gov](mailto:DCGISSteering.Committee@dc.gov)





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# AGENDA

- Welcome - *José Colón*
- News & Updates - *Julie Kanzler, Matt Crossett*
  - Application Migration
  - Oblique Viewer
  - Basemaps
  - FedUC Recap
- Department of Transportation - *James Graham, Jonathan Rogers*
  - Nearmap Imagery
  - Esri Roads and Highways Demo
  - Vision Zero Hackathon Recaps
- DC GIS Data Updates - *Mario Field*
  - Sensor and LiDAR
  - Planimetrics Progress
- Business Plan Update Presentation - *Kate Hickey and Rich Grady, AppGeo*
- Round-table Discussions and Idea Sharing - *All*





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## OPERATIONAL NEWS

- Acting CTO Archana Vemulapalli

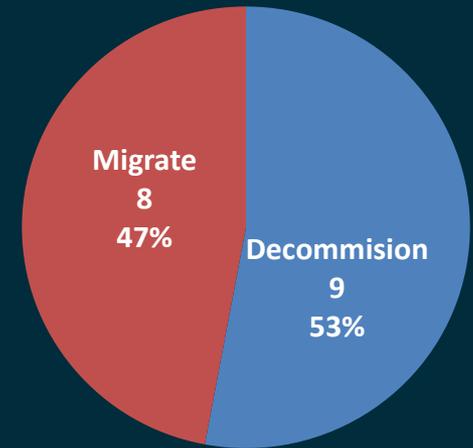




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# APPLICATION MIGRATION

- Legacy Servers are those on unsupported hardware and operating systems
  - Mostly Win 2003
- 16% of GIS Servers are affected
  - Migrate or decommission
- All GIS Web Apps Affected
  - Sunset, Migrate OS, Move to ArcGIS Online
  - ~40% will migrate OS to win 2012
- Migrations or waivers complete by end of March 2016



## Considerations for Sunsetting Web Apps

Low usage stats

Not linked on dc.gov

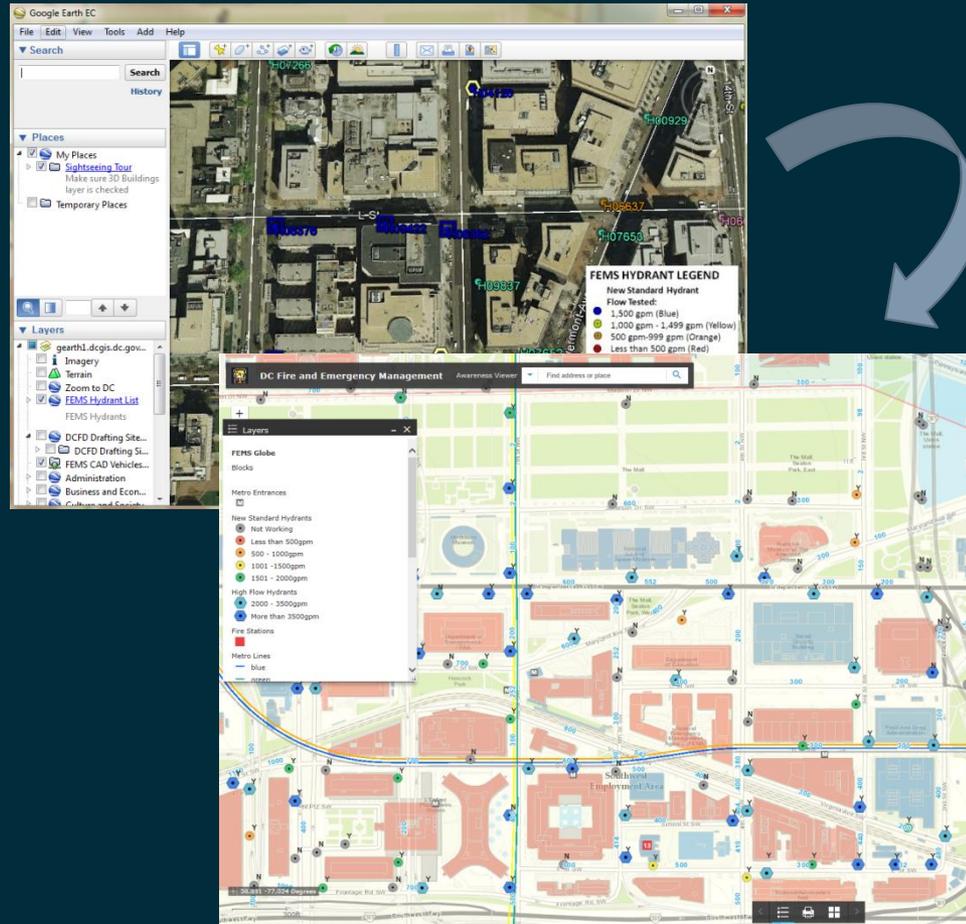
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Lack of stewardship



# APPLICATION MIGRATION CONT'D

- Reminder – Google Earth Enterprise (GEE) is no longer supported
- GEE legacy servers will finally be decommissioned March 11, 2016
- Globes will be migrated to ArcGIS Online by Request
  - Ex. FEMS globe

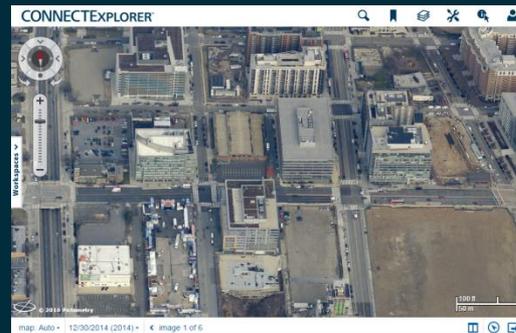
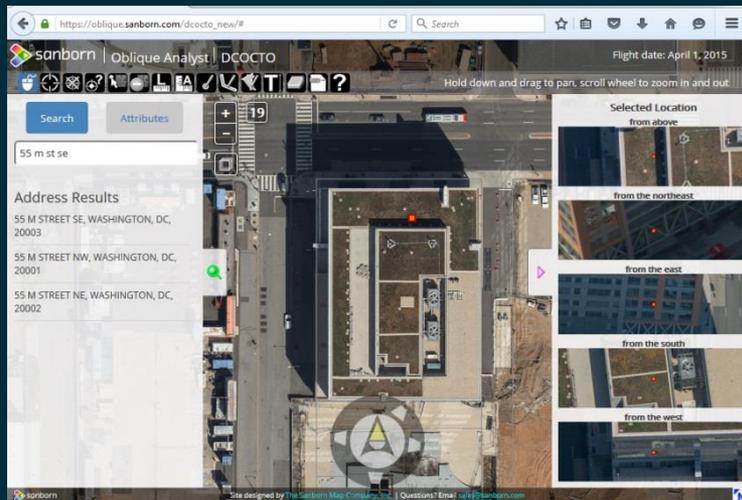
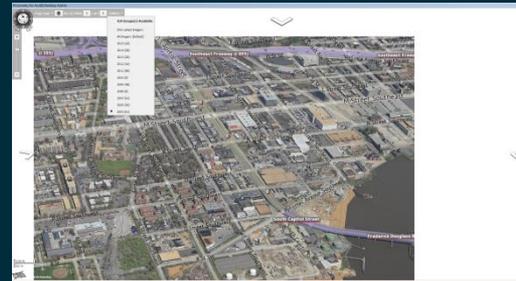
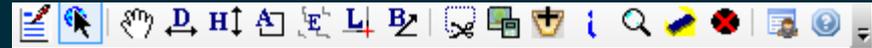




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# OBLIQUE VIEWERS

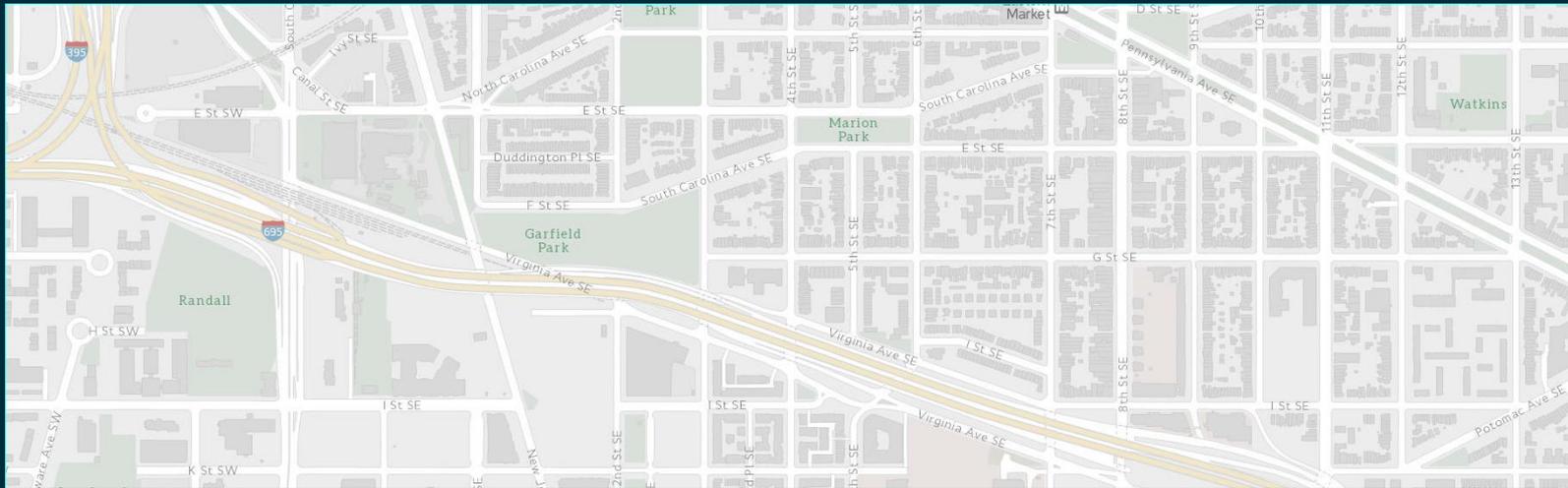
- Pictometry Connect
- Sanborn (SOA)





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# LIGHT GRAY BASEMAP(S)



## Two Projection Options:

- Light Gray Basemap in Web Mercator
- Light Gray Basemap in Maryland State Plane





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# FED UC RECAP

- Strong DC Gov presence
  - Over 15 agencies represented
  - New release of 10.4 and ArcGIS Pro 1.2
  - Insights Application
  - ArcGIS Earth
  - Big Data





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## OCTO FED UC HIGHLIGHTS

- The Value of GIS in Big Data - Mansour Raad
- [HIFLD Open Data Portal \(Federal\)](#)
- [Managing Data and Layers in a Web GIS](#)
- [ESRI GitHub Presence](#)
- [ArcGIS Maps for Adobe Creative Cloud](#)
- [Deployment scenarios \(ArcGIS Server\)](#)





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## DEPARTMENT OF TRANSPORTATION

- Nearmap Imagery
- Esri Roads and Highways Demo
- Vision Zero Hackathon Recaps

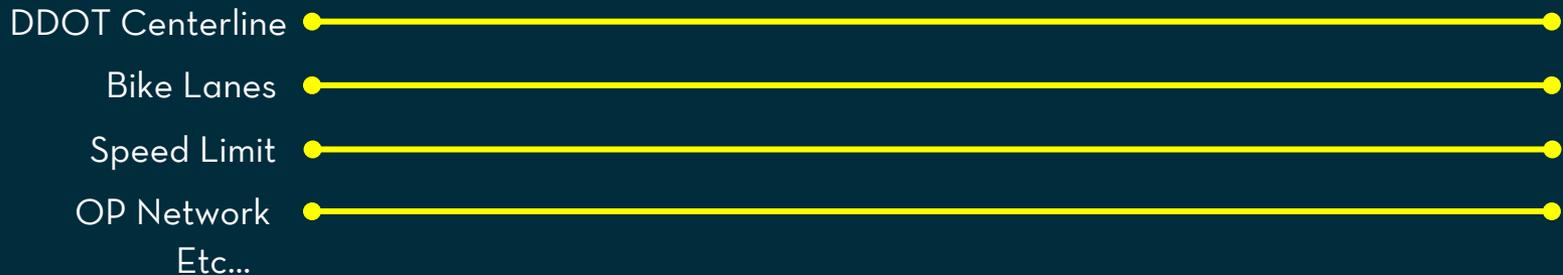




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## DDOT'S NEW LRS: WHY CHANGE?

- Difficult to maintain all centerline in SSD
- GIS upgrades were painful
- Data updates were painful
  - DDOT GIS team performs every edit
  - Data owners maintain static copies & request updates





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## ESRI ROADS AND HIGHWAYS: BENEFITS

- ESRI-built and supported
- Separation of Concerns:
  - DDOT GIS maintains the centerline (Desktop)
  - Data owner updates their business data (Web)
- Fine-grained controls to intelligently cascade updates
- Sweet, sweet LRS map services! Demo time





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## GIS AND VISION ZERO

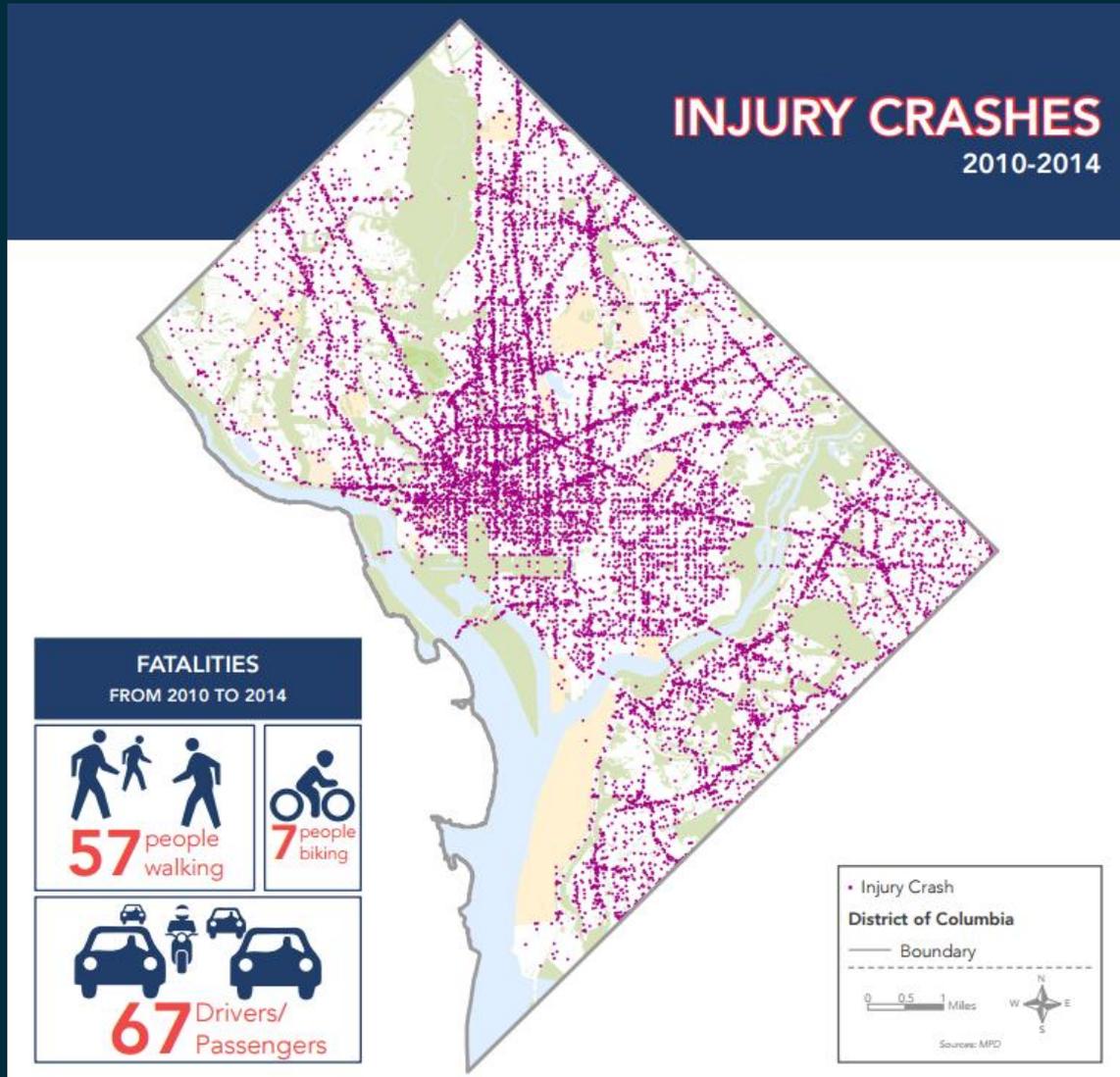
- GIS Informed the Action Plan - Heat Maps, Emerging Hot Spot Analysis, etc.
- Action Plan Strategies Need GIS - Further Analysis of Trends, Identifying Priority Corridors, etc.
- Open Data - Partners are Aiding in the Analysis, VZ Hackathon





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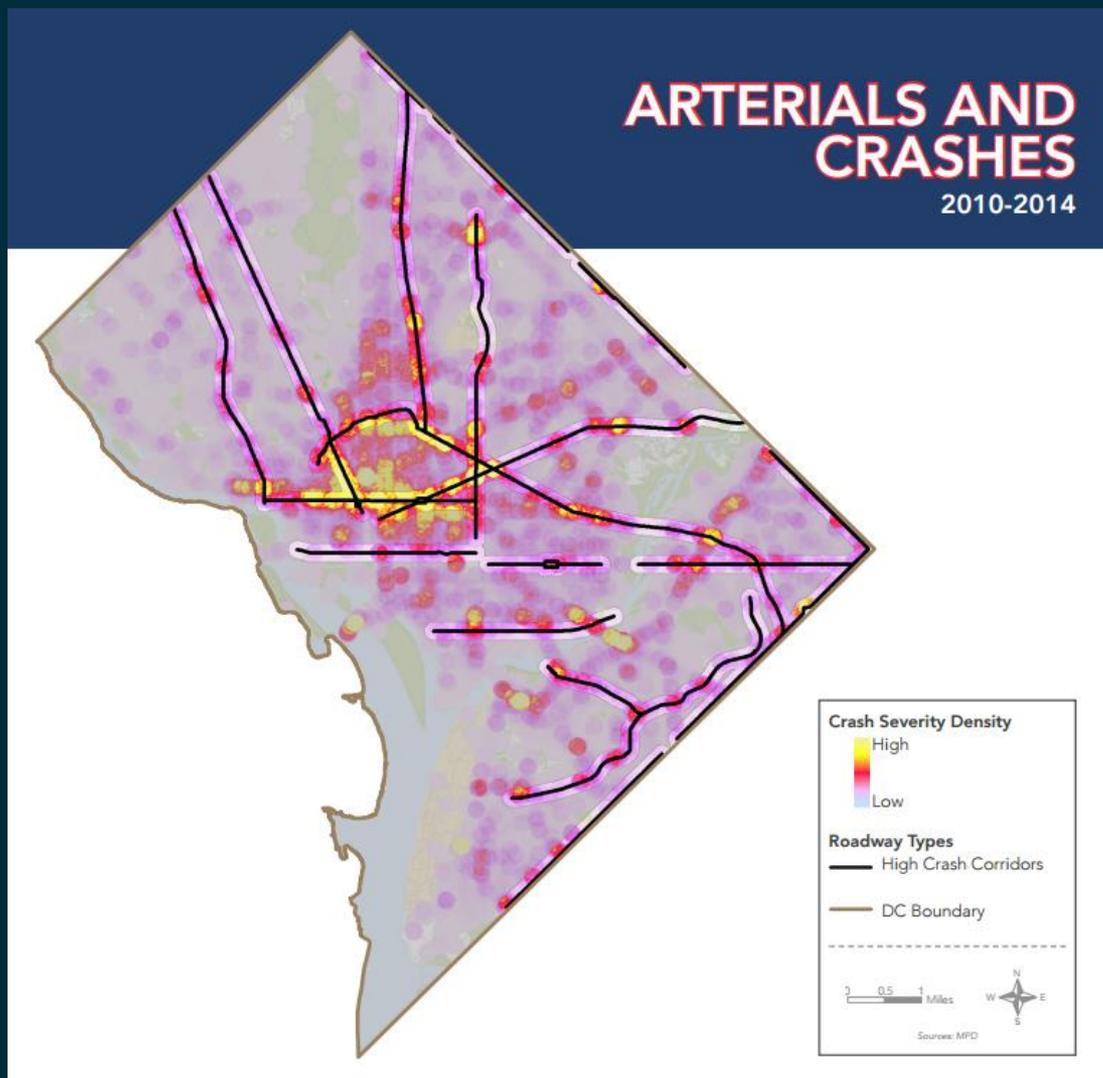
# GIS INFORMED THE VZ ACTION PLAN



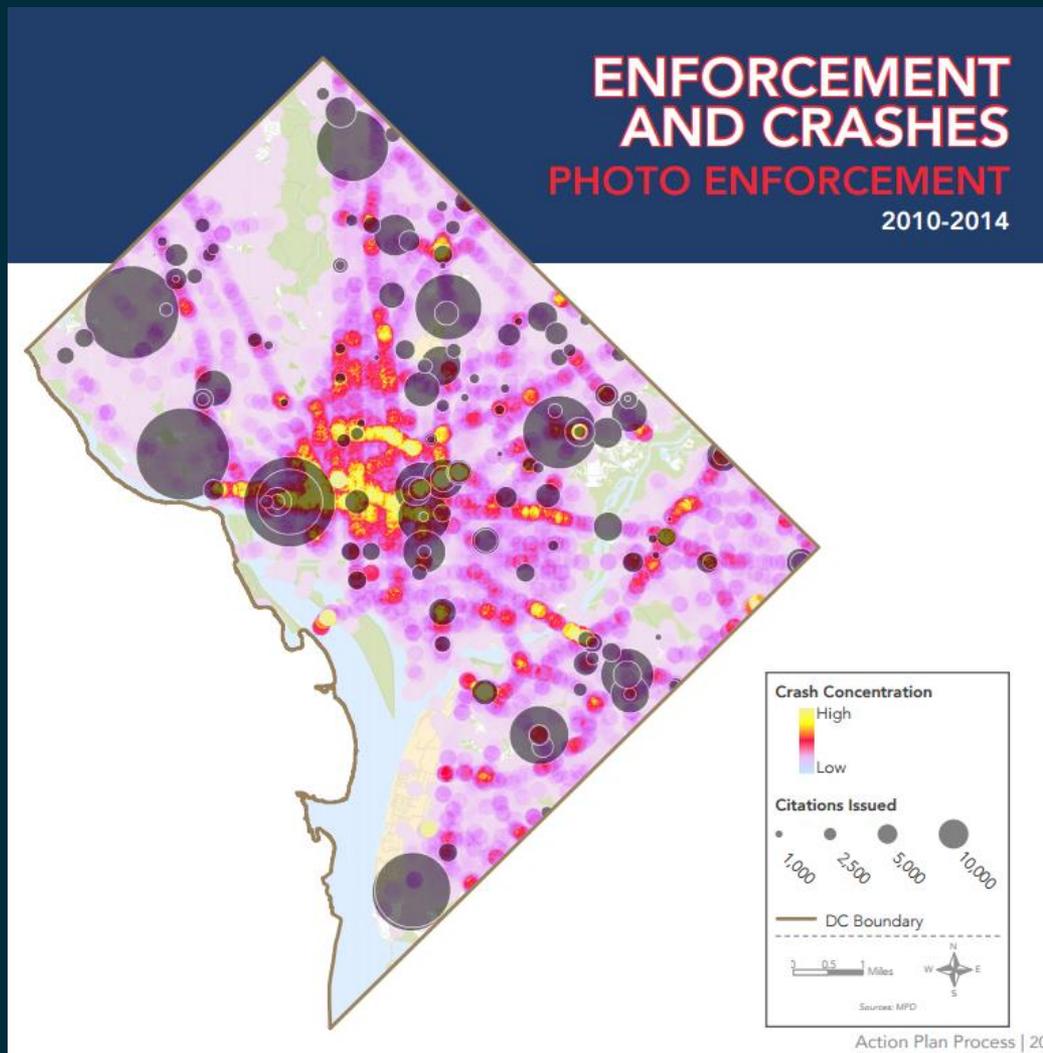


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# GIS INFORMED THE VZ ACTION PLAN



# GIS INFORMED THE VZ ACTION PLAN



[View the  
Vision Zero  
Story Map](#)

[dcvisionzero.com](http://dcvisionzero.com)



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# VZ STRATEGIES REQUIRE FURTHER GIS ANALYSIS

SS - 1



Improve methodology to guide street design and countermeasures. Develop a Risk Analysis Model to enhance ability to predict risk using key inputs. Inform priority of future safety improvements using new model and move from analysis of high-crash frequency locations to analysis of risk-factors. Ensure geographic and social equity of investments and schedule of improvements.

VU - 2



Enhance citywide data collection to identify sidewalk repairs needed and create safe and accessible sidewalks for all ages and abilities.

DD - 17



Utilize and build upon crowdsourced data (e.g. Waze) to make traffic volumes more predictable to reduce driver frustration. Promote special event data, HSEMA data of upcoming events, etc. to communicate likely delays.



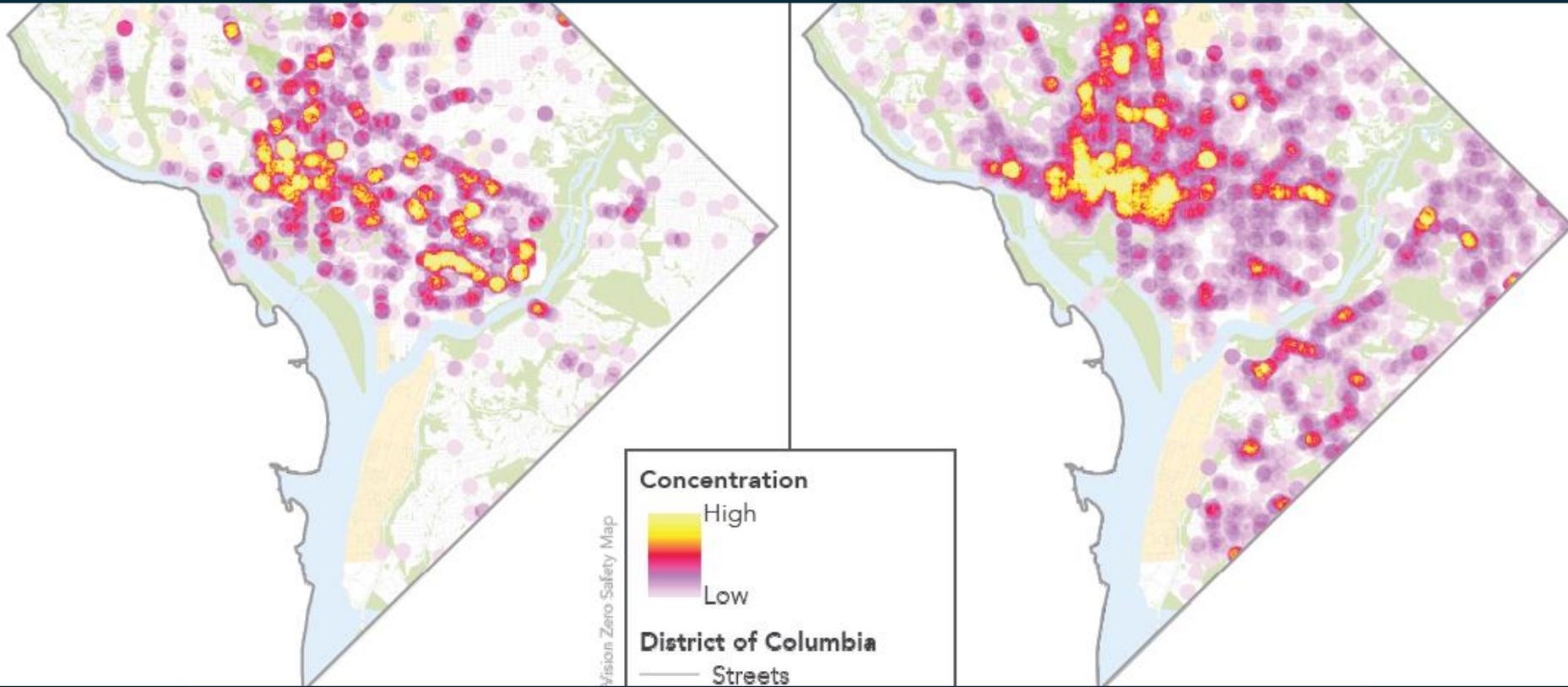


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# OPEN DATA - CROWDSOURCING



# OPEN DATA - MAPPING



**CONCERNS** FROM SAFETY MAP 2015

**CRASHES** REPORTED 2010-2014



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# OPEN DATA - HACKATHON





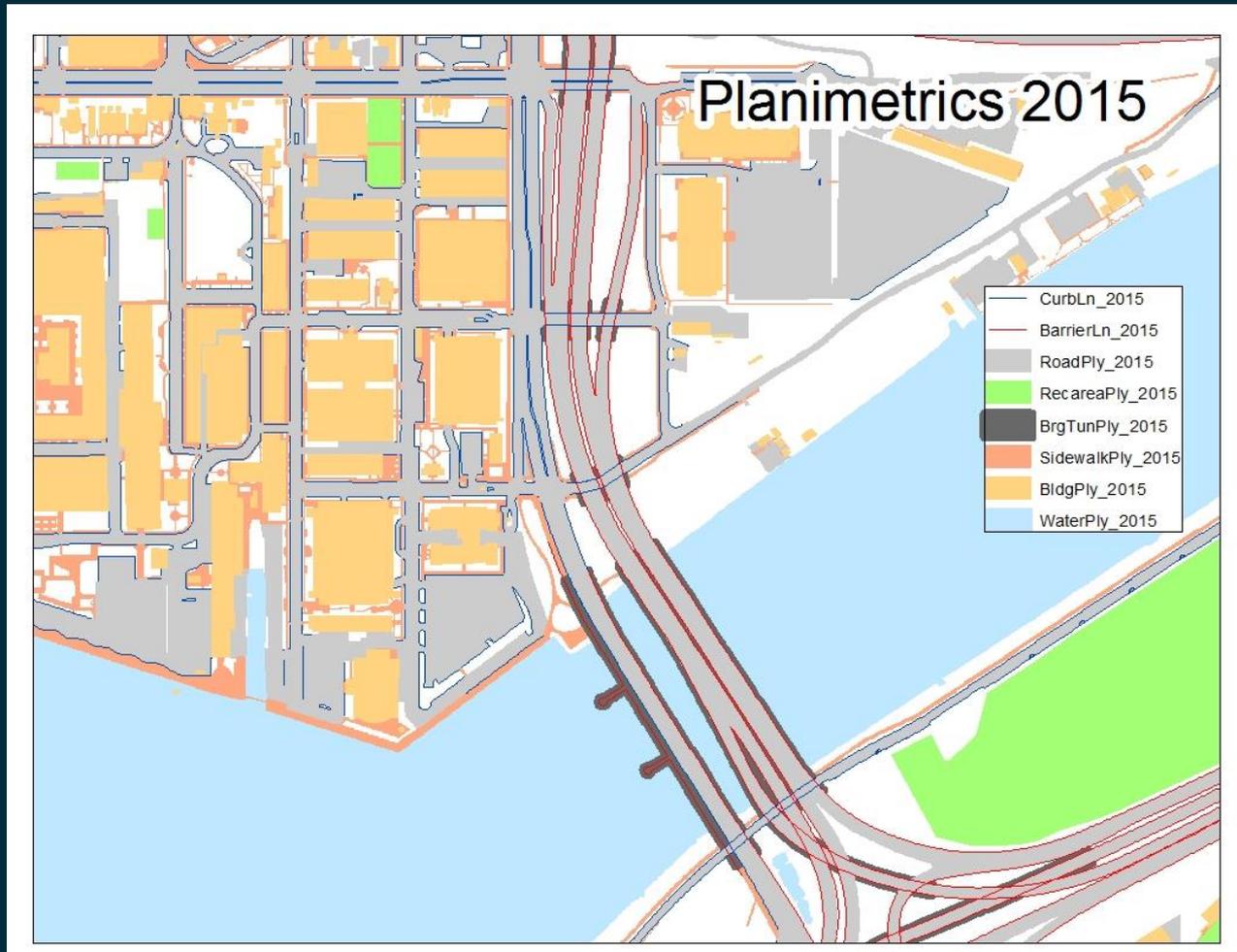
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# DC GIS DATA UPDATES SENSOR FLIGHT UPDATE

- QLI LiDAR - accepted
- Orthophoto – accepted
- Planimetrics – acceptance by Early April



# PLANIMETRICS 2015





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# DATA UPDATE

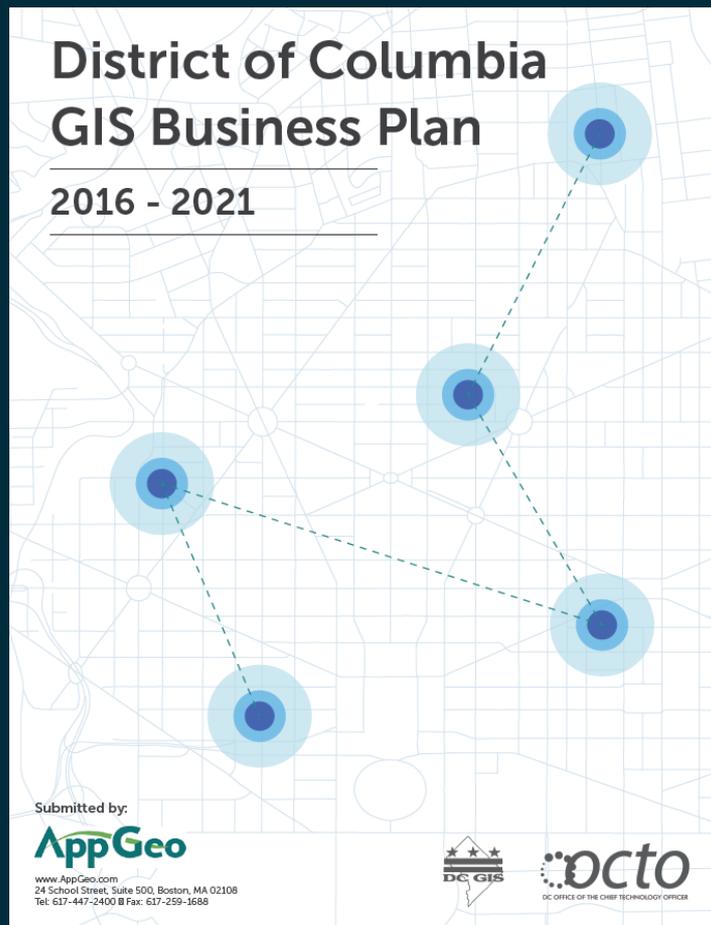
- Adult Care
- Bus Line
- Bus Stop
- Car and Bike Crash
- Car Share
- Circulator Line
- Circulator Point
- Clean Team Service Area
- Interstate
- Interstate Shield
- Liquor License
- Metro Entrance
- Moving Violation
- Notary Public
- Parking Violation
- Parking and Moving Violation Summary
- Primary Care
- Recreation Center
- Shopping Center
- Street Car Line
- Street Car Stop
- Super Market Tax Credit Zone
- Village Boundary





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# DC GIS BUSINESS PLAN RECOMMENDATIONS



Expected Publication  
Early 2016 (CY)

Rich Grady  
Kate Hickey





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# *Strategic Plan vs. Business Plan*

DC GIS  
**Strategic** Plan  
2016-2021



**What** are the Strategic Goals  
for the next 5 years?

DC GIS  
**Business** Plan  
2016-2021



**How** should DC GIS  
accomplish these goals?





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## *Business Plan Focuses on the First 2 Strategic Goals*

DC GIS  
**Business Plan**  
2016-2021



1. How to provide geospatial data governance and delivery in alignment with District priorities.
2. How to provide outstanding infrastructure and service delivery to the DC GIS stakeholder community.





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# *Applying Portfolio Management*

- Coordination of geospatial assets and investments to support priorities and missions
- Used to guide investments in the 2011 Business Plan
- Intended to guide investment in new data and technology, maintenance of existing assets, “sunsetting” of data and technology that has lost its utility

Innovation

Information

Economy

Infrastructure





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## DC GIS Asset Classes

ASSET CLASS	STRATEGIC OBJECTIVE	CLASSIFICATION CRITERIA
<b>Innovation</b>	Achieve progress and modernization by leveraging full power of GIS	<ul style="list-style-type: none"> <li>• Long lead time</li> <li>• Aimed at modernization</li> <li>• Essential to the vitality of the enterprise</li> </ul>
<b>Information Utility</b>	Provide better information	<ul style="list-style-type: none"> <li>• Better information delivery</li> <li>• Improved quality</li> <li>• Better integration</li> <li>• High business value for departments/citizens</li> </ul>
<b>Economy</b>	Reduce cost of business	<ul style="list-style-type: none"> <li>• Reduces cost of doing business</li> <li>• Faster results</li> </ul>
<b>Infrastructure</b>	Provide shared platforms and expand interoperability	<ul style="list-style-type: none"> <li>• Enables faster deployment</li> <li>• Integration with biz processes</li> <li>• Supports standardization/integration</li> </ul>

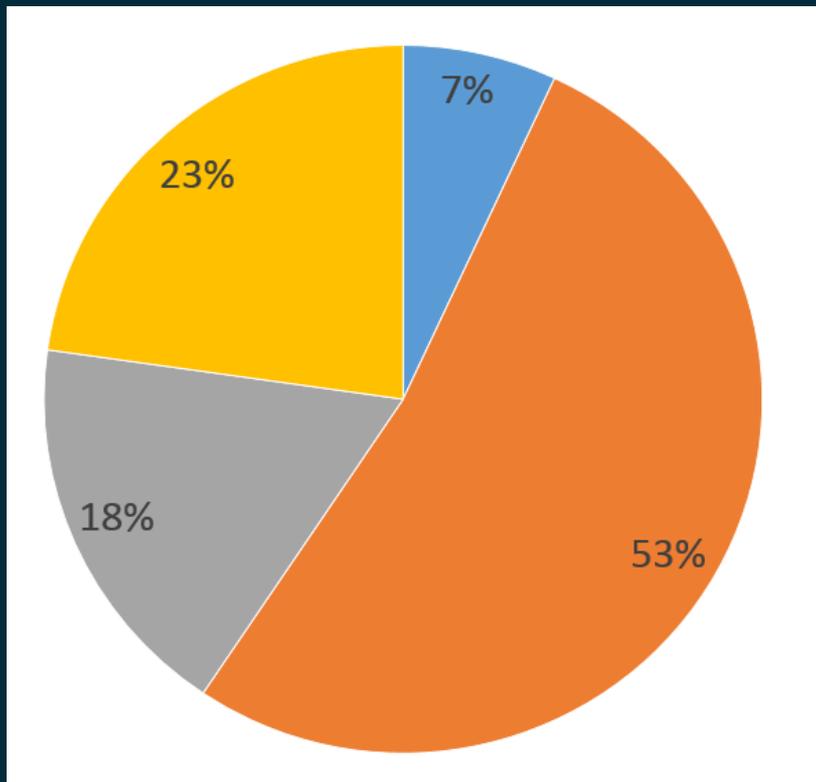




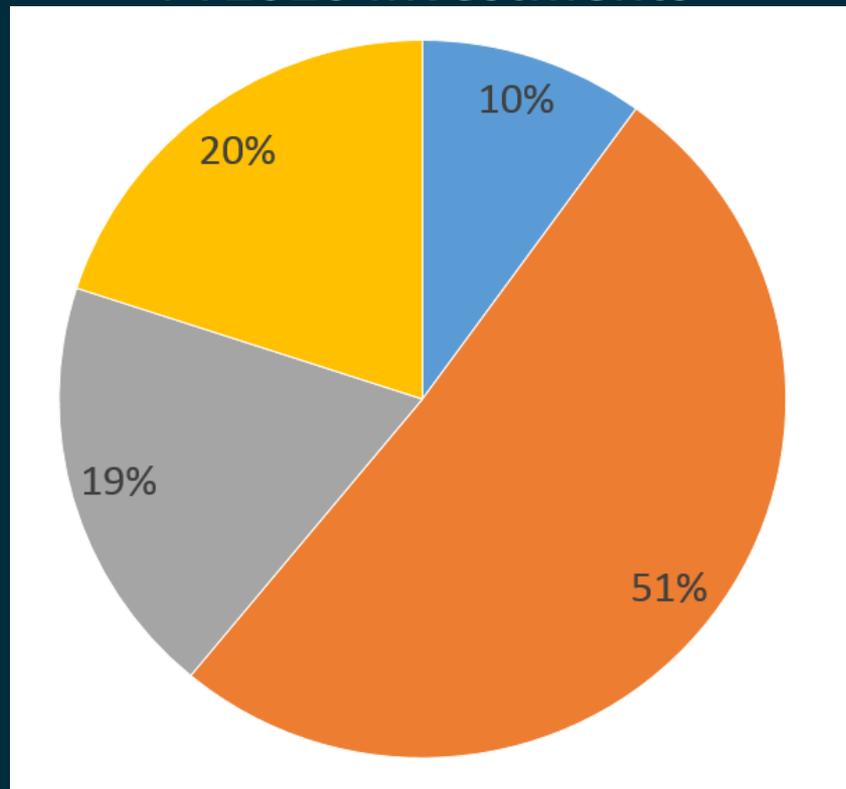
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# Investments by Asset Class

## FY2015 Investments



## FY2016 Investments



■ Innovation   ■ Info Utility   ■ Economy   ■ Infrastructure





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# DC GIS Investment Strategies

INVESTMENT STRATEGY	DESCRIPTION
<b>Invest</b>	Build or enhance; develop new capabilities
<b>Maintain</b>	Provide basic support; hold steady and keep the status quo; version upgrades only; no active development of new capabilities
<b>Migrate</b>	Move or 'reinvent' onto a new or different platform
<b>Sunset</b>	Set expectations for shutting-off spending at some point, completely; the path to retirement
<b>Divest</b>	Shut-off spending and "kill;" discontinue all spending and support

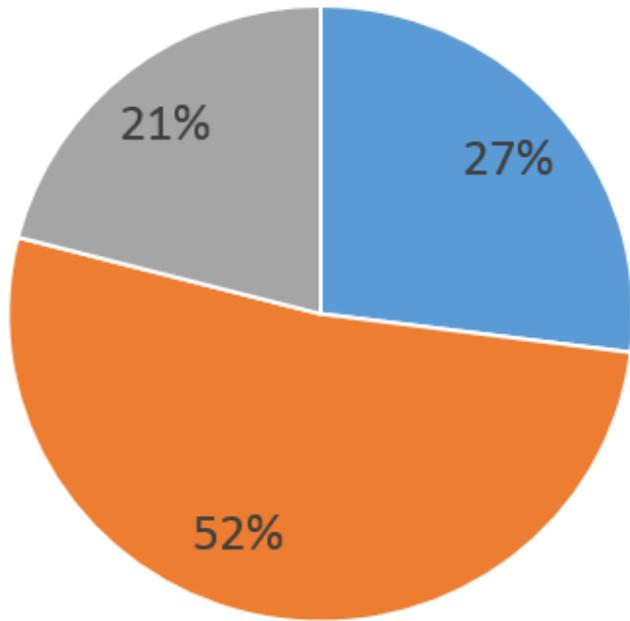




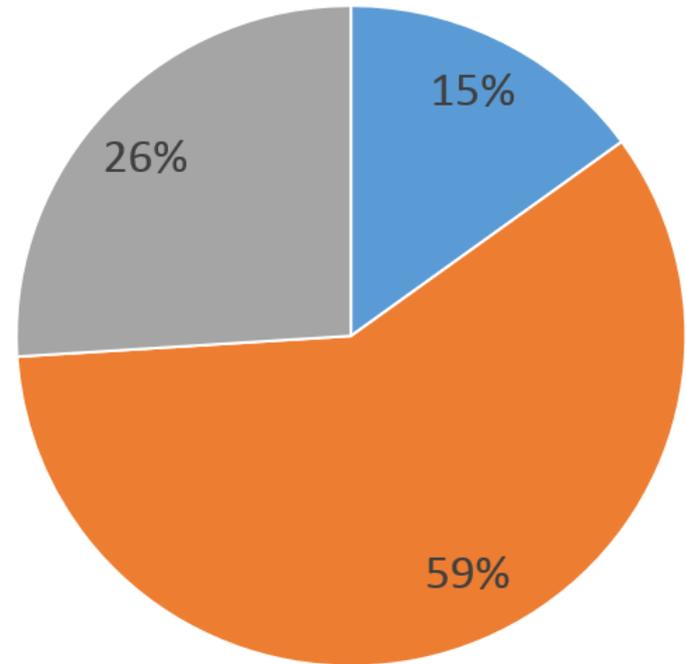
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# Budget by Investment Strategy

FY2015 Spending



FY2016 Spending



■ Invest ■ Maintain ■ Migrate





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## *Data & Service Delivery Investment*

### *Recommendations*

- Continue to enhance the **Open Data Portal**, ensuring data is accessible, discoverable and useful
- Capture and publish “**high value**” **data sets**; commonly requested data that help identify patterns of incidents or behaviors
- Capture **Big Data** to identify new correlations (e.g. enable **data analytics** using aggregated tax info, incidents, permit locations, real-time data, emergency response times, wireless coverage, etc.
- Capture, vet & integrate **crowd-sourced data** to increase citizen engagement/contributions – leverage social media (e.g. tweet mapping to discover what’s trending and where)





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# *Data & Service Delivery*

## *Investment Recommendations*

- **3D data and tools** to support planning projects, emergency situations, or code enforcement – e.g. 3D building data, 3D MAR, e.g. underground Metro stations
- **Temporal geospatial data** e.g. near real-time data related to traffic accidents, events, or other highly dynamic data; **historic data** for analyzing change over time
- Provide **agency and public customer support** that encourages and enables users to “help themselves” to answer questions, create maps and perform geospatial analysis
- **New platforms & improvements to existing platforms** e.g. Google Maps API, ArcGIS Server, GeoServer & PostGIS, Cyclomedia, AGOL, FME, Elastic Search, Hadoop, geoanalytics





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## *Data & Service Delivery*

### *Investment Recommendations*

- Support **alternatives and complements to Esri** including Google, MapLarge, and especially Open Source tools such as Mapbox, Leaflet, CartoDB, and options yet to emerge
- Create a **“Pilot Lab”** to test and explore new geospatial technologies and stimulate new thinking to solve problems
- Invest in **data visualization tools** to leverage diversity of available data
- Meet the growing demand for **Business Intelligence and performance metrics analysis tools** from agencies and the public





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## *Governance Recommendations*

- Request a **Mayoral Memo** on the DC GIS program to raise awareness of it as an important and essential DC asset
- Formally **establish GISSC subgroups for Data and Web Services** to concentrate appropriate GISSC resources and attention on important DC GIS program areas
- Make **data ownership and stewardship responsibilities explicit** for OCTO GIS and agencies
- **Modernize the DC GIS federated data model** to leverage new data platforms and organizing concepts for data
- **Reinvigorate Annual GISSC Budget Meeting** for DC GIS to assure participation in prioritization of spending to support DC GIS





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## *What's next?*

- Strategic Plan 2016-2021 is complete
- Business Plan will be finalized in the next week
- Both plans will be posted on the website





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# ROUND TABLE DISCUSSION – QUICK NOTES

- AppGeo - What can GIS do for your agency? Look for ways to engage.
- Pictometry Connect – new mobile app.
- Draft open data policy out.
- More demonstrations on vision zero.
- Federal GIS User Conference – presentation on new federal data act. How will this filter down to DC GIS?
- OCTO - Open Data day March 4<sup>th</sup>, 5<sup>th</sup>.
- “drowning in data; starving for information”
- Public amazed at number of data sets. Once seen public wants more richness (attribution). Move from quantity to quality.
- Is the public reading the metadata? Need more meaningful metadata
- There needs to be better organize hackathons – not just DC gov sponsored hackathons.





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## SYSTEM UPDATES

- GIS Production Servers continue to run very well since the architecture updates
- Staging environment had been set up with Geoevent Server and Road & Highway server
- Configured Development environment for DDOT
- Updating ArcGIS license manager to support 10.4 coming in April
- Agencies should revise their application code to use https only.





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## TRAINING UPDATES

- Training classes Jan- March: 4 classes, 51 students
- Advanced Training for DC employees: Waiting for credit to be converted to register students for web courses
  - 31 applications received; 10 complete
- Putting together training survey with ESRI to identify needs





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THANK YOU  
FOR JOINING US



COMMENTS:

[DCGISSTEERING.COMMITTEE@DC.GOV](mailto:DCGISSTEERING.COMMITTEE@DC.GOV)

NEXT MEETING TENTATIVELY  
SCHEDULED FOR JUNE 2016

