



Supply Chain Security

Presentation to MWCOG Freight Subcommittee

March 5, 2020



HSEMA interest in supply chain risk management

- Understand how critical commodities get into the District
- Determine what would affect the resilience of those supply chains
- Use that information to improve operational planning and decision-making

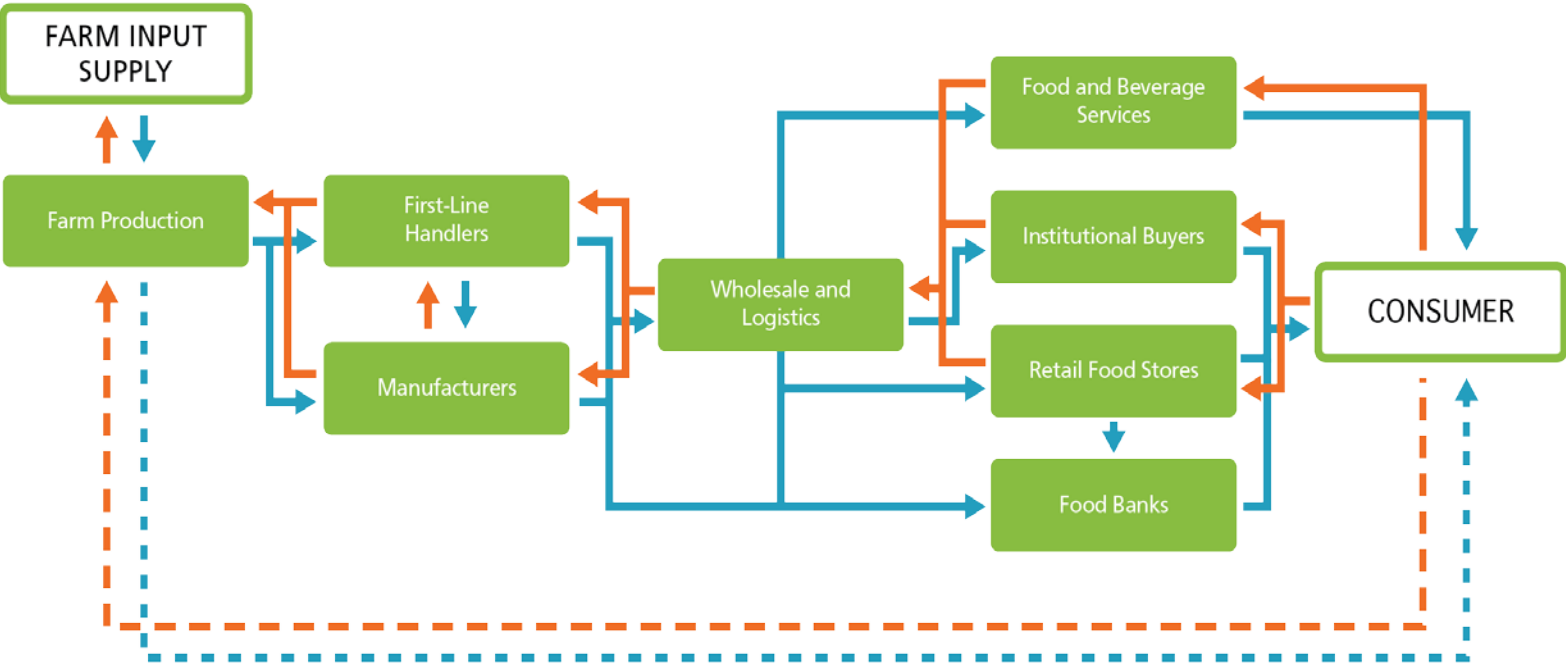


Current and proposed supply chain analyses

- Grocery supply chain -- 2018 (*FEMA TA Program*)
- Fuel supply chain 2019 -- (*FEMA TA Program*)
- Food and water emergency plans -- new (*FEMA RCPGP Program*)
- Fuel supply chain continuation -- new (*DHS RRAP*)
- Healthcare facilities supply chain - new (*DHS RRAP*)









Food supply chain example

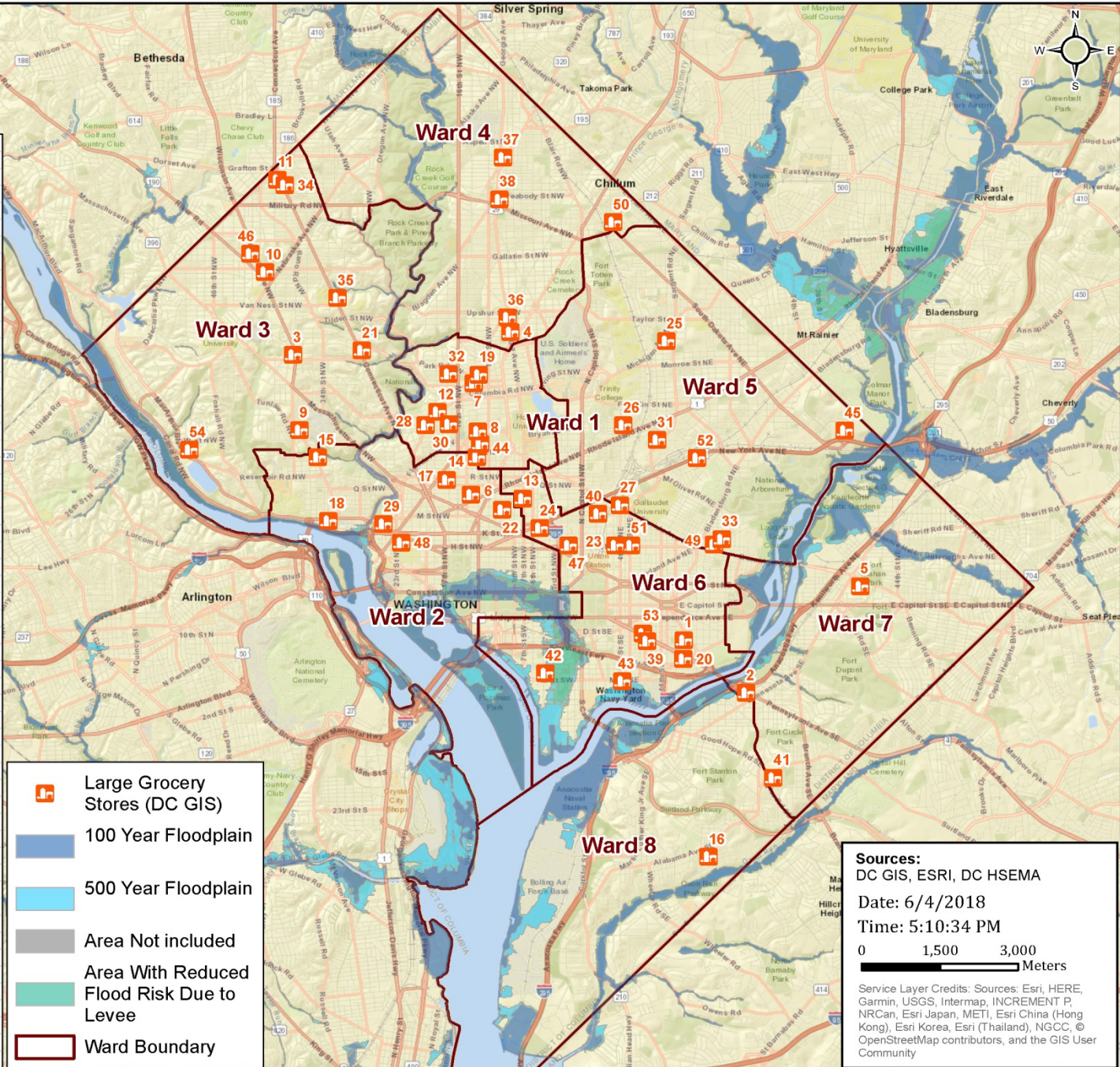


Large Grocery Stores and the District of Columbia Floodplains



| Map ID | STORENAME | ADDRESS |
|--------|------------------------|----------------------------|
| 1 | Safeway | 415 14th ST SE |
| 2 | Yes! Organic | 2323 Pennsylvania Ave S.E. |
| 3 | Giant | 3336 Wisconsin Ave NW |
| 4 | Safeway | 3830 Georgia Ave NW |
| 5 | Safeway | 322 40th ST NE |
| 6 | Whole Foods | 1440 P ST NW |
| 7 | Target | 3100 14th Street Northwest |
| 8 | Streets Market | 2400 14TH ST NW |
| 9 | Whole Foods | 2323 Wisconsin Ave NW |
| 10 | Whole Foods | 4530 40th ST NW |
| 11 | Magruder's | 5626 Connecticut Ave NW |
| 12 | Safeway | 1747 Columbia Rd NW |
| 13 | Giant | 1400 7th Street NW |
| 14 | Trader Joe's | 1914 14th Street NW |
| 15 | Safeway | 1855 Wisconsin Ave NW |
| 16 | Giant | 1535 Alabama Ave SE |
| 17 | Safeway | 1701 Corcoran St NW |
| 18 | Dean & DeLuca | 3276 M Street NW |
| 19 | Giant | 1345 Park Road NW |
| 20 | Harris Teeter | 1350 Potomac Ave SE |
| 21 | Yes! Organic | 3425 Connecticut Avenue NW |
| 22 | Capitol Super Market | 1231 11th st NW |
| 23 | Giant | 300 H Street NE |
| 24 | Safeway | 490 L St NW |
| 25 | Yes! Organic | 3809 12th Street NE |
| 26 | Save-A-Lot | 514 Rhode Island Ave NE |
| 27 | Trader Joe's | 1240 4th St NE |
| 28 | Yes! Organic | 1825 Columbia Road NW |
| 29 | Trader Joe's | 1101 25th St NW |
| 30 | Harris Teeter | 1631 Kalorama Road |
| 31 | Giant | 1050 Brentwood Rd NE |
| 32 | BestWorld Super Market | 3178 Mount Pleasant St NW |
| 33 | Aldi | 901 17th St NE |
| 34 | Safeway | 5545 Connecticut Ave NW |
| 35 | Giant | 4303 Connecticut Ave NW |
| 36 | Yes! Organic | 4100 Georgia Avenue NW |
| 37 | Safeway | 6500 Piney Branch Rd NW |
| 38 | Walmart Supercenter | 5929 Georgia Ave NW |
| 39 | Yes! Organic | 410 8th Street SE |
| 40 | Harris Teeter | 1201 1st ST NE |
| 41 | Safeway | 2845 Alabama Ave SE |
| 42 | Safeway | 1100 4th St SW |
| 43 | Harris Teeter | 401 M street SE |
| 44 | Yes! Organic | 2123 14th Street NW |
| 45 | Costco Wholesale | 2441 Market St NE |
| 46 | Safeway | 4203 Davenport ST NW |
| 47 | Walmart Supercenter | 99 H st NW |
| 48 | Whole Foods | 2201 Eye Street NW |
| 49 | Safeway | 1601 Maryland Ave NE |
| 50 | Walmart Supercenter | 310 Riggs Road NE |
| 51 | Whole Foods | 600 H St NE |
| 52 | Mom's Organic Market | 1501 NEW YORK AVE NE |
| 53 | Trader Joe's | 750 Pennsylvania Ave SE |
| 54 | Safeway | 4865 MacArthur Blvd NW |

-  Large Grocery Stores (DC GIS)
-  100 Year Floodplain
-  500 Year Floodplain
-  Area Not included
-  Area With Reduced Flood Risk Due to Levee
-  Ward Boundary



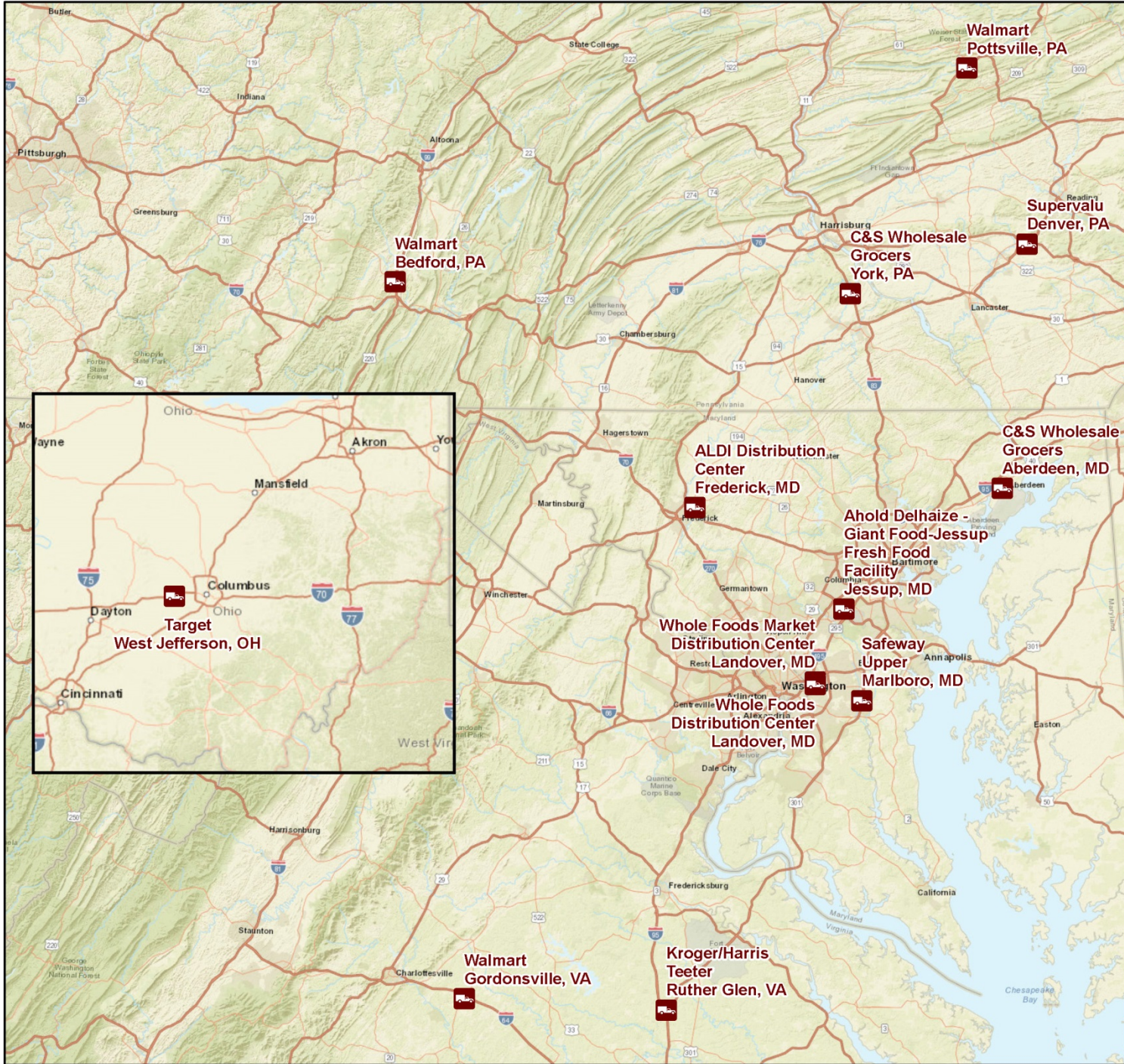
Sources:
DC GIS, ESRI, DC HSEMA

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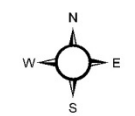
0 1,500 3,000
Meters

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District of Columbia Food Distribution Locations

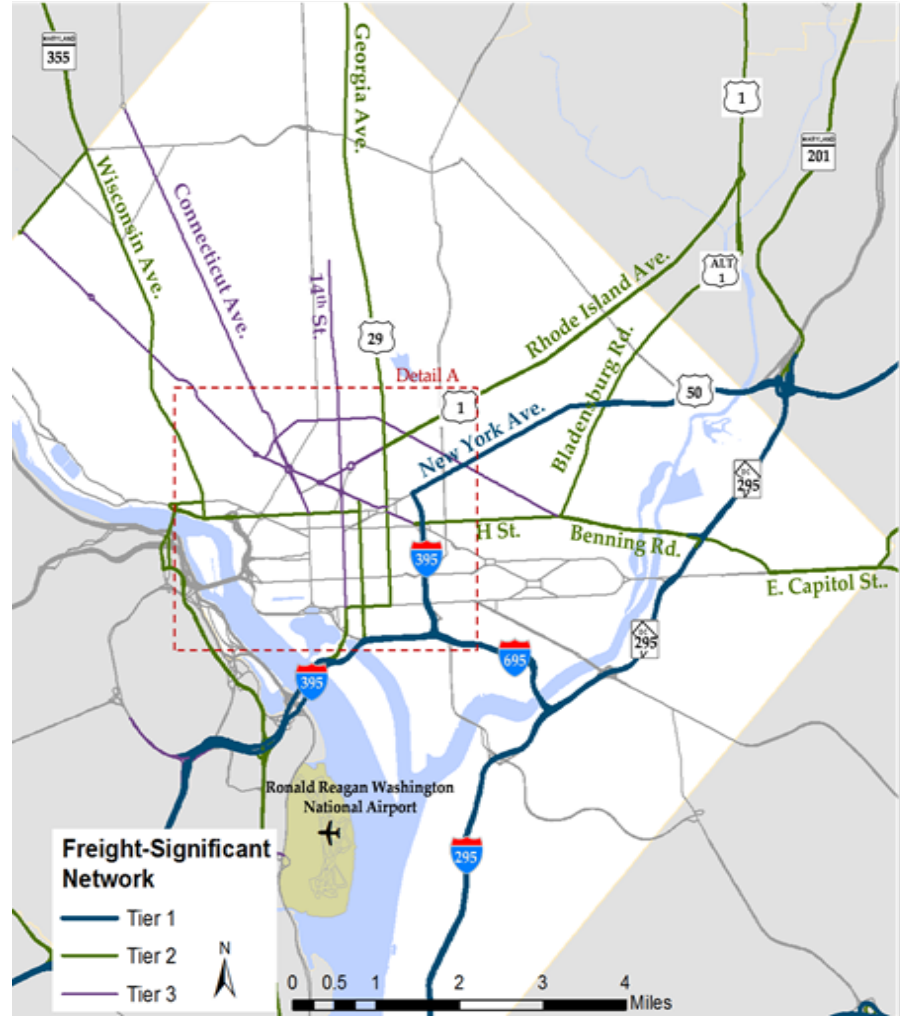
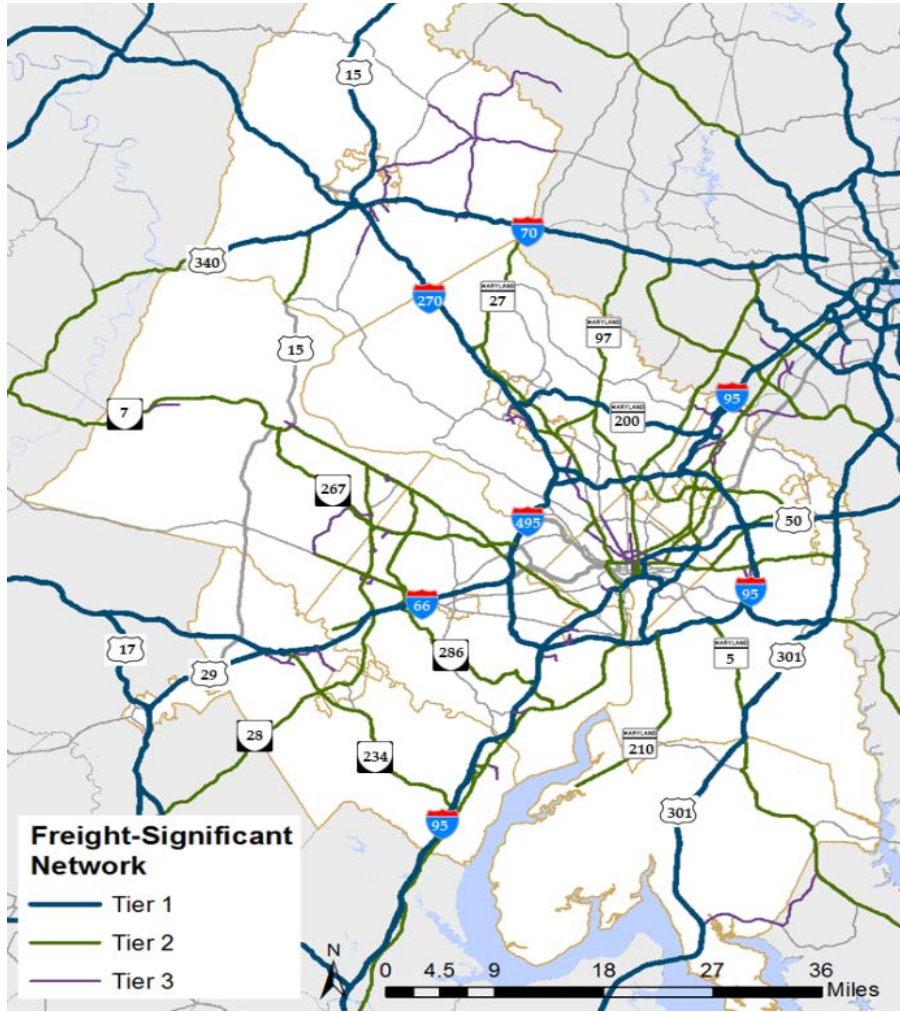


 DC - Food Distribution Locations



Sources:
ESRI, DC HSEMA
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■ Meters

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



Some findings

- There are 54 large grocery stores in the District, representing 17 companies, but the stores are not equitably distributed
- There are at least 12 major grocery distribution centers supplying District grocery stores; all are located outside the city, with concentration in eastern Maryland
- The District's largest wholesale grocery distributor also serves several other Mid-Atlantic and northeast U.S. urban areas
- Virtually all food arrives in the District by truck
- There are multiple freight corridors into the District
- While grocery stores are the primary source of food, many residents rely on smaller retail outlets and non-retail options



Supply chain security goals

- Promote the timely and efficient flow of legitimate commerce
- Protect the supply chain from exploitation
- Foster a supply chain system that is prepared for and can withstand evolving threats and rapidly recover from disruptions



Supply chain security threats

- **Natural hazards** - severe weather, biological events, earthquakes, space weather
- **Accidents** - human error, process failures, infrastructure collapse
- **Large scale attacks** - chemical, biological, radiological, explosives, civil unrest
- **Criminal activity** - facility intrusion, attacks on personnel, cargo diversion and theft
- **Cyberattacks** -ICS attacks, DDOS attacks, data breaches, ransomware,



Fleet security performance measures

- **Visibility** - real time cargo/asset location with environmental sensing capability for cargo integrity
- **Validation** - chain of custody, regulatory compliance, loss and incident forensics
- **Performance** - transit time, estimated time of arrival, destination acknowledgement and notification
- **Risk mitigation** - awareness/prevention of criminal activity, law enforcement engagement and assistance with recovery
- **Efficiencies** - least cost/time/risk routing, carrier evaluation, targeted areas for supply chain improvement



Revisiting the food study - security implications

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Next steps for the Freight Subcommittee?

- Request a supply chain security threat briefing, focusing on both physical and cyber threats
- Get perspectives of commodity distributors and carriers on their security concerns and plans
- Evaluate the need to address security in local and regional freight plans
- Other?

