Using an Ecological Recovery Approach to Stormwater Permit Regulations

ANDY RHEAUME – CITY OF REDMOND
HEATHER BALLASH – WASHINGTON STATE DEPARTMENT OF COMMERCE
ED O’BRIEN – WASHINGTON DEPARTMENT OF ECOLOGY
JOHN LENTH – HERRERA ENVIRONMENTAL CONSULTANTS

Presentation Overview

- The Dilemma
- The Solution
- Tools to Achieve the Solution
  - Regional Growth Centers
  - Stream Prioritization Guidance
  - Stormwater Control Transfer Program
  - Effectiveness Monitoring

The Dilemma

2 more Seattles + 2 more Tacomas by 2040!
The Dilemma

- Not preserving natural functions and habitat within the growth management area.
- Healthy aquatic habitat where people live and work is almost gone.
- The loss of healthy habitat will have economic, social, and legal ramifications.

The Dilemma

- GMA is the driver for City and County comprehensive planning (housing + jobs + transportation).
- Utilities, including stormwater, are typically an afterthought.
- Redmond's experience planning stormwater to support regional growth centers (default NPDES requirements).

The Solution

- "Watershed Planning"
  - Plan for the existence of healthy aquatic habitat.
  - Long range planning for stormwater infrastructure.
  - Explore options to meet NPDES development regulations while restoring habitat in urbanized areas.
  - Integrate GMA, CWA (NPDES), flood management, water supply, and ESA planning.
The Solution

- Growth Management Planning
  - Minimize urban sprawl and pollution with designated regional growth centers connected by transit.
  - Integrate stormwater and environmental planning into the GMA and regional framework.

Tools to Achieve the Solution

VISION 2040

- Regional Growth Centers
  - 27 Regional Growth Centers
    - 2.5% of total UGA (~25 sq mi)
    - Currently 29% of region’s jobs
  - Manufacturing/Industrial Centers
    - 3.7% of total UGA
    - Inside the urban growth area, mostly in cities

Tools to Achieve the Solution

- Building Cities in the Rain - Stream Prioritization Guidance
  - Guidance for assessing and prioritizing streams/watersheds for protection and restoration.
  - Multidisciplinary effort including federal, state, local governments and stakeholders.
Tools to Achieve the Solution

- Stormwater Control Transfer Program Guidance
  - Focus rehabilitation in “priority watersheds” to maximize environmental benefit
  - Separate from Structural Retrofit Program – S5.C.6 of Phase I Permit
  - Seek Ecology approval (Basin/Watershed Planning Provision)

Tools to Achieve the Solution

- How to Use Transfer Program Guidance
  - General Program Principles
  - Key Program Elements
  - Guidelines for MRs #5, 6, 7
  - Establishing Watershed Priorities
  - Transfer Currency
  - Monitoring Plan

Tools to Achieve the Solution

- General Program Principles
  - Full attainment of water quality standards in all waters
  - No increased impacts to any receiving water
  - Prioritize watersheds to direct transfer of controls
  - Prioritization primarily based on environmental considerations
  - No shield from TMDL, S4.F.3 adaptive plans, future stormwater requirements
Tools to Achieve the Solution
Stormwater Control Transfer Program Guidance

Key Program Elements
- Not Changing the Standards; Changing where they are met
- Improvement portion of Flow Control, Treatment, LID requirements may be transferred to a “priority watershed”
- Focus primarily on replaced surfaces
- Treatment transfers more complicated
- Timing of the off-project-site improvements critical
- Responsibility for long-term O&M of facilities in priority watersheds
- Off-site improvement projects may be case-by-case or through regional facilities
- A regional facility establishes credits which can be purchased using fee-in-lieu

Establishing Watershed Priorities
- Existing Watershed Characterization studies can inform
- Need watershed-specific information
- Consult with federal, state, tribal natural resource agencies
- Needs Ecology concurrence

Transfer Currency
- How to calculate at sending site and receiving site
- Impervious, PGIS, lawn/landscape acreage
- How to track it
- How to report it: Annual Reporting
- Separate Dedicated fund accounts

Tools to Achieve the Solution
Stormwater Control Transfer Program Guidance
Tools to Achieve the Solution
Stormwater Control Transfer Program Guidance

- Monitoring Plan
  - Measure effectiveness of improvements in priority watersheds

- NPDES Pooled Resource Effectiveness Monitoring
  - Paired Basin Study
  - Potential for Collaboration
  - Results based instead of regulatory based
  - The ultimate test of our ability to create healthy habitat in developed watersheds

Tools to Achieve the Solution

- Three “Application” watersheds
  - Moderately impacted by urbanization
  - Prioritized for rehabilitation efforts

- Two “Reference” watersheds
  - Relatively pristine
  - Not subject to rehabilitation efforts

- Two “Control” watersheds
  - Heavily impacted by urbanization
  - Not subject to rehabilitation efforts
Questions?

Andy Rheaume
ajrheaume@redmond.gov
(425) 556 – 2744

Heather Ballash, AICP
Heather.ballash@commerce.wa.gov
(360) 755 – 3044

Ed O’Brien, PE
eo@ecy.wa.gov
(360) 407 – 4438

John Lenth
jlenth@herrerainc.com
(206) 787 – 8265