



MODERNIZING THE ENERGY DELIVERY SYSTEM FOR INCREASED SUSTAINABILITY

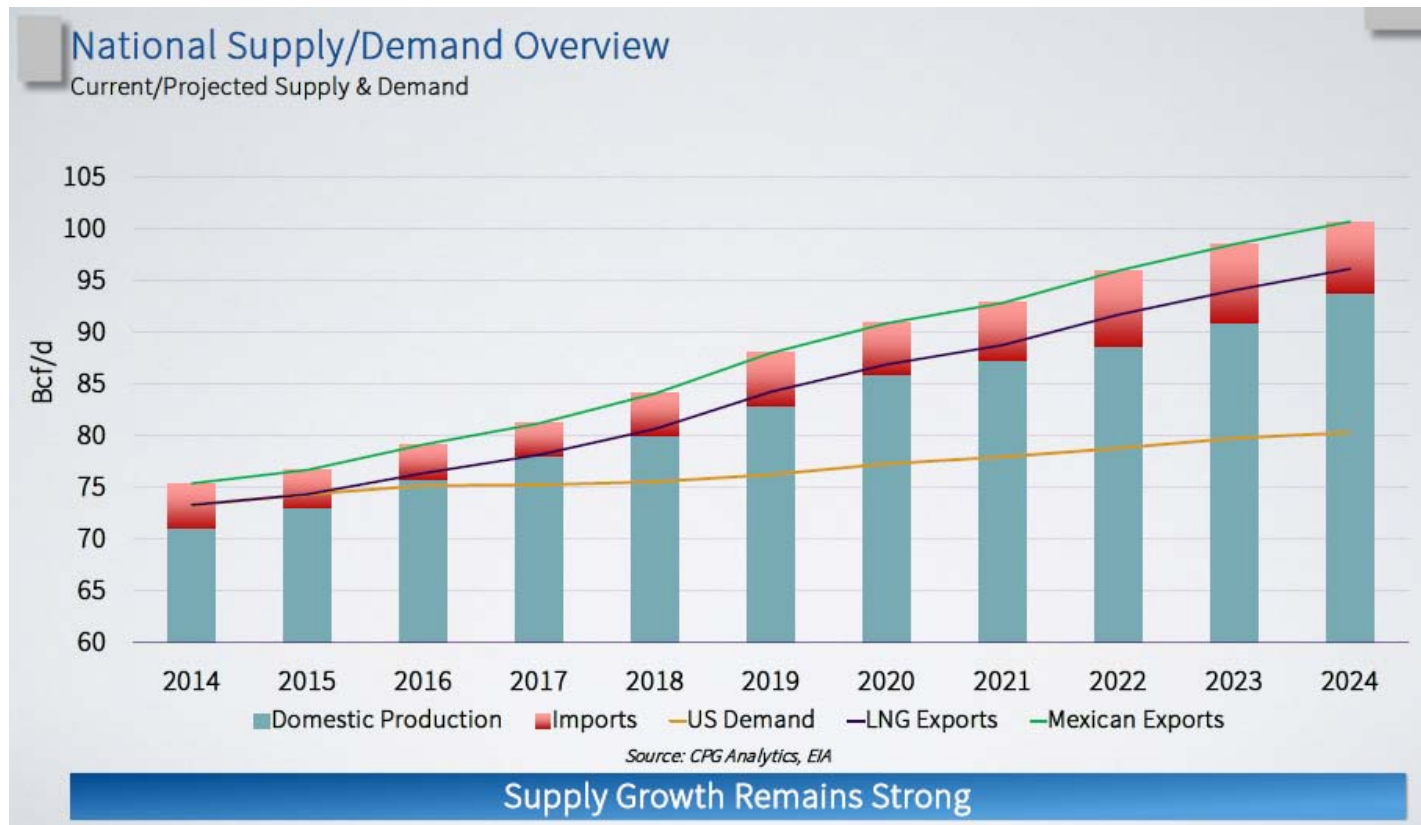
**DOUGLAS STAEBLER
SENIOR VICE PRESIDENT
UTILITY OPERATIONS**

OCTOBER 1, 2015

GAS DISTRIBUTION SYSTEMS AND FACILITIES

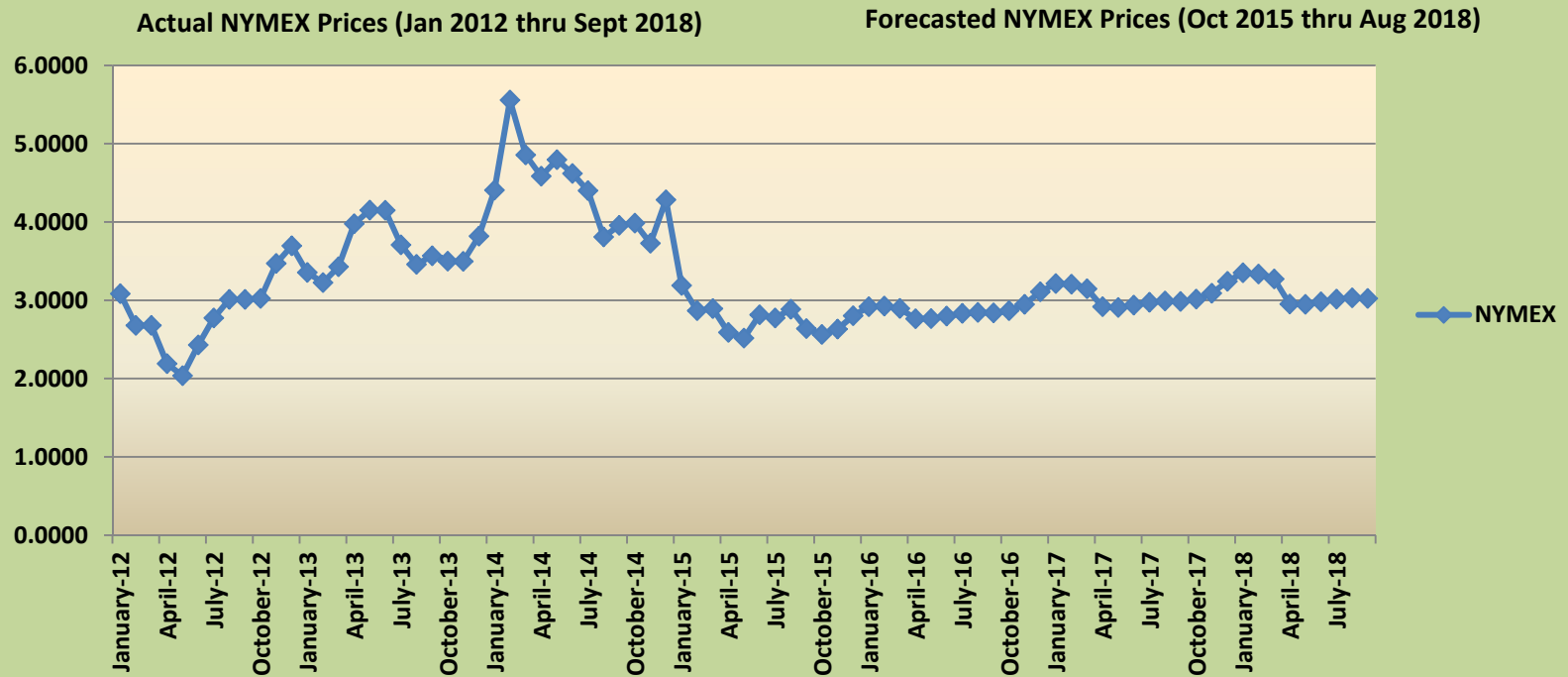
SAFE AND RELIABLE

GAS SUPPLY

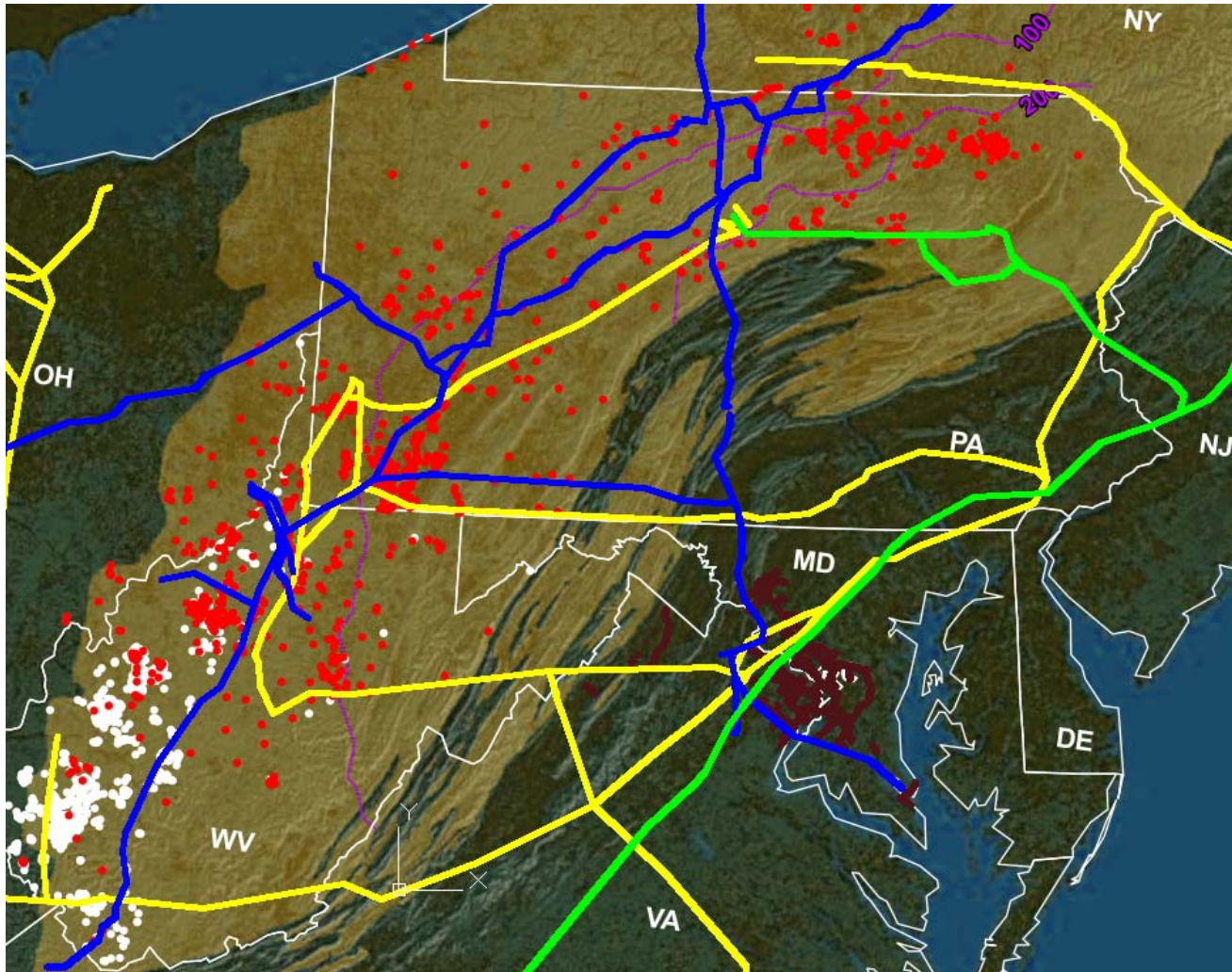


GAS PRICES

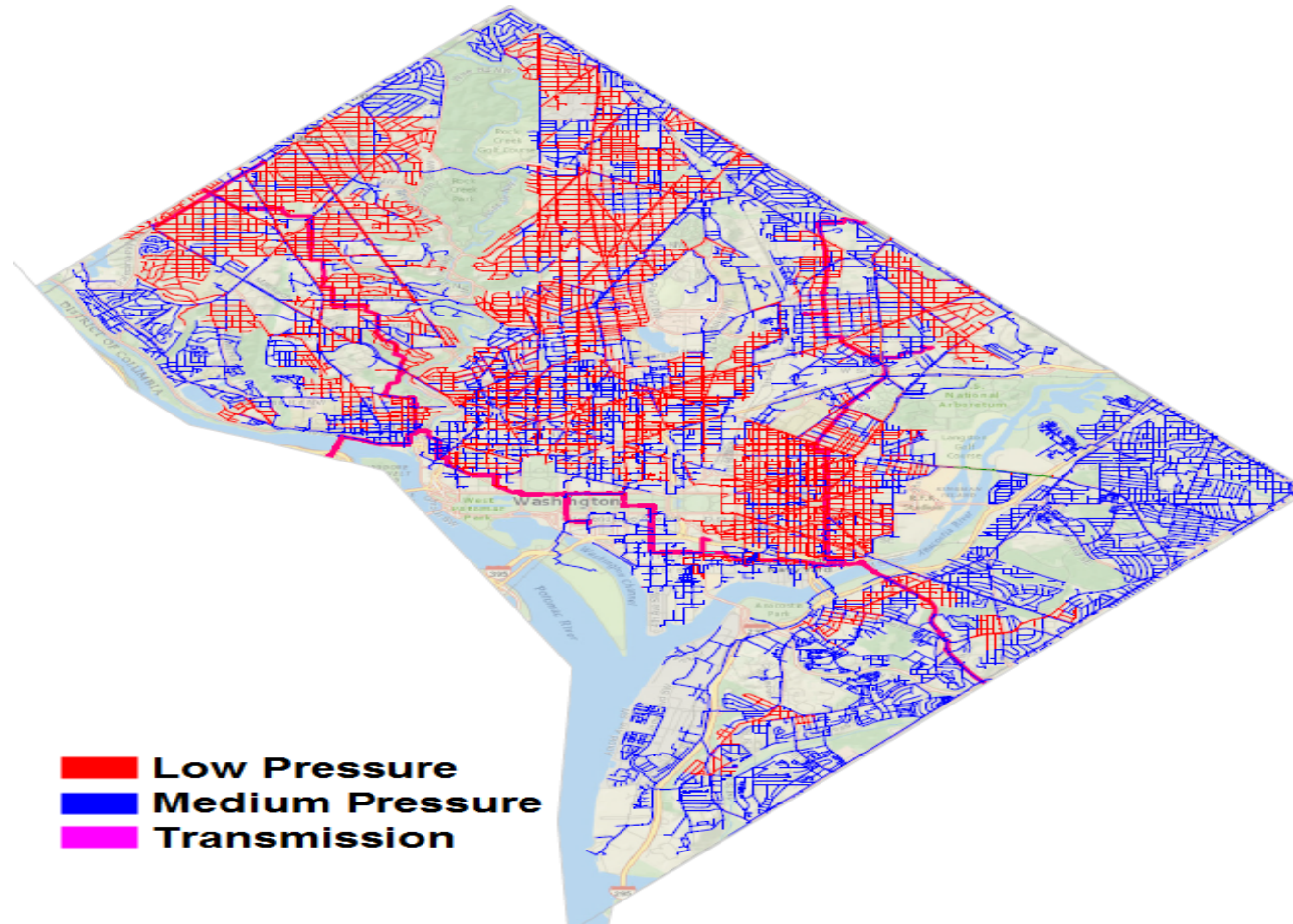
NYMEX Henry Hub Gas Contracts



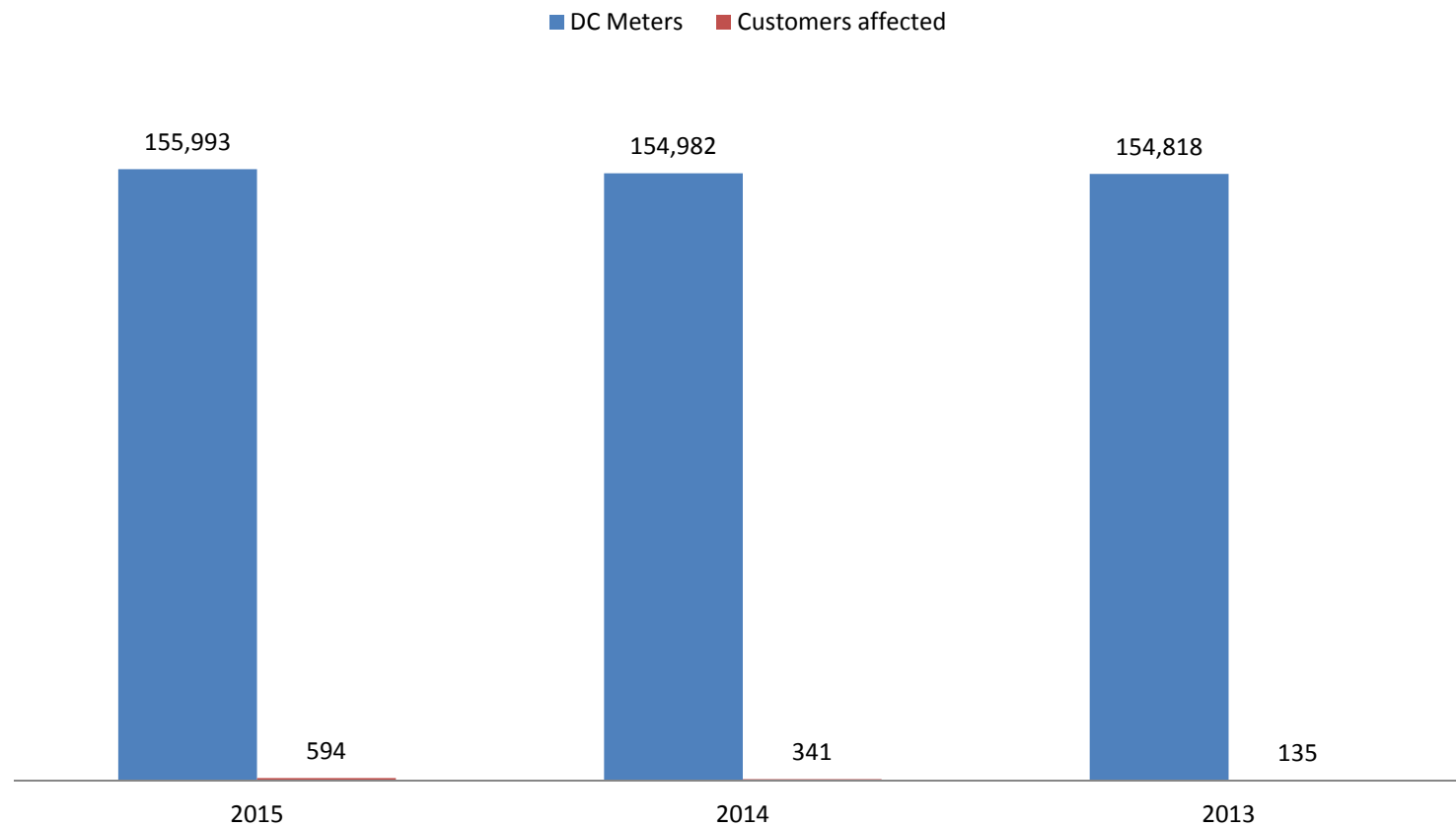
WASHINGTON GAS - ACCESS TO SUPPLY



DISTRICT OF COLUMBIA SYSTEM MAP



SYSTEM RELIABILITY

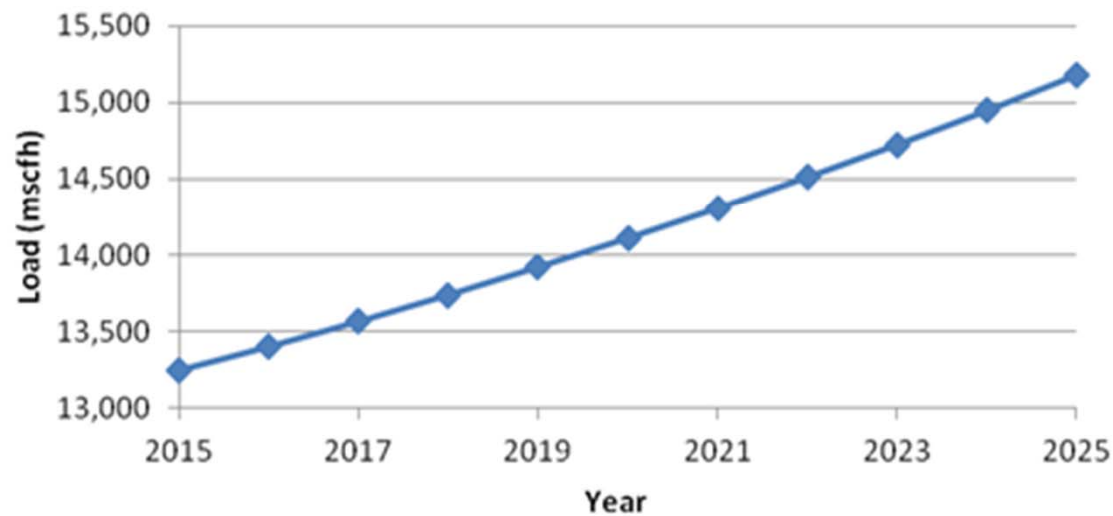


CURRENT CAPACITY

318 MILLION THERMS IN FY2014

Projected Load Increase in DC

(1.2 to 1.6% increase per year)



GROW

The map displays 17 numbered areas of potential density in Washington, D.C. The areas are color-coded according to the legend:

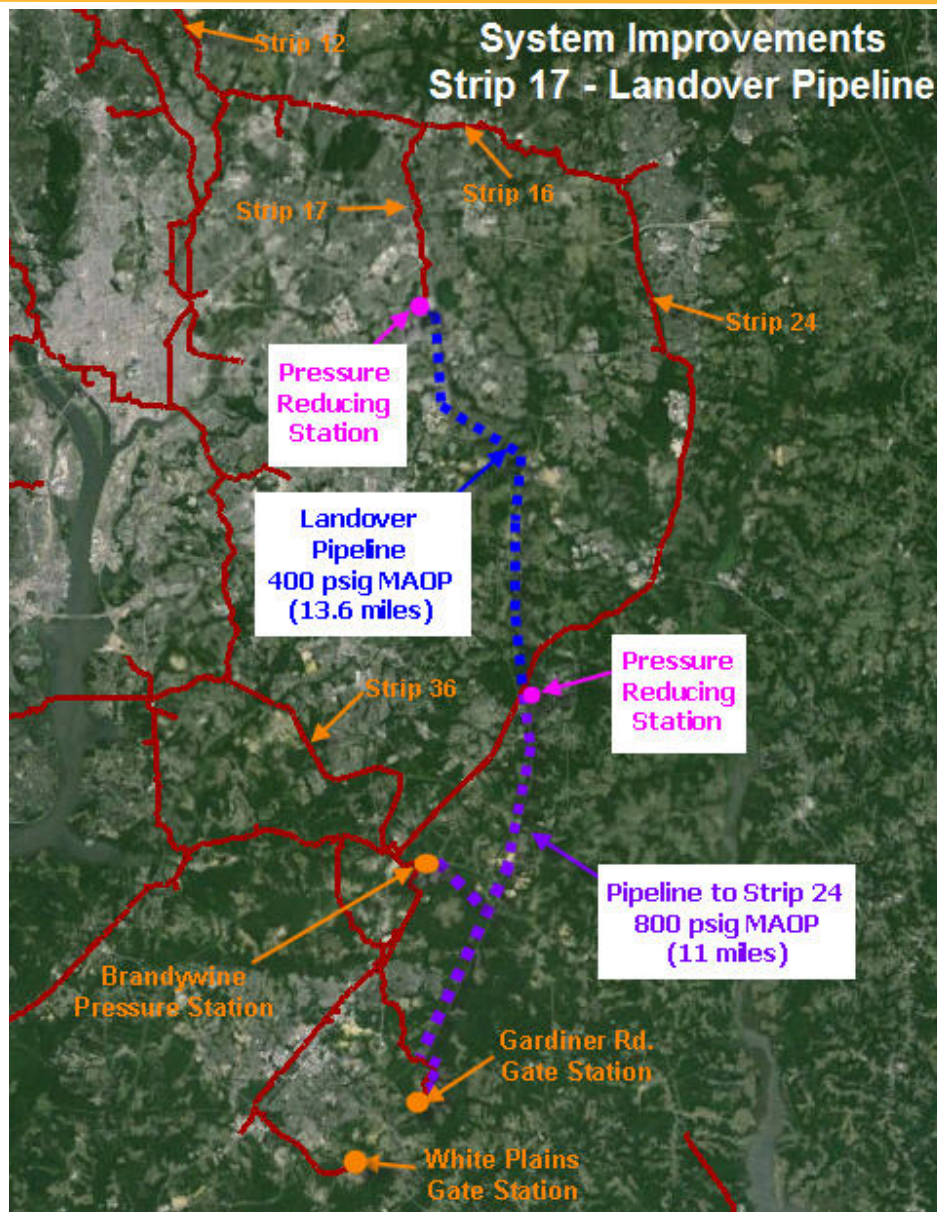
- BID/CID:** Green (Areas 12, 16)
- Greatest Density Potential:** Red (Areas 1, 2, 3, 6, 11, 13, 14, 15)
- Large Density Potential:** Yellow (Areas 4, 5, 7, 8, 9, 10, 17)

The map includes labels for various neighborhoods and landmarks, such as Chevy Chase Village, Rock Creek Park, Georgetown University, and the Potomac River. An inset map in the bottom left corner shows the location of the study area within the District of Columbia.

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeBCO, IGN, Kataster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, Mapbox, © OpenStreetMap contributors, and the Mapbox Community.

1. The Parks at Walter Reed
2. Armed Forces Retirement Home (Soldiers Home)
3. McMillan Reservoir
4. Rhode Island Avenue Center (MRP)
5. Brookland Manor Redevelopment

FUTURE EXPANSION



SYSTEM MODERNIZATION

- **Conversion from Low Pressure to Medium Pressure**
- **Excess Flow Valves on Services**
- **Upgraded SCADA and Communication Systems**
- **Automated Valves on Transmission System**
- **Damage Prevention**
 - **Underground Facilities Protection law amendments**
 - **Currently working with PSC Pipeline Safety staff on additional Damage Prevention programs**



SAFETY RELATED ENHANCEMENTS

1. PROJECT PIPES - 40 year program

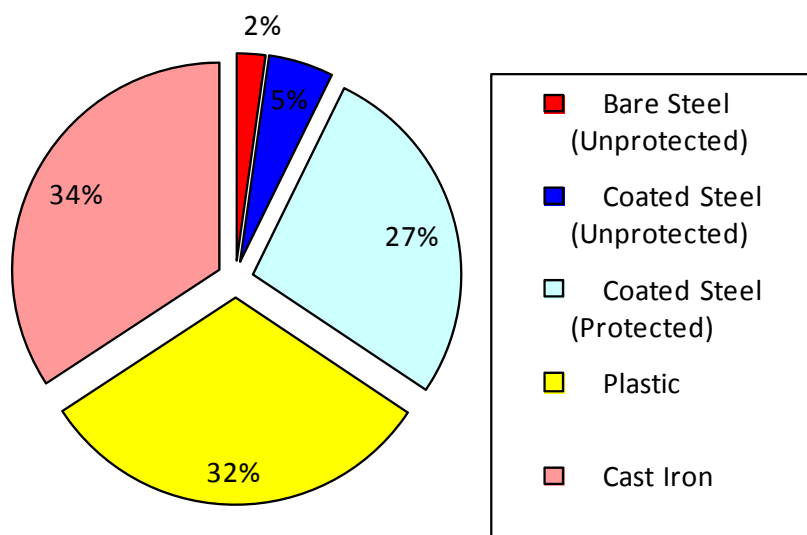
- Cast iron main, bare and unprotected steel main and services
 - 480 miles of main
 - 37,000 services
 - Installation of excess flow valves

2. Currently working the first 5 year segment of the program

- 38 miles of main
- 10,000 services

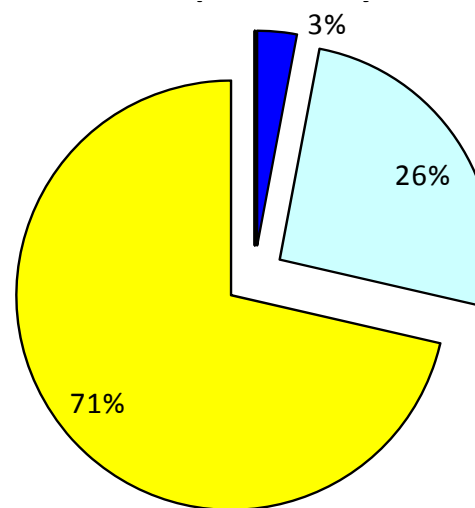
CURRENT AND FUTURE STATE OF THE SYSTEM

Proportion of Main Population by Material



As of 12/31/2014

Impact of PROJECT *pipes* and FC 1027 on Main Population by Material



Projected 12/31/2054



QUESTIONS ?