ODEQ OKR04 General Permit Workshop Minimum Control Measure #5

Post-Construction Management in New Development and Re-Development

Presented by Richard Smith, INCOG

Six "Minimum Control Measures"

- 1. Public Education and Outreach
- 2. Public Participation and Involvement
- 3. Illicit Discharge Detection and Elimination
- 4. Construction Site Runoff Control
- 5. Post-Construction Management
- 6. Pollution Prevention and Good Housekeeping

Runoff Is More Than Rainwater



From construction sites:

Sediment

Fertilizers

Chemicals (e.g. solvents, paint)

Herbicides / Pesticides

Oil / gasoline

Trash and debris ("floatables")

Definitions

- <u>Post-construction</u> after construction activities have been completed
- New development construction in areas that previously have had no constructed development, including pipelines and other utilities.
- Re-development "...refers to alterations of a property that change the "footprint" of a site or building in such a way that there is a disturbance of equal to or greater than 1 acre of land. The term does not include such activities as exterior remodeling."

What Regulations and Permits Apply to Post-Construction Activities?

- ODEQ's General Permit for Construction Activities (OKR10)
- ODEQ's <u>General Permit for Phase II MS4 Discharges</u> for Small Cities (OKR04)
- Local Codes and <u>Ordinances in Phase I and II cities</u>
 resulting from ODEQ Stormwater Permit implementation
- Local Codes and Ordinances regardless of Phase I / II status

Post Construction in OKR10

- Deals mainly with active construction, not "post-construction"
- Nonetheless, requires "final stabilization" of site
- Relies upon local codes to address "long term" stormwater management

"Stabilization"

"Stabilization means <u>covering</u> or maintaining an existing cover over soil. Cover can be <u>vegetative</u> (e.g., grass, trees, seed and mulch, shrubs, or turf) or <u>non-vegetative</u> (e.g., geo-textiles, riprap, or gabions)."

"Stabilization practices may include:

- (1) Establishment of temporary or permanent vegetation;
- (2) Mulching, geo-textiles, or sod stabilization;
- (3) Vegetative **buffer strips**;
- (4) **Protection** of trees and **preservation** of mature vegetation."

verbatim from ODEQ Stormwater Regs for Construction (OKR10)

Who Complies With What?

Construction Industry:

- 1. >1 acre disturbance = comply with OKR10.
- 2. All Local Codes of Phase II cities.

Phase II Cities and Counties:

- 1. Obtain blanket coverage under Part VIII.A of OKR04.
- 2. Otherwise, comply with OKR10 and OKR04 for each project > 1 acre.
- 3. Must adopt ordinances or other regulatory mechanisms for construction and post-construction within your city limits.

Phase II Counties – Can't Adopt Ordinances:

- 1. Use / create authority under county zoning and building codes.
- 2. Coordinate with ODEQ's enforcement under OKR10.

OKR04 Post-Construction Requirements

(from Part IV.C.5.a)

(Nearly word for word from *EPA's model MS4 permit*)

- 1) [must]..."Develop, implement and enforce a *program to address stormwater runoff* from new development and redevelopment projects that disturb greater than or equal to one acre..."
- 2) [must]..."Develop and implement strategies which include a combination of *structural and/or non-structural...BMPs* ..."
- 3) [must]..."Use an *ordinance or other regulatory mechanism* to address post-construction runoff..."
- 4) [must]..."Ensure adequate long-term *operation and maintenance of BMPs*."

OKR04 Post-Construction "Rationale" (from Part IV.C.5.b)

• "You must document your decision process...[and] address your overall post-construction SWMP and the individual BMPs, measurable goals and responsible persons for your program."

OKR04 "Rationale" Minimum Requirements in Your SWMP

(from Part IV.C.5.b)

- 1) "A description of your program... including any specific priority areas..."
- 2) "How the program... [is] tailored for your local community, minimize water quality impacts, and attempt to maintain pre-development runoff conditions."
- 3) "Any non-structural BMPs in your program..."
- 4) "Any structural BMPs in your program..."

cont...OKR04 "Rationale" Minimum Requirements in Your SWMP

(from Part IV.C.5.b)

- 5) "Describe the mechanisms (ordinance or other regulatory mechanism) you will use..."
- 6) "How you will ensure the long-term operation and maintenance (O&M) of your selected BMPs."
- 7) "Identify who is responsible for overall management and implementation..."
- 8) "How you will evaluate the success of this [MCM]..."

OKR04 Post-Construction Requirements (from Part IV.C.5.a)

1) [must]..."Develop, implement and enforce a <u>program to</u> <u>address stormwater runoff</u> from new development and redevelopment projects that disturb greater than or equal to one acre..."

Implies a cradle to grave program:

- Comprehensive
- Local control
- City-specific problems / solutions
- *Local control = flexibility*
- Many program options

OKR04 Post-Construction Requirements

(from Part IV.C.5.a)

2) [must]..."Develop and implement strategies which include a combination of *structural and/or non-structural...BMPs* ..."

Examples of "Structural BMPs" from Part IV.C.5.b(4):

- Wet ponds
- Extended-detention outlet structures
- Grassed swales
- Bio-retention cells
- Sand filters
- Filter strips
- Infiltration basins and trenches

OKR04 Post-Construction Requirements

(cont. from Part IV.C.5.a)

2) [must]..."Develop and implement strategies which include a combination of <u>structural and/or non-structural...BMPs</u> ..."

Examples of "Non-Structural BMPs" from IV.C.5.b(3): Policies and ordinances that:

- 1. Direct growth to identified areas
- 2. Protect sensitive areas (e.g. wetlands, riparian areas)
- 3. Maintain or increase open space
- 4. Provide buffers along sensitive water bodies
- 5. Minimize impervious surfaces
- 6. Minimize disturbance of soils and vegetation
- 7. Encourage infill development in higher density urban areas

cont. OKR04 Post-Construction Requirements (cont. from Part IV.C.5.a)

2) [must]..."Develop and implement strategies which include a combination of <u>structural and/or non-structural...BMPs</u> ..."

[More Non-Structural BMPs from Part IV.C.5.b(3)]

- Education Programs for developers and the public
- "Other Measures such as..."
 - Minimization of the percentage of impervious area after development
 - Minimize directly connected impervious areas
 - Source control measures...(good housekeeping)