



City of Camas
PO Box 1055
616 NE Fourth Avenue
Camas, WA 98607

WATER QUALITY POLICIES FOR MAINTENANCE AND OPERATION OF CITY OF CAMAS OWNED FACILITIES

September, 2009
Updated February, 2011

The Western Washington Phase II Municipal Stormwater Permit S5.C.5g requires development and implementation of policies and procedures to reduce pollutants from publicly owned facilities. This policy will address the requirements for facilities or areas not covered by the adopted *City of Camas Storm Sewer Systems Operation and Maintenance Manual* or the *SWPPP for Maintenance yard*. The 2007 NPDES permit reads:

S5.C.5g. Establishment and implementation of policies and procedures to reduce pollutants in discharges from all lands owned or maintained by the Permittee and subject to this Permit, including but not limited to: parks, open space, road right-of-way, maintenance yards, and stormwater treatment and flow control facilities.

These policies and procedures shall address, but are not limited to:

- *Application of fertilizer, pesticides, and herbicides including the development of nutrient management and integrated pest management plans.*
- *Sediment and erosion control.*
- *Landscape maintenance and vegetation disposal.*
- *Trash management.*
- *Building exterior cleaning and maintenance.*

The Operation and Maintenance of publicly owned facilities falls into five general categories:

- Vegetative management relevant to the remaining four categories
- Public buildings
- Developed parks

- Open space
- Roadway

For each facility type this report will provide a description for specific activities and BMP's to reduce pollutants.

Vegetation Management

Vegetation management activities listed here are performed by grounds maintenance crews who care for parks, natural areas, building landscaped areas and other special facilities. For Storm facilities please refer to the *City of Camas Storm Sewer Operation and Maintenance Manual, September, 2009*.

The City of Camas recognizes the special importance of the rivers, streams, wetlands, ponds, and stormwater treatment facilities that fall under our stewardship. The sensitive nature of such habitats, their plant and animal communities, and their direct link with other waterways require that we establish specific policies to ensure their health. These sets of practices for vegetation management, pesticide use and fertilizer use establish guidelines and limitations regarding maintenance for waterways and adjacent county/city lands. All landscape management decisions for controlling unwanted vegetation, diseases, and pests will follow Integrated Pest Management (IPM) principles and decision-making rationale.

Proper planning and management decisions begin the IPM process.

- Cultural methods of vegetation and pest control are preferred and are first employed.
- Mechanical means of vegetation and pest control are next in line of preference, and are utilized where feasible.
- Biological methods of vegetation and pest control are considered before chemical means, where they are feasible.
- Botanical and synthetic pesticides are used only when no other feasible methods exist.

Outcomes:

- Minimize sediment and pollutant discharges from the work area
- Prevent county/city roads, drainage systems, facilities and property from becoming pollutant sources
- Minimize native vegetation removal
- Protect public safety and health
- Maintain or restore the intended infrastructure function
- Meet public expectations for aesthetics
- Maintain forest or ecosystem health
- Elimination of unwanted (invasive) vegetation

ACTIVITY – GENERAL BMPS

General Practices for vegetation management apply as minimum standards for all areas. They are:

- **Use Low-Volume Directed-Pesticide Application Equipment**

Pesticide delivery will be by hand with directed, low volume, single wand sprayers, wiping, daubing and painting equipment, injections systems, or drop spreaders. Typically, application is performed using backpack sprayers, but may also include using the same hand application methods with larger tanks. These delivery methods have low volume applications and low pressure spraying which minimizes the formation of fine mists that might drift off target. It also helps make sure that pesticides will reach targeted plants or targeted soil surfaces.

- **Use Acceptable Pesticides – See Appendix A**

- **Keep Good Records of Pesticide – See Appendix B**

Regular application record keeping is required for all pesticide applications. Records shall include:

- Applicator name and license number;
- Date and the time intervals of the application;
- Location of application;
- Temperature and wind conditions;
- Materials and concentrations used; and
- Amount applied, coverage rate, and equipment used.

- **Have a State Applicators' License**

All personnel who apply pesticides to City of Camas lands must be Washington Department of Agriculture licensed applicators or have a license recognized by the Washington Department of Agriculture. Only licensed personnel who have received an additional aquatics license certification may apply pesticides to aquatic sites.

- **Minimize Pesticide Drift**

Managing drift is of particular importance when surface waters are nearby. Application equipment used in the application shall employ all necessary methods to limit drift. Nozzle size, pressure regulation, droplet size, and height of spray wand, are all techniques that can be modified to reduce unwanted drift of pesticides. Spray applications are not allowed in a water body set back area when:

- wind speed is above 8 mph
- wind direction or activity would carry pesticides toward, or deposit them upon open water

Activity: Landscaped Turf Maintenance (Highly-Managed Areas)

This activity provides care for turf in landscaped areas such as parks, road medians, and around buildings. It includes mowing, fertilizing, herbicide use, sweeping, raking, top dressing, aerating, edging, debris removal, and irrigation. The main goal in maintaining these areas is maintaining appearance and vigorous turf growth for high-traffic areas. This includes having healthy turf and plants, minimizing weeds and bare spots, and providing safe use for citizens.

Practices:

- Bare spots are minimized by seeding turf.

- Use mulching mowers. Mower clippings are left on the ground unless they are so thick that they cover the turf.
- Minimize the use of mulches within 25 feet of a water body.
- Chemical intervention is minimized. This includes spot spraying for weeds and minimizing insecticides and fungicides. Fertilizer use is limited to that needed to sustain intended use.
- Follow chemical use listed in the attached table. Outside of the 25-foot water body set back, fertilizers are applied to sustain turf growth. Lime is applied once per year.
- The list of pesticides and fertilizers may be revised to include or drop compounds. Reasons for changes include the potential for plants to become tolerant or build resistance to specific compounds, addition of a new compound to state approved pesticides, or federal or state removal of a pesticide.
- Follow BMPs for pesticide and fertilizer application, storage, disposal and record keeping
- Where feasible, turf areas will be fitted with computerized irrigation systems to better maintain turf during the summer. Better irrigation will allow better control of irrigation runoff.

Activity: Maintaining Shrub Beds in (Highly-Managed Areas)

This activity provides care for shrubs and plants in high-use areas such as day use parks, road medians, landscaped areas along roads, and public building landscapes. Due to their use as public areas and surroundings to public buildings, there is a low tolerance for weeds in these areas. Maintenance includes pruning, plant replacement, flower planting, plant removal, weeding and bark dust or mulch placement, litter removal, edging, and irrigation system operation. The main goal in maintaining these areas is sustaining the appearance of the planting bed. This is largely through weed control, pruning, and mulching, and limited chemical application.

Practices:

- Vegetation is trimmed to keep clear “sight distances” and to keep signs visible. Trees and shrubbery are trimmed to allow street sweepers clear access to curbs.
- Use only plants on the approved list of Plant Materials from City of Camas plant list.
- Do not remove native shrubs or trees within stream buffers, wetland buffers, or along drainage ditches that have base flow. Consult with the Public Works Supervisor (PWS) before removing trees or brush within 250 feet of a stream.
- When applying bark dust or mulch, make sure that it is placed in a manner that prevents it from washing into storm sewers, ditches, or streams. Bare spots are minimized by the use of mulch or appropriate cover plants to prevent erosion. Cover bare soils with an erosion prevention cover BMP. Vegetate or mulch bare soils.
- Minimize the use of mulches within 25 feet of a waterbody.
- Hand remove weeds such as blackberry vines, nightshade, scotch broom, English ivy, and holly, while keeping other bushes and trees. Chemical intervention to be minimized.
- Follow BMPs for pesticide and fertilizer application, storage, disposal, and record keeping

- Follow chemical use listed in the attached table. The list of pesticides and fertilizers may be revised to include or drop compounds. Reasons for changes include the potential for plants to become tolerant or build resistance to specific compounds, addition of a new compound to state approved pesticides, or federal or state removal of a pesticide.

Activity: Maintaining Roadsides and Lower Use Areas of Parks

This activity is a lower intensity management of plants along roads and low use areas of parks, or other low use landscapes. There is a higher tolerance for weeds in these areas than in day-use parks and landscaped areas around public buildings.

Practices:

- The main goal in maintaining these areas is maintaining appearance with a minimum amount of work and chemical intervention. This largely includes controlling weeds.
- Consider hardiness and drought tolerance when selecting plants.
- Do not remove native shrubs or trees within stream buffers, wetland buffers, or along drainage ditches that have base flow. Consult with the PWS before removing trees or brush within 250 feet of a stream.
- If there is a water body or ditch with water flow during dry weather, only remove desirable shrubs or bushes when sight distance is an issue, and after checking with the PWS.
- When applying mulches or bark dust, make sure that it will not wash off into storm sewer, ditches or streams. Bare spots are minimized by the use of mulch or appropriate cover plants to prevent erosion. Cover bare soils with an erosion prevention cover BMP. Vegetate or mulch bare soils.
- Hand remove weeds such as blackberry vines, nightshade, scotch broom, English ivy, and holly, while keeping other bushes and trees. Chemical intervention is minimized.
- The attached list of pesticides and fertilizers may be revised to include or drop compounds.
- Reasons for changes include the potential for plants to become tolerant or build resistance to specific compounds, addition of a new compound to state approved pesticides, or federal or state removal of a pesticide.

Activity: Vegetation and Pest Management in Less-Managed Areas

These are areas in parks or other lands that are less actively managed than turf or shrub beds. These areas may include degraded or modified natural areas or unused land that is maintained periodically or seasonally. In Habitat Conservation Areas, these land areas are maintained for the purpose of establishing natural vegetation. There is a tolerance for natural appearance and weeds. There may be some use such as water access by the public, but that is not the primary use of the area.

Practices:

- Practices in these less-managed areas focus on establishing and maintaining healthy native plantings and maintaining fire suppression as required. This includes controlling invasive plants where feasible, minimizing the human impact on the buffer, and planting cover on bare soils.
- Follow BMPs for pesticide and fertilizer application, storage, disposal and record keeping as outlined in the following section.
- Within natural areas, limit the use of mulches for covering bare soils while establishing plantings.
- Pesticide and fertilizer should be avoided within 25 feet of a water body.
- The attached list of pesticides and fertilizers may be revised to include or drop compounds. Reasons for changes include the potential for plants to become tolerant or build resistance to specific compounds, addition of a new compound to state approved pesticides, or federal or state removal of a pesticide.

Activity: Vegetation and Pest Management in Impacted Natural Areas

Impacted natural areas are predominately native plants and limited influence from public use and park development. The main objective is to maintain and improve the healthy plant community. Impacted areas have a lower tolerance for invasive or non-native plants.

Practices:

- Practices in these areas focus on establishing and maintaining healthy native plantings. This includes more vigorously controlling invasive plants and the human impact on the buffer. It also includes covering bare soils with native plants.
- Limit mulch use for covering bare soil while establishing plantings.
- Pesticide and fertilizer use is minimized and is avoided if possible within 25 feet of a water body.
- Follow BMPs for pesticide and fertilizer application, storage, disposal and record keeping. The attached list of pesticides and fertilizers may be revised to include or drop compounds. Reasons for changes include the potential for plants to become tolerant or build resistance to specific compounds, addition of a new compound to state approved pesticides, or federal or state removal of a pesticide.

Activity: Vegetation and Pest Management in Intact Natural Areas

Intact natural areas are separate from developed parks and have very limited public access. They have established native plant communities. The objective is to maintain the healthy plant buffer and provide wildlife habitat. There is no tolerance for invasive or non-native plants. There is little public access to these areas other than trails. These properties are also subject to *City of Camas Policy Guidelines for an Open Space Management Plan*.

Practices:

- Practices in these areas focus on maintaining healthy native plantings. This includes vigorously controlling invasive plants and human impact on the buffer.
- Pesticide and herbicide use is limited to invasive species and only after cultural and mechanical methods have failed
- If pesticides or herbicides are used, follow BMPs for application, storage, disposal and record keeping as outlined in this manual.

Activity: Vegetation and Pest Management in Constructed Wetland Areas

The City creates or enhances wetlands to mitigate for wetlands lost during road construction or other public works. These are not stormwater facilities, but compensation for wetlands taken during construction projects. This activity applies only to parts of wetlands that are not subject to inundation during the growing season. Operations or Parks crews use no chemical controls in wetland water bodies.

Constructed or enhances wetlands progress from little or no natural vegetation to an ideal state where they are self-sustaining natural areas. As water bodies, wetlands connect to streams and groundwater. Wetlands also host insects, fish, amphibians, and birds that are sensitive to horticultural chemicals. Because of this, chemical use should be minimized in wetland buffers. Wetland management has a low tolerance for invasive or non-native plants.

Practices:

- Practices in these areas focus on establishing and maintaining healthy native plantings. This includes more vigorously controlling invasive plants and the human impact on the buffer. It also includes covering for bare soils.
- Consider the use of soil amendments such as compost before using fertilizer.
- Limit mulch use for covering bare soil while establishing plantings.
- Chemical intervention is minimized and is avoided if possible within 25 feet of a water body.
- Follow BMPs for pesticide and fertilizer application, storage, disposal and record keeping. The attached list of pesticides and fertilizers may be revised to include or drop compounds. Reasons for changes include the potential for plants to become tolerant or build resistance to specific compounds, addition of a new compound to state approved pesticides, or federal or state removal of a pesticide.

Activity: Weed Control within Water Bodies

Specific practices are allowed in water bodies such as streams, ponds and wetlands. Chemical controls are allowed only in extreme cases where there is a threat of near complete habitat loss due to an invasive weed. Weed control within natural water bodies requires an authorization under the State Hydraulic Code. Activities such as dredging require approval from the Washington Department of Fish and Wildlife. Mechanical harvesting is allowed without consultation with Washington Department of Fish and Wildlife if practices in their publication #APD-1-98, *Aquatic Plants and Fish* are followed.

Within Streams

In the rare need for control of noxious weeds and invasive non-native plants within a stream itself, mechanical and biological means will be utilized.

Within Pond and Lake Areas

Weed control is by mechanical removal. There are special requirements for disposal of aquatic weeds to prevent spreading seeds. Any in water work requires JARPA authorization.

Within Wetlands Areas

There are no provisions for the use of herbicides in open water areas in wetlands.

Within Stormwater Ponds, Swale Treatment Areas and Treatment Wetlands

For detailed information refer to the *City of Camas Storm Sewer Systems Operation and Maintenance Manual*. There are no provisions for herbicide use below the high water line of these facilities.

Public Buildings:

Public buildings include the Camas Police Dept, Station 42 Fire, Library, City Hall and Community Center. The Operations Center is covered by the *SWPPP for Maintenance Yard*. All of these facilities have urban landscape and high public exposure.

Desired outcome:

- Reduce pesticide, herbicide, and fertilizer use
- Minimize or eliminate runoff of chemicals and fertilizers to storm drains
- Maintain landscaped areas, maximize public investment
- On redevelopment or new construction, install appropriate landscape to reduce the need for chemical treatments to maintain

Activity: General BMP's:

- Follow General BMP's outlined in the Vegetation Management section
- Follow Practices for Landscape Turf and shrub Bed Maintenance in Highly Managed areas.

Activity: landscape maintenance

- Follow Practices for Landscape Turf and shrub Bed Maintenance in Highly Managed areas.

Activity: Building care - roof cleaning, window washing, power washing

City crews and or contract services provide routine cleaning and repair on City owned facilities.

Practices:

- Limit wash water runoff from site. Provide erosion protection and catch basin sediment control when necessary
- Provide a spill prevention plan for each site and event when a chemical is used in the cleaning or treatment of a facility that could enter the storm system.

- Follow all manufacture recommendations on any chemical used on a facility. Refer to MSDS sheet where there is a potential for chemical to enter storm sewer
- Use the least toxic chemical that can accomplish the desired outcome

Developed parks:

The City has nine developed parks and three trail heads that fall under this classification.

Desired outcome:

- Reduce pesticide, herbicide, and fertilizer use
- Minimize or eliminate runoff of chemicals and fertilizers to storm drains
- Maintain landscaped areas, maximize public investment
- On redevelopment or new construction, install appropriate landscape to reduce the need for chemical treatments to maintain

Activity: Landscaped maintenance

- Follow Practices for Landscape Turf and shrub Bed Maintenance in Highly Managed areas.

Activity: Parking lot

Follow Road Operation and Maintenance activity guidelines where applicable

Activity: Play Courts

City crews and or contract services provide routine cleaning and repair on City owned facilities.

Practices:

- Limit water runoff from site. Provide erosion protection and catch basin sediment control when necessary
- Provide a spill prevention plan for each site and event when a chemical is used in the cleaning or treatment of a facility that could enter the storm system.
- Follow all manufacture recommendations on any chemical used on a facility. Refer to MSDS sheet where there is a potential for chemical to enter storm sewer
- Use the least toxic chemical that can accomplish the desired outcome

Activity: Play equipment

City crews and or contract services provide routine cleaning and repair on City owned facilities.

Practices:

- Limit water runoff from site. Provide erosion protection and catch basin sediment control when necessary
- Provide a spill prevention plan for each site and event when a chemical is used in the cleaning or treatment of a facility that could enter the storm system.
- Follow all manufacture recommendations on any chemical used on a facility. Refer to MSDS sheet where there is a potential for chemical to enter storm sewer

- Use the least toxic chemical that can accomplish the desired outcome
- Properly dispose of any contaminated fall protection material

Activity: Building care - roof cleaning, window washing, power washing

City crews and or contract services provide routine cleaning and repair on City owned facilities.

Practices:

- Limit wash water runoff from site. Provide erosion protection and catch basin sediment control when necessary
- Provide a spill prevention plan for each site and event when a chemical is used in the cleaning or treatment of a facility that could enter the storm system.
- Follow all manufacture recommendations on any chemical used on a facility. Refer to MSDS sheet where there is a potential for chemical to enter storm sewer
- Use the least toxic chemical that can accomplish the desired outcome

Open Space:

The City has approximately 700 acres of openspace that ranges from river frontage to steep forested slopes. Open space provides for habitat and recreational use. Trail heads and parking lots associated with open space should be considered Developed Park. Please refer to that section for activities and practices.

Desired outcome:

- Reduce pesticide, herbicide, and fertilizer use
- Minimize or eliminate runoff of chemicals and fertilizers to storm drains
- Maintain landscaped areas, maximize public investment
- On redevelopment or new construction, install appropriate landscape to reduce the need for chemical treatments to maintain

General BMP's:

- Follow General BMP's outlined in the Vegetation Management section
- Follow Practices for Landscape Turf and shrub Bed Maintenance in Highly Managed areas.

Activity: Noxious weed and forest health

Work with County Weed Control to reduce noxious weeds

Activity: Trail surface maintenance

TBD.

Activity: Buffer areas next to urban land use

Follow vegetation removal per Fire Marshall requirements where applicable

Road Operation and Maintenance

Road maintenance activities include just routine maintenance activities on roads, roadsides and bridges or stream culverts. It includes activities such as sweeping, roadside vegetation management, ditch cleaning, clearing debris from culverts and de-icing.

The overall goal of water quality BMPs for road O & M is to make sure that:

- Systems that control pollutants, such as vegetation in roadside ditches are preserved
- Work on roads does not become a source of pollutants such as sediment.
- Activities near sensitive areas such as stream buffers and wetland buffers follow habitat protection procedures
- Sources of pollutants to roadside ditches are identified and removed.

Outcomes

- Prevent city roads, drainage systems, facilities and property from becoming pollutant sources
- Protect public safety and health
- Meet public expectations for aesthetics
- Minimize sediment and pollutant discharges from the work area
- Minimize vegetation removal
- Preserve native plants
- Maintain or restore the intended infrastructure function
- Prevent or reduce flooding

Activity: Street Sweeping (vacuum pickup)

Street sweeping is performed to remove sand and litter sediment from streets and curb gutters. Street sweeping is a water quality BMP. Water quality practices for street sweeping focus on sediment disposal.

Practices

- All liquid is decanted to Operations Center discharge site to go directly to Sanitary Sewer
- The City targets residential and collector streets to be swept 9 times per year and arterial roads 12 times per year. Sweeping schedules may be revised following monitoring of the program.
- Materials storage BMPs from the Stormwater Pollution Control Manual will be used for sweepings. Sweepings are disposed as provided for by the Washington Department of

Ecology and Southwest Washington Health District requirements at the Whatley pit site per interlocal agreement with Clark County

- Sweepings are screened to separate litter and trash (disposed as solid waste), then used as reclamation fill in permitted locations from the Whatley site

Activity: Roadside Mowing

Mowing maintains sight distances, promotes grass growth and controls unwanted vegetation. It can include mowing of grass, brush and shrubbery.

Practices

- Perform mowing to the extent needed to control unwanted vegetation. Natural vegetation is left in place to the extent possible, considering safety issues for visibility and the need to maintain ditch flow capacity.
- In Habitat Conservation Areas where roads abut natural vegetation (not cultivated fields, lawns and pastures), mowing is restricted to the road shoulder and for control of patches of blackberries or other noxious or nuisance vegetation.

Activity: Roadside Chemical Vegetation Control

Weed control is performed to control noxious weeds on city right-of-way and to kill vegetation along the edge of pavement along arterial roads and major collectors, within pavement cracks, and on landscaped medians. This activity does not include maintaining private stormwater swales or other vegetated stormwater facilities.

Practices

- Chemical controls are used where it is not practical to control by mechanical removal or cultural controls.
- Herbicide is sprayed to either the top of the ditch or two feet from the edge of pavement (whichever is less) to control vegetation.
- Never spray herbicides into water. Many roadside ditches carry water during dry periods and can be recognized by the presence of water and wetland plants such as cattails. Do not spray herbicide in these ditches.
- Do not spray herbicide Within 250 feet of a water body or wetland, or within a designated Habitat Conservation Areas,
- Apply herbicide per manufacture's specifications for rates and concentration
- Herbicides to be applied by licensed personnel

Activity: Roadside Brush and Tree Clearing

This includes mechanical, hand removal, and spot herbicide spraying of undesirable shrubs, bushes and trees along roads.

Practices

- Limit brush removal to the shoulder and ditch. Only remove brush and trees or branches to provide sight distance, remedy a safety issue, provides vehicle clearance and maintain ditch flow capacity.
- Do not remove native shrubs or trees along drainage ditches that have dry weather flow unless it poses a hazard or is a nuisance or noxious weed. These ditches often have

wetland plants such as cattails in them. Consult with the supervisor before removing trees or brush within 250 feet of a stream.

- For drainage ditches see City of Camas Storm Sewer System O&M Maintenance Manual
- Only trees that pose a danger of falling onto roadways or structures may be removed
- If practical, hand remove weeds such as blackberry vines, nightshade and scotch broom while keeping other bushes and trees. Limit herbicide use to the extent practical
- If there is a water body or ditch with water flow during dry weather, only clear bushes when sight distance is an issue, and after checking with the PWS.
- Cover bared soils with an erosion prevention cover BMP.

Activity: Bridge Channel Debris Removal

This activity involves removing any debris that has accumulated against or around a bridge in a stream channel where normal to high water flows occur. The main concerns for debris removal are preventing a hazard to the bridge while protecting stream habit. Any work that may modify a stream bed or stream bank requires consultation with engineering staff and consultation with the Washington Department of Fish and Wildlife.

Practices

- Follow CMC title 16 Environment, Critical Areas requirements and obtain the needed permits before constructing access routes in stream buffers, wetlands or wetland buffers.
- Only remove debris from channel and stream bank areas. Where no downstream obstructions exist, dislodge debris and turn it to flow downstream through the bridge.
- Only cut apart wood debris when necessary to clear it.
- Do not remove any debris outside of the structure, stream channel or stream bank.
- Follow source controls for petroleum and hydraulic fluid leaks.
- Use ground cover BMPs for any bare soil and vegetate any bare areas with approved cover vegetation.
- Consult with the Washington Department of Fish and Wildlife if any work involves modifications to the stream bank or channel. If an emergency exists, contact the Department of Fish and Wildlife for verbal approval..

Activity: Roadside Ditch Cleaning and Reshaping

This activity includes machine or hand cleaning of ditches, reshaping ditches to promote drainage, and managing any removed materials. This practice does not include ditches that have water flowing in them See the City of Camas Storm Sewer System O&M Maintenance Manual for Dry Drainage Ditches. Protecting water quality dictates minimizing vegetation removal and preventing erosion.

Practices

- Use mowing as the first method to reduce capacity loss. If mowing is insufficient, use approved ditch cleaning methods.
- Where practical, perform work during dry weather.
- Only clean areas where there is a flow restriction.
- Never remove more vegetation than is absolutely needed. Leave untouched sections at least 200 feet long (where feasible) to act as sediment trapping filters between cleaned sections.
- Remove small amounts of sediment by hand when performing routine maintenance.

- Use sediment-trapping BMPs at the lower end of each excavated area to keep it from washing out of the work area or entering water bodies.
- If there are problems with steep gradient or flowing water, use a stabilization BMP such as a silt mat on the ditch bottom.
- Cover bare soils with a cover BMP. Vegetate bare soils. During summer, seeding may not be feasible. Hydroseed unvegetated soils in early fall to assure growth before rainy weather begins in October.
- Transport sediment to the appropriate permitted site, grading project, or gravel pit reclamation project.
- Avoid work within 250 feet of a stream or wetland. If work is required to solve a drainage problem in a stream or wetland, use ground cover matting to stabilize the area and sediment trapping BMPs.

Activity: Emergency Slide/Washout Repair

This activity is for emergency actions that must be immediately taken to avoid an imminent threat to public health or safety, or to prevent an imminent threat of serious environmental degradation

(Section 197-11-880 WAC).

Practices

- Install sediment control BMPs.
- Use BMPs to avoid or minimize additional impacts to streams and wetlands.
- If possible, divert water around the work area with temporary measures such as sandbags.
- Transport sediment to the appropriate permitted site, grading project, or gravel pit reclamation project.
- Install cover BMPs on bare soil and vegetate the area.
- Where required, emergency permits will be obtained from appropriate agencies. Possible permits include:
 - Grading
 - SEPA
 - Shoreline
 - State HPA
 - Flood Plain

Activity: Bridge Deck Cleaning and Maintenance

These are minor activities to care for bridge decks such as patching and cleaning sediment. Consultation with Washington Department of Fish and Wildlife is required if the work will impact a stream.

Practices

- Block drains during pressure washing or cleaning to route water off the deck and prevent material from entering water bodies.
- Collect and properly dispose of debris. Use screening on the ground or in a catch basin to filter out particles for disposal as solid waste.
- Sweep up debris at the end of each workday.
- Properly dispose of any removed material according to standard procedures.

Activity: Bridge Structure Maintenance

This activity includes a variety of activities that may be part of routine bridge maintenance. They include washing, scraping, and painting. If activities are part of a project, the project engineer will specify BMPs after consultation with Washington Department of Fish and Wildlife.

Practices

- Block drains during washing or cleaning to route water off the deck to prevent debris, paint chips and paint from entering surface water.
- Sweep up debris at the end of each workday.
- Collect debris and properly dispose of it. Use screening on the ground or in a catch basin to filter out particles for disposal as solid waste or hazardous material.
- Use netting or other material to catch material dislodged from beneath
- Properly dispose of any removed material according to standard procedures.
- If paint is being removed and there is a chance that it is lead based, paint chips are tested for lead content and use lead control and safety practices if lead, cadmium or chromium is found. Contact the safety officer for information on control and safety practices.
- Have spill control and cleanup materials on site.
- When applying paint, use paints that minimize environmental risk. Roll paint when feasible.
- Minimize disturbing vegetation to trimming branches.

Activity: Chemical Road De-Icer Use

This is the practice of using a chemical to prevent or retard ice formation on roads and structures. The primary purpose is to protect public safety.

Practices

- Limit de-icer use to areas shown on City of Camas Snow route map and as approved by supervisor
- Follow temperature and application rates by Manufacture
- Limit application to areas based on weather conditions
- Follow materials storage and transfer BMPs in the City of Camas Stormwater Pollution Control Manual.

Activity: Sanding for Ice

Sand is used to provide traction in certain areas where snow and ice cause safety problems. Used in very limited applications to avoid sediment deposits to streams

Practices

- Recover sand by sweeping after an event

Activity: Snow Removal

This activity is for snow removal from roads, shoulders, and bridges using various snowplowing devices. Plowed snow can include sediment and debris from roads and shoulders.

Practices

- Minimize the amount of sediment and debris entering water bodies. When moving snow and ice, avoid pushing or casting snow directly into a water body.
- Consider the influence that plowed or cast snow has on roadside vegetation. Minimize crushing or disturbance of roadside shrubs and trees

- Reduce speed, change plow angle or use other methods to protect water bodies and sensitive habitat areas.

Activity: Road Surface Maintenance

This activity includes surface repairs and paving jobs. Tasks include using asphaltic concrete, midland pavement, and other materials for patching potholes, filling cracks, paving shoulders, and overlaying roads. If the job cuts or places concrete, see the concrete work activity BMPs. The major concern is rainfall runoff carrying oils from the work area and particles of material being washed or swept into storm drains or water bodies.

Practices

- If resurfacing work is performed under contract, specify BMP performance under inspection/contract administration.
- Prevent debris, oils, cleaning agents, and sediment from entering waterways. If feasible block inlets and drains.
- Avoid work in wet weather. This will reduce the problems of containing sediment or oil laden runoff from the job.
- Carry spill control kit.
- If the work is creating sediment or other pollutants that can be washed from the work area, protect storm drains. Use the following practices as feasible.
 - Cover storm sewer inlets, catch basins and open manholes to prevent or block sediment-bearing water.
 - If runoff contains oil and grease use sandbags, booms, or other absorbent products to trap oil at inlets or in drainage ditches. Use catch basin inserts with oil trapping material.
 - If runoff contains sediment, use gravel-filled filter bags or other appropriate products to build berms around inlets. Gravel-filled bags are more stable than chip-filled bags.
 - At stream crossings, trap materials using screens or another form of containment. Use containment BMPs to protect roadside ditches during wet weather.
- Avoid using water to clean up work sites. Sweep or vacuum dust and debris from the repair job. Do not wash materials into storm sewers.
- Properly contain and dispose of any residue from cleaning tools. Use heat to clean equipment where possible, avoiding solvents. If vehicles and equipment are left at the site overnight, use drip pans to contain leaks.
- Minimize vehicle and equipment cleaning at the site. If cleaning is performed, dispose of cleaning residue in a sanitary sewer or into a grassy area or small temporary infiltration pit.
- Place cold mix and material stockpiles away from drainageways. Cover or contain stock piles to prevent material or residues from washing off.
- Recycle asphalt and fill material when possible.

Activity: Concrete Work

This activity is the installation, cutting, or repair of concrete facilities such as road surfaces, curb and gutter, sidewalks, and drainage structures.

Practices

- When necessary, place storm drain covers or containment devices over all drain inlets or discharge points at the beginning of each workday. Remove all accumulated material at the end of each workday. Properly dispose of the material.
- Dispose of concrete where it will not wash into a water body, ditch or storm drain. Collect slurry from exposed aggregate washing, grinding water, and any truck washout and dispose of it properly.
- It is acceptable to dig a hole to hold any slurry or rinse water.
- Use curing and form release materials that minimize pollutant discharge.
- Do not use water to wash down the area.

Activity: Shoulder Blading or Rebuilding

This activity is blading and shaping of unpaved shoulders to correct ruts, sediment accumulation, excessive plant material accumulation, and to maintain drainage from the pavement to the ditch. It usually involves work on relatively flat gravel shoulders.

Practices

- Try to limit this work to dry weather.
- Minimize vegetation removal. If soils are disturbed beyond the top of the ditch or on a slope, apply erosion prevention BMPs and vegetate the bare areas.
- Avoid or minimize vegetation removal within Habitat Conservation Areas, and wetland buffers.
- Apply sediment control BMPs at the outside edges of the work area.
- Use erosion controls and prevent sediment and debris from entering water bodies and wetlands.

Activity: Pavement Marking

This activity includes striping roadway surfaces and applying other markings such as hot plastic material to define traffic control features such as crosswalks, and application of special markers using adhesives.

Practices

- Use water based or low VOC paints
- Prevent paint from entering storm sewers and water bodies. Use over-spray control.
- Store paint in spill proof containers or covered areas. Clean up spills during storage and handling.
- When cleaning up, use methods that properly contain and dispose of unused paint cleaning materials, and other spent materials.
- When removing markings, prevent debris from entering water bodies. Clean up debris from grinding or power washing and dispose of it according to standard procedures.
- Avoid using water to clean pavement and do not wash debris into storm sewers or ditches. Protect inlets, manholes and roadside ditches during any washing activities.

Activity: Sign Installation and Repair

This activity is the routine replacement, installation, repair, straightening and cleaning of signs.

Practices

- Prevent disturbed soil from entering storm sewer or surface water bodies. Seed bare soils.
- Avoid discharging cleaners to storm sewers or surface water by making sure they run into vegetated areas or limiting the amount used.
- Clean up any materials or debris left by the work.
- Attempt to avoid placing signs in areas where there are shrubs and trees that will have to be removed and periodically cleared to keep the sign visible.

Activity: Traffic Signal Maintenance

This activity is the routine repair and preventative maintenance of traffic signals and luminaires, including lamps, poles and bases.

Practices

- Prevent disturbed soil from entering storm sewer or surface water bodies. Use sediment trapping or cover BMPs and seed bare soils.
- Avoid discharging cleaners to storm sewers or surface water by making sure they run into vegetated areas or limiting the amount used.
- Clean up any materials or debris left by the work.

Activity: Maintenance of Posts, Guardrails, Concrete barriers and Other Road Features

This activity is the routine repair and replacement of guardrails and similar features. It can include straightening and minor excavation.

Practices

- Prevent disturbed soil from entering storm sewer or surface water bodies.
- Minimize the area of soil disturbance.
- If soil is disturbed, use sediment trapping and cover BMPs. Seed disturbed soils if the area will sustain vegetation.
- Prevent pollutants such as paint and debris from entering storm sewer or surface water bodies.
- If power washing, avoid discharging water and debris directly to storm sewers or surface water by trapping with gravel-filled bags and blocking inlets. If sand blasting, contain and sweep up residues and dispose of them following standard procedures.
- Carry a spill response kit.

Activity: Utility installation

This activity is the routine repair and replacement of underground utilities.

Practices

- Prevent disturbed soil from entering storm sewer or surface water bodies.
- Minimize the area of soil disturbance.
- Direct load excavated material into haul vehicle
- Dispose of excavated material to approved site with proper erosion control

- If soil is disturbed, use sediment trapping and cover BMPs. Seed disturbed soils if the area will sustain vegetation.
- Use vacuum street sweeper for debris removal. Do not wash down street into storm facilities
- Carry a spill response kit.

Activity: Training

This activity is the routine training for implementation of this document

Practices

- Familiarize new employees with manual content and location as part of orientation process.
- Provide annual training on BMP's tied with other stormwater training requirements
- Provide annual training and license updates for applicator licenses.
- Provide mapping of sensitive areas
- Train on spill kits proper use and location

I certify, under penalty of law, that this document and all attachments were prepared under my direction, or supervision, in accordance with a system designed to assure that Qualified Personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for willful violations.



Eric Levison

City of Camas Public Works Director

Duly Authorized Representative

**Pesticide/Herbicide
RECORD OF USE FORM**

APPLICATOR NAME:

LICENCE #

DATE AND TIME OF USE

LOCATION:

TEMP

WIND CONDITIONS

MATERIAL USED

AMOUNT AND COVERAGE

APPLICATION EQUIPMENT

