

USING DOEE'S STORMWATER DATABASE TO:

Strategically implement green infrastructure programs that protect District rivers; report on environmental outcomes; and provide more effective customer service.

STORMWATER RUNOFF IN WASHINGTON, DC

Oil, grease, fertilizers, and other pollutants drain, often without treatment, into the District's waterbodies.



Stormwater carries trash into the District's waterbodies.

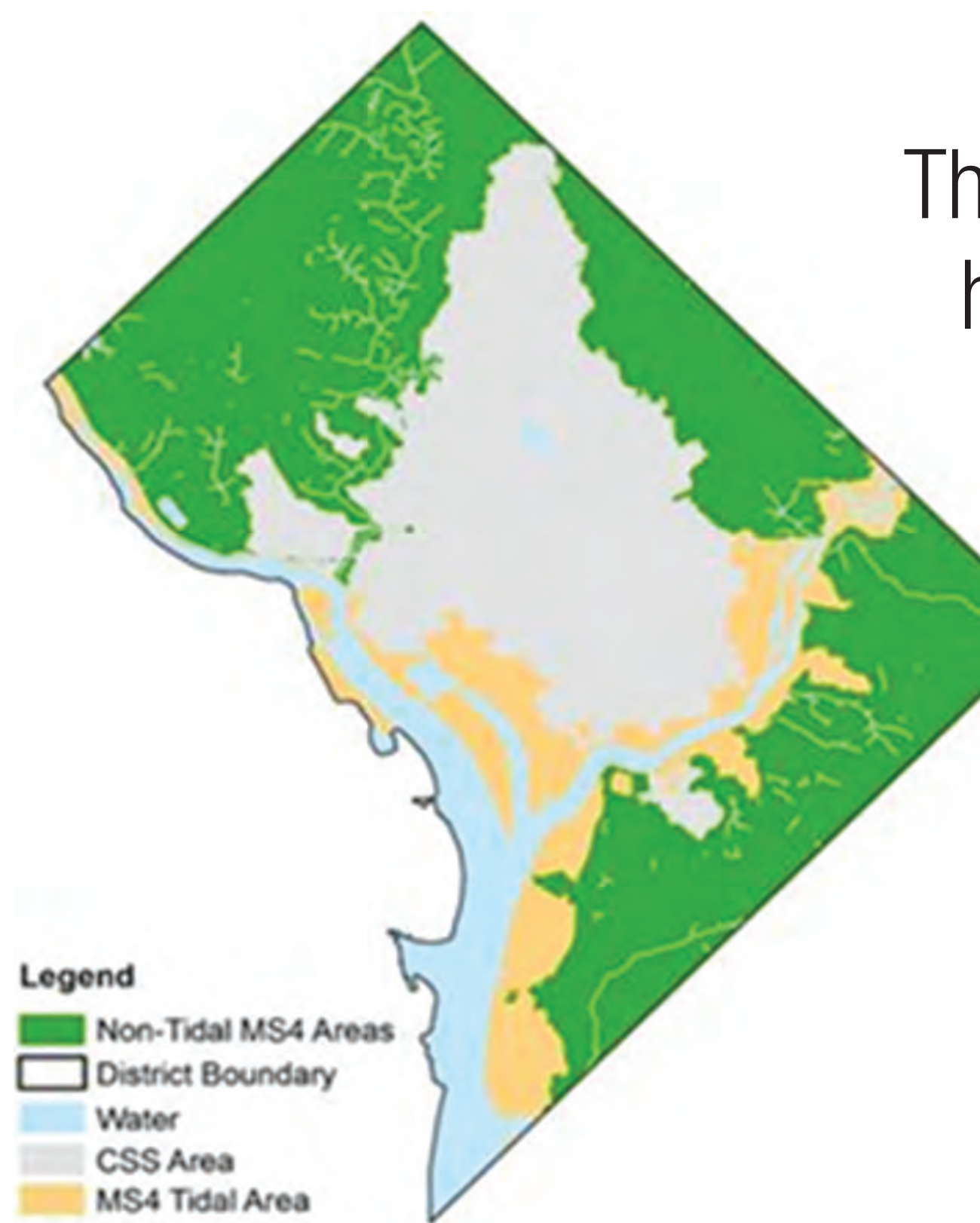


High volumes of stormwater runoff erode stream channels, like this tributary to the Anacostia River.



DOEE's stormwater management programs help to install green infrastructure to reduce stormwater runoff and restore the District's waterbodies.

The Municipal Separate Storm Sewer System (**MS4**) drains to District waterbodies, often without treatment. These areas are more environmentally vulnerable and are the primary focus of DOEE's green infrastructure programs.



This map shows the high-priority green infrastructure locations in the MS4.



This SRC-generating rain garden keeps polluted stormwater runoff out of a tributary to the Anacostia River. Ponding is visible from a rainstorm that occurred the day before the photo was taken.

COORDINATION AND INTEGRATION OF REGULATORY AND INCENTIVE-BASED STORMWATER PROGRAMS

- Siloed programs that rely on the same data now exchange information.
- For each green infrastructure practice, DOEE tracks design, approval, inspection, and receipt of financial incentives – Prior to the Stormwater Database, these were all tracked separately.
- DOEE continues to integrate more stormwater programs into the Stormwater Database.

IMPLEMENTATION OF THE STORMWATER RETENTION CREDIT (SRC) TRADING PROGRAM

- Large construction projects must install green infrastructure to reduce stormwater runoff. Projects may meet a portion of their requirement by purchasing SRCs from voluntary green infrastructure practices.
- Database calculations determine the SRC demand for regulated projects and the potential SRC supply for voluntary projects.
- The publicly-available SRC registry posts sale prices and allows SRC owners to advertise their SRCs for sale. The registry reduces transaction barriers and provides program transparency.

Transfer Date	Watershed where SRCs are generated	Sewershed where SRCs are generated	Purchase price per SRC	Number of SRCs (tot)	Total value of transfer (tot)
10-13-2016	Potomac	MS4	\$1.90	11,013	\$20,925
09-26-2016	Rock Creek	CSS	\$1.70	4,648	\$7,902
09-08-2016	Rock Creek	CSS	\$2.00	2,142	\$4,284
08-10-2016	Rock Creek	CSS	\$1.80	108	\$194
08-08-2016	Potomac	MS4	\$1.90	2,115	\$4,019
08-03-2016	Rock Creek	CSS	\$1.80	3,105	\$5,589
07-08-2016	Rock Creek	CSS	\$1.90	584	\$1,110
07-08-2016	Rock Creek	CSS	\$1.80	1,257	\$2,263
10-02-2015	Potomac	MS4	\$1.90	11,013	\$20,925
09-18-2014	Potomac	MS4	\$2.27	11,013	\$25,000
Totals (10 groups)				46,998	\$92,209

The SRC Registry lists each SRC trade. Program participants can also access contact information for SRC sellers.

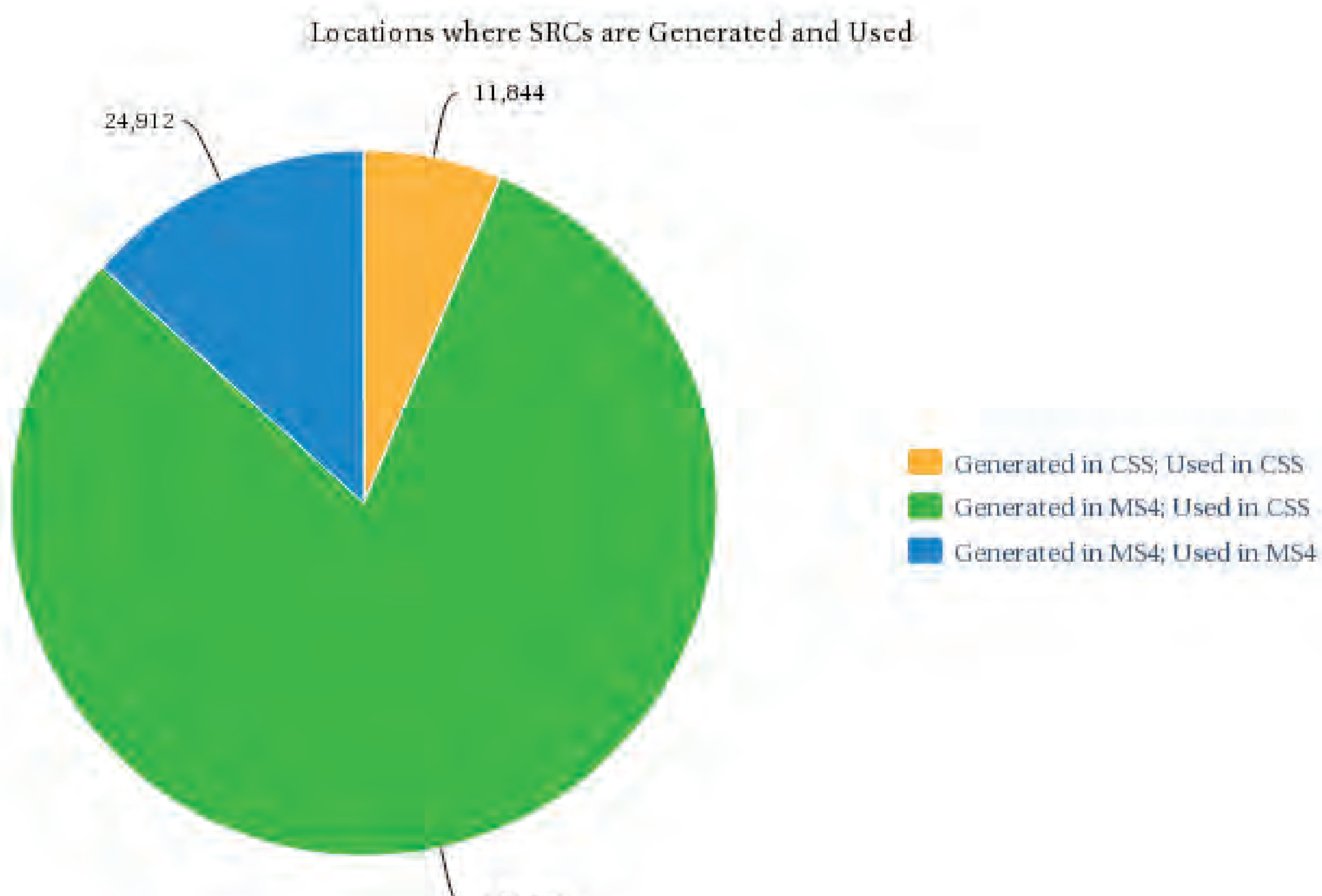
IMPROVED CUSTOMER SERVICE AND EFFICIENCY

- Program applicants can now participate more easily in many programs by reducing duplicative procedures and forms.
- During permitting, applicants can track review status and access DOEE's review comments.
- Process improvements through the database help to expedite reviews and approvals. Built-in calculations determine compliance with the District's regulations.

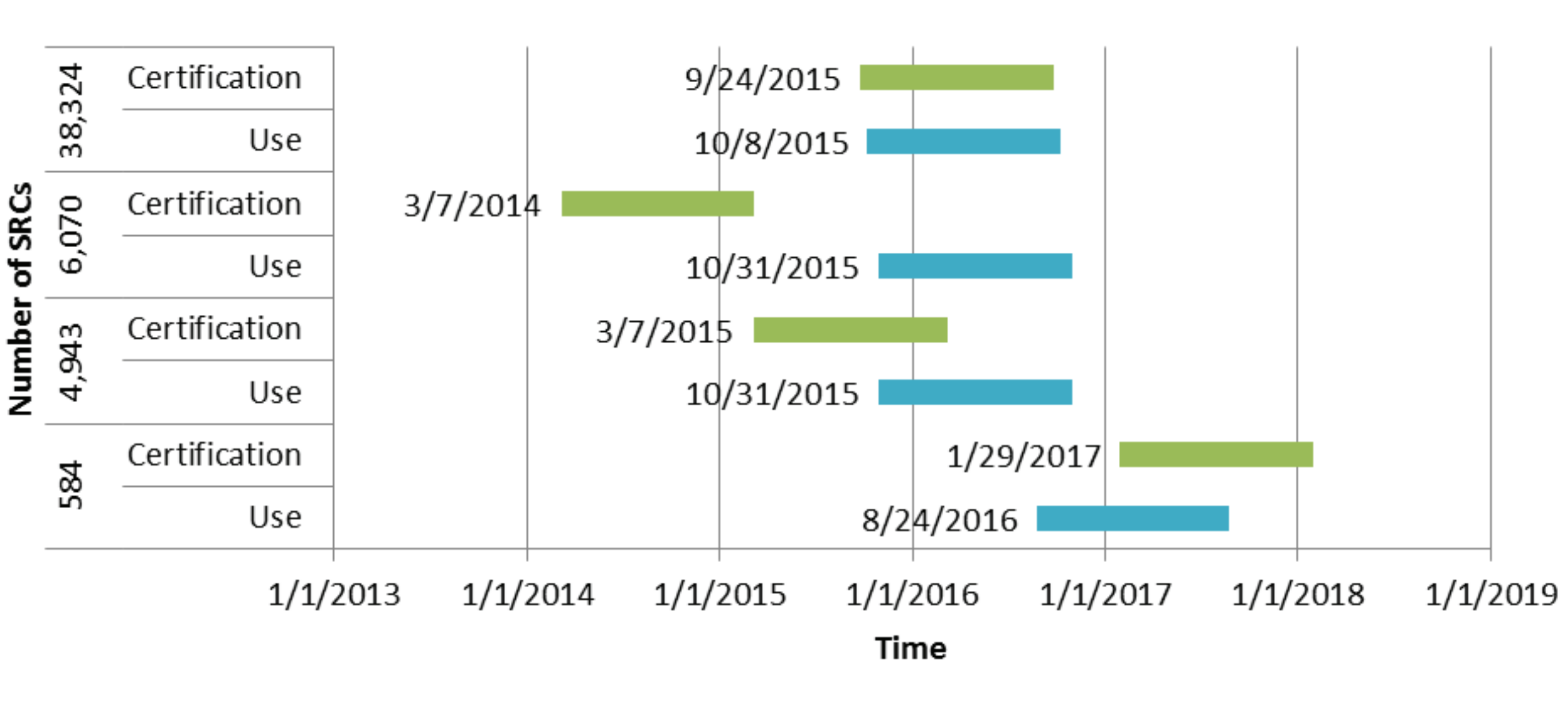
STRATEGIC PLANNING AND PROGRAM EVALUATION

- Detailed green infrastructure data feed into TMLD modeling to help DOEE determine how its programs are improving water quality across the District.
- Custom dashboards show real-time program turnaround times and statistics.
- By analyzing long-term trends, DOEE can adaptively manage its programs to achieve the greatest environmental benefit.

Approximately 80% of SRC use to date has represented green infrastructure installed in the District's MS4 area and used for regulatory compliance in the CSS. This shifts private investment in green infrastructure to high priority locations where it has the greatest benefit.



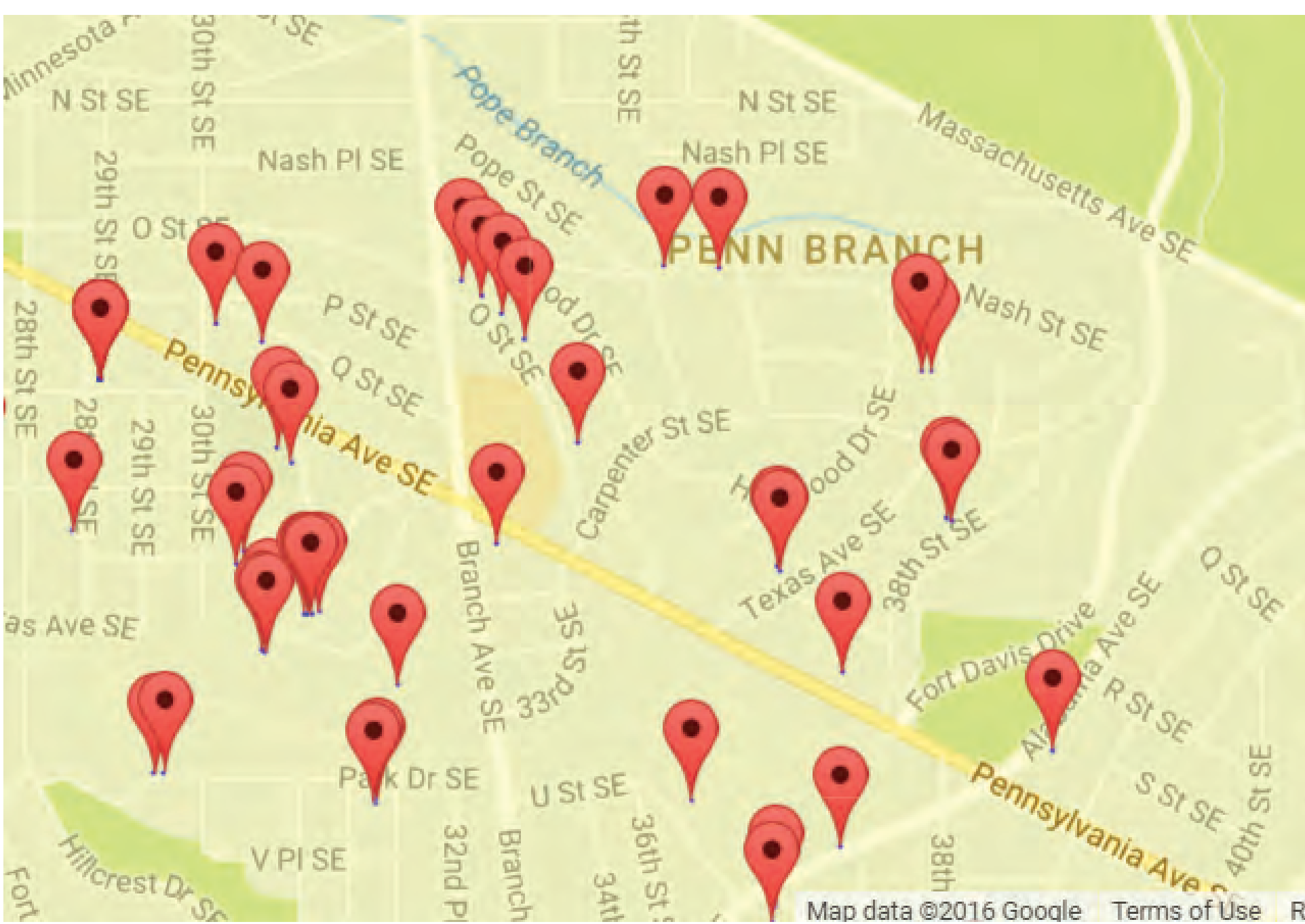
SRCs Used in FY 2016 - Period of Certification Compared with Period of SRC Use



DOEE uses the Stormwater Database to analyze the time period for which an SRC is certified and the time period for which it is used to meet a regulatory requirement.

REPORTING TO EPA, ENVIRONMENTAL STAKEHOLDERS, AND DECISION-MAKERS

- MS4 Permit and Chesapeake Bay TMDL reports rely on program data from the Stormwater Database.
- DOEE publishes a GIS layer that contains the location and size of green infrastructure practices and the area managed.
- Custom dashboards show real-time program turnaround time and statistics.



This map shows the location of green infrastructure practices that have been approved for DOEE's programs.