### Stormwater Database

# Matthew Espie District Department of the Environment





## Training Outline

- Stormwater Database
- Overview of programs that use the database
- Entering plans into the database
- Test exercise
- This afternoon using the Stormwater Database for the SRC and RiverSmart Rewards Programs

## About the Stormwater Database

- Allows web-based entry and review of project data
- Incorporates and enhances existing compliance calculator functions
  - Allows more flexibility than spreadsheet calculator
- Allows project team to access data during design, review, construction, and inspection
- Used by DDOE to report on green infrastructure installation and maintenance

### About the Stormwater Database

- Integrates with the SRC and RiverSmart Rewards programs to streamline applications
  - Certify SRCs
  - Transfer SRCs
  - Use SRCs
  - Retire SRCs
  - Notification of in-lieu fee payment
  - RiverSmart Rewards applications
- Enables online submission of compliance information for an Off-site retention volume (Offv)
- Provides Access to the SRC Registry

## 2013 Stormwater Rule

## Major land-disturbing activity

- > 5,000 ft<sup>2</sup> or more of land-disturbing activity.
- Retain the first 1.2" of rainfall on site or through a combination of on-site and off-site retention.

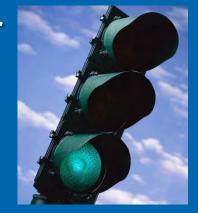
### Major substantial improvement activity

- > Renovation for which:
  - Cost exceeds 50% pre-project value of structure and
  - Combined footprint of structure and land disturb ≥ 5,000 ft².
- Retain the first 0.8" of rainfall on site or through a combination of on-site and off-site retention.

## Allowable Use of Off-Site Retention

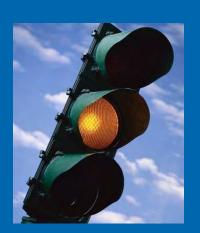
# On-site retention ≥ 50% of Stormwater Retention Volume (SWRv).

> Free to go off site.



### On-site retention < 50% of SWRv.

- Must prove that on-site retention is technically infeasible or environmentally harmful.
- Minimum on-site retention requirement waived during
  - Transition Period 2A (1/15/14 to 1/15/15).
  - Transition Period 2B (1/15/14 to 7/14/15).



## Off-Site Retention Volume (Offv)

On-Site SWRv Offv Retention = Volume 10,000 5,000 5,000 gallons gallons gallons

## Two Options to Achieve Offv

## In-lieu fee (ILF) payment = \$3.50

- Paid to DDOE.
- Corresponds to 1 gallon of retention for 1 year.
- Achieves 1 gallon of Offv for 1 year.

### Stormwater Retention Credits (SRCs)

- Privately tradable.
- > 1 SRC corresponds to 1 gallon of retention for 1 year.
- > 1 SRC achieves 1 gallon of Offv for 1 year.
- Each SRC has a unique serial number.

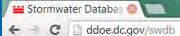
## RiverSmart Rewards

- DC Gov't (DDOE) Stormwater Fee (\$2.67/ERU for FY2015).
- DC Water Impervious Area Charge (\$16.75/ERU for FY2015).
- Two separate discount programs.
  - DDOE 55% max discount for 1.2" retention from 1 ERU.
  - DC Water 4% max discount for 1.2" retention from 1 ERU.
- RiverSmart Rewards Standard Application:
  - Available for all sites with Stormwater Management Practices
  - A Simple Application is available for all sites with practices managing 2,000 sf of impervious surface or less
- Retroactive discount available
  - Apply with a Simple Application before July 31, 2015.
  - Retroactive discount is for DDOE Stormwater Fee only

## Using the Database

### Create a Stormwater Database Account

- Visit the database landing page at ddoe.dc.gov/swdb
- Request an account
- Create log in credentials
- DDOE communications may be sent from notify@quickbase.com













**DDOE Home** 



**Environmental Services** 

DC.gov ddoe.dc.gov

District Department of the Environment

DISTRICT DEPARTMENT OF THE ENVIRONMENT

Office Hours Monday to Friday, 9 am to 5 pm

Connect With Us 1200 First Street NE. Washington. DC 20002

Phone: (202) 535-2600 Fax: (202) 535-2881 TTY: (800) 855-1000 Email:ddoe@dc.gov ₪









Amharic (মলেন্টে) Chinese (中文) French (Français) Korean (한국대) Spanish (Español) Vietnamese (Tiếng Việt)

Language Support



Resources

Laws & Regulations

**About DDOE** 





### Skip the Bag - Save the River



District businesses selling food or alcohol are required to charge \$.05 for each disposable paper or plastic carryout bag. Find out about DC's Bag Law.

### Stormwater Database

**EnergySmart DC** 

Use the Stormwater Database to:

- · Provide site and plan information for DDOE review of DCRA permit applications
  - Stormwater Management Plans (SWMPs)
  - · Soil Erosion and Sediment Control Plans
  - · Green Area Ratio (GAR) Plans
- · Participate in the Stormwater Retention Credit (SRC) trading and RiverSmart Rewards discount programs.
- November 9, 2014 optional use of the Stormwater Database for plan submittal
- December 15, 2014 required use of the Stormwater Database for plan submittal
  - Log in or create an account
  - 2. Download the Stormwater Database User Manual (attached below)
  - 3. View schedule of free training sessions on how to use the database

Press Release:

DDOE Launches New Stormwater Database

### Feedback and Questions

DDOE will continue to enhance the usability and functions of this database to provide better service. We welcome your feedback and suggestions

Contact Matthew Espie at matthew.espie@dc.gov or call (202) 715-7644 with your ideas or questions. Feedback can also be submitted using the Stormwater Database feedback form ....

### **Energy Smart DC**



A single resource for all you need to know about energy efficiency and renewable energy programs. products and services in the District.



Director

### Attachment(s):



809,68 KB

### Related Content:

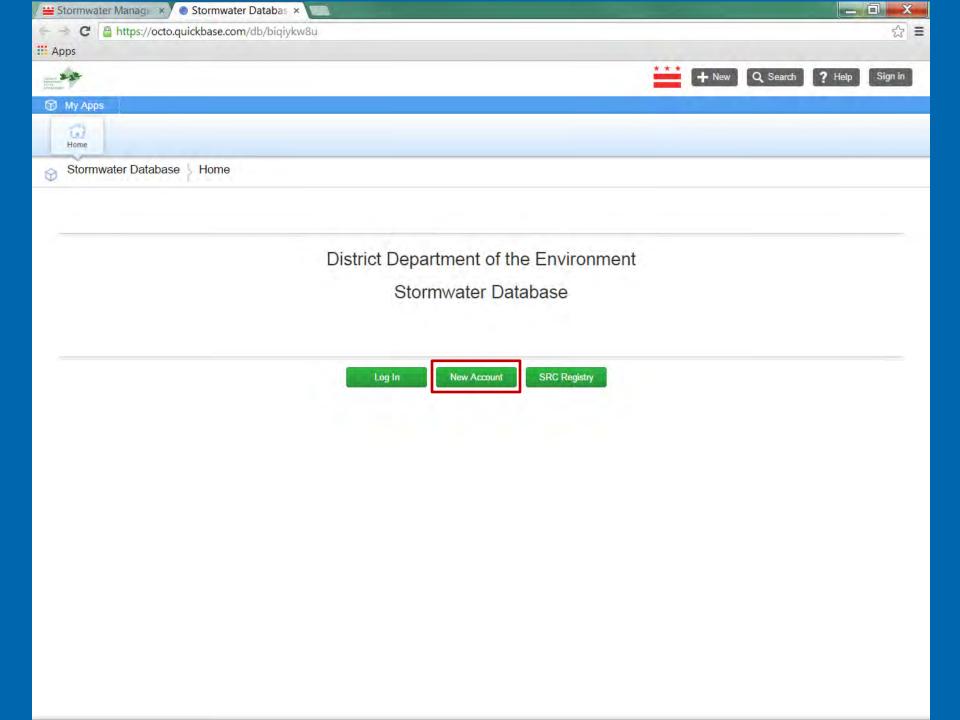
- 2013 Stormwater Management Rule and Guidebook
- Soil Erosion and Sediment Control Overview

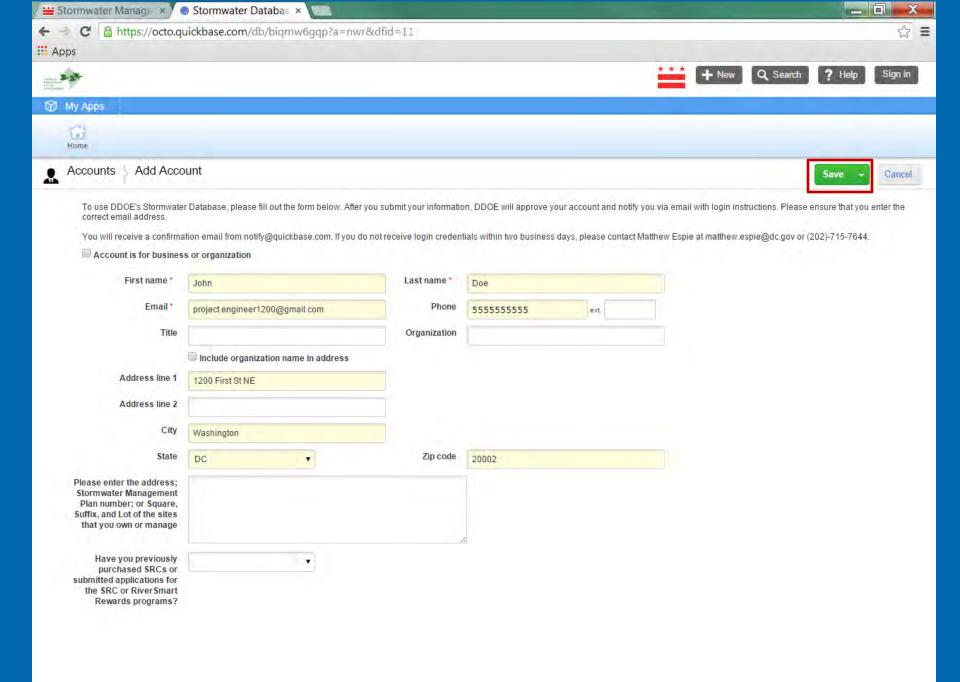
**Get RiverSmart** 

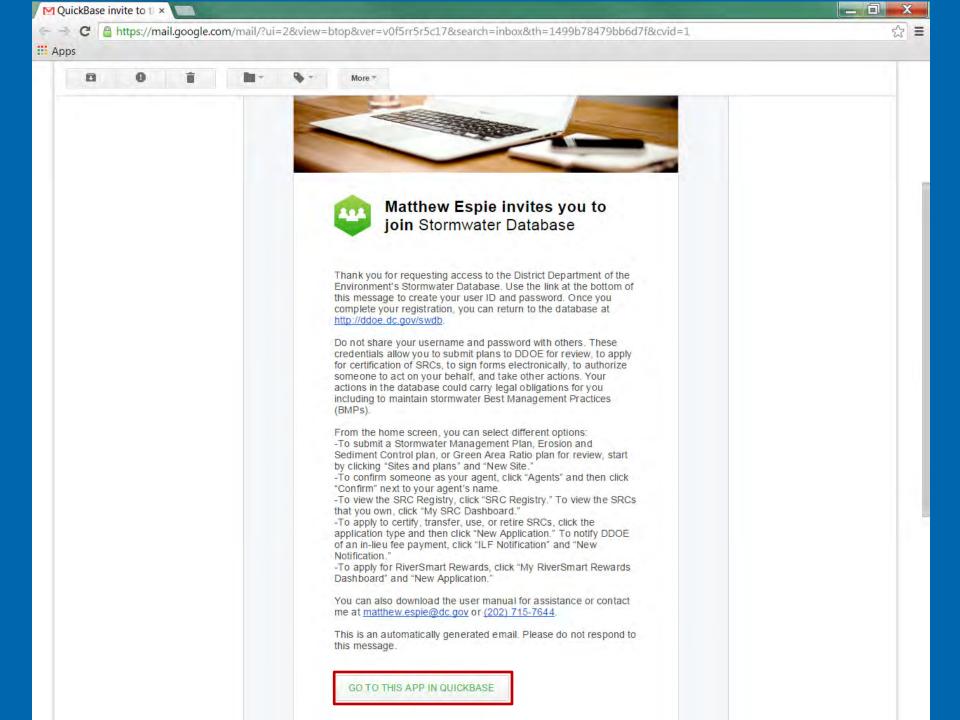








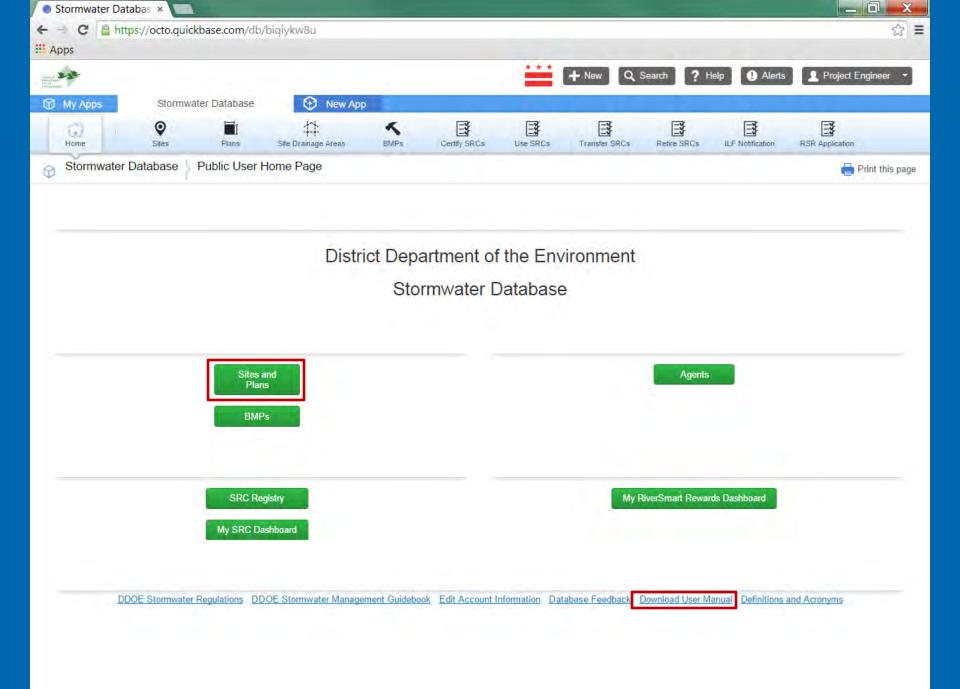


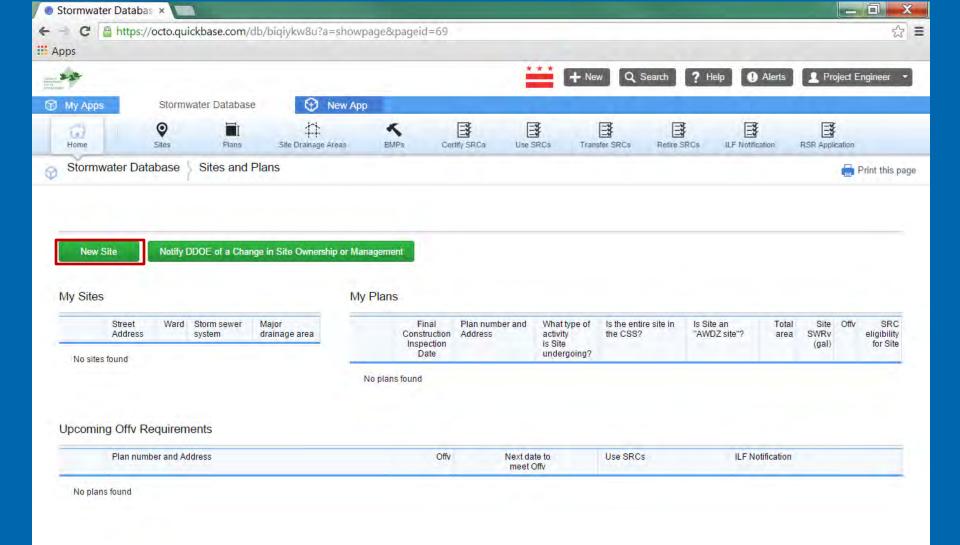


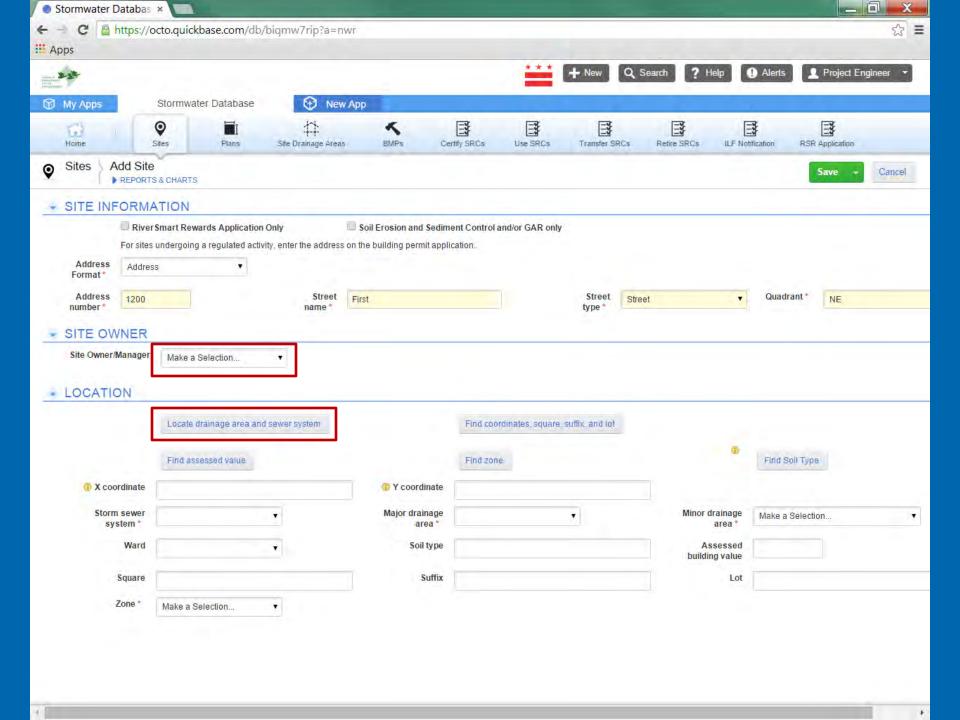
## Stormwater Management Plans

## **Enter Plan Information**

- > Site Information
- > Plan Information
- Site Drainage Area Information
- > BMP Information
- > Submit











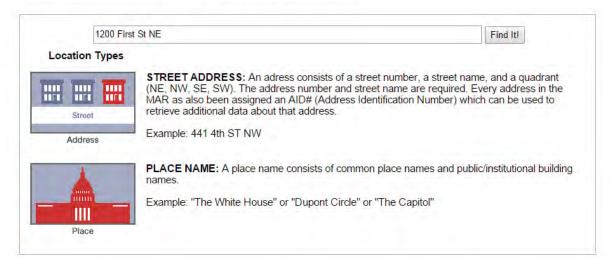




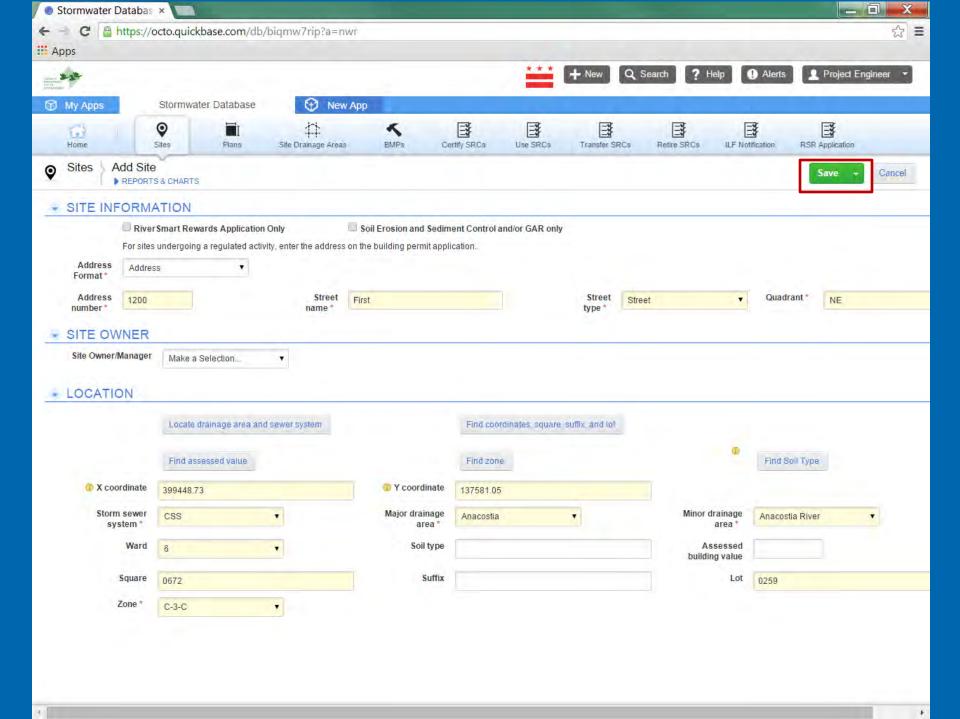
### Locate Your Watershed:

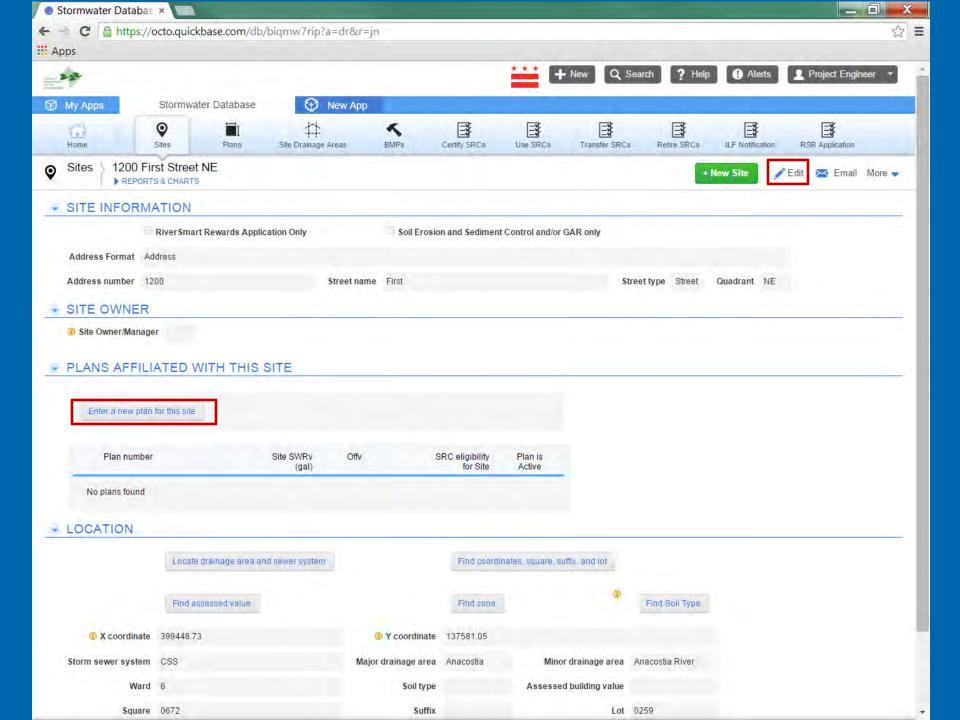
This web page provides an overview of watershed for given locations in the District of Columbia.

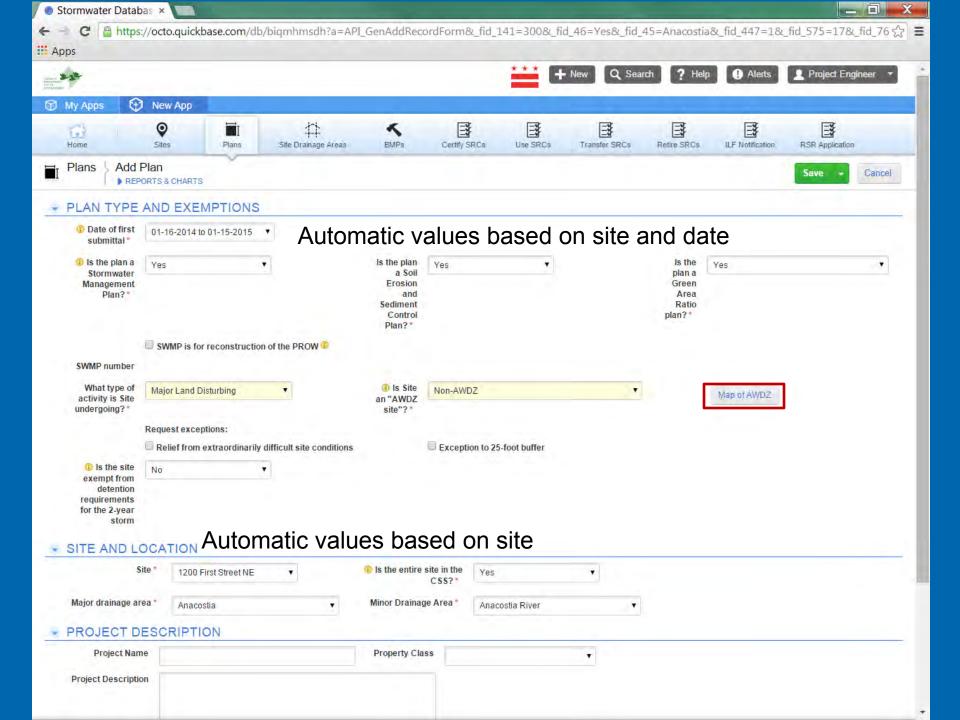
Locate information related to an address by using one of two location types shown below:

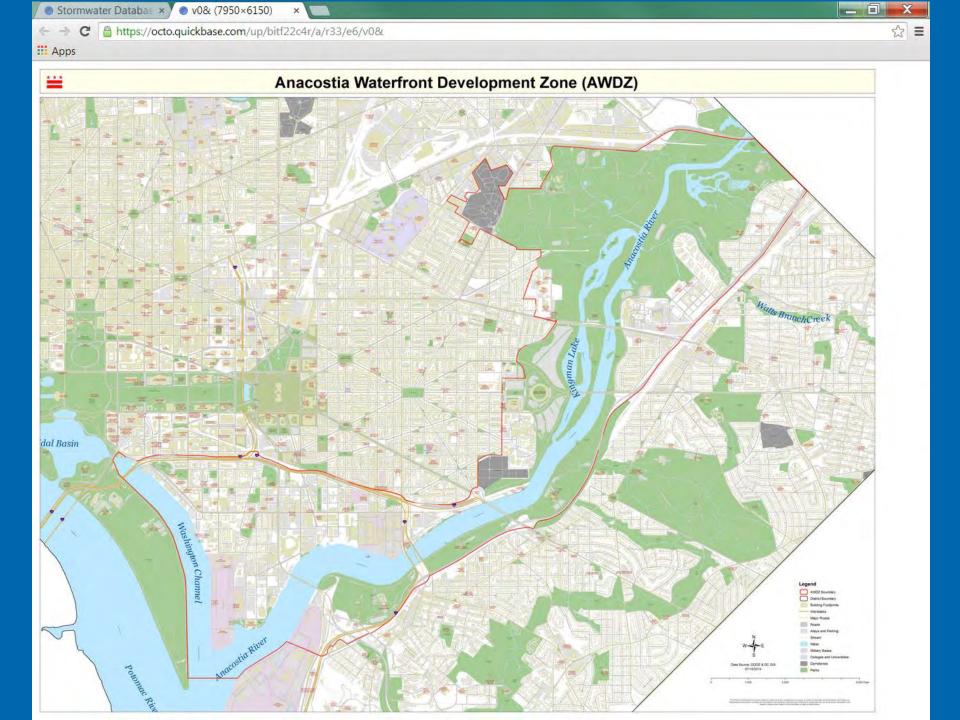


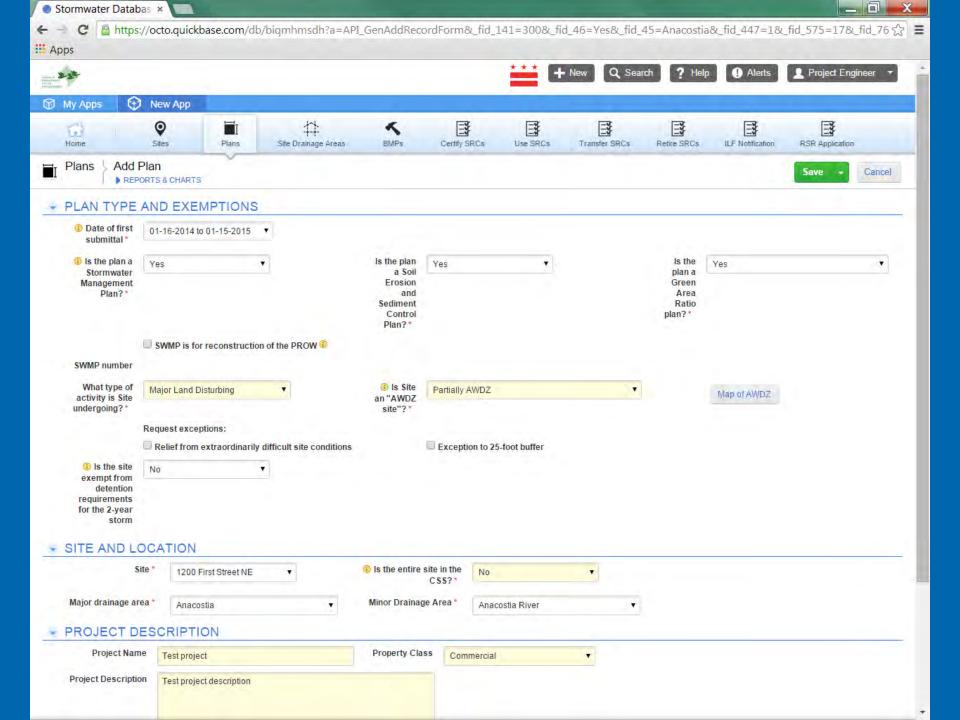
| District News               | Information Centers        | Community         | About DC            | Contact Us               |  |
|-----------------------------|----------------------------|-------------------|---------------------|--------------------------|--|
| Mayor's Public Schedule     | 72hours Emergency Planning | Citywide Calendar | Mayor's Office      | Call 311                 |  |
| Citywide News               | Business                   | Great Streets     | Agency Directory    | Contact the Mayor        |  |
| Subscribe to Receive Emails | Consumer Protection        | DC Jobs           | Budget              | Contact Agency Directors |  |
| Subscribe to Text Alerts    | Education                  | DC Procurement    | Emancipation        | Send Feedback            |  |
| Online Chats                | Health                     | Green DC          | Consumer Protection | Grade DC                 |  |
| DC.Gov Social Networks      | Social Services            | DC One Card       | Property Quest      | Submit Service Requests  |  |
| Connect DC                  | Residents                  | Age-Friendly DC   | Open DC             | Make FOIA Requests       |  |
| Government Closures         | Visitors                   | One City Youth    | Sustainability DC   | Report a Website Problem |  |
|                             |                            |                   |                     |                          |  |

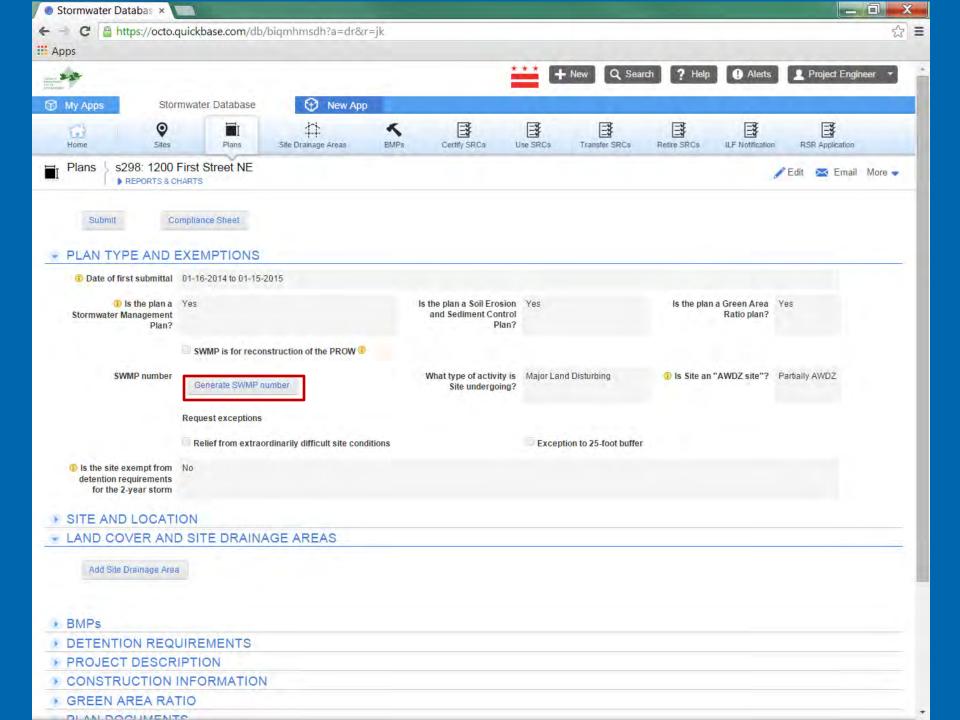


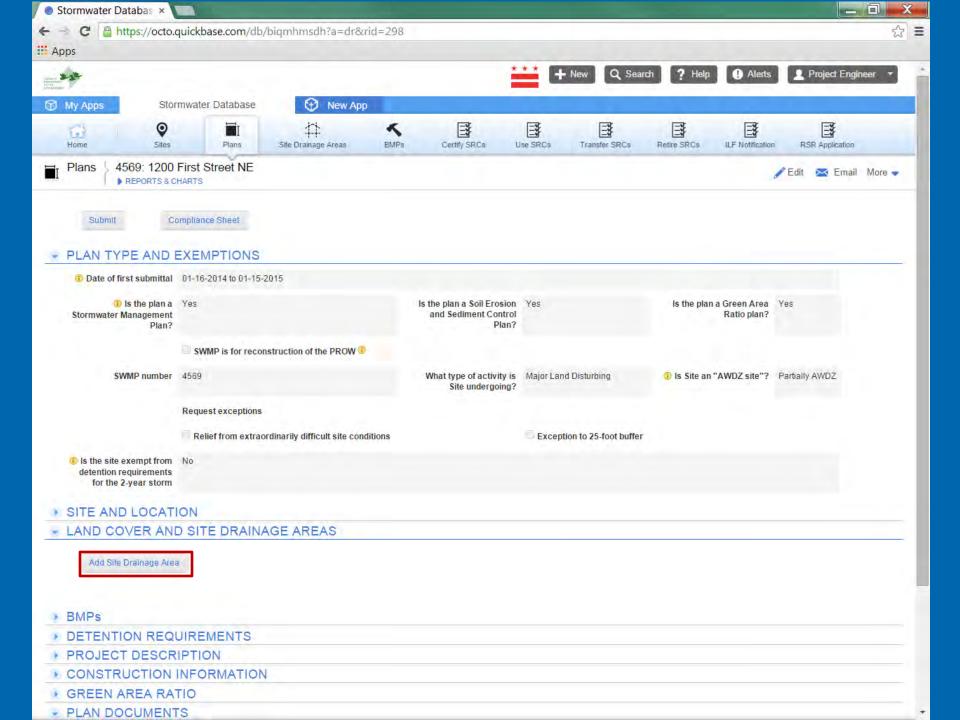


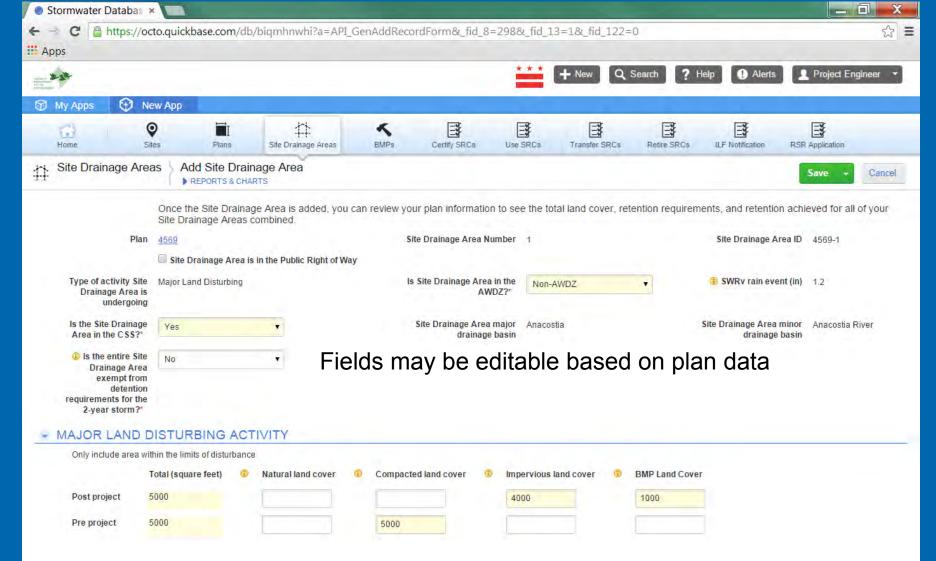




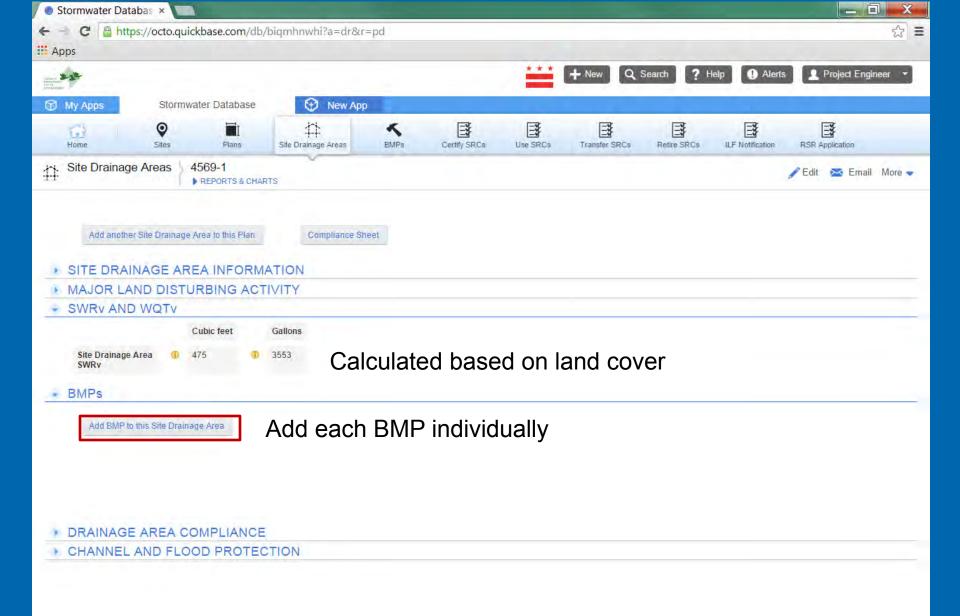


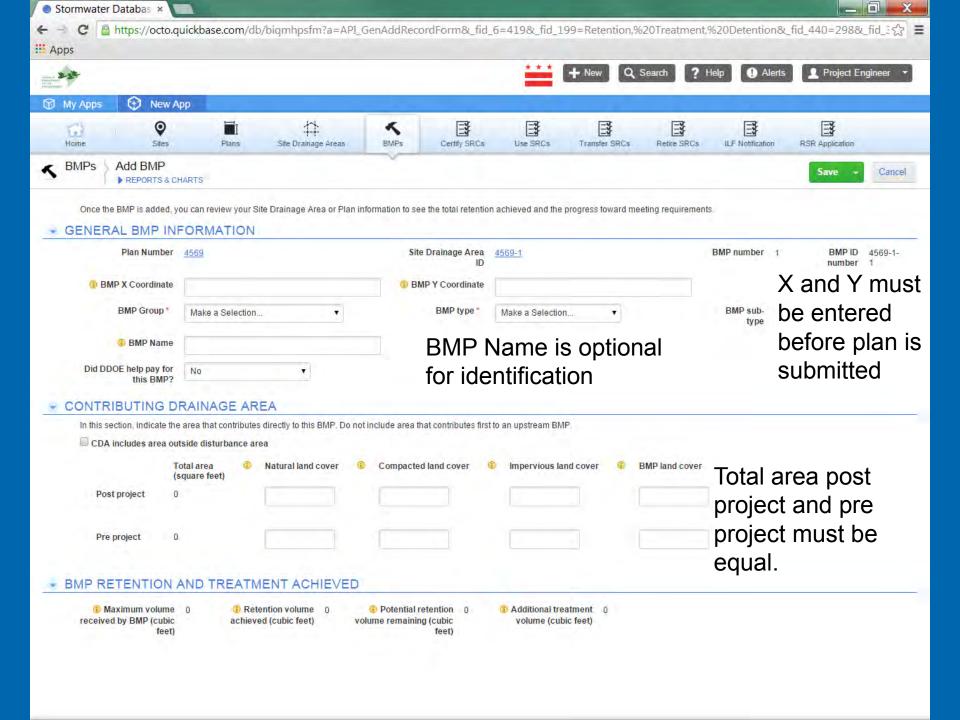


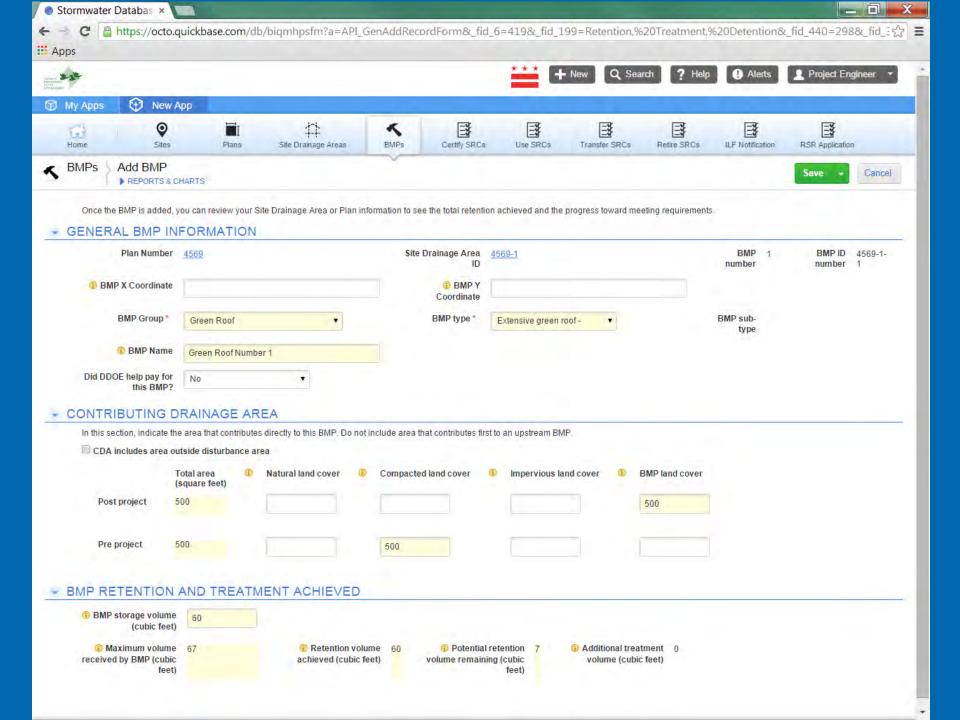


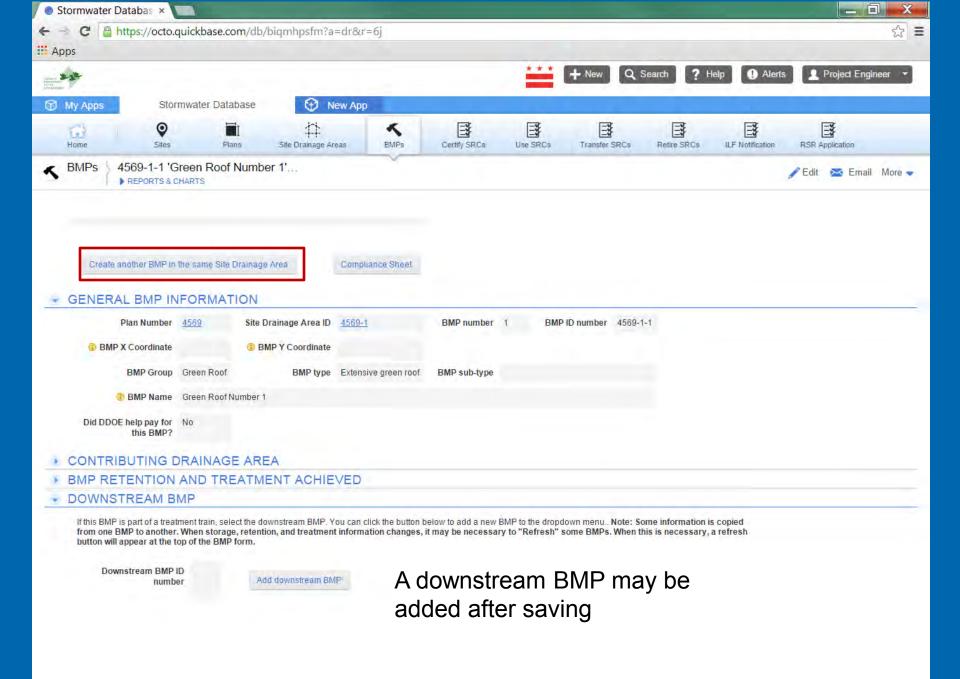


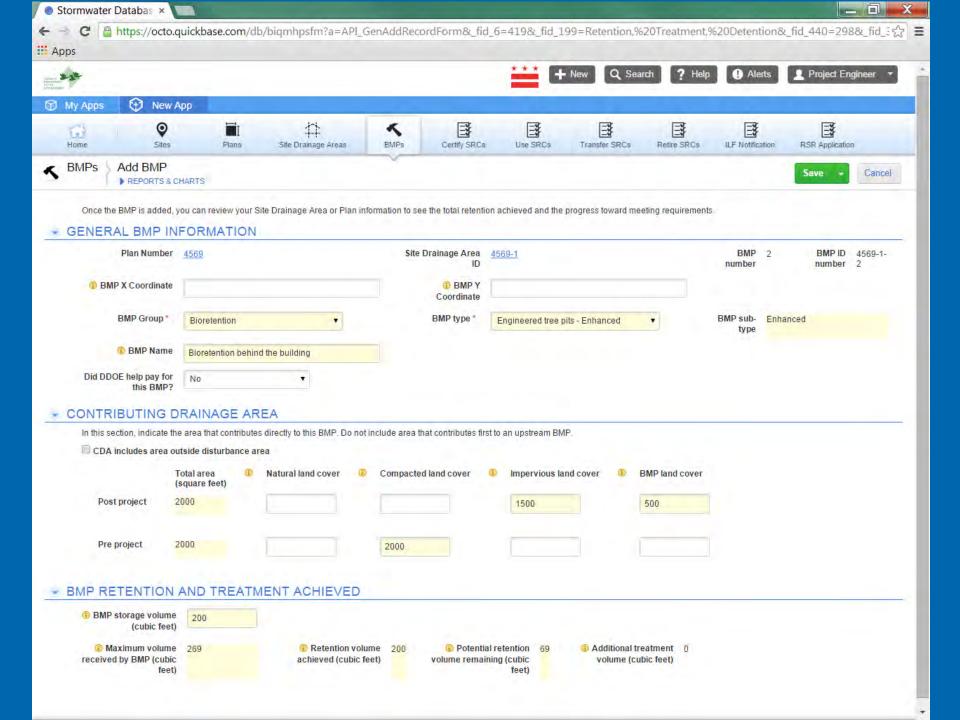
Total area must be equal post project and pre project

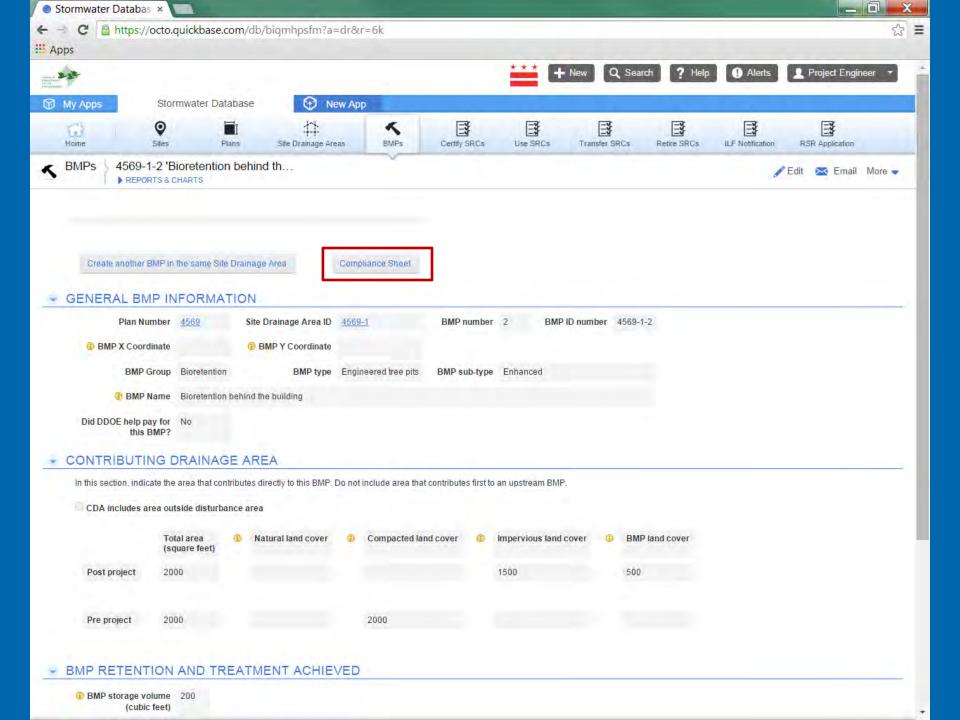














☆≡

**#** Apps

Compliance sheet for each BMP should be added to the plan set

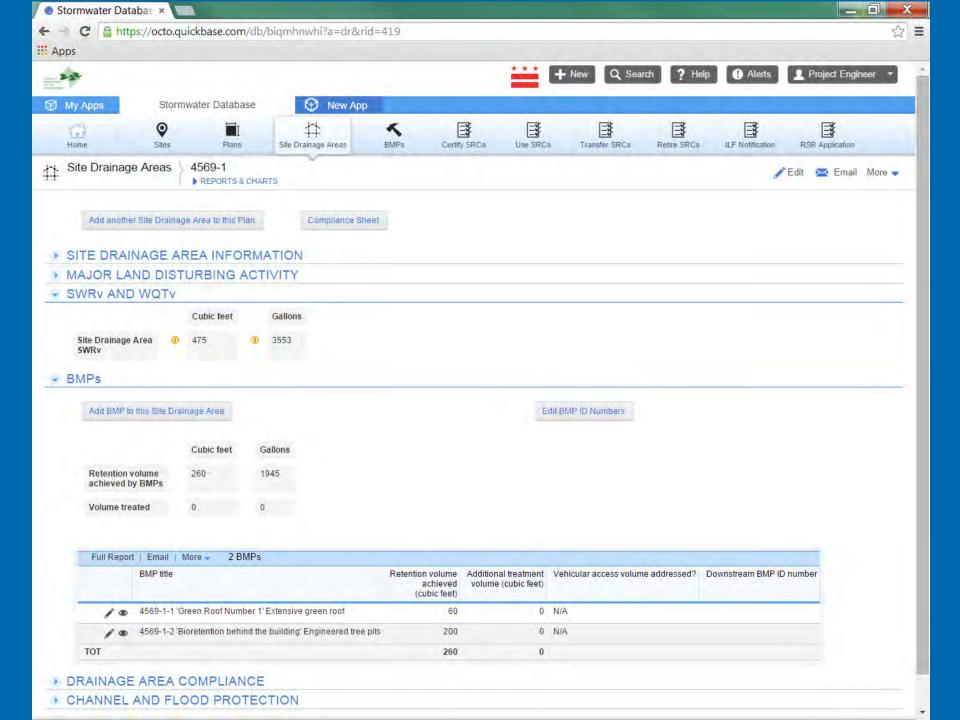
### BMP: 4569-1-2 'Bioretention behind the building' Engineered tree pits

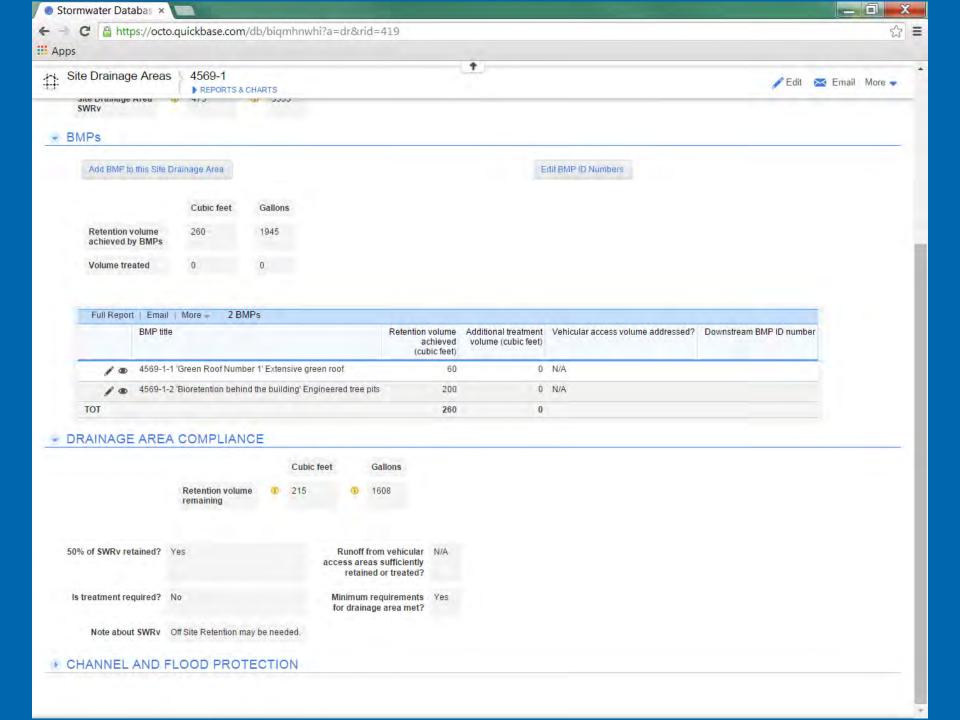
| Natural Cover (square feet)         |       |
|-------------------------------------|-------|
| Compacted Cover (square feet)       |       |
| Impervious Cover (square feet)      | 1,500 |
| BMP Cover (square feet)             | 500   |
| Vehicular Access Area (square feet) |       |
| Total Area (square feet)            | 2,000 |

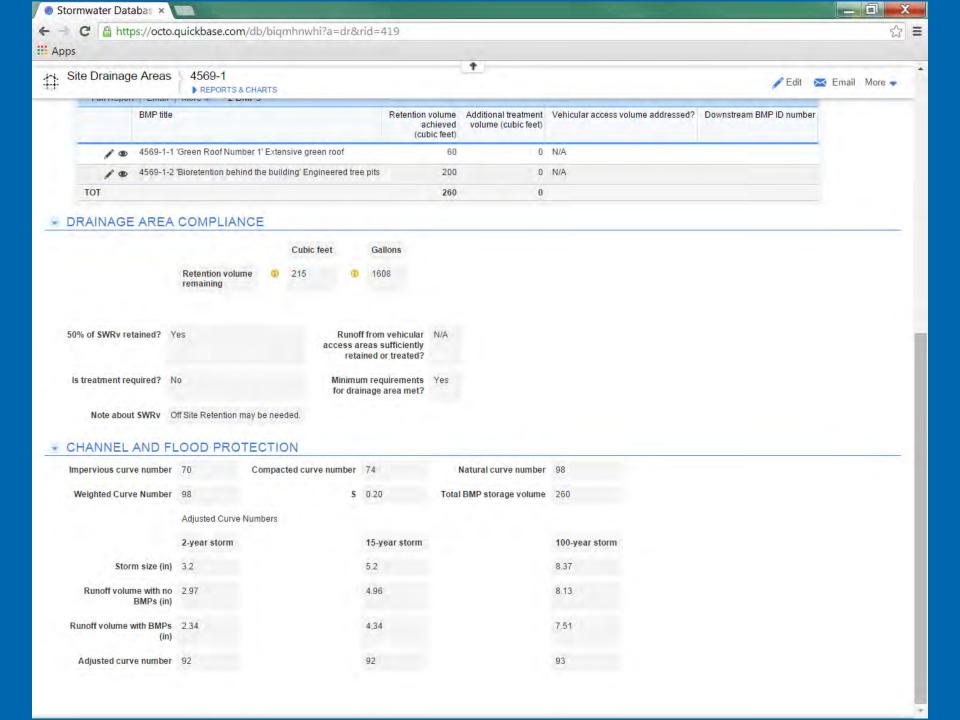
| Volume Received From Upstream BMPs (cubic feet) | 0   |
|---|-----|
| Maximum Volume Received by BMP (cubic feet)     | 269 |

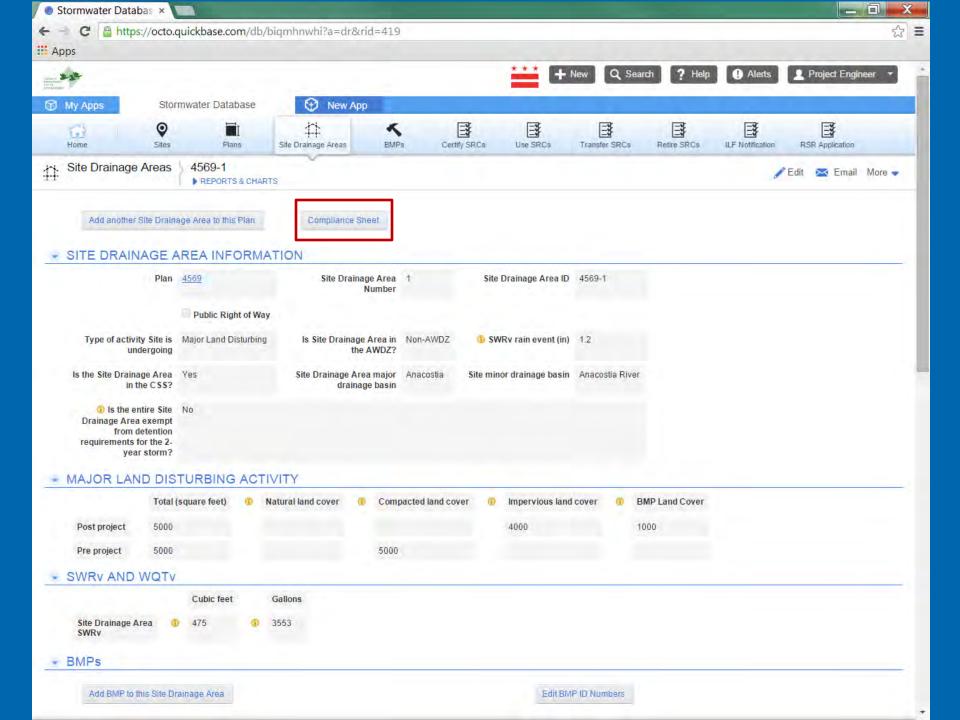
| Storage Volume (cubic feet)              | 200   |
|--|-------|
| Retention Volume (cubic feet)            | 200   |
| Retention Volume (gallons)               | 1,496 |
| Additional Treatment Volume (cubic feet) | 0     |
| Additional Treatment Volume (gallons)    | 0     |
| Vehicular Access Volume Addressed?       | N/A   |

| Downstream BMP |  |
|----------------|--|
|                |  |





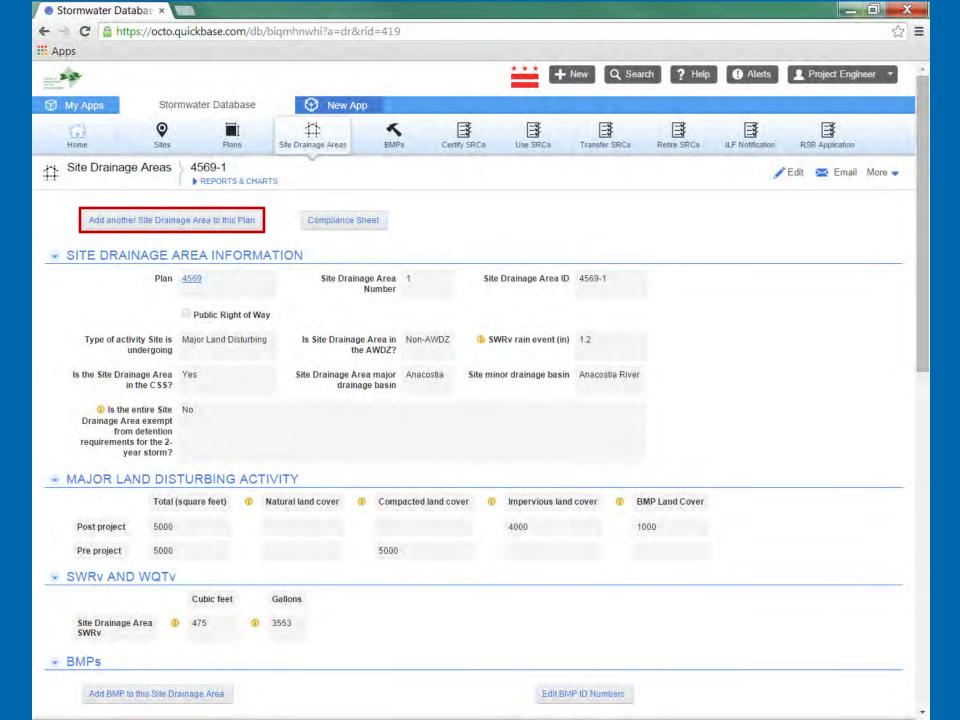




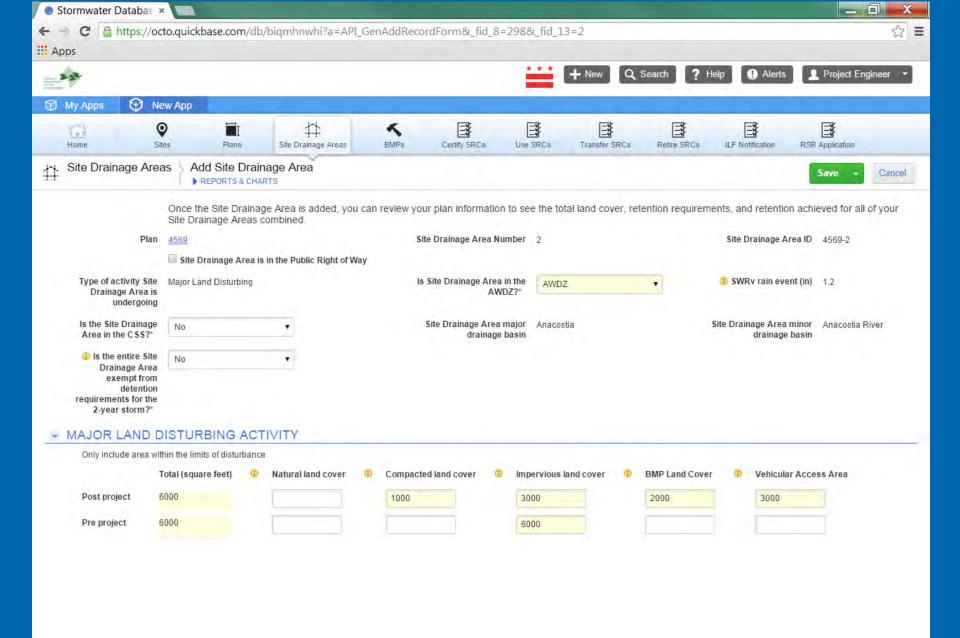
**#** Apps

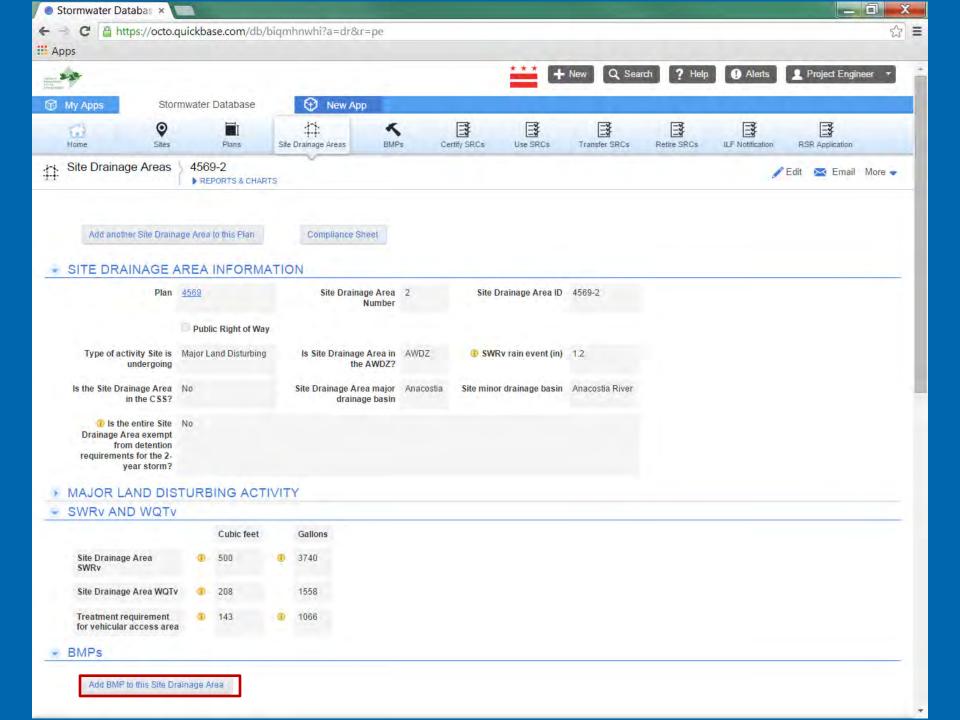
Compliance sheet for each SDA should be added to the plan set

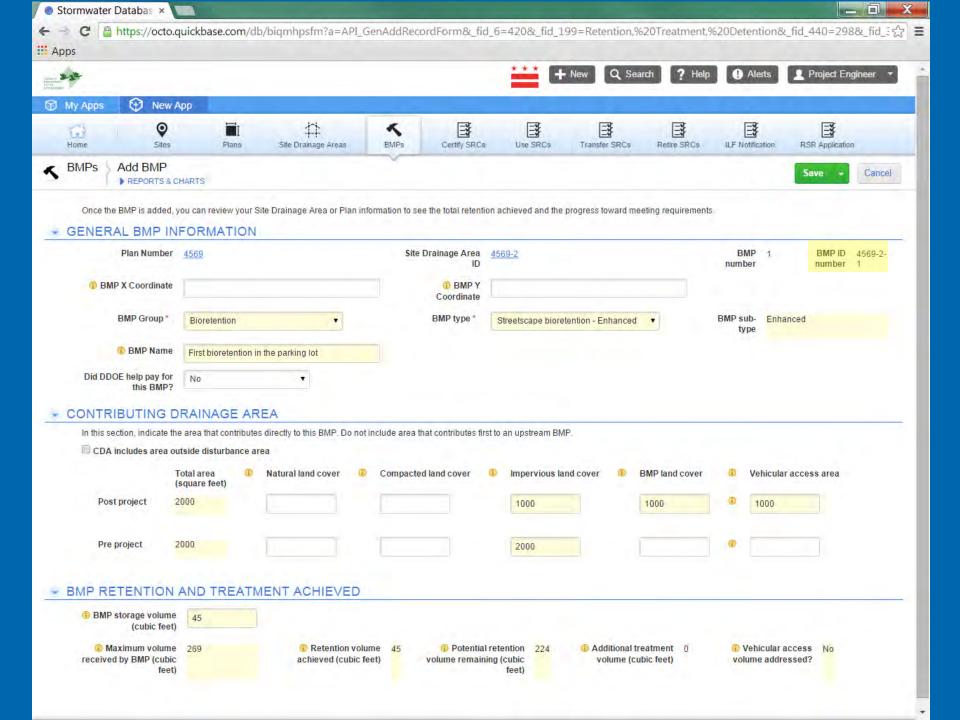
| SWRv (cubic feet)                                      | 475   |
|--|-------|
| WQTv (cubic feet)                                      | 0     |
| Natural Cover (square feet)                            | 0     |
| Compacted Cover (square feet)                          | 0     |
| Impervious Cover (square feet)                         | 4,000 |
| BMP Cover (square feet)                                | 1,000 |
| Total Area (square feet)                               | 5,000 |
| Volume Retained (cubic feet)                           | 260   |
| Retention Volume Remaining (cubic feet)                | 215   |
| Retention Volume Remaining (gallons)                   | 1,608 |
| At least 50% of SWRv Retained?                         | Yes   |
| Vehicular Access Areas Volume Addressed?               | N/A   |
| Treatment Required?                                    | No    |
| Volume Treated (cubic feet)                            | 0     |
| Volume Remaining to Treat 50% of the SWRv (cubic feet) | 0     |
| Volume Remaining to Treat 50% of the SWRv (gallons)    | 0     |
| Volume Remaining to Treat WQTv (cubic feet)            | 0     |
| Volume Remaining to Treat WQTv (gallons)               | 0     |
| 2-Year Storm Adjusted Curve Number                     | 92    |
| 15-Year Storm Adjusted Curve Number                    | 92    |
| 100-Year Storm Adjusted Curve Number                   | 93    |

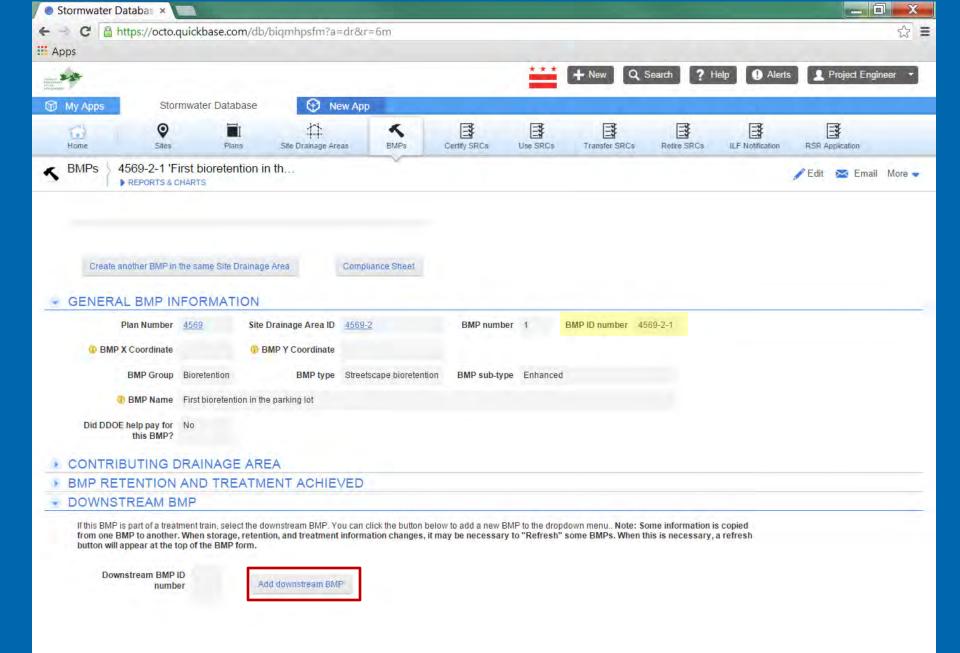


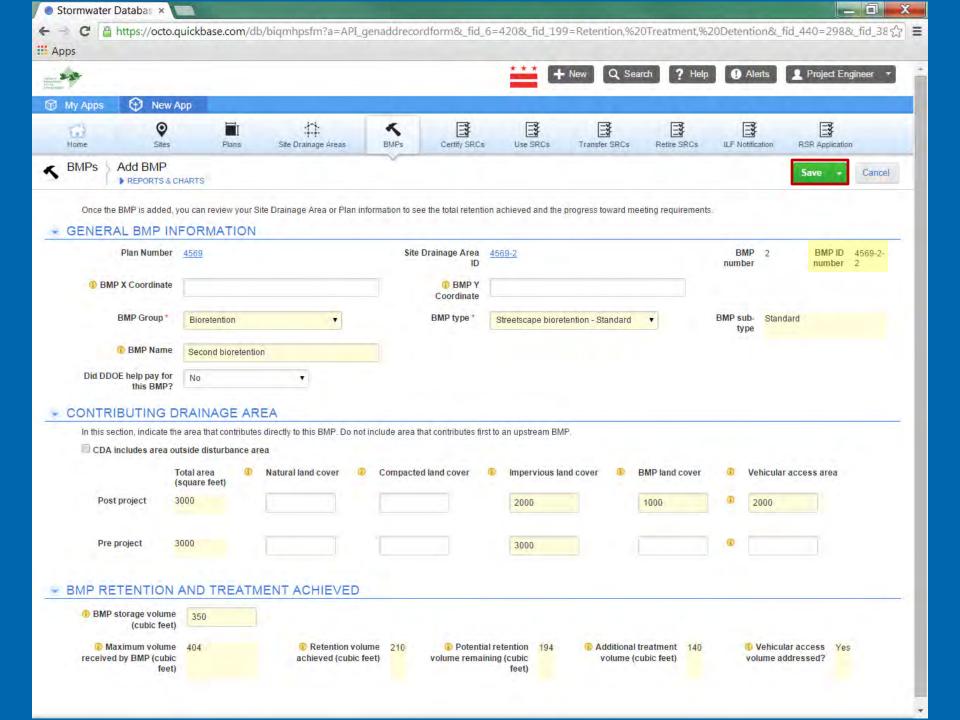
## **Treatment Trains**

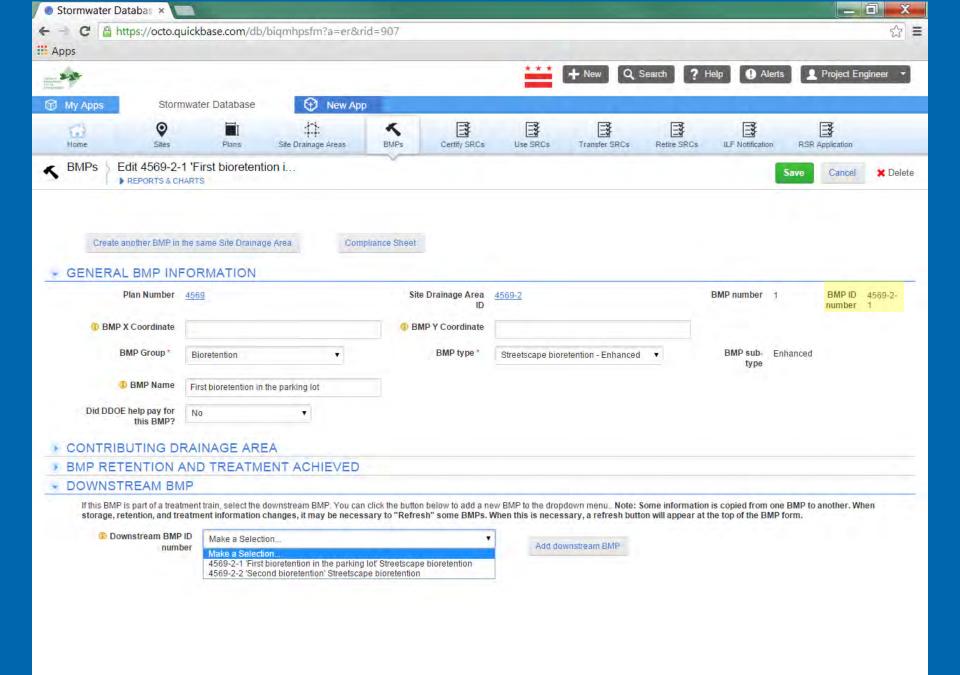


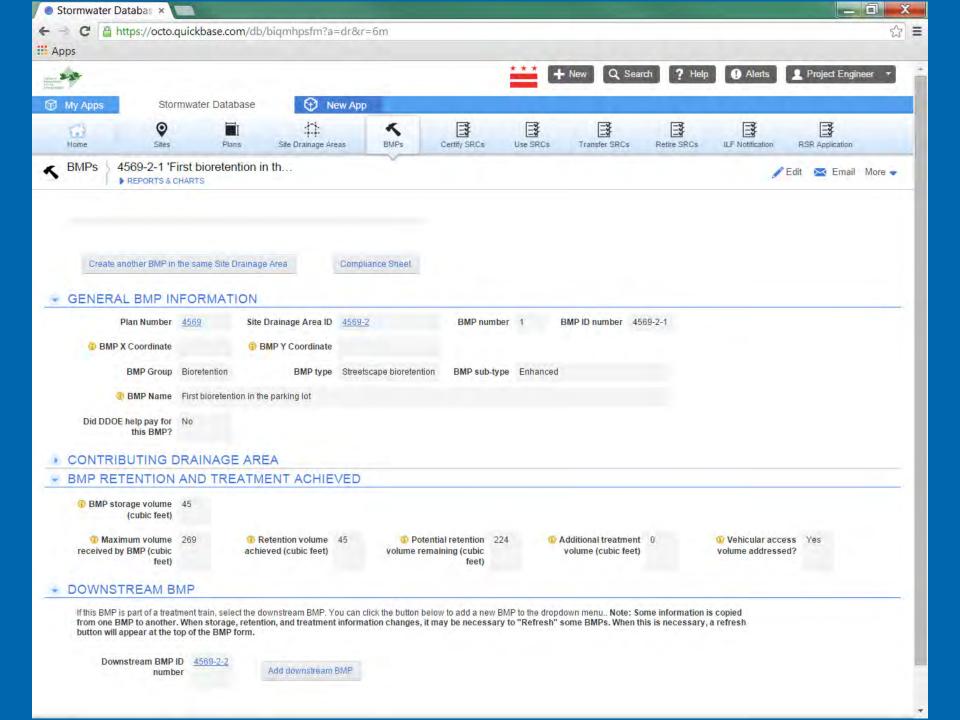


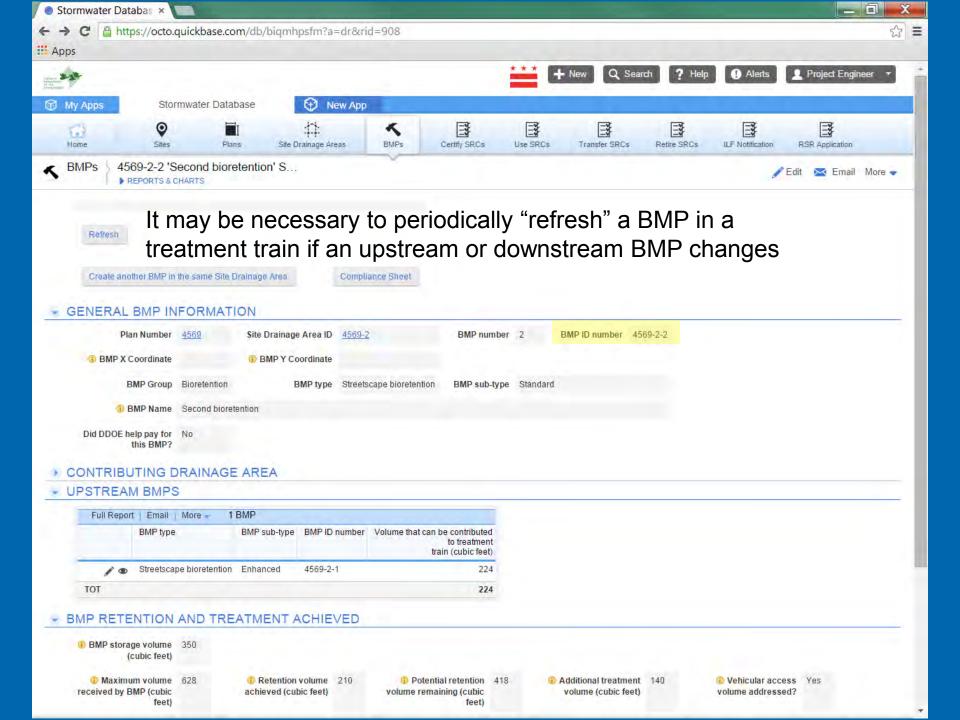


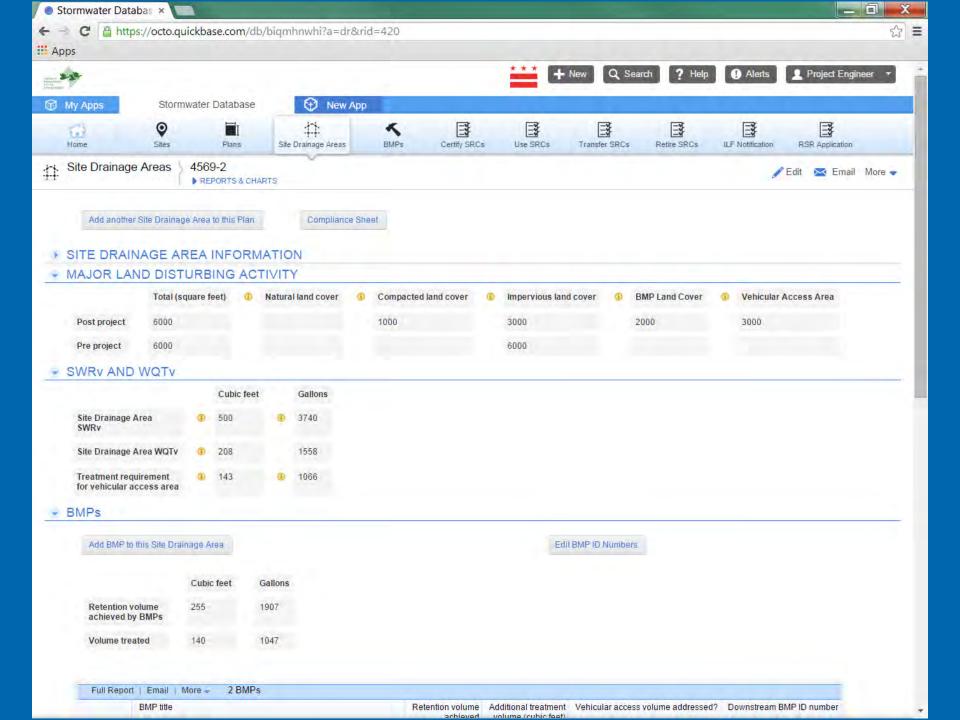


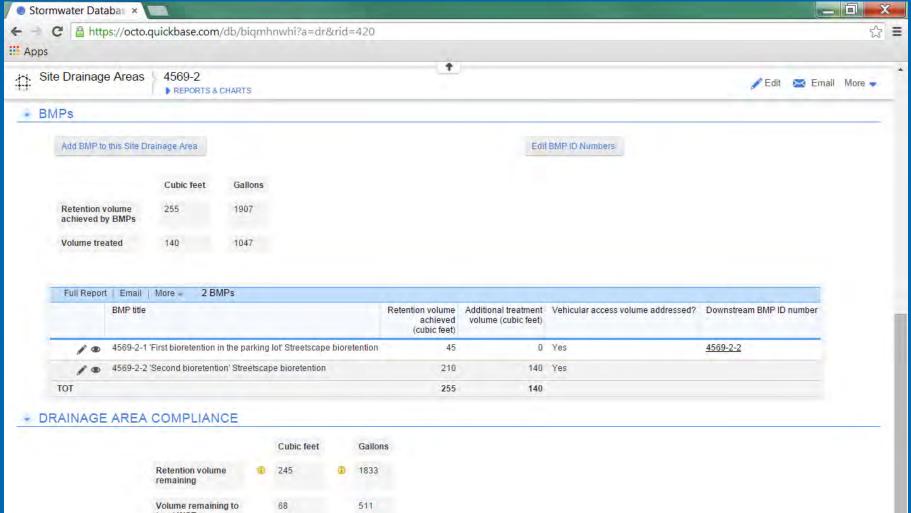




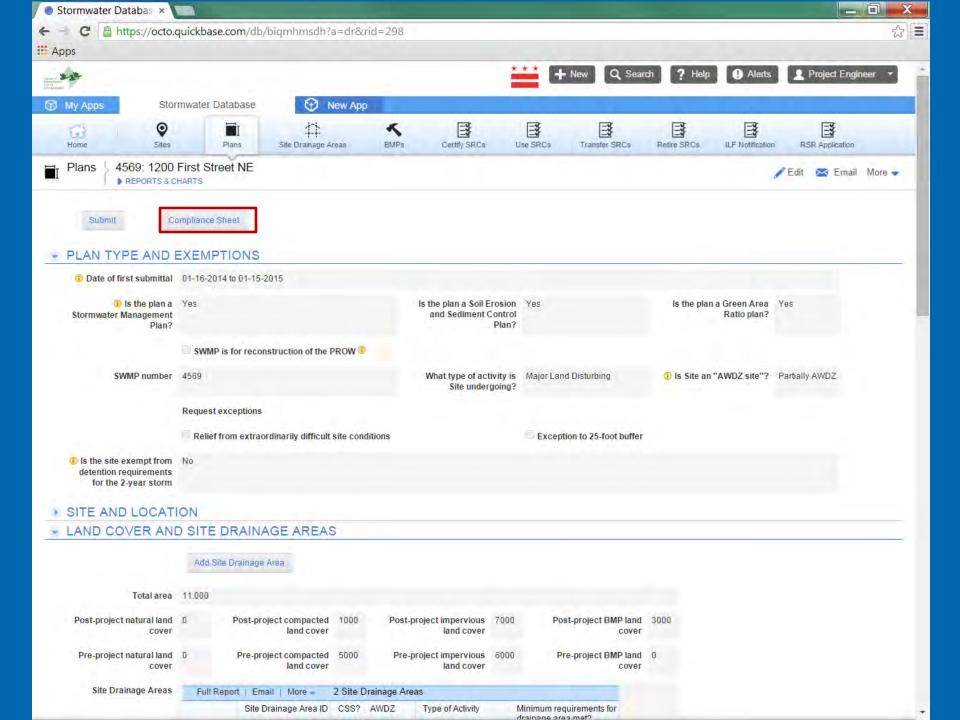








|                        | remaining                      | <b>(i)</b> 2 | 45     | (1)   | 1833                                       |                                   |
|------------------------|--------------------------------|--------------|--------|-------|--|-----------------------------------|
|                        | Volume remaining to treat WQTv | 6            | 8      |       | 511  |                                   |
| 50% of SWRv retained?  | Yes                            |              | access | areas | m vehicular<br>sufficiently<br>or treated? | Yes                               |
| Is treatment required? | No                             |              |        |       | equirements<br>e area met?                 | Yes                               |
| Note about SWRv        | Off Site Retention may be nee  | ded.         |        | Note  | about WQTv                                 | Off Site Retention may be needed. |



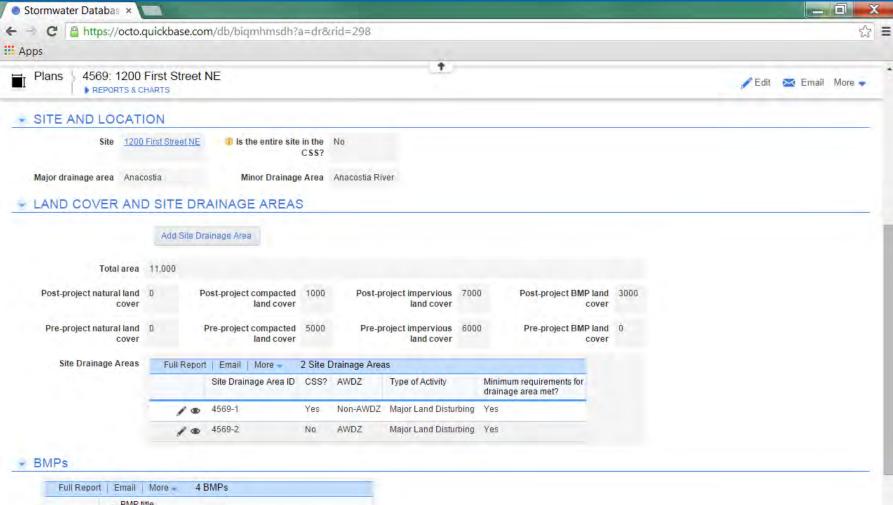
Compliance sheet for the plan should be included in the plan set

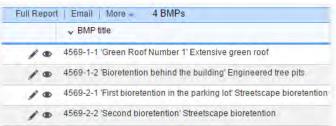
#### Site Compliance: 4569

| Total Volume Retained On Site (cubic feet)   | 515   |
|--|-------|
| At least 50% of SWRv for the Site Retained?  | Yes   |
| Site Retention Volume Remaining (cubic feet) | 460   |
| Site Retention Volume Remaining (gallons)    | 3,441 |
| Total Volume Treated (cubic feet)            | 140   |
| Site Treatment Volume Remaining (cubic feet) | 68    |
| Site Treatment Volume Remaining (gallons)    | 511   |

| Excess Volume That May be Eligible for SRCs (gallons) | 0     |
|---|-------|
| Required Off-Site Retention Volume (Offv) (gallons)*  | 3,952 |
| 10"   |       |

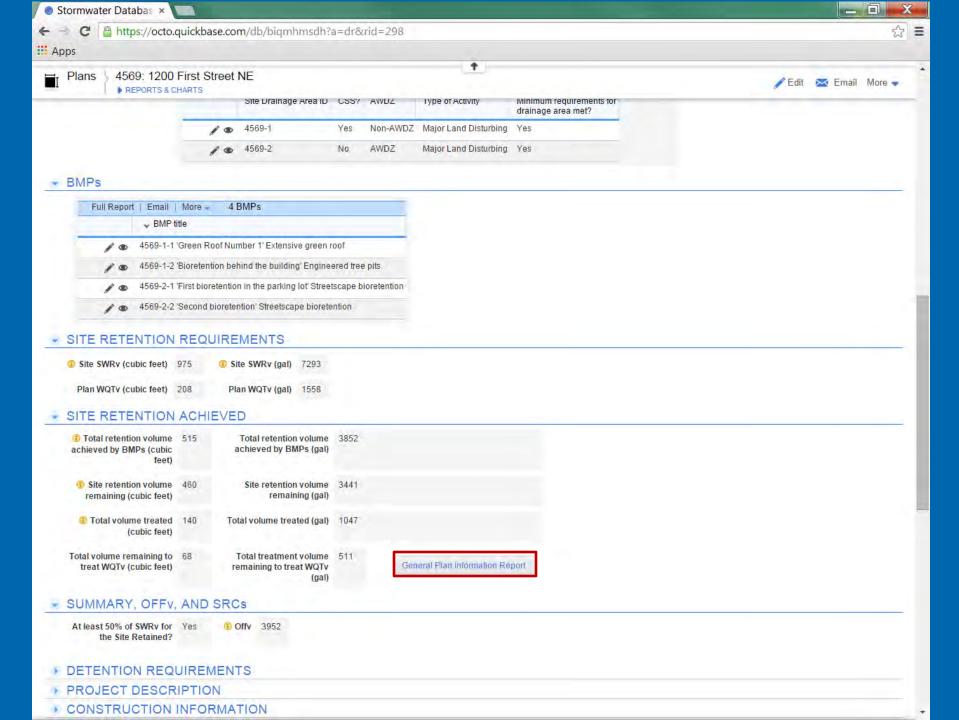
<sup>\*</sup>Offv must be achieved on an ongoing basis through use of in lieu fee or Stormwater Retention Credits (SRCs)





#### **▶** SITE RETENTION REQUIREMENTS

- SITE RETENTION ACHIEVED
- SUMMARY, OFFV, AND SRCs
- DETENTION REQUIREMENTS
- ▶ PROJECT DESCRIPTION
- CONSTRUCTION INFORMATION







### **Stormwater Management Plan Information Sheet**

Site Address 1200 First Street NE Stormwater Management Plan number 4569

Date of first submittal to DDOE

#### Site Area

| Total Site Area (sf) | 11,000 |
|----------------------|--------|
| Natural cover        | 0      |
| compacted cover      | 1,000  |
| Impervious cover     | 7,000  |
| BMP cover            | 3,000  |

#### Site Drainage Area Land Cover

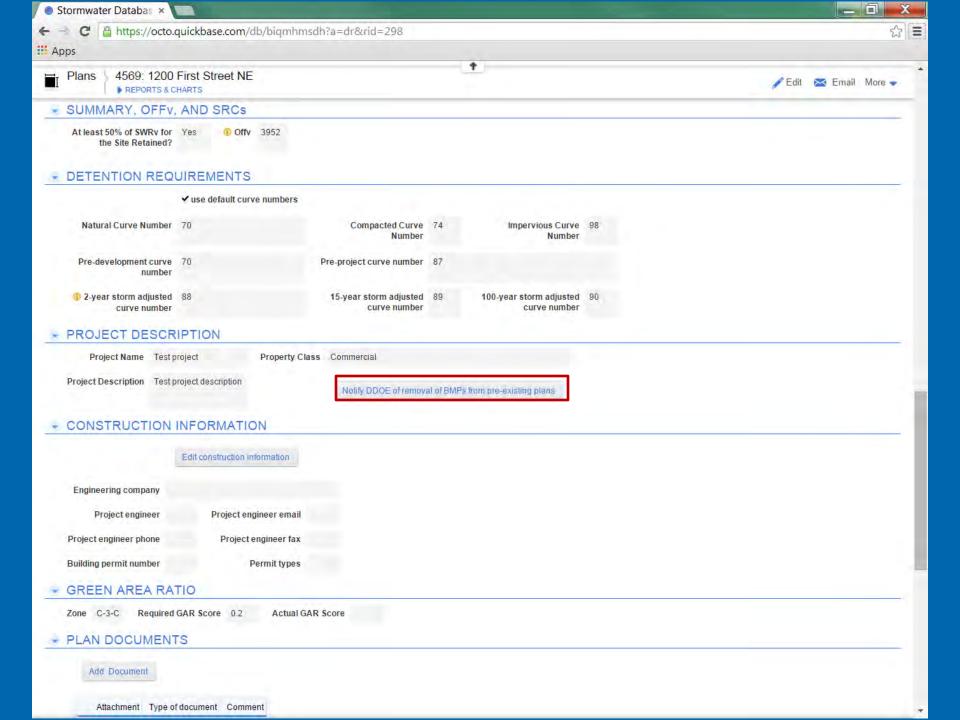
|     | Site Drainage Area ID | Total area | Natural<br>land<br>cover | Compacted<br>land<br>cover | Impervious<br>land cover | BMP land cover | Vehicular<br>access<br>area |
|-----|-----------------------|------------|--------------------------|----------------------------|--------------------------|----------------|-----------------------------|
|     | 4569-1                | 5000       | 0                        | 0                          | 4000                     | 1000           | 0                           |
|     | 4569-2                | 6000       | 0                        | 1000                       | 3000                     | 2000           | 3000                        |
| тот |                       | 11,000     | 0                        | 1000                       | 7000                     | 3000           | 3000                        |

#### **SWMP Compliance**

|                           | Cubic Feet | Gallons |
|---------------------------|------------|---------|
| Site SWRv                 | 975        | 7,293   |
| Site WQTv                 | 208        | 1,558   |
| Onsite retention achieved | 515        | 3,852   |
| % of SWRv met on-site     | 53%        | 53%     |
| Onsite treatment achieved | 140        | 1.047   |
| SRC eligibility           |            | 0       |
| Offv                      |            | 3,952   |

#### Site Drainage Areas Compliance

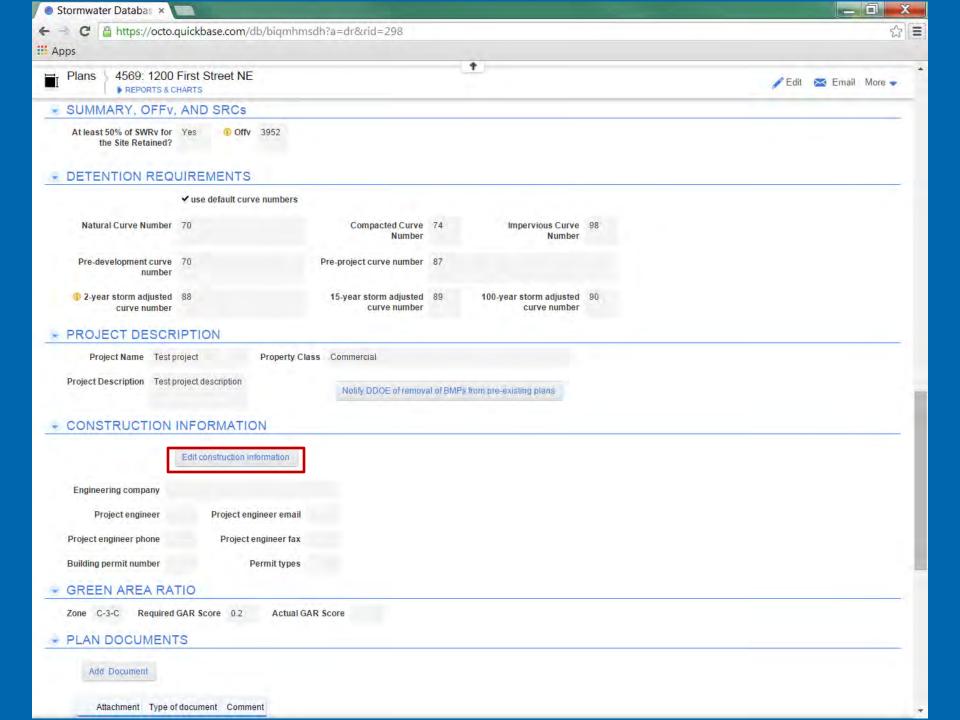
| Site Drainage Area | Site<br>Drainage<br>Area SWRv<br>(gal) | Site<br>Drainage<br>Area WQTv<br>(gal) | Retention<br>volume<br>achieved by<br>BMPs (gal) | Volume<br>treated<br>(gal) | Minimum requirements for drainage area met? |
|--------------------|--|--|--|----------------------------|---|
| 4569-1             | 3553                                   | 0                                      | 1945   | 0                          | Yes   |
| 4569-2             | 3740                                   | 1558                                   | 1907   | 1047                       | Yes   |

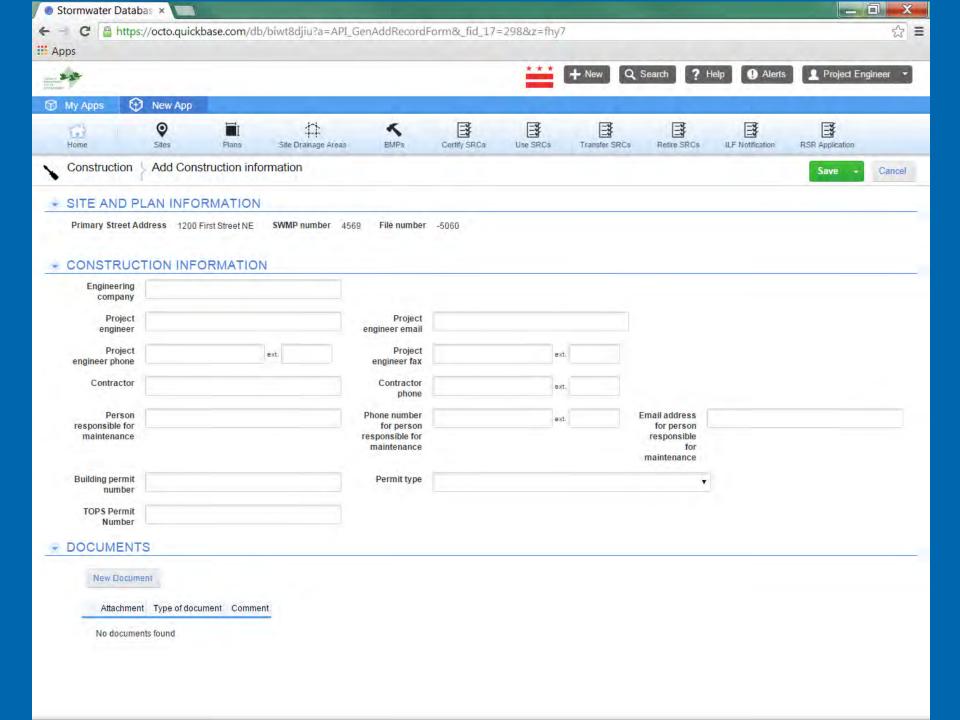


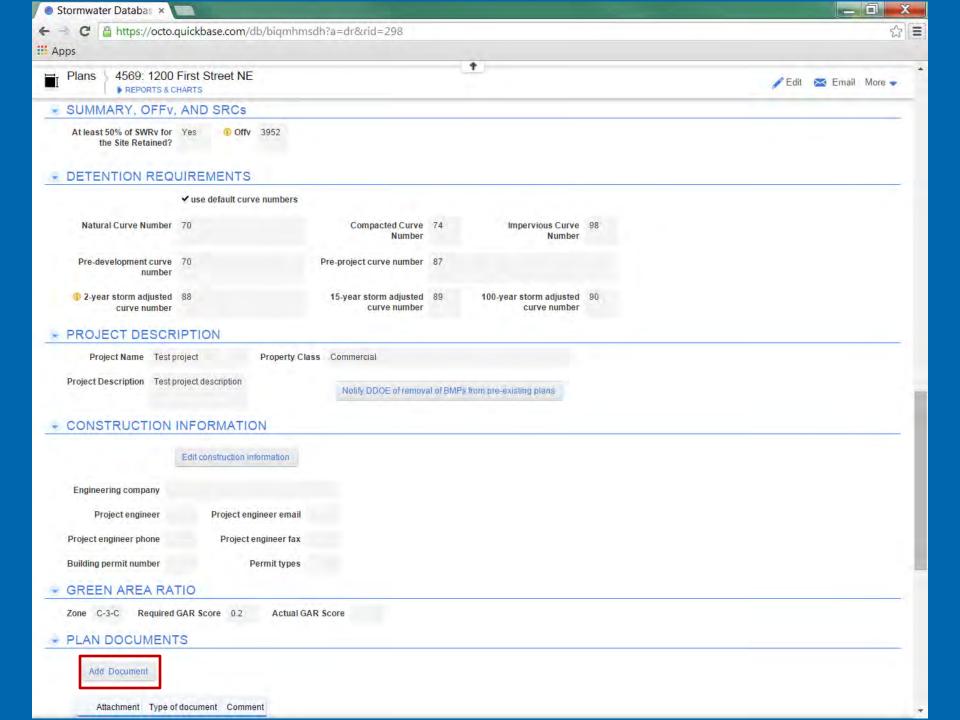


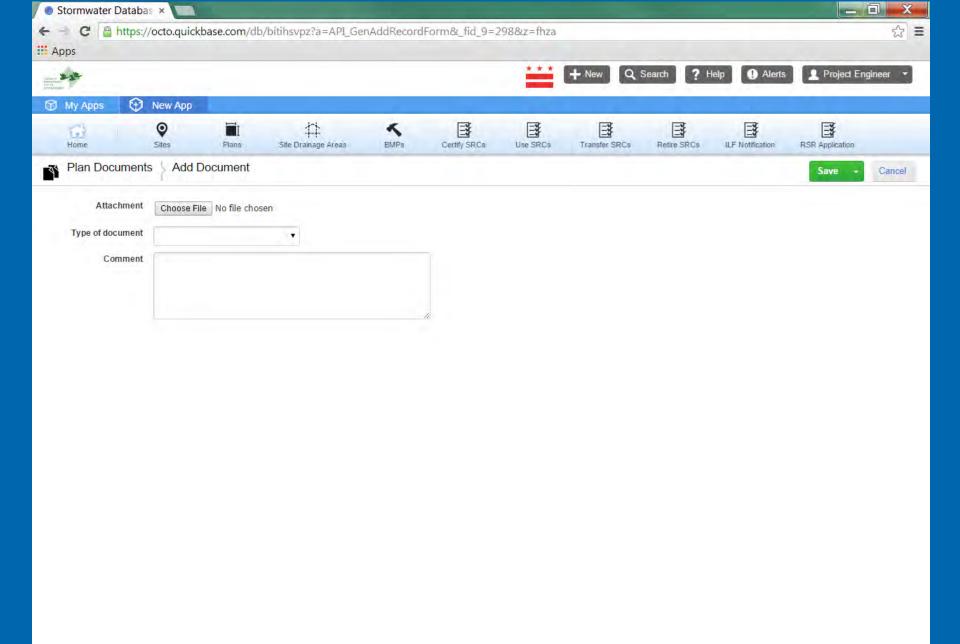


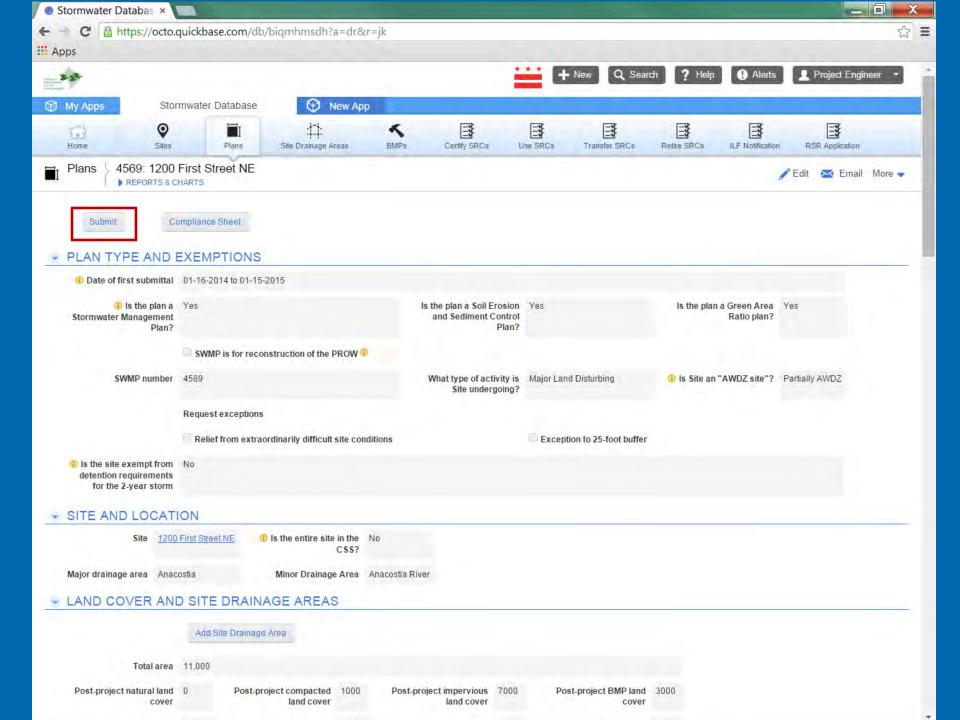
No BMPs found

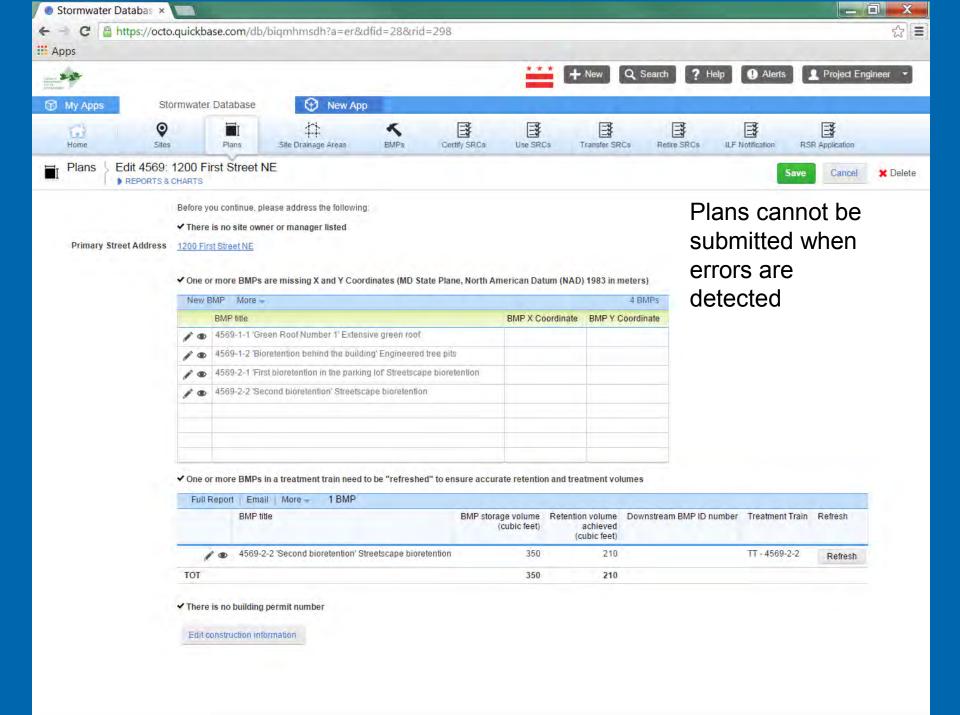










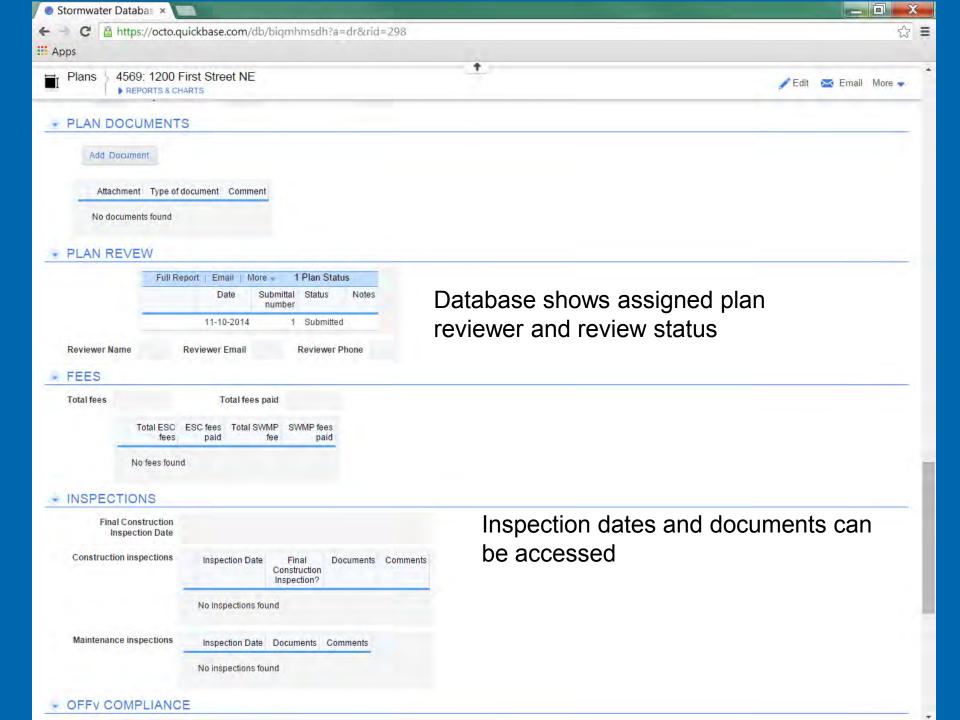


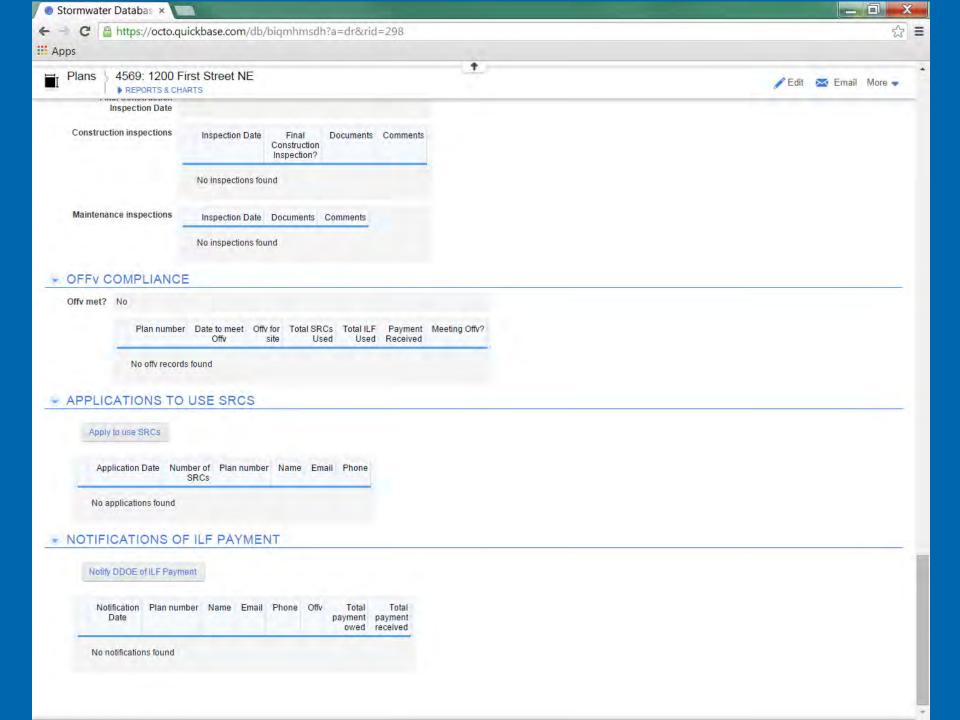


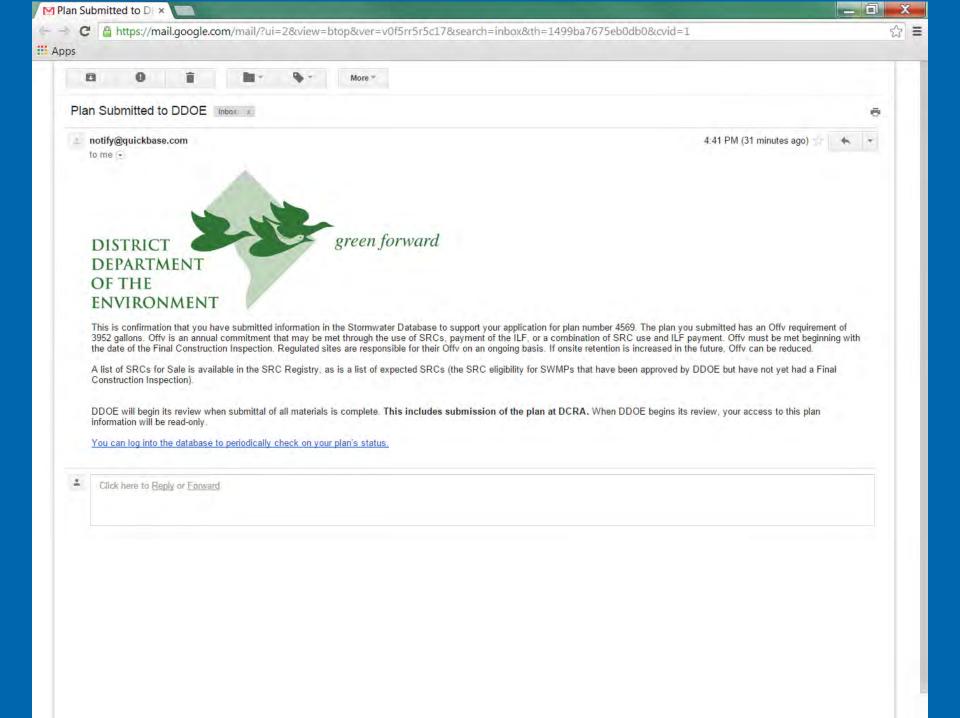
Click Save to submit this information to DDOE.

DDOE will begin its review when submittal of all materials is complete. This includes submission of the plan at DCRA,

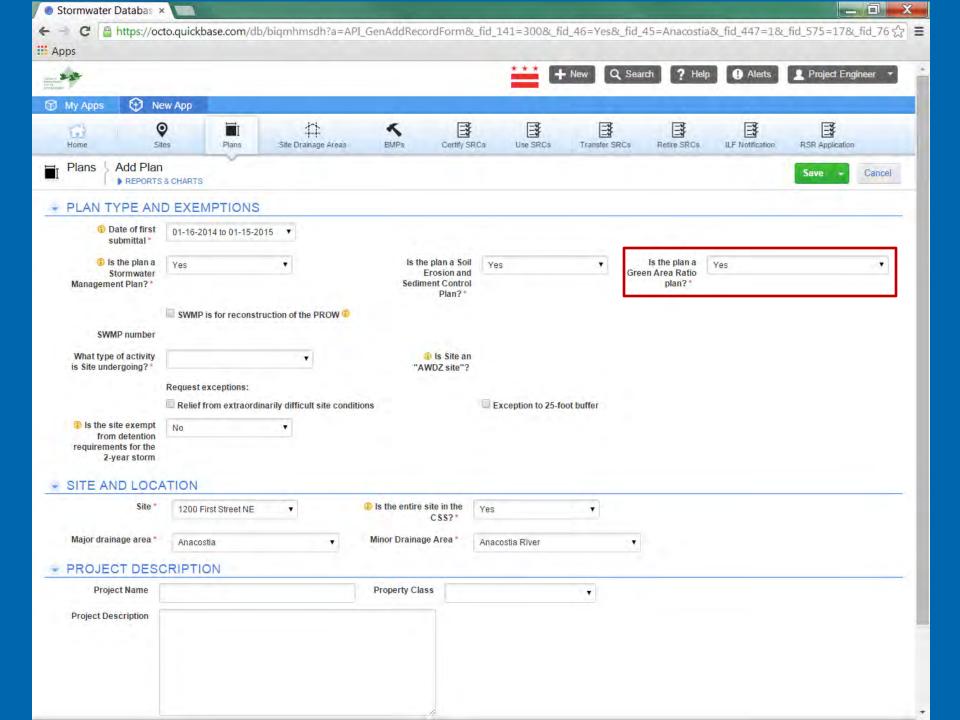
When DDOE begins its review, your access to this plan information will be read-only.

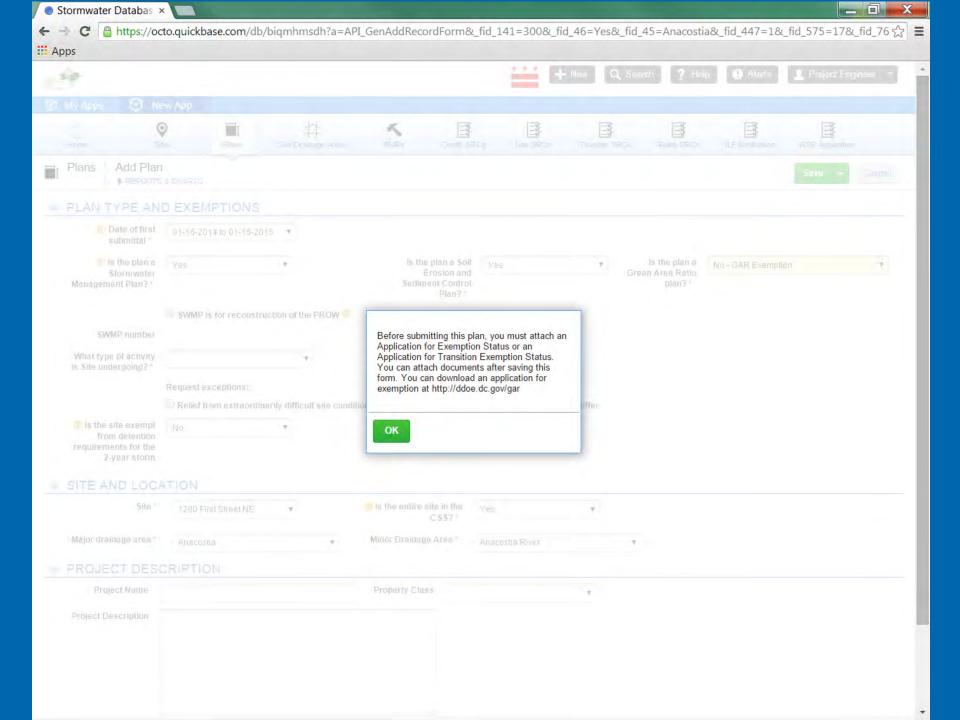


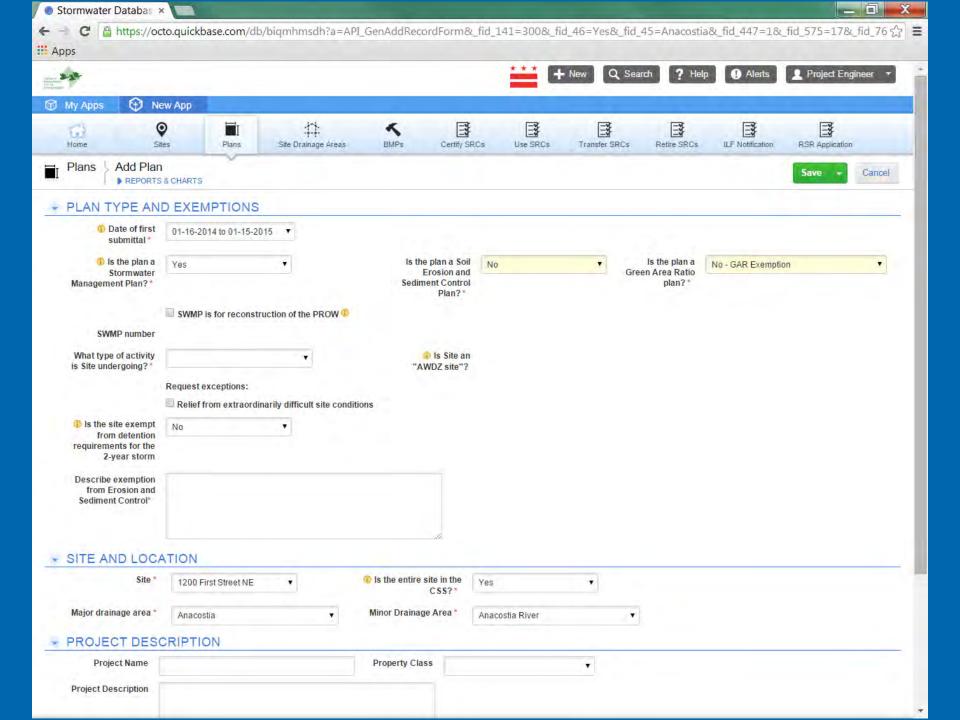


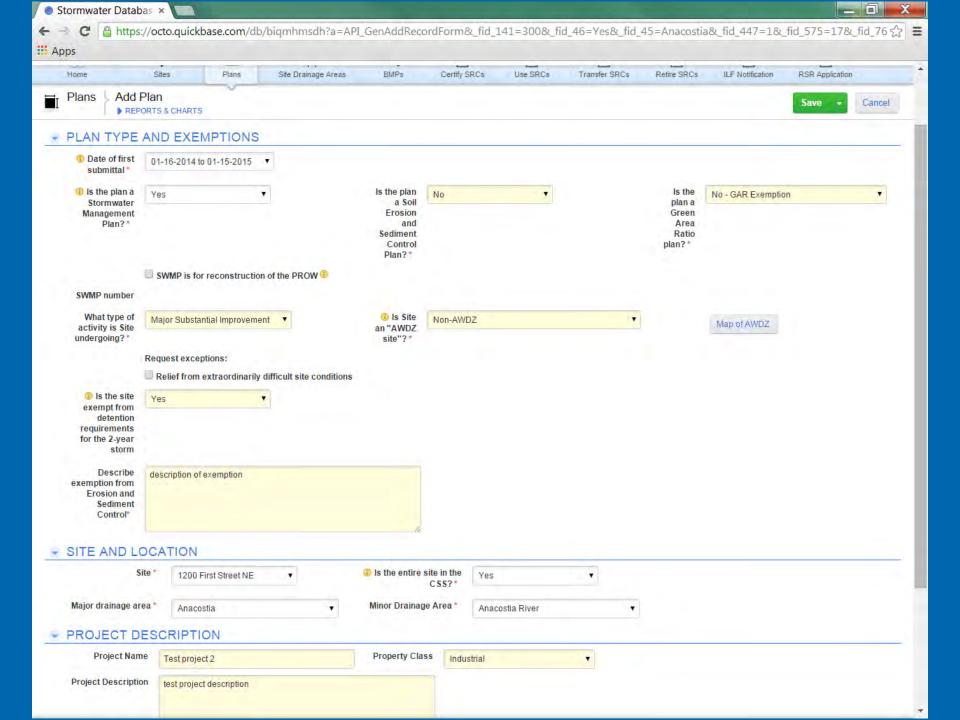


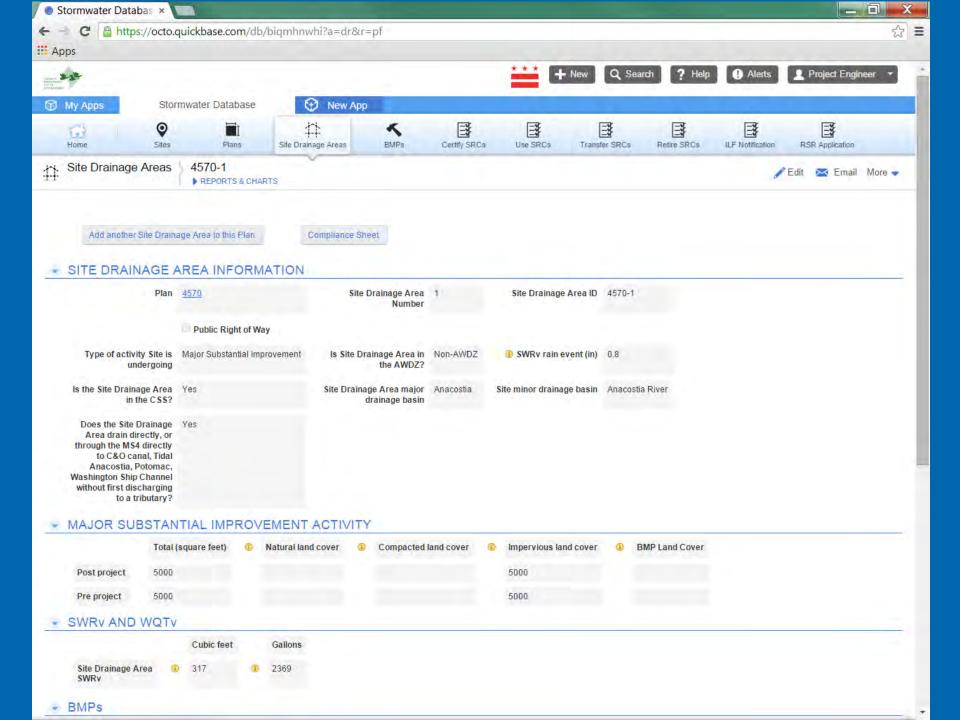
# Exemptions from GAR or Erosion and Sediment Control

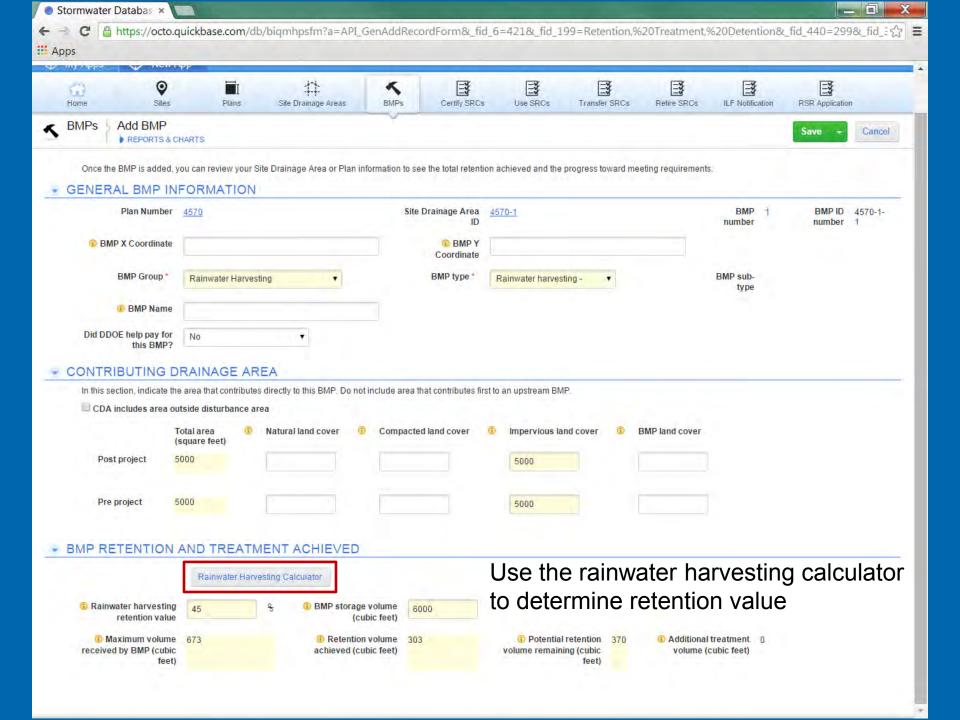




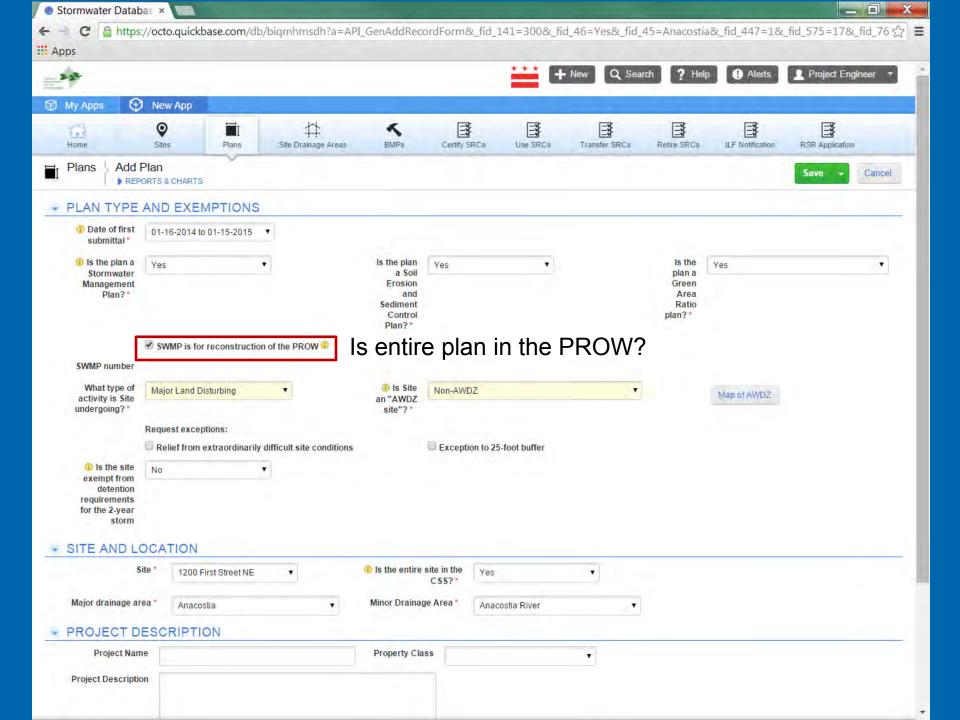


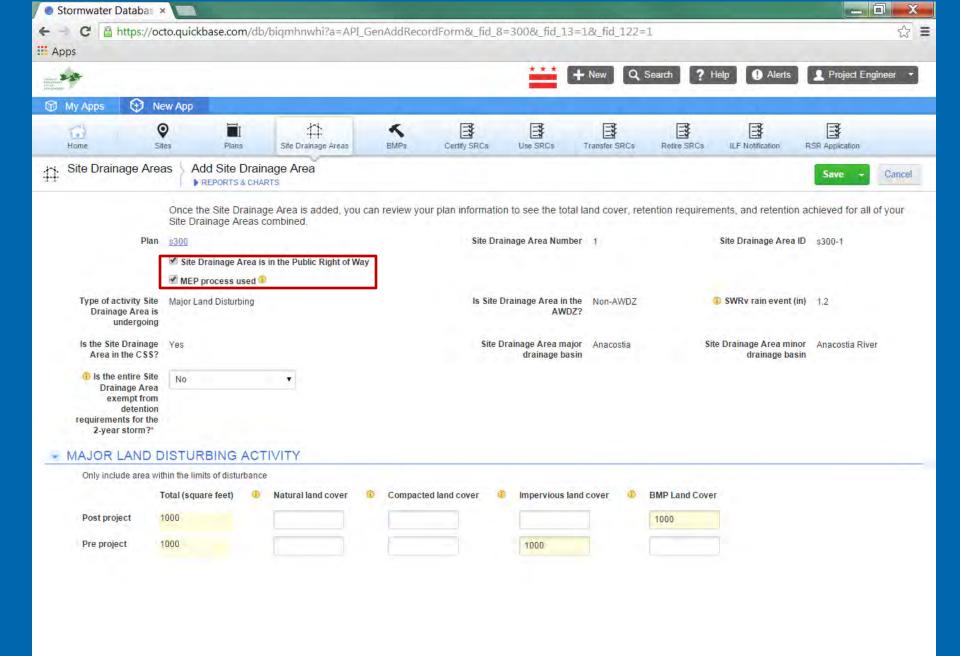


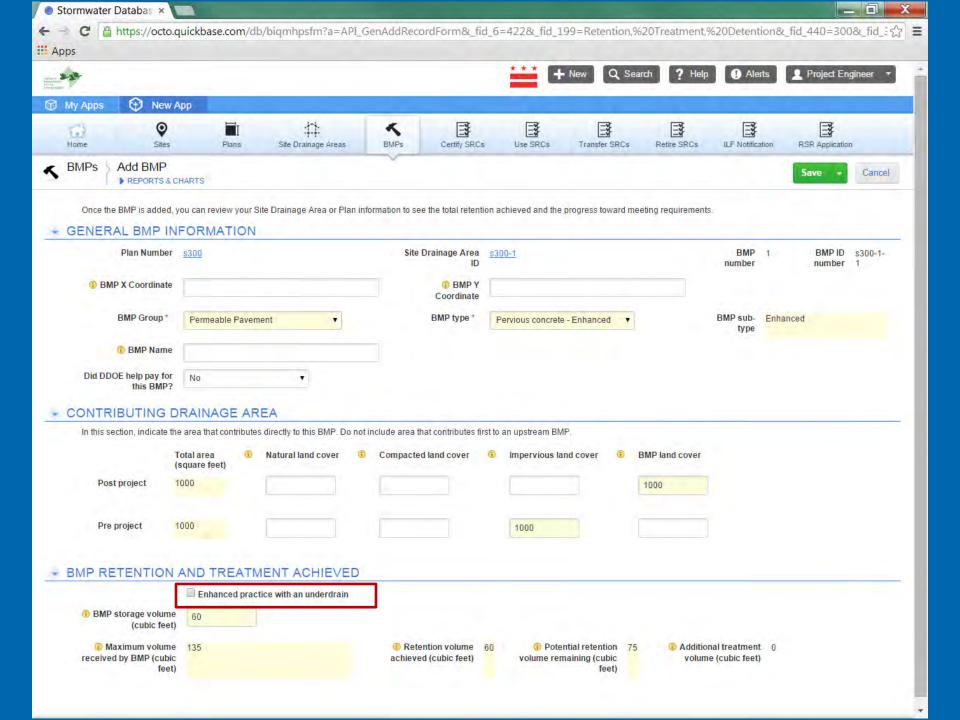




### Public Right of Way







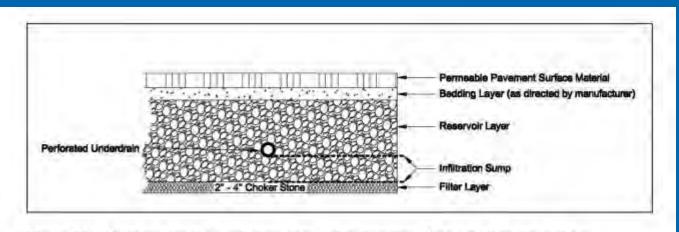
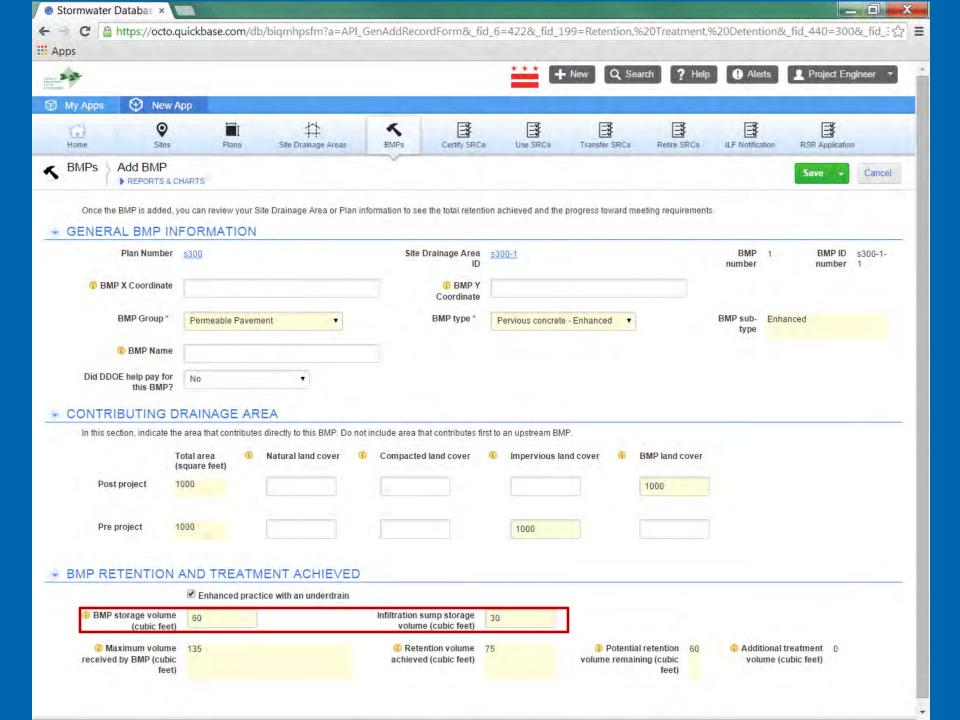
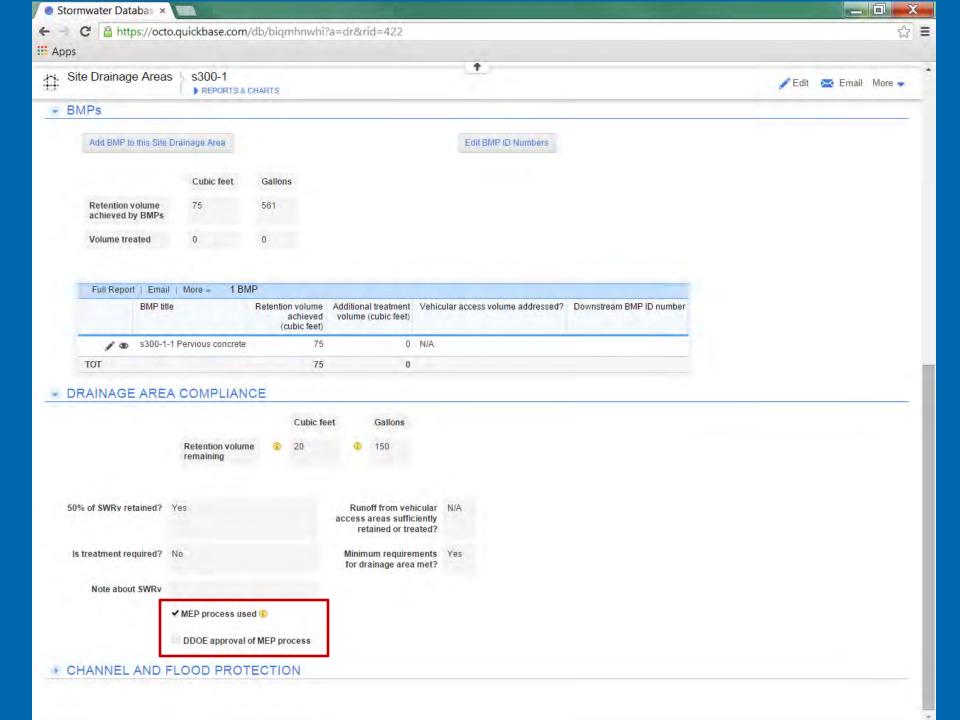
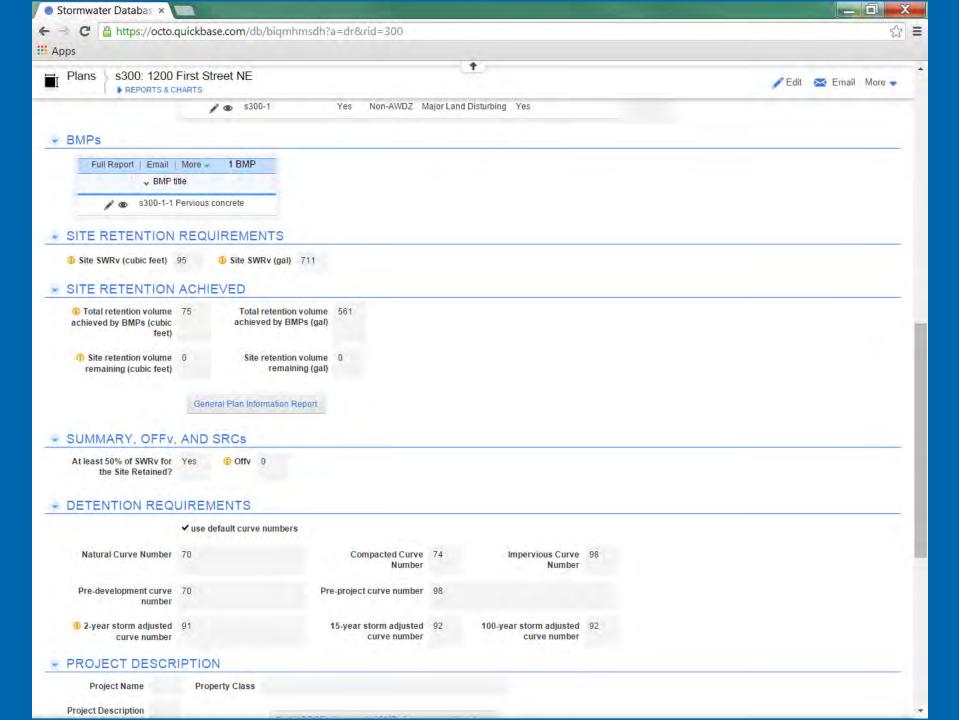


Figure 3.14 Cross section of an enhanced permeable pavement design with an underdrain.

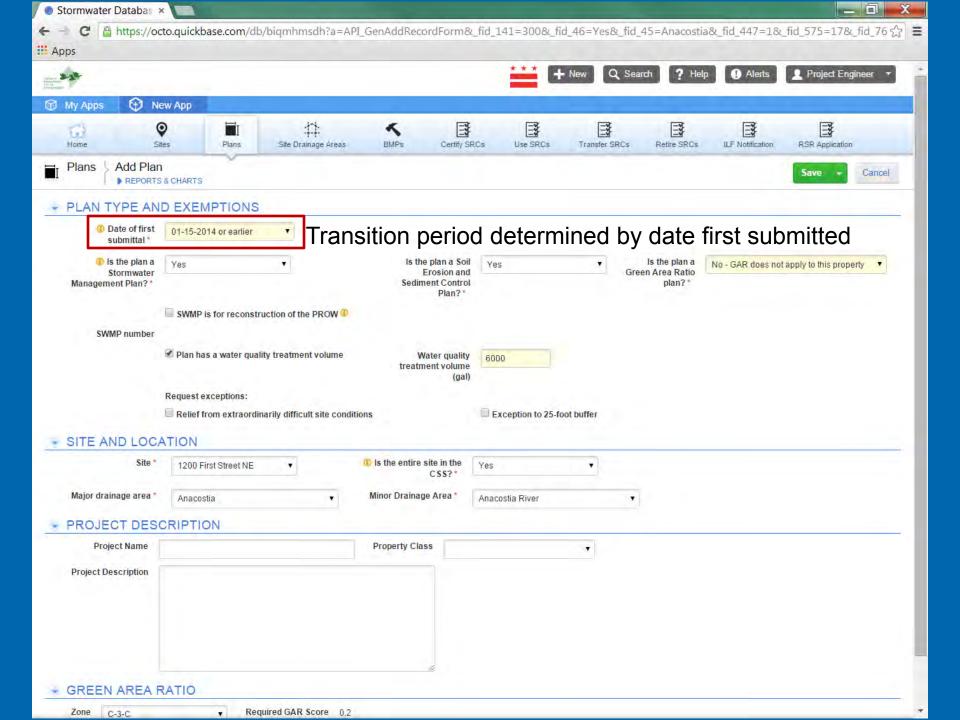
Page 80 of the Stormwater Management Guidebook



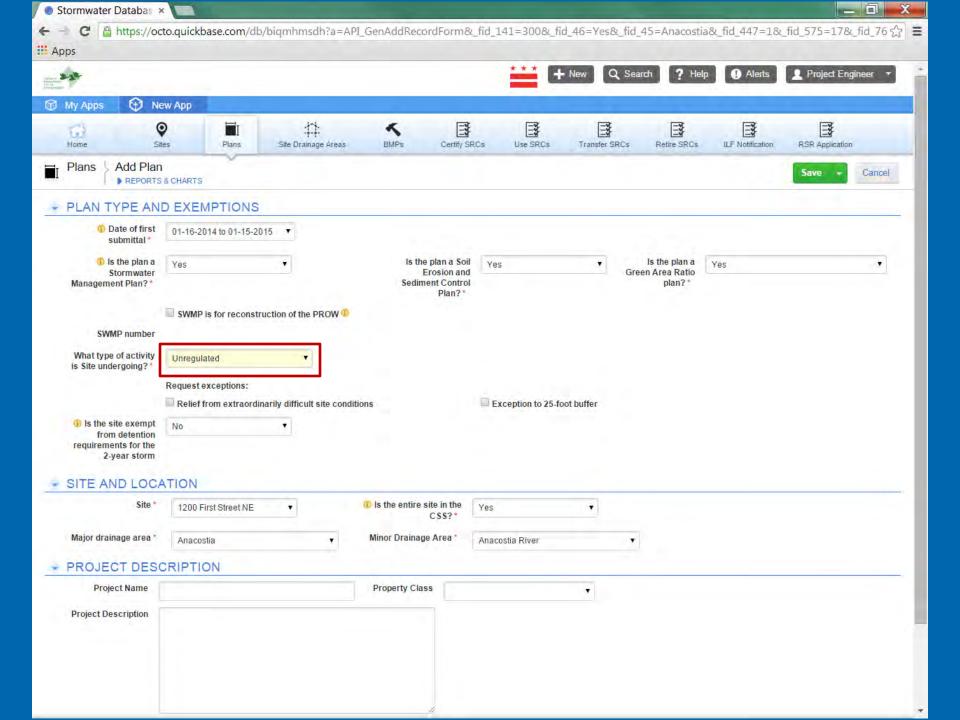


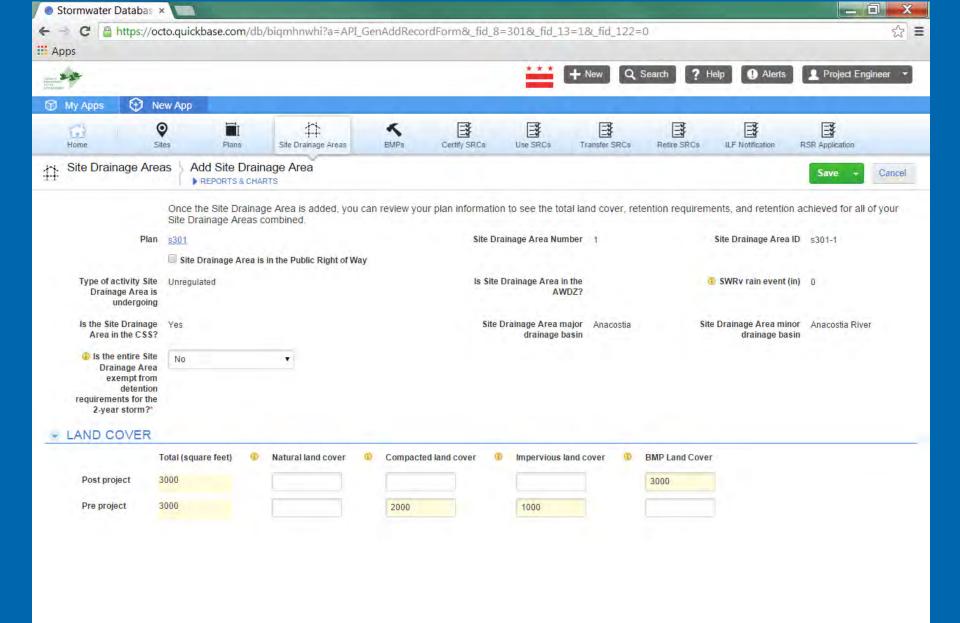


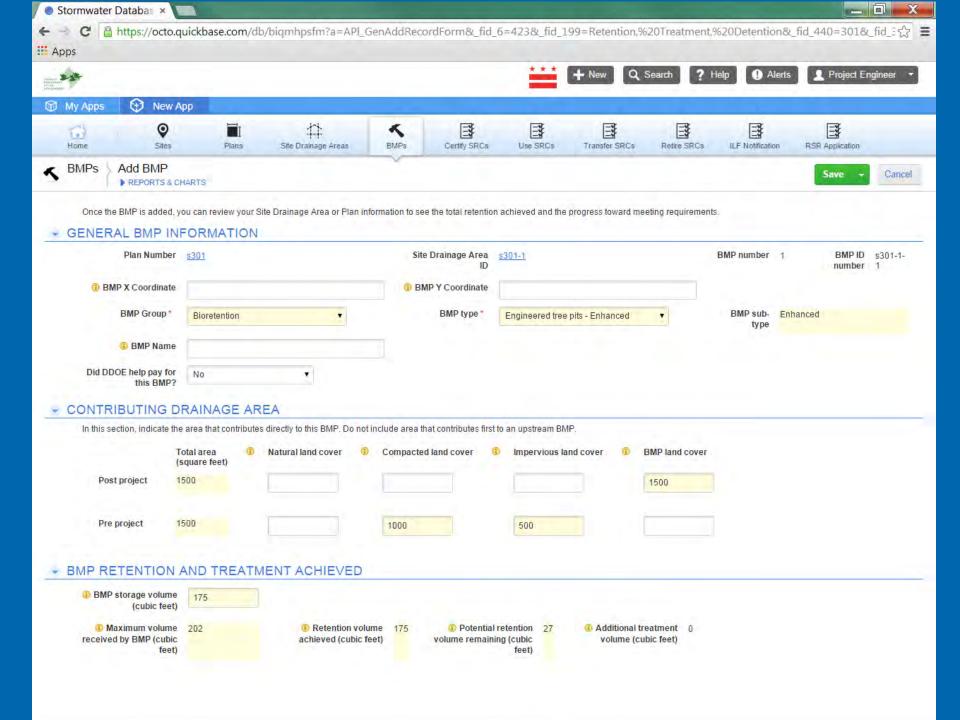
## Plans Vested Under Transition Period 1

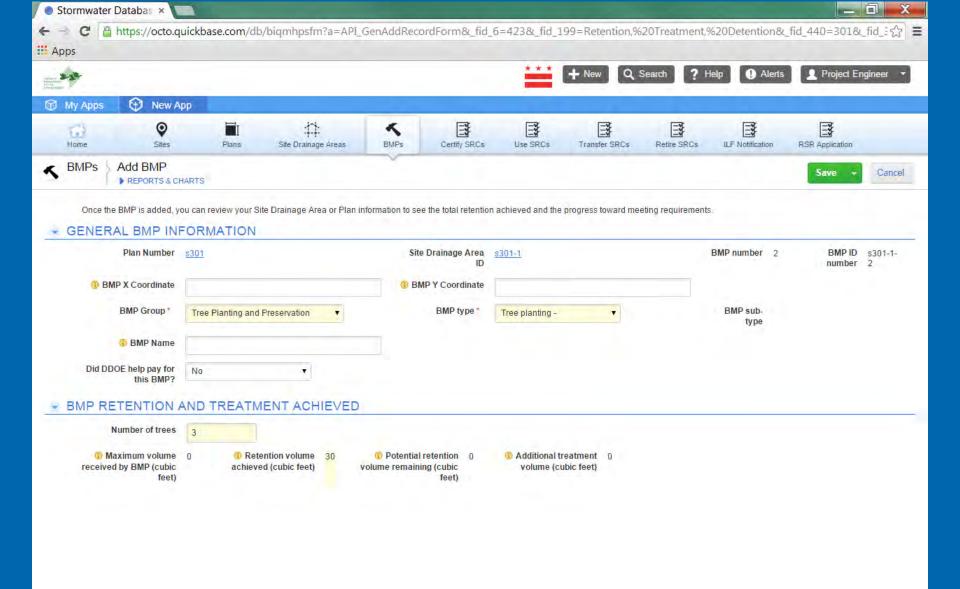


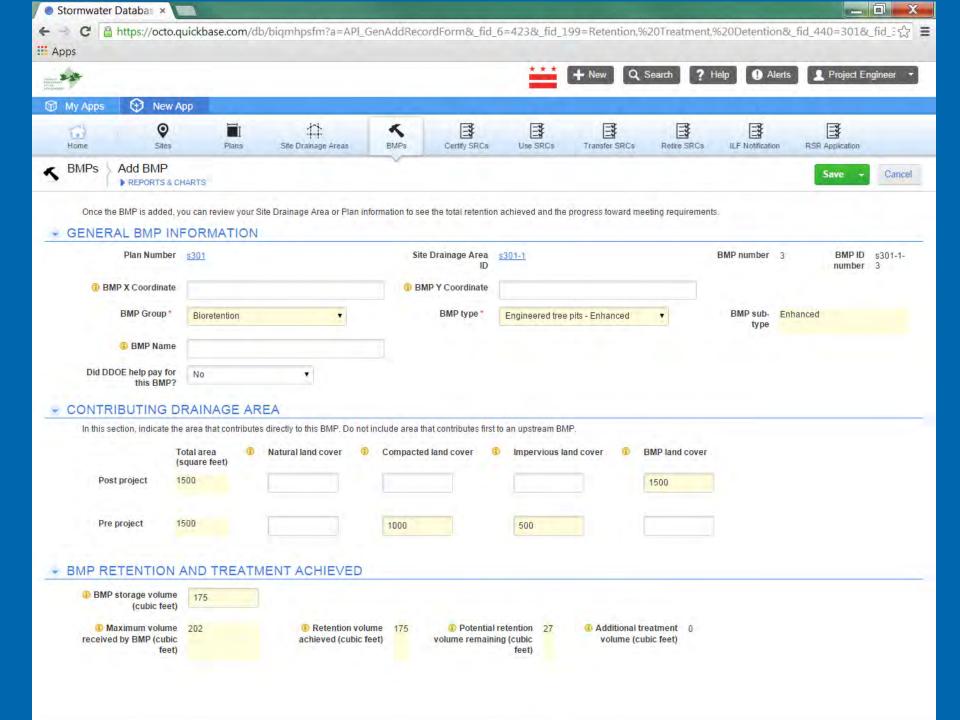
#### **Unregulated Plans**

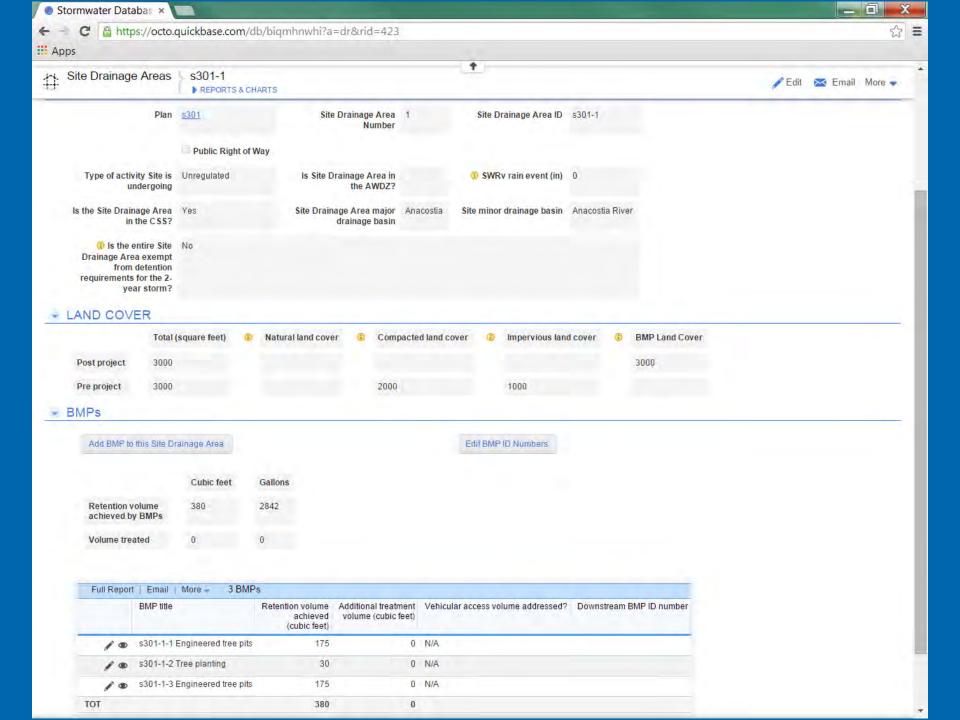


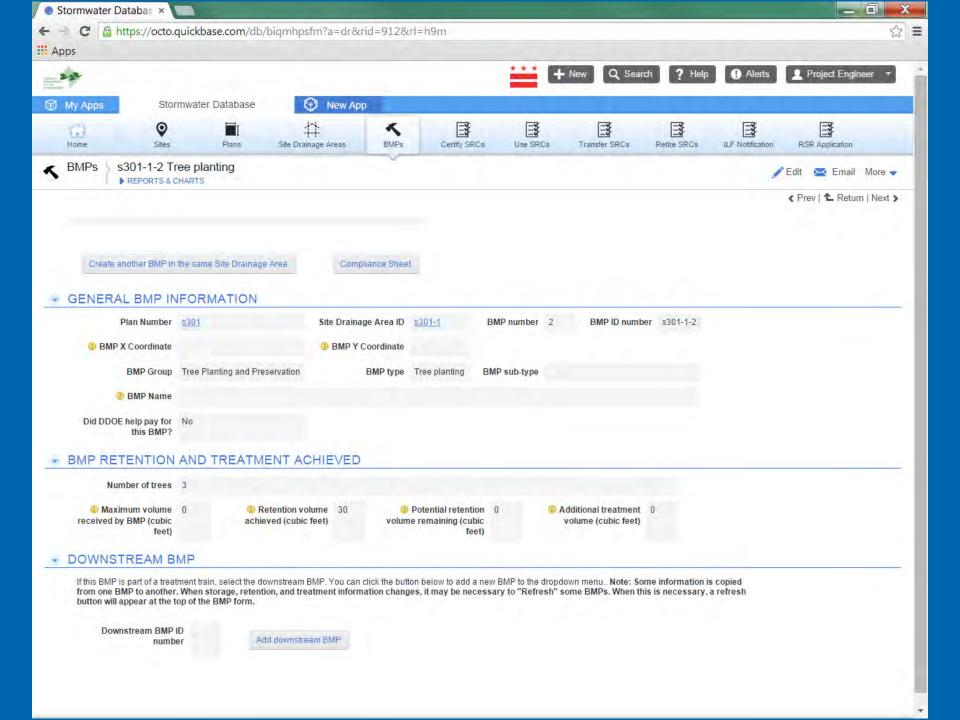


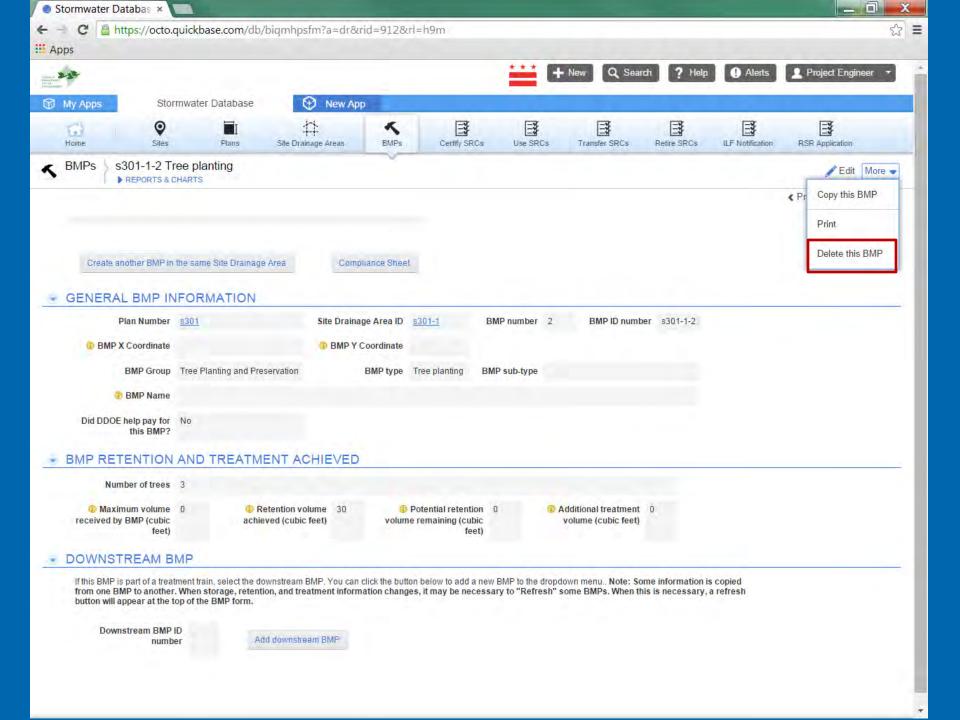


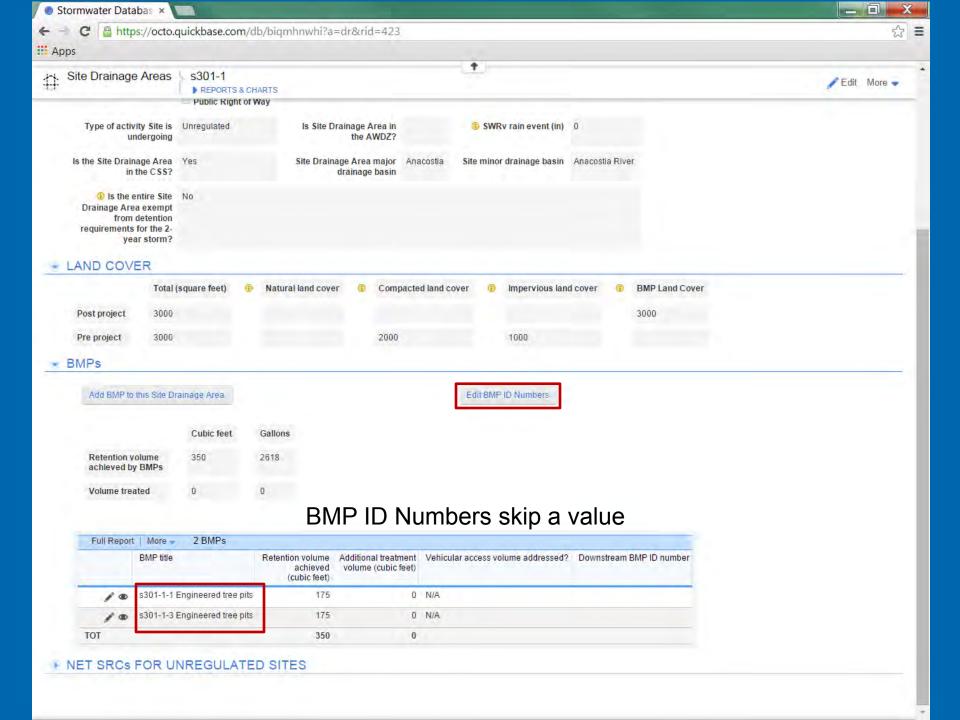


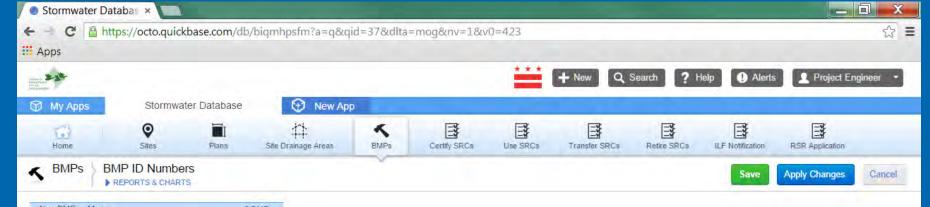




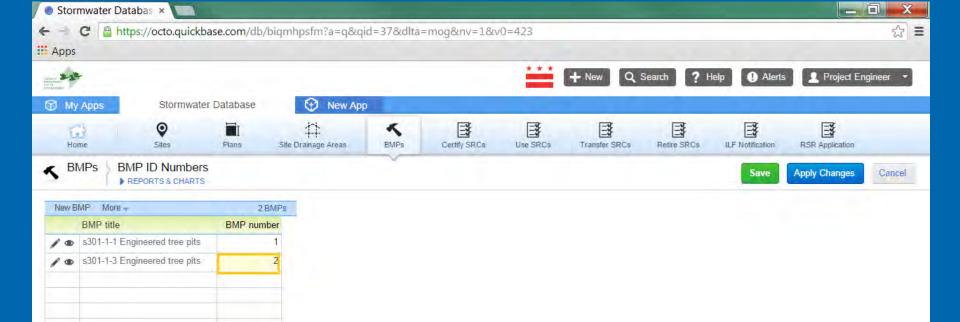


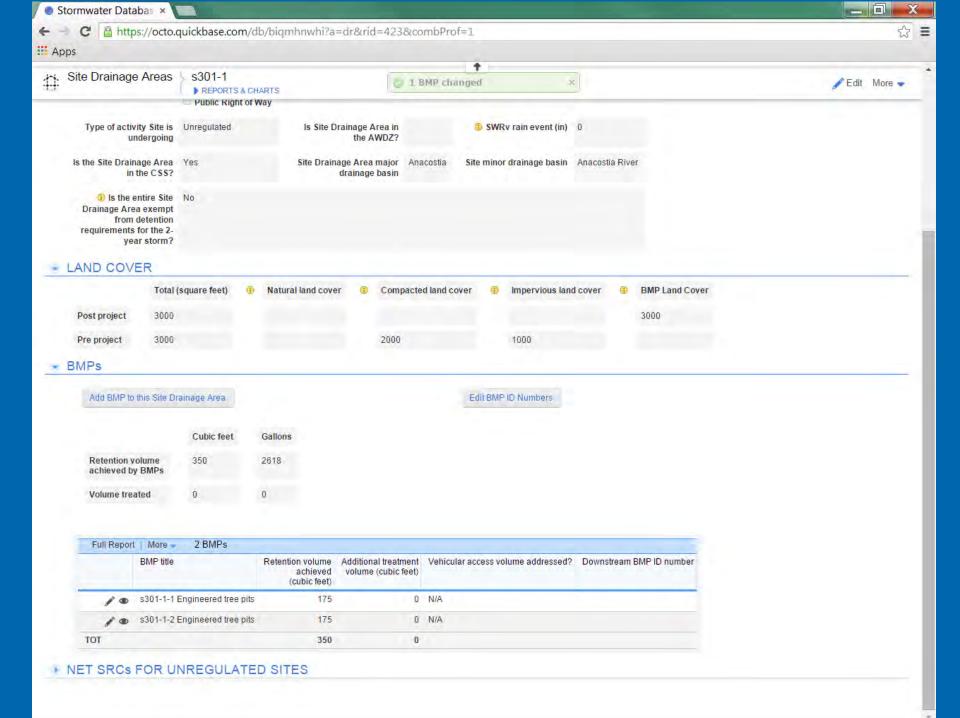


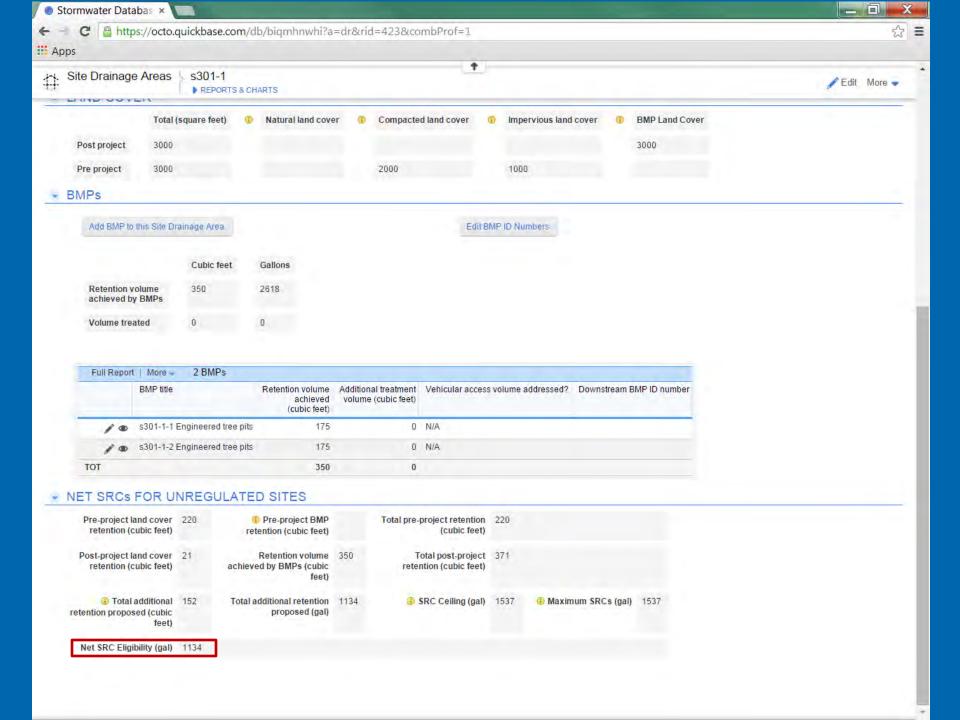




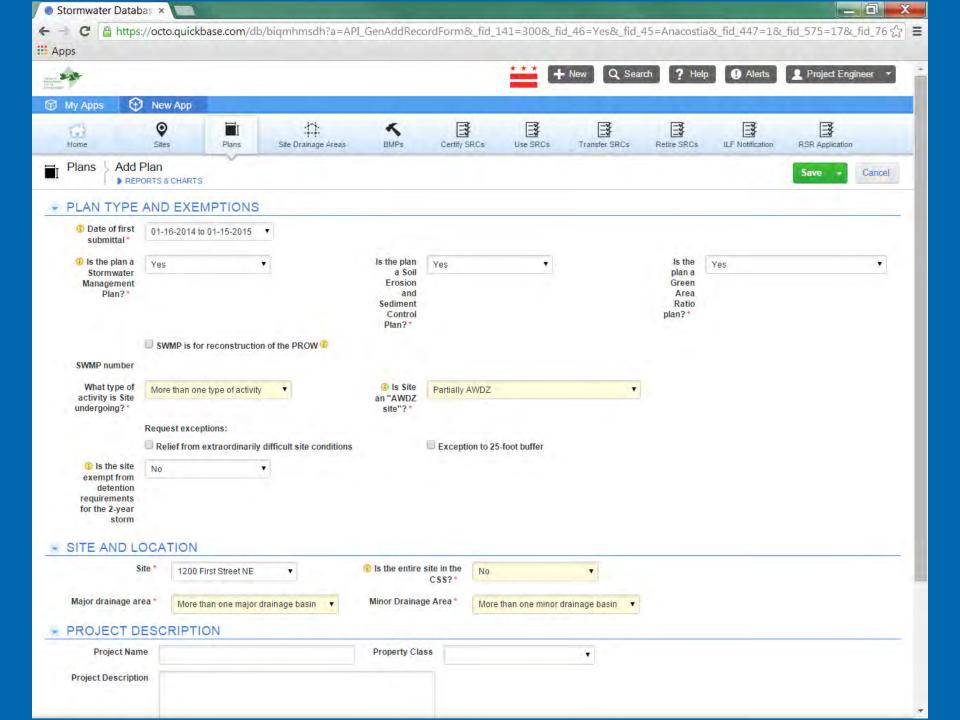
| New BMP More - |                                | 2 BMPs     |
|----------------|--------------------------------|------------|
|                | BMP title                      | BMP number |
| 10             | s301-1-1 Erigineered tree pits | 1          |
|                | s301-1-3 Engineered tree pits  | 3          |
|                |                                |            |
|                |                                |            |
|                |                                |            |

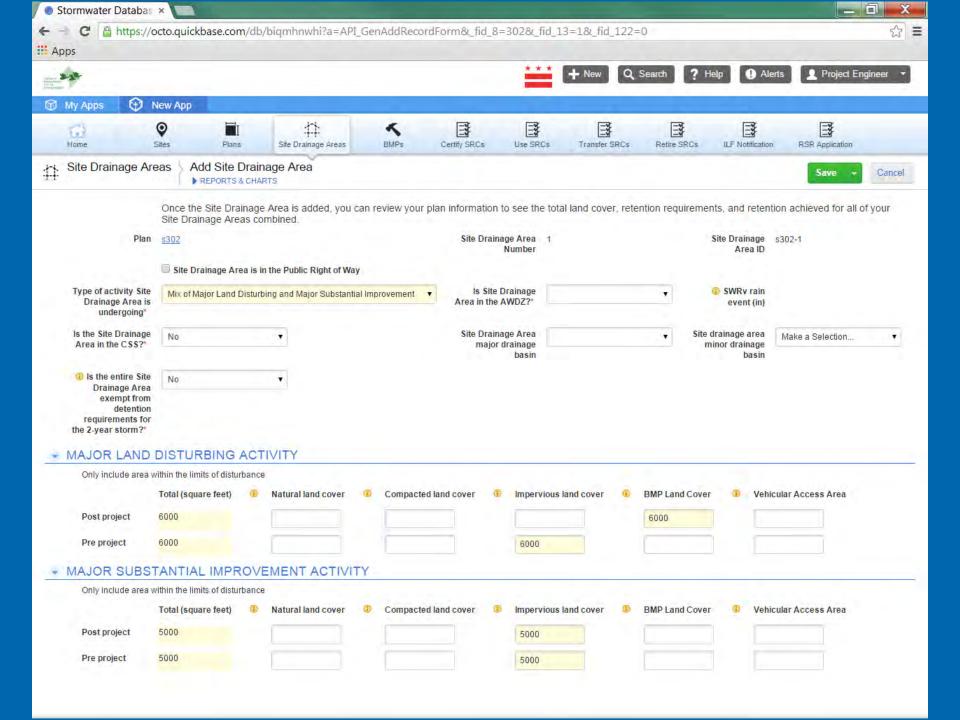


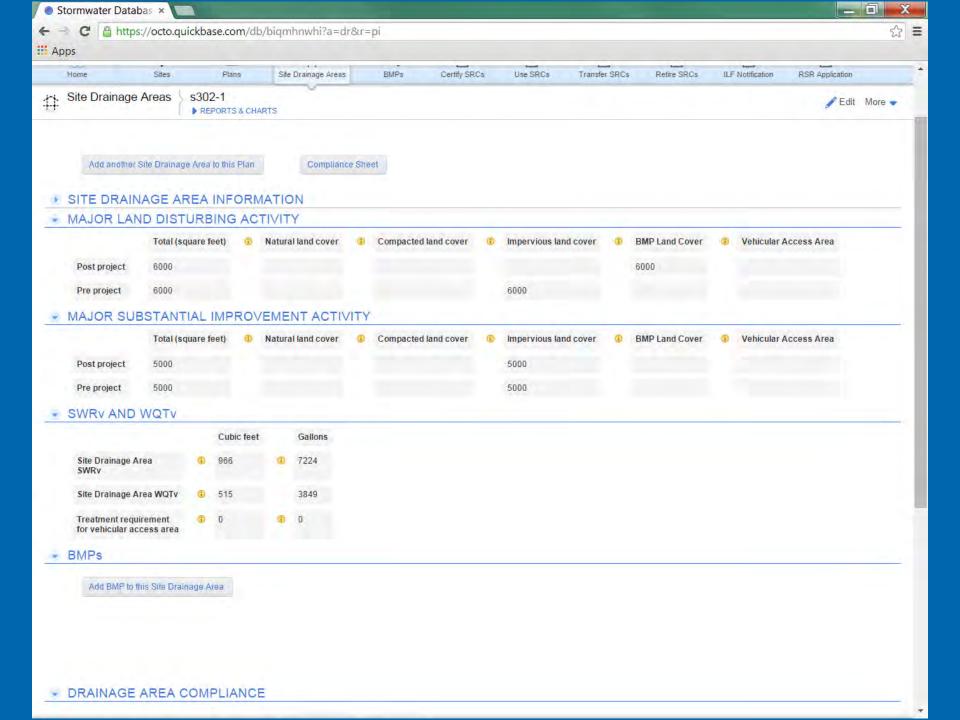




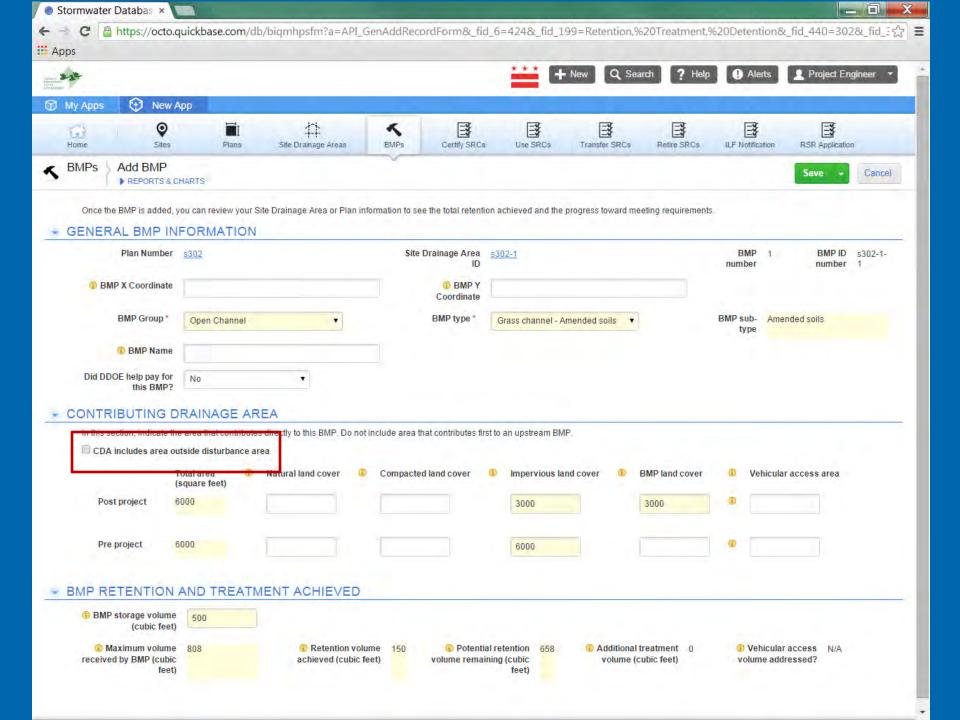
#### More than one type of activity

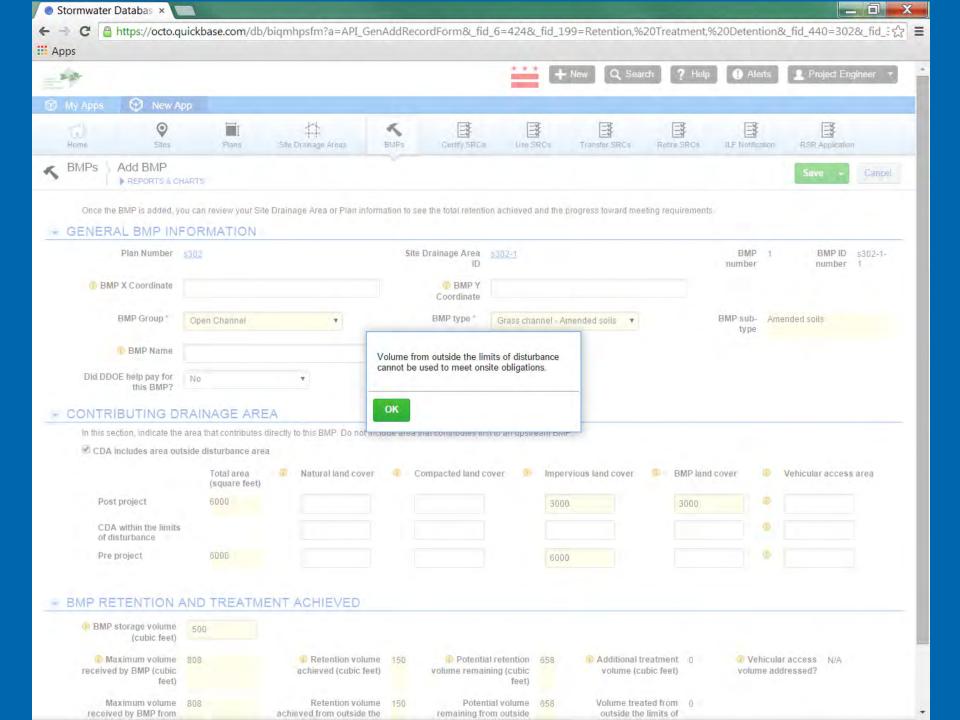


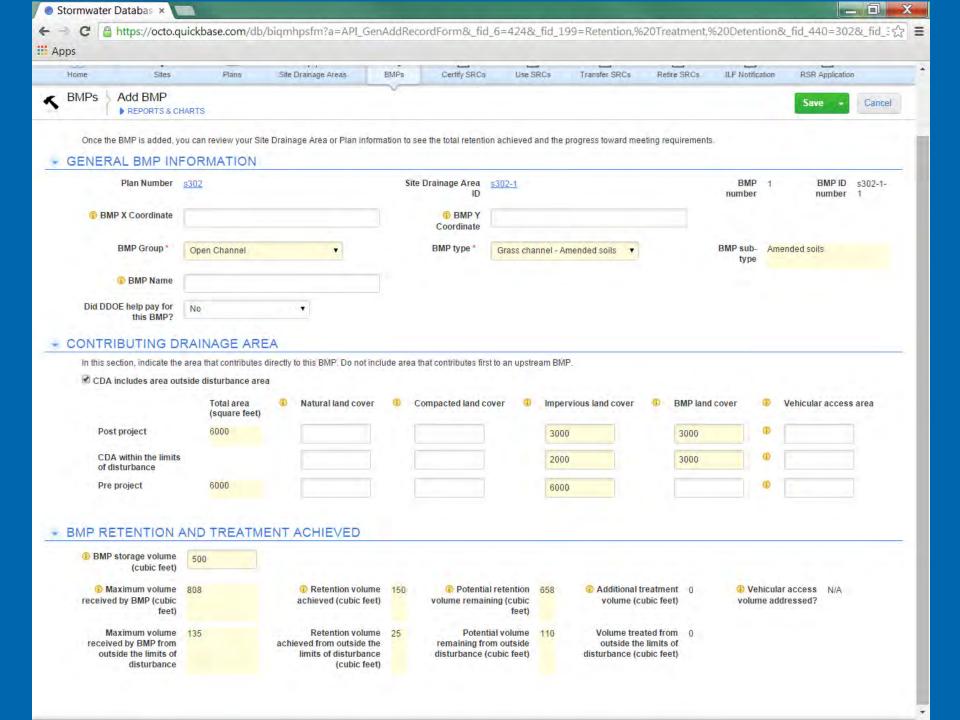


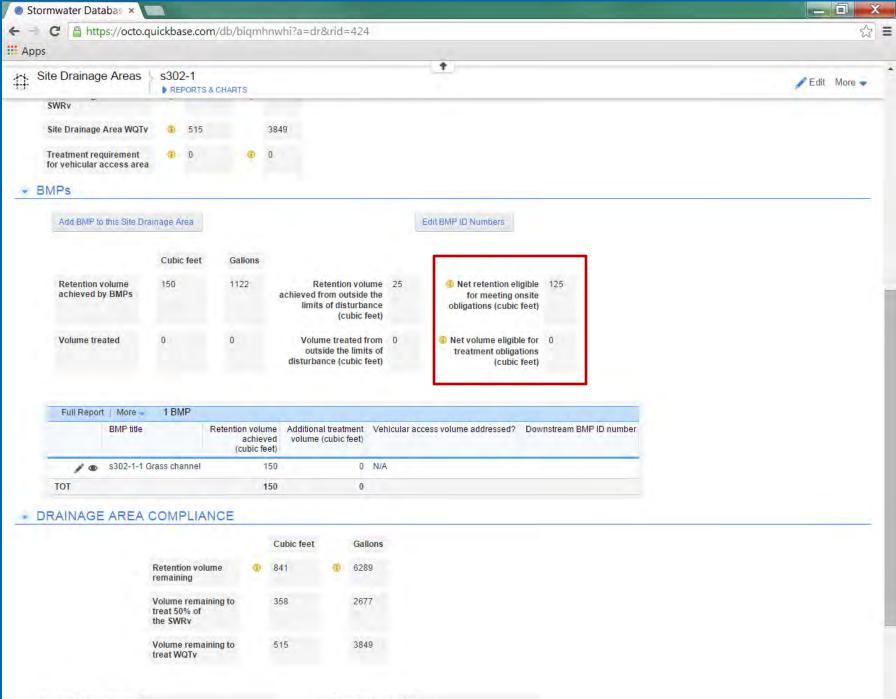


# BMP Contributing Drainage Area from outside the Limits of Disturbance



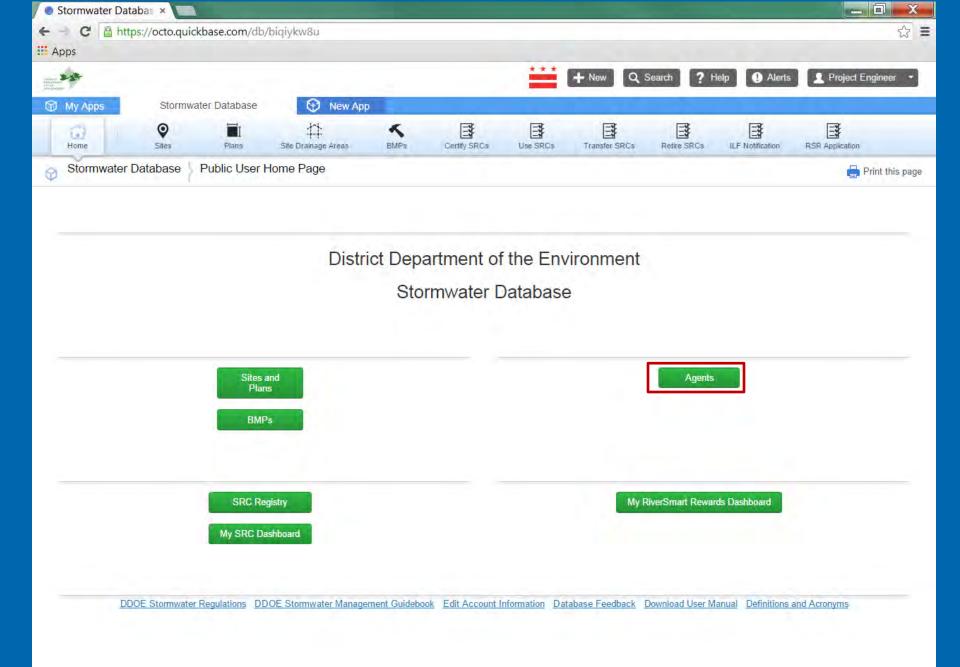


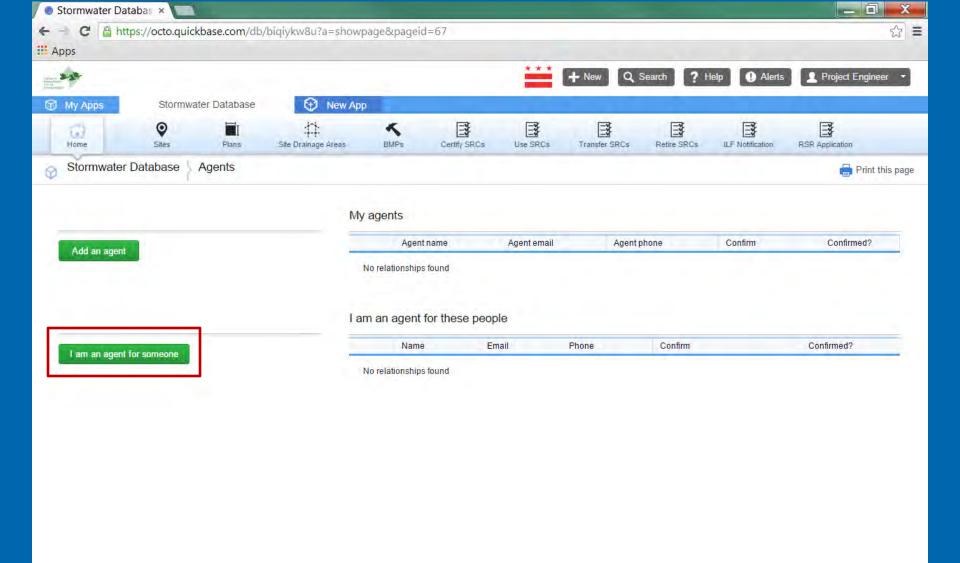


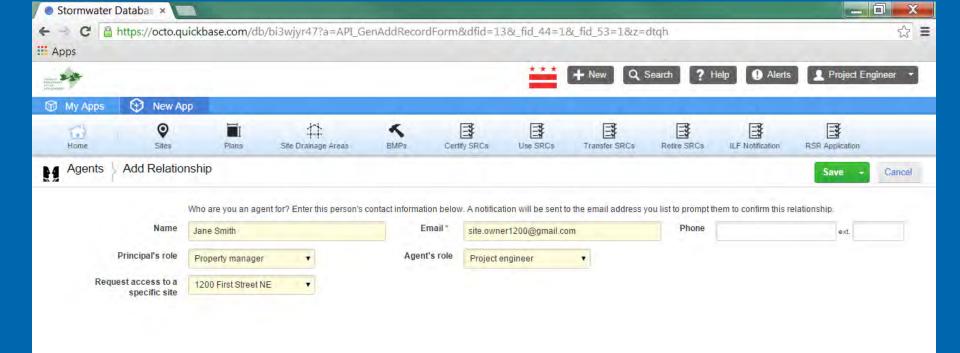


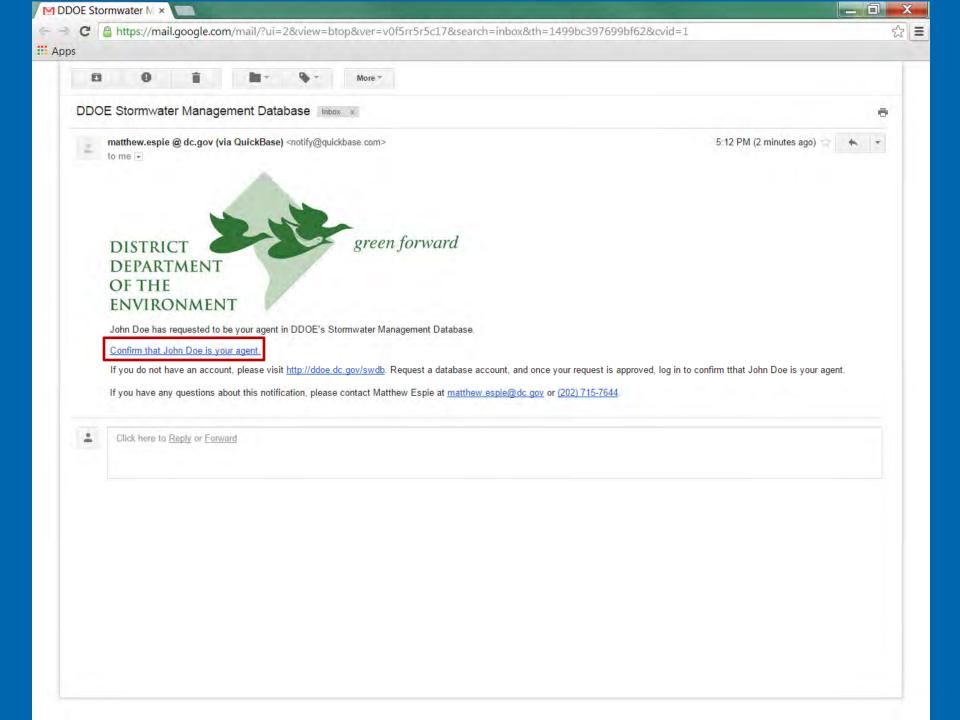
# <u>Agents</u>

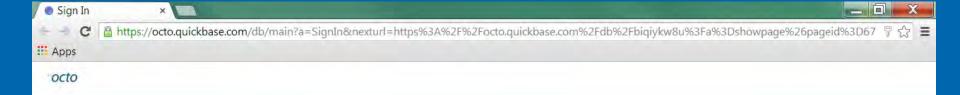
- You can modify information in the database for Sites that you manage
- You can modify information in the database for Sites that are managed by someone who has delegated authority to you













#### Welcome to the DC Government Quickbase application!

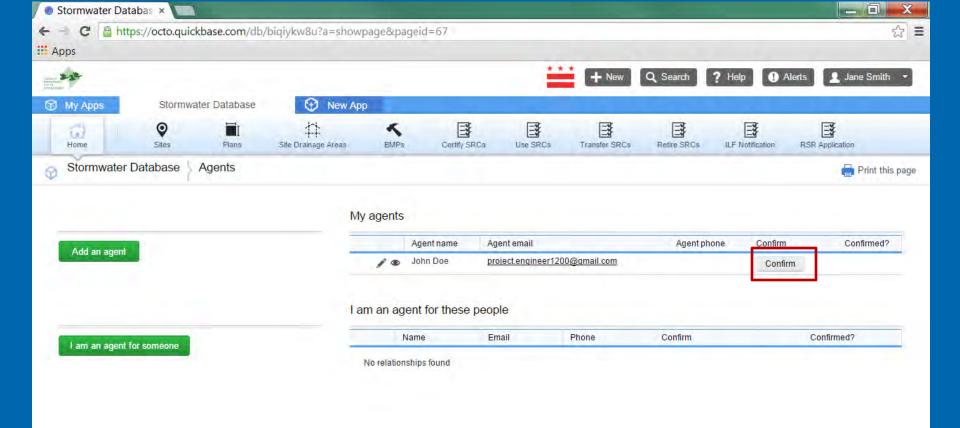
Please login in using your entire dc.gov email address (normally firstname.lastname@dc.gov) as Username and your network/email password.

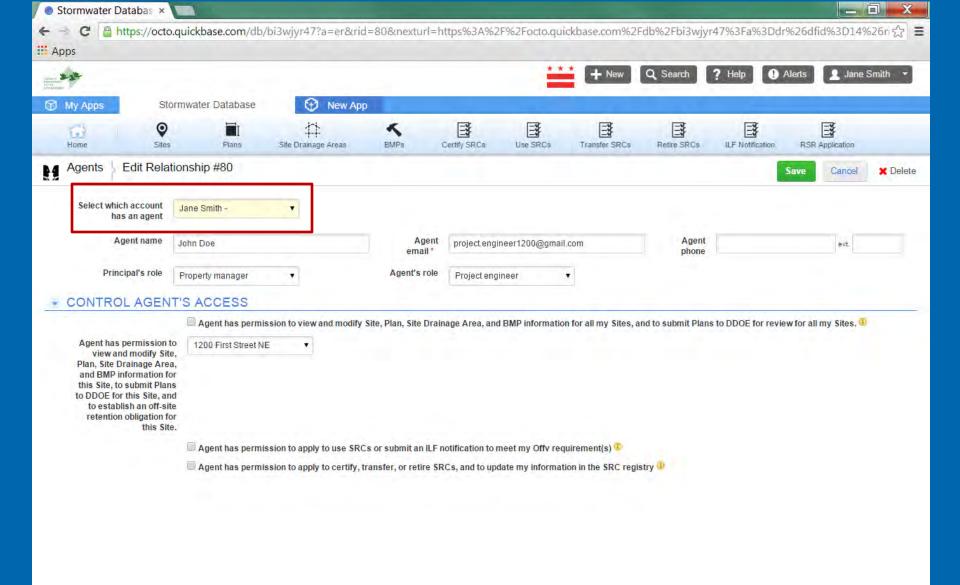
If your email or password is not recognized, please contact Citywide Messaging and let them know you cannot log into Quickbase.

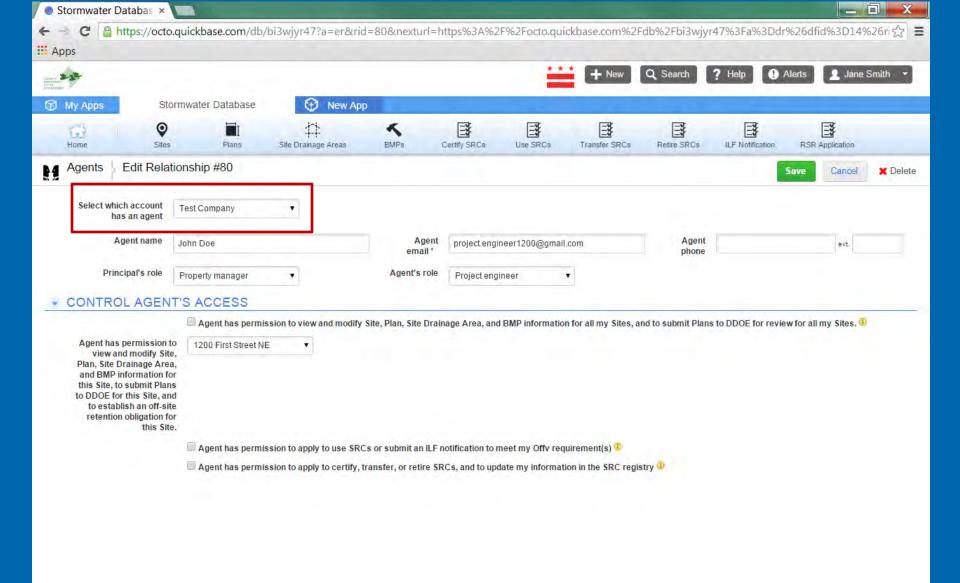
If you do not have a dc.gov email address please contact the application manager or agency contact to submit a trouble ticket or gain access.

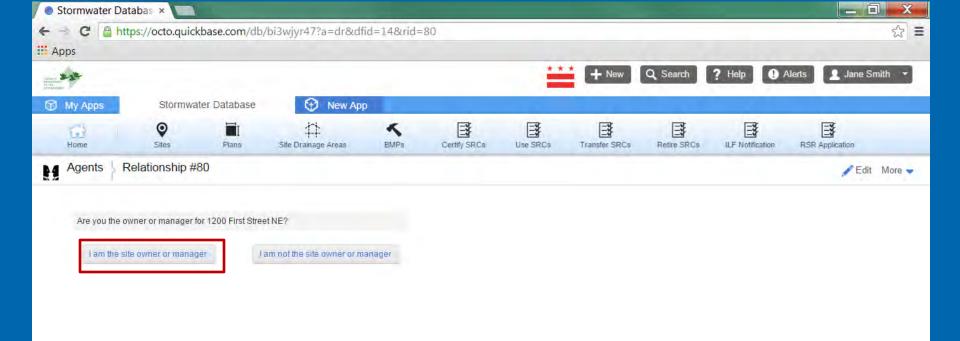
Copyright @ 2000-2014 Intuit Inc. All rights reserved.

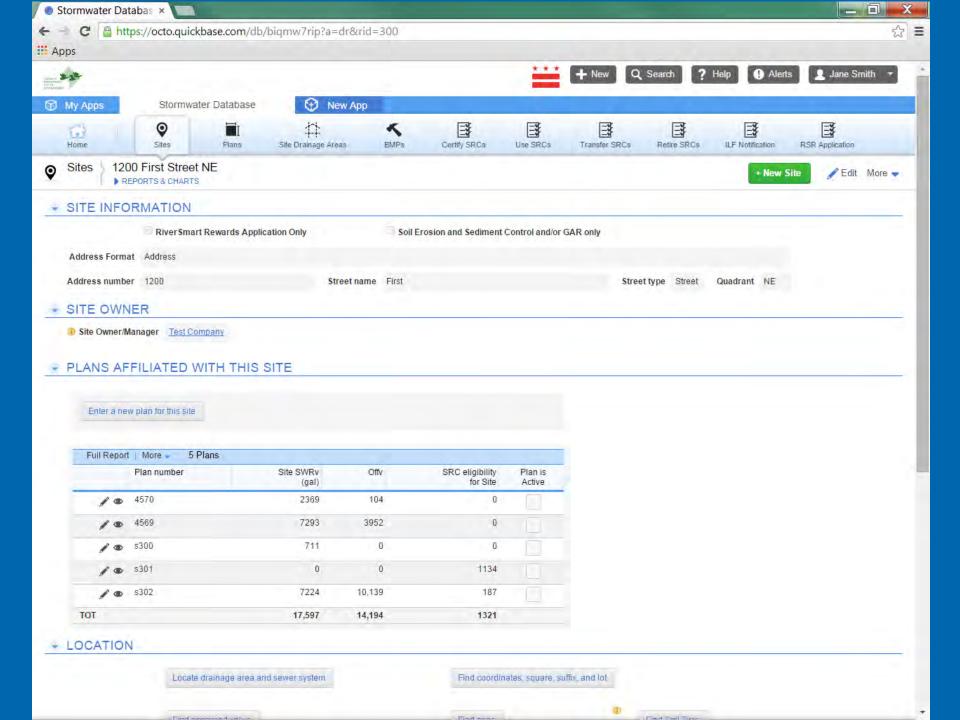
Legal | Privacy



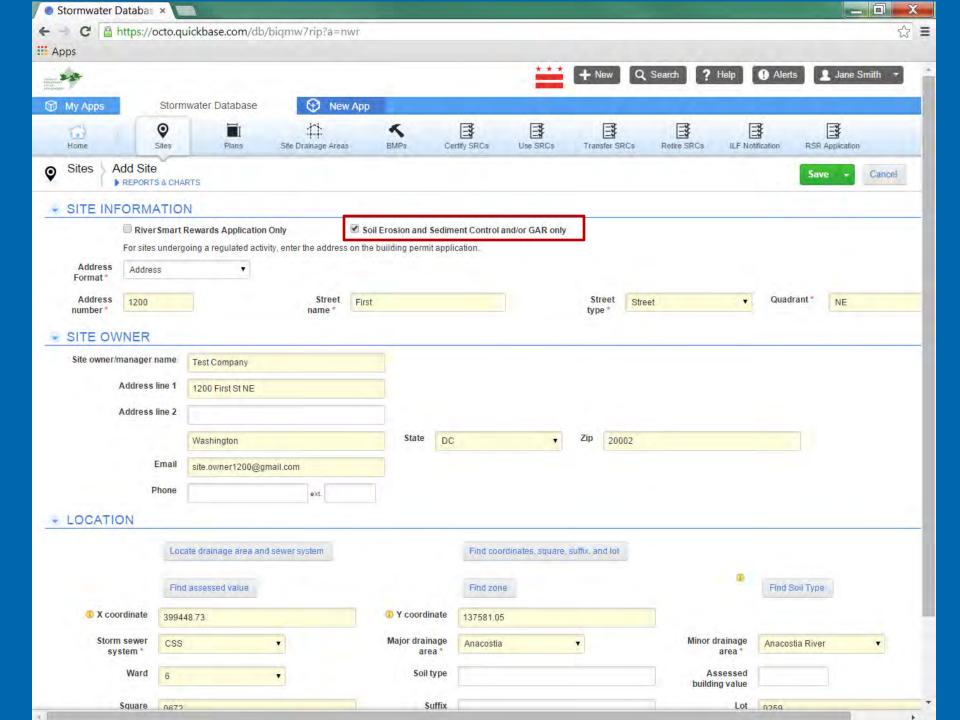


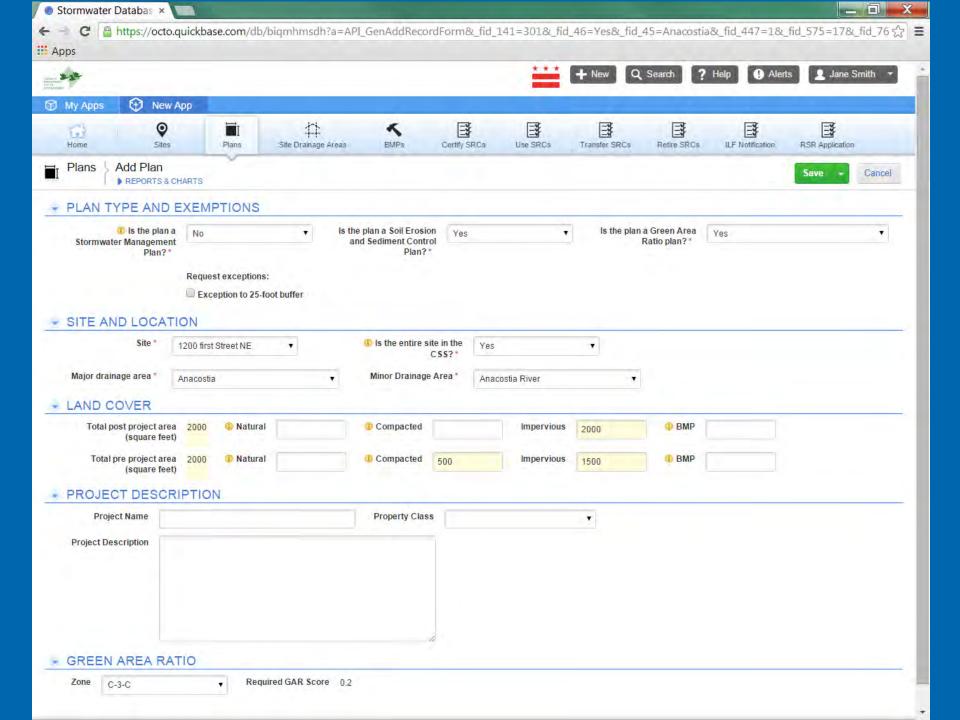






# Erosion and Sediment Control and GAR plans





### Test Exercise

- Navigate to http://ddoe.dc.gov/swdb
- Log in with group credentials
- Enter plans and "submit" them to DDOE

## Additional Information

Matthew Espie
Matthew.Espie@dc.gov
202-715-7644

To access DDOE's Stormwater Management Database, visit ddoe.dc.gov/swdb.

For DDOE's stormwater management regulations and related information, visit ddoe.dc.gov/swregs.