

III.F. MCM 6:Pollution Prevention / Good Housekeeping:

The “Pollution Prevention / Good Housekeeping For MS4 Operations” Minimum Control Measure (MCM) addresses the operation and maintenance (O&M) of the MS4 and municipal facilities, and requires training of municipal employees. Performing municipal activities in a careful and proper manner prevents or reduces pollutant runoff. Municipal operations addressed by this “Good Housekeeping” MCM include parks and open space maintenance, buildings for storage and maintenance of fleet vehicles and other public works vehicles and equipment, new construction and land disturbances, and stormwater system maintenance.

The City of Bixby will address OKR04 Part IV.C.6.a requirements with the following program. Appendix A contains a list of all BMPs for the Good Housekeeping MCM, along with Measurable Goals and implementation schedules for each BMP.

III.F.1 Employee Training and Education Program

OKR04 Part IV.C.6.a(1) requires the MS4 to implement, “*employee training to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance*”. OKR04 Part IV.C.6.a(2) requires the MS4 to implement, “*a municipal employee training and education program that you will use to prevent and reduce stormwater pollution from MS4 activities*”. The following actions will be taken by the City of Bixby to meet these permit requirements:

- a. The City of Bixby participates in the INCOG regional GCSA program which includes periodic (at least every other year, and locally if requested) employee training on the following topics:
 - 1) Park and open space maintenance;
 - 2) Fleet and building maintenance;
 - 3) New construction and land disturbances;
 - 4) Stormwater system maintenance;
 - 5) Urban water quality, pollution and OKR04 requirements;
 - 6) Construction permit requirements under OKR10;
 - 7) OSHA requirements on MSD forms and labels;
 - 8) Storage and disposal of chemicals at city facilities; and
 - 9) Reporting of local pollution to municipal officials.
- b. INCOG’s GCSA employee training 1-day workshops are held approximately three times per year. Certificates of Training and for engineer Professional Development Hours (PDH) are issued. At least once a year, INCOG provides ODEQ’s 4-hour operator license renewal training certificates for one of the workshops.
- c. One or more meeting handouts are distributed by INCOG at the GCSA employee training workshops, or are emailed to GCSA members prior to each workshop.

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- d. INCOG prepares GCSA Fact Sheets and GCSA News Bulletins annually on a variety of topics, many concerning pollution issues at municipal operations or within the MS4. These are distributed by email to GCSA members as well as posted on the GCSA website.
- e. INCOG has prepared a number of GCSA brochures, several of which pertain to municipal operations and educating city councils and county commissions about the OKR04 permit program. These are posted on the GCSA website in pdf format for download and local printing by each GCSA member.
- f. The City of Bixby has placed several signs in work areas noting the proper way of disposing of waste materials.

INCOG’s regional GCSA employee training workshops cover a wide variety of topics and issues facing stormwater permittees. These are presented as workshop themes, such as for field sampling and safety, OKR04-required training, construction site BMPs and OKR10, LID and post-construction in OKR04, stormwater 101 for new employees, and preparing documents and data management. Appendix A lists a number of employee training BMPs and BMPs for public education and outreach that include topics important for the Good Housekeeping MCM.

III.F.2 List of Industrial Permitted Facilities

Part IV.C.6.a(3) requires the MS4 to, “Maintain a list of industrial facilities you own or operate that are subject to the DEQ Multi-Sector General Permit or individual OPDES or NPDES permits for discharges of stormwater associated with industrial activity that ultimately discharge to your small MS4”. The following facilities are owned and operated by the City of Bixby that are subject to the ODEQ Multi-Sector General Permit for Industrial Activities (OKR05) or individual OPDES or NPDES permits for discharges of stormwater associated with industrial activity that ultimately discharge to the MS4:

- South Haikey Creek
Wastewater Treatment Plant WWTP Auth. No. S-20407
- North Washington Irving
Wastewater Treatment Plant WWTP Auth. No. S-20438

OKR04 Part IV.C.6.a(3) requires that, for each facility, the MS4, “Include the authorization number or a copy of the Industrial NOI form for each facility. You must review this inventory annually and update as necessary”. The authorization number (OKR05 permit number assigned by ODEQ) for each facility is provided above. The City of Bixby will review the status of each permitted municipal facility annually and update the SWMP information as needed.

III.F.3 Controlling Pollutants from MS4 Systems and Facilities

Part IV.C.6.a(4) requires the MS4 to, “Implement procedures for controlling, reducing or eliminating the discharge of pollutants from streets, roads, highways, parking lots, maintenance

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and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas you operate”.

To comply with this OKR04 requirement, the City of Bixby will implement a program to control, reduce or eliminate pollutants discharged from the MS4. The following areas will be addressed:

- City streets and roads;
- Municipal parking lots;
- City maintenance and storage yards;
- City operated waste transfer stations;
- City fleet maintenance shops with outdoor storage areas;
- municipal salt/sand storage locations; and
- municipal snow disposal areas.

List of MS4 Facilities: The following facilities are owned by the City of Bixby and are subject to the requirements of this MCM:

Facility	Location / Address	Notes
Bentley Park Garage	8505 E. 148 th St. S.	Maintenance vehicles and equipment.
Dawes Building	113 W. Dawes	Office building, Public Works vehicles, parking lot.
Fire Station #2	8300 E. 121 st St. S.	Office building, parking lot, police and fire vehicle bays.
North WWTP	13998 S. Memorial Dr.	Buildings, drying beds, storage buildings, digesters, clarifiers.
South WWTP	9499 E. 151 st St. S.	Buildings, drying beds, storage buildings, digesters, clarifiers.
Maintenance Garage	9501 E. 151 st St. S.	Maintenance vehicles and equipment, service bays, fueling station.
Water Garage	9501 E. 151 st St. S.	Maintenance vehicles and equipment.
City Hall	116 W. Needles	Office building, parking lot, police and fire vehicle bays.
Lenard Water Tanks	N 35.900743, W 95.798069	Water storage tanks.

Procedures for Controlling Pollutants: The facilities listed above all pertain to the requirements in OKR04 Part IV.C.6.a((4). They are herein categorized as to Municipal Facilities (e.g., buildings, parking lots, storage yards, etc.), and MS4 System (e.g., roads, streets, roadside ditches, culverts, and large stormwater conduits). The City of Bixby will take the following actions to reduce or eliminate pollutants from these systems and areas.

Municipal Facilities:

- a. The City of Bixby will perform an initial inspection of its facilities to determine potential pollutant sources via stormwater into the MS4;

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- b. Where possible, all exposed materials will be moved under removable covers (e.g., tarps) or inside a building to prevent contact with stormwater runoff.
- c. For those materials that cannot be sheltered, such as salt piles for snow removal, structural BMPs will be used where feasible to control contaminated runoff from the storage areas. These will include use of silt fencing, grassy swales, sediment ponds and/or other measures as deemed appropriate.
- d. At least once a year, an inspection of these areas will be made to ensure that the BMPs and storage controls are deployed properly and working.

MS4 System:

- a. The public education MCM is expected to reduce the amount of trash and chemical pollutants placed on city streets. This program will include educating citizens about not disposing of chemicals and yard waste into the streets and drop inlets.
- b. Misdemeanant labor will also be used. Workers will be assigned from local courts to work with MS4 crews for trash pickups along streets when necessary.
- c. The City of Bixby contracts street sweeping equipment that is used at least once per year to remove floatables, trash and sediment from streets.
- d. MS4 Public Works crews will be trained to report observed pollution problems and/or trash buildup on city streets and in the City's stormwater collection system. When reported, MS4 crews will remove debris and trash from streets and the MS4 system as necessary.
- e. Removed debris and waste materials will be disposed of by transporting the material to appropriate local waste disposal facilities for disposal. The material to be disposed of includes street sweeper collections, dredged material from drainage systems and creeks, sediment cleanups from streets and lots, floatables removed from culverts and streams, materials from drop inlet cleanouts, and other types of debris removed from the MS4 system.

III.F.4 New Flood Management Projects

Part IV.C.6.a(5) requires the MS4 to, *"Implement procedures to ensure that new flood management projects are assessed for impacts on water quality"*. The City of Bixby will ensure that all municipally-owned new flood management projects are assessed for impacts on water quality. The City's Floodplain Administrator and Public Works staff will evaluate each proposed new municipal project for potential water quality impacts during the technical review of the proposed project plans and specifications. If it is feasible and cost effective to add water quality protection features to the project design, a recommendation will be made to incorporate the features before final plans are developed.

III.F.5 Inspection and Maintenance of BMPs

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OKR04 Part IV.C.6.a(6) requires the MS4 to, “*Implement inspection/maintenance for structural and non-structural BMPs, including maintenance activities, maintenance schedules and long term inspection procedures for controls to reduce floatables and other pollutants discharged to your small MS4*”. This OKR04 requirement applies to municipally owned facilities under the Good Housekeeping MCM. Structural BMPs at municipal facilities include sediment basins, various types of containers for disposal of wastes and fluids, constructed swales and shallow depressions designed to collect runoff and allow infiltration, wet and dry detention basins having inlet and outlet structures, and various types of pervious surfaces used in parking lots and storage areas that allow infiltration of runoff.

Non-structural BMPs at municipal facilities include stormwater-related programs implemented by the City of Bixby, including: preservation of open space; expanding disconnections of impervious surfaces; expansion of vegetation and natural systems; natural grass swales and other types of unconstructed, vegetated infiltration areas; and protection and expansion of riparian stream buffers.

BMP Maintenance: Structural BMP maintenance will be according to need and availability of funds and resources. High maintenance priority will be given to structures that have the greatest potential to improve water quality and have a high feasibility of success using available funds. Maintenance will be scheduled upon acquisition of funds and materials, and when manpower and necessary permits are obtained. Projects that have a low chance of improving water quality after maintenance will be considered for replacement or decommissioned. The City of Bixby will make every effort to address maintenance issues identified in the BMP inspection program. Non-structural BMP maintenance, such as assessing ordinance effectiveness, will be made annually.

BMP Inspections: The City of Bixby will inspect structural BMPs annually or within 2 hours after a report of a stormwater contamination problem at a municipal facility. Inspections of structural BMPs will rely upon visual indicators, such as accumulation of trash and debris, breaks and cracks, misalignments of headwalls and inflow and outflow devices, excessive accumulation of sediment, excessive erosion of slopes, failure of fencing and other public safety features, etc. Inspections of non-structural BMPs will consist of annual reviews of stormwater programs and the corresponding codes and ordinances, and annual inspections of natural features within the MS4 such as riparian areas along creeks and natural swales and infiltration areas.

Results of all inspections and maintenance will be reported to the stormwater staff and recorded in computer and paper files. The Annual Report will include a summary of these activities.

III.F.6 Best Management Practices for Good Housekeeping

Appendix A contains a list of all BMPs that will be performed for this MCM, and includes Measurable Goals and implementation schedules for each BMP.

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III.F.7 Management Responsibility

The City of Bixby has overall project management responsibility. Bea Aamodt, Public Works Director, will coordinate all local activities and implementation of all program elements. INCOG's GCSA program will be managed by the Environmental and Energy Division at INCOG. The City of Bixby will provide sufficient funds for INCOG to assist its GCSA members with their Good Housekeeping program. INCOG will submit an annual written scope of services to the City of Bixby that will specify INCOG's role in providing technical support and activities, as well as maintain the GCSA stormwater web site on behalf of the City of Bixby and other GCSA members.

III.F.8 Evaluating Program Effectiveness

OKR04 Part IV.C.6.a(9) requires the MS4 to, *"Evaluate the appropriateness of your identified BMPs for this MCM. Your evaluation shall verify compliance with permit requirements and more importantly, document that efforts have been made towards achieving your identified measurable goals and reducing the impacts of stormwater runoff from the small MS4 (as required by Part V.C of this Permit)"*, where Part V.C is the requirement to submit an Annual Report. The City of Bixby will employ the following strategy to assess program effectiveness in the Annual Report:

Measurable Goals have been established for each Good Housekeeping BMP. These are listed in Appendix A and include implementation schedules and milestones for each BMP. The Measurable Goals and target dates for the BMPs were selected by the City of Bixby to accommodate local resources with the intent of establishing BMPs efficiently and cost effectively. Sufficient time was built into the implementation schedules to allow for corrective actions to be taken to have an improved program by the end of the permit cycle.

BMP effectiveness will be demonstrated by keeping records of feedback from city staff, the general public and from agencies and organizations using city owned facilities and impacted by the MS4 system conditions. Feedback from city staff, the public, agencies and organizations (email, phone call, fax, letter or personal visit) including outputs and outcomes of education events will be recorded in writing. The City of Bixby will record results of all Good Housekeeping site inspections and structural maintenance and improvements as described in this SWMP, including date, location, affected pollutants, observations, measurements, interviews, photos, field form data, abatement and enforcement steps taken, and results of each investigation and maintenance project. The increased number of structural maintenance and improvements made over a period of several years of BMP implementation and inspections conducted should demonstrate effectiveness of this MCM.