

Water Quality Program Update

Permit Status and Special Projects
March, 2012

MS4 Permit Status

- Annual Report Submitted to State 3-9-12
- 2012 Rulemaking ("Phase III") – postponed
 - State might extend permit past 2013 to address EPA's expected revisions
- State MS4 Program Questionnaire
 - Receive end of March (?)
 - Addresses Permit program deficiencies from audits
 - 60 days to complete (?)
- Revisions to Cherry Creek Control Reg. 72.7 as part of 2013 Triennial Review
 - roadway maintenance
 - large lot administrative BMP
 - minor clarifications

MS4 Permit related activities

- “Construction Site Runoff” Program 4 GESC efforts
 - “Working in Waterways” policy document
 - “Public/Private Partnership” Program
 - Under-an-acre Policy Document
 - Define ‘Low Risk’ activities, no permit approach
 - Clarify Low Impact and Small Site to minimize process
 - Annual Permit for Dry Utilities (directional boring)
 - Expand to include trenching between borings
 - Coordinate with Douglas County for consistency
 - Work with CO Stormwater Council to standardize across metro Denver

Special Projects

- SEMSWA 2011 Annual Report and one-page mailer
- City Stormwater Management Manual reframed as SEMSWA Manual
- Grant Application for EPA’s Green Infrastructure Program – Pond retrofit at The Ridge
- Drainageway Signage
- Pond Retrofit Grant Program Update
- Cherry Creek stream construction project status

2011 Annual Report, one page mailer



Stormwater Management Manual

- SEMSWA uses City Stormwater Management Manual
- IIGA - "SEMSWA may adopt its own management regulations and enforcement mechanisms"
- Reframing 'City' to 'SEMSWA regulation and/or enforcement mechanism'
- Example change: *As described in Section 13.2, SEMSWA City of Centennial encourages new development to consider implementing regional or sub-regional Water Quality Capture Volume facilities and flood control detention at a subdivision level in lieu of onsite facilities at the time each lot is developed.*

EPA Grant Application

- For projects that facilitate the use of 'green infrastructure' to protect water quality
- Directed to watersheds with significant water quality degradation associated with urban stormwater, ie Cherry Creek
- EPA anticipates selecting 10-20 projects to receive assistance. The value of the assistance available to each project will be approximately \$50,000 - \$100,000.
- SEMSWA application for monitoring the retrofit of existing non-functioning pond at The Ridge development, with several green infrastructure demonstrations, including rain garden, green roof, porous pavers (*additional explanation of these in Grant Program update*)

Drainageway Signage



- Tested signs along Easter Avenue for Cottonwood Creek crossing
- Roughly 422 sign locations have been identified within the City of Centennial right-of-way and unincorporated Arapahoe County, in addition to SSPRD and APRD trail crossings
- First phase will be 18 signs with goal of 80 signs a year

Pond Retrofit Grant Program

- **June 2009:** SEMSWA Board Adopts the *Credit Policy*
- **May 2010:** Grant Program Implementation Policy
- **2010/2011:** Prepared retrofit design concepts; prepared 'typical' GESC detail/report; numerous contacts to explain the Grant Program and seek participants.
- **March 15, 2012:** Received 3 Applications:
 - The Ridge in Centennial
 - Southcreek in Arapahoe County - 2 separate HOA applications.

Pond Retrofit Grant Program

The Ridge, Centennial Colorado



Existing Pond Concerns:

- Difficult and costly maintenance
- Low functioning outlet structure
- Not attractive
- High irrigation needs
- No longer necessary with recently constructed sub-regional pond



Grant Potential:

- SEMSWA initially contacted to discuss removal
- Applicant to fund all design
- Opportunity to retrofit and provide training site

Pond Retrofit Grant Program The Ridge, Centennial

Design Concepts:

- Water Quality demonstration garden of Low Impact Development (LID) techniques
- Provide effluent monitoring site
- Demonstration and educational site for developers, engineers, and the public
- Training and monitoring site for long term maintenance of water quality



Cortech Urban Green BioFilter



Porous Gathering Area



Grass Swale Concept



Green Roof Pavilion



Rain Garden Concept – EPA photo

Design Progress :

- Design funds pledged through Grant
- SEMSWA secured alternate BMP and material donations in excess of \$40,000
- CCBWQA and UDFCD are discussing partnering with SEMSWA
- Completed City pre-submittal process

Pond Retrofit Grant Program Southcreek, Arapahoe County



Existing Pond Concerns:

- Difficult maintenance access
- Low functioning outlet structure
- Not attractive
- Standing water/mosquito concerns
- Outlet Structure clogs easily
- Should be an amenity and usable space

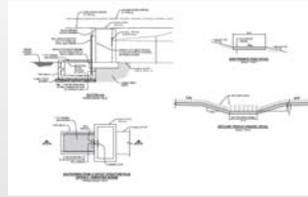
Grant Potential:

- SEMSWA initially contacted to discuss pond maintenance
- HOA (2 separate associations) have pledged 15% contribution
- Potential monitoring site(s)
- Adjacent to Cherry Creek Trail for potential signage and education

Pond Retrofit Grant Program Southcreek, Arapahoe County

Design Concepts:

- Retrofit three ponds with various water quality components, monitor effectiveness
- Utilize a prefabricated “drop-in” outlet
- Utilize wetland and vegetated treatment processes
- Provide stabilized maintenance access



Design Progress :

- Design funds pledged through Grant
- Utilize ‘typical’ GESC plans and the conceptual design developed in conjunction with the Grant Program policy adoption



Cherry Creek Stream Stabilization @ Parker Jordan Centennial Open Space

Project Timeline:

Phase I - 3 drop structures, a low water crossing, grading primary and secondary channel: *completed March 9th*

Phase II - Drop Structures 4 and 5 (retrofit of existing drop): *in progress now*

Phase III - Site Amenities: *in mid summer*

Work in the channel anticipated complete April 27th; project anticipated complete by July 16th

