

MCM 4: Public Education and Participation

Green Country Stormwater Alliance

Employee Training Workshop

September 10, 2013

Tulsa Technology Center, Broken Arrow

MCM 1 & 2: “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 Runoff Control
6. Pollution Prevention and Good Housekeeping

OKR04 – Requirements for all MCMs

PART IV. STORM WATER MANAGEMENT PROGRAM

PART IV.A REQUIREMENTS

You must develop, implement, and enforce a storm water management program **[SWMP]** designed to reduce the discharge of pollutants from your MS4 to the maximum extent practicable **(MEP)**, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. ... Your storm water management program must include the following information for each of the six minimum control measures...

OKR04 – Requirements for all MCMs

PART IV.A REQUIREMENTS (cont.)

1. Best Management Practices (BMPs)

List and define the BMPs that you or another entity will implement for each of the storm water minimum control measures listed in PART IV.C.

2. Measurable Goals For Each BMP

Include, as appropriate, the months and years in which you will undertake required actions, including interim milestones and the frequency of the action. ... Credible interim progress in developing and implementing program elements must be made over the term of the permit.

OKR04 - Education and Outreach Text

PART IV.C MINIMUM CONTROL MEASURES

1. Public Education and Outreach Program

a. Permit Requirements

You must develop and implement a public education and outreach program to distribute information and educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

(1) Traditional municipalities such as cities, counties, etc. must address the general public being served by the MS4.

Other OKR04 Education Considerations

(1) ...inform individuals and households about the steps ... to reduce storm water pollution;

(2) ...inform individuals and groups on how to become involved in the storm water program with activities such as local stream and beach restoration activities;

(3) The target audiences ...that are likely to have significant storm water impacts (including commercial, industrial and institutional entities) ...;

(4) The target pollutant sources your ...program is designed to address;

Other OKR04 Education Considerations

(5) Your outreach strategy...mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) ..., and how many people you expect to reach by your outreach strategy over the permit term;

(6) Identify who is responsible for overall management and implementation of your storm water public education and outreach program and, if different, who is responsible for each of the BMPs identified for this program;

(7) How you will evaluate the success of this minimum measure, including how you selected the measurable goals and target dates for each of the BMPs.

OKR04 – Public Participation Text

2. Public Participation and Involvement

a. Permit requirement

(1) Develop and implement a plan to encourage public involvement and participation in the development and implementation of the SWMP.

(2) Develop and implement a process by which public comments on the SWMP are received and reviewed by the person(s) responsible for the SWMP.

(3) Make the SWMP and NOI available to the public.

(4) You must comply with State and local public notice requirements when implementing your public involvement / participation program.

Other OKR04 Participation Considerations

(1) How you will receive and review public comments on your SWMP ...;

(2) How you will involve the public in the development and submittal of your NOI and [SWMP]. How the public can access your NOI and SWMP;

(3) ...actively involve the public in the development and implementation of your program;

(4) The target audiences for your public involvement program, including ...ethnic and economic groups engaged. You are encouraged to actively involve ... commercial and industrial businesses, trade associations, environmental groups, homeowners associations, and educational organizations...;

Other OKR04 Participation Considerations

(5) The types of public involvement activities included in your program. Where appropriate, consider the following ...:

(a) *Citizen representatives on a storm water management panel,*

(b) *Public hearings and public meetings,*

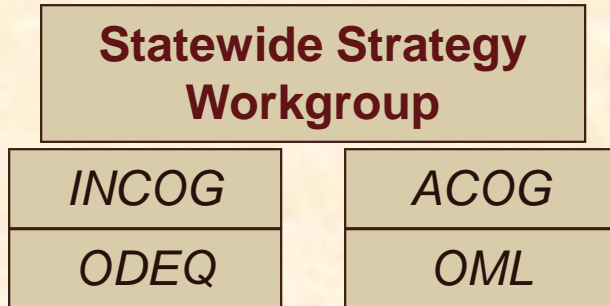
(c) *Working with citizen volunteers willing to educate others ...,*

(d) *Volunteer monitoring or stream clean-up activities,*

(6) Identify who is responsible for the overall management and implementation of your storm water public involvement / participation program ...;

(7) How you will evaluate the success of this minimum measure, including how you selected the measurable goals and target dates for each of the BMPs.

How Oklahoma Agencies Organized



ACOG Stormwater Steering Committee
Planning and Public Education

INCOG Stormwater Steering Committee
Green Country Stormwater Alliance (regional technical support)

ODEQ Stormwater Workshop
November 2003
Presentations by Phase IIs

ODEQ General Permit Forums
December 2004
Presentations by Phase IIs



INCOG Regional Stormwater Assistance

- **Goal** – combine resources to address those Phase II activities that are suited to a regional approach.
 - Public Education and Participation Materials and Activities
 - Regional Mapping and Data Management
 - Assistance with MS4 Inspection Programs
 - Regional stormwater website and ordinances
 - Assist with Annual Reports and SWMP Amendments
 - Employee Training Programs
 - Numerous Technical and Legal Issues
- Provide a **Forum** for continuing Phase II education and information sharing.



Sought Resources – Public Sector

- Substate Planning Agencies. . *INCOG, ACOG*
- Universities. *OSU, OU, NSU, TU, etc.*
- County Extension Offices . . . *OSU Extension Service*
- Conservation Districts. *OCC in each county*
- State Agencies. *OCC, ODWC, OWRB, ODEQ*
- Federal Agencies *USACE, FWS, NRCS, EPA*
- Other Phase II Cities
- Phase I Cities. *Tulsa, Oklahoma City*

Sought Resources – Private Sector

- Non-Profit Organizations. *APWA, CWP, etc.*
- Professional Organizations *OSPE, OWEA, etc.*
- Consulting firms
- Engineering firms
- Private laboratories
- Instrument companies. *HACH, YSI, LaMotte*
- Chemical supply companies. *Fisher, Thomas, etc.*
- Software vendors
- Structural BMP supply companies

Sought Federal Grants and Loans

CWA Section 319(h)	(nonpoint source)
CWA Section 604(b)	(planning)
CWA Section 106	(Implementation and TMDLs)
CWA Section 104(b)(3)	(Implementation and research)
CWA Section 314	(Clean Lakes)
SDWA SWP Loans	(Source water protection)
CWSRF Loans	(Clean Water State Revolving Fund)
CDBG	(Block grants)

Funding Sources – Local and Municipal

- Bonds – General Obligation and Revenue
- **Utility (User) Fees – MS4 as a Utility**
- Inter-fund Transfers from other municipal funds
- Utility and Improvement Districts
- General fund
- Service fees (inspections, development permits)
- Substate and regional planning resources
- State Revolving Fund – loans and grants

Funding of INCOG's Stormwater Program

- 1998 – INCOG members sought help with understanding Phase II regulations and how they might affect cities.
- 2000 – Evolved into considering regional assistance.
- FY-98 104(b)(3): research draft Phase II regulations and educate potential future permittees.
- FY-01 104(b)(3): Develop model SWMP, BMPs, begin education program.
- FY-02 319(h): 2004 contract with OCC to develop regional stormwater education program.
- FY-02 104(b)(3): Polecat Creek 303(d) study and stormwater related in-stream data for Sapulpa and Jenks.
- FY-03 604(b): Develop quality assurance and data management resources for municipal stormwater programs.
- Local Funds: GCSA now 100% funded by members.

SWMP Best Management Practices

BMP DESCRIPTION	CONTROL MEASURE ADDRESSED					
	PUBLIC EDUCATION	PUBLIC PARTICIPATION	ILLICIT DISCHARGE	CONSTRUCTION	POST-CONSTRUCTION	GOOD HOUSEKEEPING
BROCHURES						
Water quality impacts from urban stormwater	X					
Household chemical disposal options	X	X	X			
Proper on-site sewage disposal system maint.	X		X			
Chemical storage and disposal at businesses	X		X			X
Construction / erosion control BMPs				X	X	
Post-construction / erosion control BMPs					X	
City good house-keeping options						X
How to become involved in stormwater program	X					
Recycling and re-use benefits	X	X	X			
Chemical storage and disposal at city facilities	X					
TRAINING MODULES						
Storage and disposal of chemicals						X
Water quality impacts and regulations	X					X
Data quality and data management			X			X
How to conduct inspections effectively			X			
Stormwater and city activities						X
MS4 MAPPING						
Regional MS4 system maps			X			
Regional GIS databases / set priority areas			X			

BMP DESCRIPTION	CONTROL MEASURE ADDRESSED					
	PUBLIC EDUCATION	PUBLIC PARTICIPATION	ILLICIT DISCHARGE	CONSTRUCTION	POST-CONSTRUCTION	GOOD HOUSEKEEPING
ADMINISTRATIVE						
Adopt illicit discharge ordinance			X			
Adopt construction ordinance				X		
Adopt post-construction ordinance					X	
Comply with state and local public notification				X	X	
Program to receive information from the public			X	X	X	X
Site Plan review to include water quality	X	X	X	X	X	X
Support regional agency-sponsored seminars	X	X	X	X	X	X
Discuss Phase II in city council meetings	X					
Collect local and regional pollution data			X			
Develop regional stormwater web site	X	X				
COMMUNITY INVOLVEMENT						
Sponsor local clean-up events	X	X	X			X
Create display board for public meetings	X					
Create signs for community education	X					
Create signs for city work areas						X
Blue Thumb school presentations	X	X				
Blue Thumb volunteer stream monitoring	X	X	X			
Blue Thumb stormdrain marking	X	X	X			
Promote household pollutant collection events	X	X	X			
Promote use of recycling centers	X	X	X			
Distribute items with water quality logos	X					
INSPECTIONS						
Complaint investigations for MS4 system			X			
Source tracking of pollutants in MS4 system			X			
Inspection of construction sites and activities				X	X	
Good housekeeping inspections of city property						X

Phase II Data Management

DATA IN-FLOWS

Lab & Field Data

Who, what, where,
when, why, how

Photographs

BMP Quantities

Inspection
Interviews

Map Data

Data from
Agencies

Training
Records

Complaint
Tracking

Budget items

Data
Management
System

DATA OUT-FLOWS

Information to Media

Data for Court

Enforcement Data

Reports to Councils

Management Reports

Reports to City Staff

Reports to Citizens

Data to Agencies

Annual Report to DEQ

Program Audits

GCSA Work Groups and Issues

- Ordinance Work Group
- Inspection Work Group
- Researched numerous technical issues:
 - Power washing of parking lots and service bays;
 - Commercial lawn care (fertilizers and pesticides);
 - Community charity car washes;
 - Implementing Smart Growth and LID;
 - Fire-fighting impacts on water quality;
 - Sand and salt winter application impacts on water quality;
 - Swimming pool draining;
 - Developing manpower and program costs for local stormwater programs;
 - How local TMDLs and stream impairment listings will affect stormwater program structure and local efforts;

GCSA Issues (cont.)

- *Optimizing a dry weather field screen monitoring program and inspection program;*
- *How to conduct water quality monitoring;*
- *Construction site BMPs;*
- *Options on developing map features and selecting the best mapping tools;*
- *Potential legal issues and liabilities with starting a municipal stormwater program;*
- *Data management, quality assurance and communication issues;*
- *Safety concerns regarding chemical exposure in the field and at industrial sites, and physical aspects of field work;*
- *Mosquito spraying by cities through neighborhoods and on standing water;*
- *Grass and leaf yard waste water quality impacts and proper disposal;*
- *Pet waste management and bacteria pollution in urban areas;*
- *Pollution from vehicle maintenance (private and commercial).*

Educating Staff, Management, Councils and Commissions on Fundamentals



Point Sources

Treated wastewater - have NPDES discharge permits with penalty provisions and enforcement.

Technology-driven pollution reduction.



Nonpoint Sources

Untreated runoff - have no discharge permits and no penalty provisions.

Exceptions are CAFOs and certain urban stormwater systems.

Getting the Word Out...

Presentations to organizations about the Phase II requirements, especially about construction site impacts.



Conferences

Workshops and seminars

Associations

Organizations

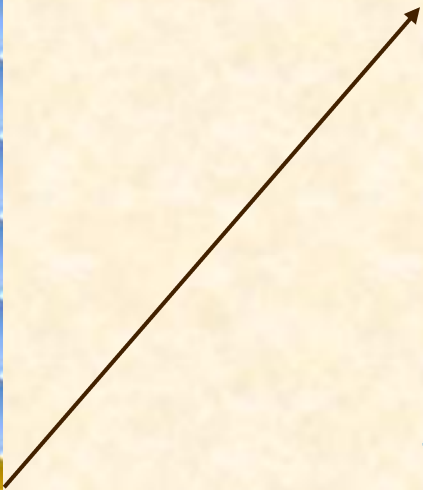
Councils and Commissions

GCSA Website for Citizens & Permittees

- GCSA Program Background
- Educational Materials
- Getting Involved
- Household Pollutant Collection
- Internet Resources
- Recycling
- Resources for Construction
- Resources for Homeowners
- Resources for Homeowners
- Resources for Local Businesses
- Oklahoma Water Plan
- Stormwater Permit Basics
- Water Quality in NE Oklahoma
- Resources for Phase II Permittees
- GCSA Partner Communities

www.stormwaterok.net

- Forms
- Permittees in Oklahoma
- Regulations
- Guidance Documents
- PowerPoint Presentations
- Home



Purchase of Education Materials



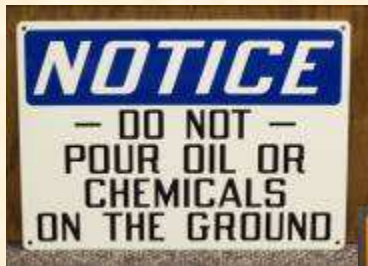
Display board, light bar, signs and case



Watershed signs



Give-away items with logos



Signs for city facilities



Blue Thumb Program

(Public Education and Participation)



Watershed and School Education

Volunteer Monitoring of Streams

Stormdrain marking



Public Education and Participation



- Booths at local festivals and events
- Stormdrain marking
- Volunteer stream monitoring
- Brochures, newsletters
- Balloons, pens, ball-caps, T-shirts

Adopt a watershed

Adopt a stream

Household Pollutant Collections

Scouts, Camp Fire, etc.

Local school clubs & classes



(TV, Radio, Print)



Brochures, Flyers, Posters, Fact Sheets



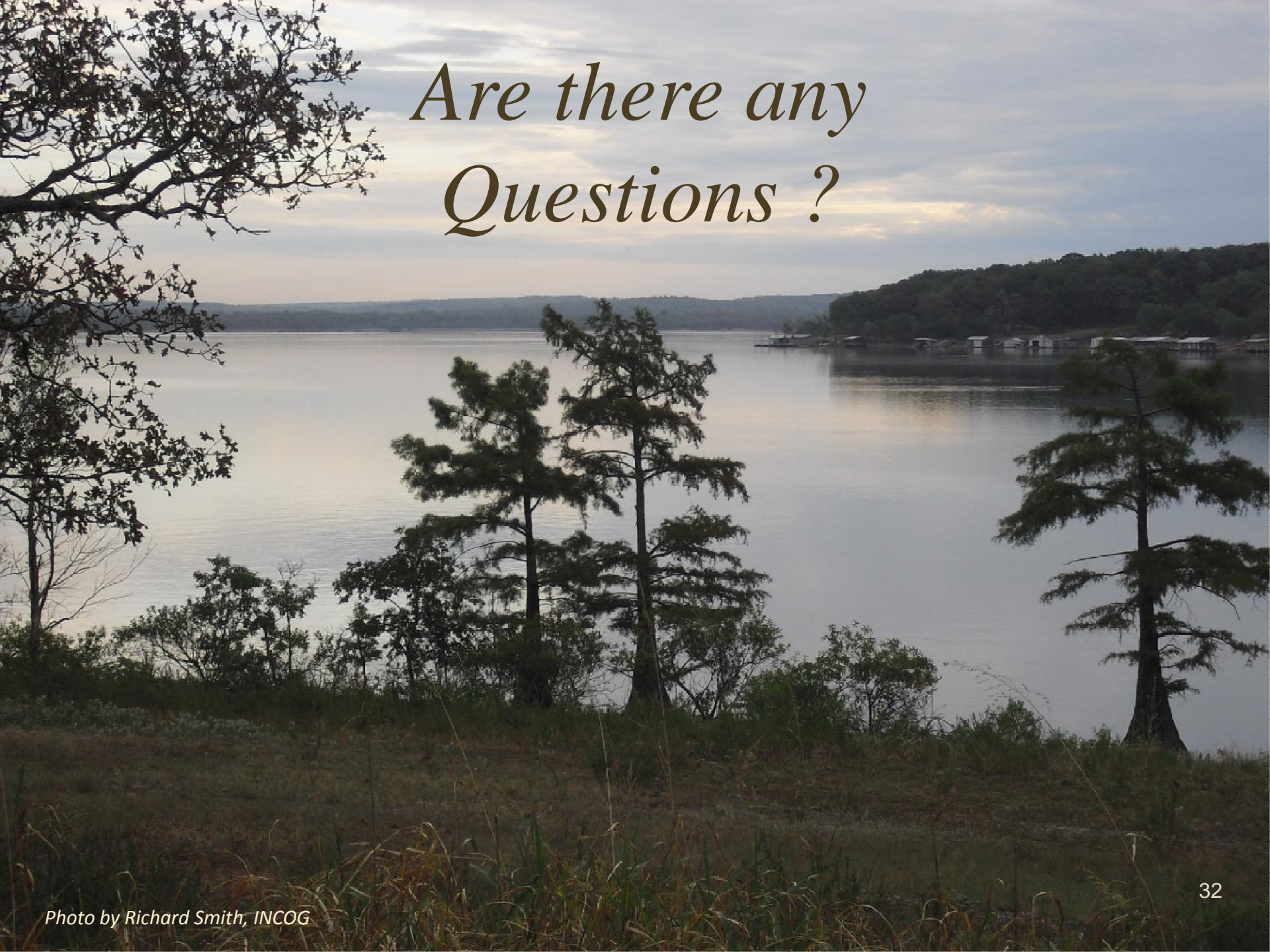
Community Events: Education and Clean-up



Semi-Annual Household
Pollutant Collection Events

Held at Tulsa Fair Grounds





*Are there any
Questions ?*