**Description of SOP:**

Street and roads are a significant source of pollutants in stormwater discharges. Operation and Maintenance (O & M) practice if not conducted properly can contribute to the problem. Stormwater pollution from roadway and bridge maintenance should be addressed on a site-specific basis.

**Purpose of SOP:**

The following procedures outlined below which address street sweeping and repair, bridge and structure maintenance, and unpaved roads will reduce pollutants in stormwater.

**Suggested Protocols:**

*Street Sweeping and Cleaning*

- Maintain a consistent sweeping schedule
- Perform street cleaning during dry weather if possible
- Maintain cleaning equipment in good working condition and purchase replacement equipment as needed.
- Operate sweepers at manufacturer requested optimal speed levels to increase effectiveness.
- Keep accurate logs of the number of curb-miles swept and the amount of waste collected
- Dispose of street sweeping debris and dirt at the transfer station.
- Do not store swept material along the side of the street or near a storm drain inlet

*Street Repair and Maintenance – Pavement Marking*

- Schedule pavement marking activities for dry weather
- Transfer and load paint and hot thermoplastic away from storm drain inlets
- Provide drop cloths and drip pans in paint mixing areas
- Properly maintain application equipment
- Street sweep thermoplastic grindings. Yellow thermoplastic grindings may require special handling as they may contain lead.
- Paints containing lead or *tributyltin* are considered a hazardous waste and must be disposed of properly
- Use water based paints whenever possible. If using water based paints, clean the application equipment in a sink that is connected to the sanitary sewer
- Properly store leftover paints if they are to be kept for the next job, or dispose of properly

*Concrete Installation and Repair*

- Schedule asphalt and concrete activities for dry weather
- Take measures to protect any nearby storm drain inlets and adjacent watercourses, prior to breaking up asphalt or concrete (e.g. place sand bags around inlets or work areas)
- Limit the amount of fresh concrete or cement mortar mixed, mix only what is needed for the job
- Store concrete material under cover, away from drainage areas. Secure bags of concrete after they are open. Be sure to keep wind-blown cement powder away form from the street, gutters, storm drains, rainfall, and runoff.
- Return leftover materials to the transit mixer. Dispose of small amounts of hardened excess concrete, gout, mortar in the trash.
- Do not wash sweepings from exposed aggregate concrete into the street or storm drain. Collect and return sweepings to aggregate stockpile, or dispose in the trash.
- When making saw cuts in pavement, use as little water as possible and perform during dry weather. Cover each storm drain inlet completely with filter fabric or place plastic during the sawing operation and contain the slurry by placing straw bales, sandbags, or gravel dams around the inlets. After the liquid drains or evaporates, shovel or vacuum the slurry residue from the pavement or gutter and remove from site. Alternatively, a small on site vacuum may be used to pick up the slurry as this will prohibit slurry from reaching storm drain inlets.
- Wash concrete trucks offsite or in designated areas on site designed to preclude discharge of water to drainage system

*Patching, resurfacing, and surface sealing*

- Schedule patching, resurfacing and surface sealing for dry weather
- Stockpile material away from streets, gutter areas, storm drain inlets or watercourses. During wet weather, cover stockpiles with plastic tarps or berms around them if necessary to prevent transport of materials in runoff.
- Pre-heat, transfer or load hot bituminous material away from drainage systems or watercourses.
- Where applicable, cover and seal nearby storm drain inlets (with waterproof material or mesh) and maintenance holes before applying seal coat, slurry seal, etc. Leave covers in place until job is complete and until all water from emulsified oil sealants has drained or evaporated. Clean any debris from covered maintenance holes and storm drain inlet when the job is complete.

- Prevent excess material from exposed aggregate concrete or similar treatment s from entering street or storm drain inlets. Designate an area for clean up and proper disposal of excess materials.
- Use only as much water as necessary for dust control, to avoid runoff.
- Sweep, never hose down streets to clean up tracked dirt. Use a street sweeper or vacuum truck. Do not dump vacuumed liquid in storm drains.
- Catch drips from paving equipment that is not in use with pans or absorbent material placed under the machines. Dispose of collected material and absorbents properly.

*Equipment Cleaning Maintenance and Storage*

- Inspect equipment daily and repair and leaks. Place drip pans or absorbent materials under heavy equipment when not in use.
- Perform major equipment repairs at the public works complex, when practical.
- If refueling or repairing vehicles and equipment must be done onsite, use a location away from storm drain inlets and watercourses.
- Clean equipment including sprayers, sprayer paint supply lines, patch and paving equipment, and mud jacking equipment at the end of each day. Clean in a sink or other area (e.g. vehicle wash area) that is connected to the sanitary sewer.

*Bridge and Structure Maintenance Paint and Paint Removal*

- Transport paint and materials to and from job sites in containers with secure lids and tied down to the transport vehicle.
- Do not transfer or load paint near storm drain inlets or watercourses.
- Test and inspect spray equipment prior to starting to paint. Tighten all hoses and connections and do not overfill paint container.
- Plug nearby storm drain inlets prior to starting painting where there is significant risk of a spill reaching storm drains. Remove plugs when the job is completed.
- If sand blasting is used to remove paint, cover nearby storm drains inlets prior to starting work.
- Dispose of unused paint at appropriate waste facilities.

*Repair Work*

- Prevent concrete, steel, wood, metal parts, tools, or other work materials from entering storm drains or watercourses.
- Thoroughly clean up the job site when the repair work is completed.
- When cleaning guardrails or fences follow the appropriate surface cleaning methods

*Unpaved Roads and Trails*

- Stabilize the exposed soil areas to prevent soil form eroding during rain events. This is particularly important on steep slopes
- For roadside areas with exposed soils, the most cost-effective choice is to vegetate the area, preferably with a mulch or binder that will hold the soils in place while the vegetation is establishing. Native vegetation should be used if possible.
- If vegetation cannot be established immediately, apply temporary erosion control mats/blankets; straw or gravel as appropriate.
- If sediment is already eroded and mobilized in the roadside areas, temporary control should be installed. These may include: sediment control fences, fabric-covered triangular dikes, gravel-filled burlap bags, bio-bags, or hay bales staked in place

**Training:**

- All employees shall be trained regarding proper street sweeping operation and street repair and maintenance
- All employees and subcontractors shall be instructed on measures to reduce the stormwater impacts of roadway/bridge maintenance are being followed.
- Engineering staff and/or consulting A/E firms will be required to address storm water quality in new bridge designs or existing bridge retrofits
- All employees shall be trained on the proper procedures
- A training log/sign-in sheet will be used to document training
- Employees will be familiar with the sites spill control plan and/or proper spill cleanup procedures

**Spill Response and Prevention:**

- Refer to SOP 11.0 Spill Prevention, Control, and Cleanup
- Have spill cleanup materials readily available and in a known location
- Clean up spills immediately and use dry methods (absorbents)
- Properly dispose of spill cleanup material (absorbents)
- Collected waste shall be disposed of properly