NPDES MS4

Permit Order No. R1-2015-0030

Non-Storm Water Discharge

BMP Plan – Final

January 6, 2016

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Introduction

This City of Healdsburg (City) Non-Storm Water Discharge Best Management Practices (BMP) Plan was submitted to the North Coast Regional Water Quality Control Board (WATER BOARD) in August 2015 as required by NPDES MS4 Permit Order No. R1-2009-0050. It sets forth protective measures that are required to mitigate potential negative effects of the discharges on the City's storm drain system and the riparian habitat beyond. The draft BMP Plan was approved by the WATER BOARD Executive Officer on December 16, 2015, and implemented on January 6, 2016 with the other of requirements of NPDES MS4 Permit Order No. R1-2015-0030. The categories of Non-Storm Water Discharges, which are allowable when best management practices are implemented, are as follows:

Allowable Non-Storm Water Discharges BMPs

1. Stream Diversions

This includes stream diversions permitted by the State or North Coast Regional Water Quality Control Board (Regional Board) where such flows are intentionally diverted into the storm drain system. This would likely apply to in-stream maintenance or construction projects.

Conditions under which allowed:

a. All necessary permits, or authorizations, are received and all permit conditions are in place prior to diverting the flow.
b. All work is completed in coordination with the California Department Fish and Wildlife, the Regional Board, and the U.S. Army Corps of Engineers, or other applicable agencies, as necessary for the specific project.

Best Management Practices (BMPs) to be implemented:

i. Control the erosion, sediment, and velocity to keep the diverted flows from discharging sediment to the storm drain system.
ii. Clean storm drain prior to diversion to prevent discharge of sediment from the storm drain into local waterways.
iii. Follow the Resource Agency permit requirements for protection of aquatic life.

2. Natural Springs and Rising Groundwater

This includes natural springs and rising ground water that are intentionally diverted into the storm drain system.

Conditions under which allowed:

a. Permanent diversions that existed prior to the approval of this BMP Plan and are required to protect public infrastructure and public safety shall be exempt.
b. The diversion does not cause or contribute to exceedances of receiving water quality objectives.
c. There is no known contamination of the water being discharged.
d. Ground water dewatering (from construction or pumped sources) may require a separate NPDES permit. The City will consult with NPDES personnel at the Regional Board for discharge requirements on a case by case basis.

Best Management Practices (BMPs) to be implemented:

i. Segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas, if possible, or directly to the storm drain system, so as to avoid flowing across paved surfaces or gutters where pollutants may be present.
ii. Control the flow rate of the discharge to minimize erosion.
iii. Remove the sediment, if present, from discharge through settling or filtration prior to release.
iv. Utilize BMPs, such as placement of sand bags, to prevent erosion and sediment transport.
v. Collect and dispose of all sediment removed from discharge and dispose of in a timely, legal and appropriate manner.

3. Uncontaminated Groundwater Infiltration from Routine City Infrastructure Maintenance

This includes low volume dewatering of uncontaminated ground water that has infiltrated [as defined by 40 CFR 35.2005(20)] City utility structures and is diverted into the storm drain system. This also includes municipal vault dewatering. All private utility vault dewatering requires separate coverage under Order No. 2006-0008-DWQ, or as updated.

Conditions under which allowed:

a. All feasible alternatives to discharge of non-storm water flow have been considered, including discharging to landscape areas or sewer, and are not possible.
b. Applies to low volume dewatering of City-owned infrastructure only for routine maintenance and/or inspection purposes.
c. There are no known sources of contamination in the infiltrated ground water.

Best Management Practices (BMPs) to be implemented:

i. Evaluate water for odor, oil sheen or other indication of contamination to determine whether discharge to storm drain is allowed.

ii. Segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible so as to avoid flowing across paved surfaces or gutters where pollutants are present.
iii. Remove sediment and debris, if present, from discharge through settling or filtration prior to release.
iv. Collect and dispose of all sediment and debris removed from discharge in a timely, legal, and appropriate manner.
v. Control flow rate of discharge to minimize erosion potential.
vi. If draining to the sewer, flow shall be metered to prevent surcharging of flow into downstream properties.

4. Overflows/Diversions from Riparian Habitats or Wetlands

This includes overflows or diversions from riparian habitats or wetlands where such flows are intentionally diverted into the storm drain system.

Conditions under which allowed:

a. All necessary permits, or authorizations, are received and all permit conditions are in place prior to diverting the flow.
b. All work is completed in coordination with the California Department Fish and Wildlife, the Regional Board, and the U.S. Army Corps of Engineers or other agencies, as required for the specific project.

Best Management Practices (BMPs) to be implemented:

i. Segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible, or directly to storm drain system, so as to avoid flowing across paved surfaces or gutters where pollutants are present.
ii. Control the flow rate of the discharge to minimize erosion potential.
iii. Remove all sediment, if present, from discharge through settling or filtration prior to release.
iv. Utilize BMPs, such as placement of sand bags, to prevent erosion and sediment transport.
v. Collect and dispose of all sediment in a timely, legal and appropriate manner.

5. Emergency Firefighting Flow

Conditions under which allowed:

a. All feasible alternatives to discharge of non-storm water flow have been considered, including discharging to sewer, and are not possible. **Note that during a firefighting emergency, the safety of the public and the firefighting personnel are the priority**.

Best Management Practices (BMPs) to be implemented:

i. Comply with the City's adopted Program for Fire Fighting and Fire System Flows BMP Plan pertaining to firefighting and firefighting training activities developed in conjunction with the Sonoma County Fire Chiefs Association.
ii. If draining to the sewer, flow shall be metered to prevent surcharging of flow into downstream properties.

6. Firefighting Training Flows

This includes flows from firefighting routine training activities, including live-fire training, and equipment repair activities.

Conditions under which allowed:

a. All feasible alternatives to discharge of non-storm water flow have been considered, including discharging to sewer, and are not possible. Note that during a firefighting emergency, the safety of the public and the firefighting personnel are the priority.
b. There is no known contamination of the water being discharged.

Best Management Practices (BMPs) to be implemented:

i. Comply with the City's adopted Program for Fire Fighting and Fire System Flows BMP Plan pertaining to firefighting and firefighting training activities developed in conjunction with the Sonoma County Fire Chiefs Association.
ii. If draining to the sewer, flow shall be metered to prevent surcharging of flow into downstream properties.

7. Fire Hydrant Testing, Service and Repair

Conditions under which allowed:

a. All feasible alternatives to discharge of non-storm water flow have been considered, including discharging to landscape areas, and are not possible.

Best Management Practices (BMPs) to be implemented:

i. Comply with the City's adopted Program for Fire Fighting and Fire System Flows BMP Plan pertaining to firefighting and firefighting training activities developed in conjunction with the Sonoma County Fire Chiefs Association.
ii. Dechlorinate water using aeration and/or other appropriate means including infiltration into the ground. Chlorine residual in discharge shall not exceed 0.019 mg/L.
iii. Utilize BMPs to increase the removal of chlorine by volatilization before discharge to a storm drain.

iv. Segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible so as to avoid flowing across paved surfaces or gutters where pollutants are present.
v. Control flow rate of discharge to minimize erosion potential.
vi. Utilize hoses and sand bags to prevent erosion and sediment transport.

8. Discharge from Potable Water Distribution Systems

This applies to system maintenance activities such as water line and water lateral flushing.

Conditions under which allowed:

a. All feasible alternatives to discharge have been considered, including discharging to landscape and to sewer, and are not possible.
b. Water main breaks and fire hydrant knockdowns are considered "spills" and require a California Office of Emergency Services (Cal OES) notification due to the high quantity of flow.

Best Management Practices (BMPs) to be implemented:

i. Dechlorinate, pH adjust to between 6.5 and 8.5 and reoxygenate using aeration and/or other appropriate means including infiltration into the ground.
ii. Remove sediment and solids from discharge through settling or filtration.
iii. Segregate flow to prevent introduction of pollutants. Discharge flow to landscape areas if possible so as to avoid flowing across paved surfaces or gutters where pollutants are present.
iv. Control flow rate of discharge to minimize erosion potential.
v. Utilize BMPs, such as placement of sand bags, to prevent erosion and sediment transport.
vi. Collect and dispose of all sediment removed from discharge in a timely, legal and appropriate manner.
vii. The discharge of superchlorinated water, water from well development and/or well rehabilitation and individual discharges greater than 325,850 gallons, will include monitoring consistent with page E-3 of the Drink Water Systems Permit.
viii. The City will notify the North Coast Regional Water Quality Control Board of discharges of 325,850 gallons or greater.
ix. If draining to the sewer, flow shall be metered to prevent surcharging of flow into downstream properties.

9. Discharges from Drinking Water Supply Wells

This activity applies to activities such as well flushing or pumping-to-waste; well development, rehabilitation, and testing; and groundwater monitoring for purpose of supply well development, rehabilitation and testing.

Conditions under which allowed:

a. All feasible alternatives to discharge of non-storm water flow have been considered, including discharging to land on-site or sewer, and are not possible.

b. The diversion does not cause or contribute to exceedances of receiving water quality objectives.

Best Management Practices (BMPs) to be implemented:

i. Prevent aquatic toxicity by dechlorinating such that the level of chlorine in the discharge is less than 0.019 mg/L prior to entering a receiving water.
ii. The discharge of superchlorinated water, water from well development and/or well rehabilitation and individual discharges greater than 325,850 gallons, will include monitoring consistent with page E-3 of the Drink Water Systems Permit.
iii. The City will notify the North Coast Regional Water Quality Control Board of discharges of 325,850 gallons or greater.
iv. Prevent riparian erosion by implementing flow dissipation, erosion control and hydromodification prevention measures.
v. Minimize sediment discharge turbidity and color impacts by implementing control measures.
vi. Do not exceed receiving water limitation for turbidity and take action when the turbidity level is greater than 100 Nephelometric Turbidity Units NTU until it is less.
vii. Monitor the temperature, pH, and chemical constituents of concern, and stay inside the range of receiving water objectives in the Basin Plan
viii. Responsible personnel are properly trained to implement required BMPs.
ix. If draining to the sewer, flow shall be metered to prevent surcharging of flow into downstream properties.

10. Gravity Flow from Foundation, Footing and Crawl Space Drains

Conditions under which allowed:

a. All feasible alternatives to discharge have been considered, including discharging to landscape areas, and are not possible.
b. Discharges that exist prior to the approval of this BMP Plan shall be exempt, unless they pose a measurable threat to water quality in which case the City reserves the right to require BMPs to protect water quality.

c. There is no known contamination of the water being discharged.

Best Management Practices (BMPs) to be implemented:

i. Remove sediment and solids from discharge through settling or filtration.
ii. If possible, segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible so as to avoid flowing across paved surfaces or gutters where pollutants are present.
iii. Utilize BMPs, such as sand bags, to prevent erosion and sediment transport.
iv. Collect and dispose of all sediment removed from discharge in a timely, legal and appropriate manner.

11. Residential Air Conditioning Condensate

This is for discharges from residential or other small air conditioning units with incidental quantities of condensate.

Conditions under which allowed:

a. All feasible alternatives to discharge of have been considered, including discharging to landscape areas, and are not possible.

Best Management Practices (BMPs) to be implemented:

i. If possible, segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible so as to avoid flowing across paved surfaces or gutters where pollutants are present.

12. Water from Crawl Space Pumps

Conditions under which allowed:

a. Discharges that exist prior to the approval of this BMP Plan shall be exempt, unless they pose a measurable threat to water quality in which case the City reserves the right to require BMPs to protect water quality.
b. All feasible alternatives to discharge have been considered, including discharging to landscape areas, and are not possible.
c. There is no known contamination of the water being discharged.

Best Management Practices (BMPs) to be implemented:

i. If possible, segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible so as to avoid flowing across paved surfaces or gutters where pollutants are present.
ii. Remove sediment and solids from discharge through settling or filtration.
iii. Utilize BMPs, such as sand bags, to prevent erosion and sediment transport.

iv. Collect and dispose of all sediment removed from discharge in a timely, legal and appropriate manner.
v. There are no known sources of contamination near the extraction site.

13. Incidental Runoff of Potable Water from Urban Landscape Irrigation

Conditions under which allowed:

a. Runoff must be in small, incidental quantities, caused by minor over-spray or temporary leaks.

Best Management Practices (BMPs) to be implemented:

i. Comply with the City's Water Waste Ordinance (Ordinance No. 1134), which prohibits runoff in significant quantities and requires repair of breaks or leaks in the irrigation system within 72 hours.
ii. Comply with the City's Water Efficient Landscape Ordinance (WELO) which has landscape planting and irrigation criteria for all new landscape installations. The purpose of the WELO is to maximize water use efficiency and retain irrigation water on the landscape site.

14. Incidental Runoff of Recycled Water from Urban Landscape Irrigation

Conditions under which allowed:

a. Runoff must be in incidental quantities, caused by minor over-spray or temporary leaks.

Best Management Practices (BMPs) to be implemented:

i. Comply with the City's Water Waste Ordinance, which prohibits runoff and breaks or leaks in the delivery system for all landscape irrigation, whether potable or recycled.
ii. Comply with the City's Water Efficient Landscape Ordinance which has landscape planting and irrigation criteria for all new landscape installations, whether potable or recycled. It is designed to maximize water use efficiency and retain irrigation water on the landscape site.
iii. Handle all recycled water as prescribed in the City's "Recycled Water User's Guide" dated August 2012 and all subsequent revisions and clarifications.
iv. Maintain a recycled water user permit, issued by the City, and designate a recycled water supervisor. Manage sites according to the City of Healdsburg's Ordinance No. 2003-166.
v. City staff will inspect all recycled water sites quarterly to review for proper operation.
vi. Notify the Regional Board if the discharge reaches the storm drain system or a waterway in a reportable quantity. When this occurs, the system should be shut down by the City.

15. Recycled irrigation runoff in the rural setting.

Conditions under which allowed:

a. Recycled water irrigation sites must have the appropriate permit from the City.

Best Management Practices (BMPs) to be implemented:

i. All recycled water sites must have a permit issued by the City and must designate a Recycled Water Supervisor, who will act as the liaison with the City to implement all recycled water requirements.
ii. All permits issued by the City list minimum Best Management Practices that must be followed to protect water quality.
iii. All new rural recycled water accounts are conditioned to be compliant with the City's "Agricultural Recycled Water User Agreement" and all subsequent revisions and clarifications.
iv. All sites are evaluated prior to connection to evaluate suitability for recycled water use.
v. All sites using recycled water are inspected bi-annually and at random by City staff to evaluate proper operation.
vi. All inspections are logged.
vii. Notifications to the Regional Board are made if the discharge reached the storm drain system or a waterway in a reportable quantity. When this occurs, the system is shut down by the City and the customer is educated and the issue corrected prior to reestablishing service.

16. Dechlorinated / Debrominated Swimming Pool Water

This is for discharge of swimming pool water, only when water has been dechlorinated or debrominated and it is within normal pH range. Discharge of chlorinated or brominated swimming pool water is prohibited.

Conditions under which allowed:

a. All feasible alternatives to discharge of non-storm water flow to the storm drain system have been considered, including discharging to landscape areas or sewer, and discharge to landscape and are not possible.

Best Management Practices (BMPs) to be implemented:

i. Water is pH adjusted to between 6.5 and 8.5, and dechlorinate using aeration and/or other appropriate means including infiltration into the ground so that the chlorine residual in discharge does not exceed 0.019mg/L.
ii. Utilize BMPs to increase the distance and removal of chlorine by volatilization before discharge to a storm drain.

iii. Segregate flow to prevent introduction of pollutants. Flow should be discharged to landscape areas if possible so as to avoid flowing across paved surfaces or gutters where pollutants are present.
iv. Control flow rate of discharge to minimize erosion potential.
v. Utilize hoses and sand bags to prevent erosion and sediment transport.
vi. If draining to the sewer, flow shall be metered to prevent surcharging of flow into downstream properties.

17. Non-Commercial Car Washing

This includes non-commercial car washing of private vehicles by residents or non-profit organizations.

Conditions under which allowed:

a. All feasible alternatives to discharge of non-storm water flow have been considered, including discharging to landscape areas, and are not possible.

Best Management Practices (BMPs) to be implemented:

i. Encourage car washing at commercial carwashes or in an area where wash water infiltrates, such as vegetated areas.
ii. Use pumps, vacuums or physical routing BMPs to direct water to the sewer, landscape, or to areas for infiltration or re-use.
iii. Implement practices to minimize runoff, such as using a bucket and sponge. Use a hose nozzle with automatic shut-off valve.

18. Maintenance Activities from BMPs

This includes pooled storm water from treatment BMPs that are intentionally discharged to the storm drain system as part of maintenance activities.

Conditions under which allowed:

a. All feasible alternatives to discharge of non-storm water flow have been considered, including discharging to landscape areas, and are not possible.
b. The discharge is not a source of pollutants.

Best Management Practices (BMPs) to be implemented:

i. Maintain all storm water BMPs at a frequency as specified by the manufacturer.
ii. Collect and dispose of all sediment removed from discharge in a timely, legal and appropriate manner.

19. Municipal Water Tank Maintenance

Conditions under which allowed:

a. All feasible alternatives to discharge of non-storm water flow have been considered, including discharging to landscape areas or sewer, and are not possible.

Best Management Practices (BMPs) to be implemented:

i. Minimize the quantity of water in tank prior to maintenance activity.
ii. Dechlorinate the water remaining in the tank at the onset of the maintenance activity.
iii. After the dechlorination is complete, discharge the water slowly to land. Implement measures to eliminate or minimize erosion.
iv. Vacuum out the final residual silt remaining in the bottom of the water tank into a haul truck and properly dispose of in a timely, legal and appropriate manner.
v. The discharge of superchlorinated water, water from well development and/or well rehabilitation and individual discharges greater than 325,850 gallons, will include monitoring consistent with page E-3 of the Drink Water Systems Permit.
vi. The City will notify the North Coast Regional Water Quality Control Board of discharges of 325,850 gallons or greater.
vii. If draining to the sewer, flow shall be metered to prevent surcharging of flow into downstream properties.

20. Surface Cleaning of Sidewalks and Other Impermeable Surfaces

Conditions under which allowed:

a. All feasible alternatives to discharge of non-storm water flow have been considered, including discharging to landscape areas, and are not possible.
b. No soap or cleaning agent is used.
c. Only small amounts of oil are present on the area being cleaned.
d. Only cold water is used.

Best Management Practices (BMPs) to be implemented:

i. Sweep, collect and dispose of debris.
ii. Clean all oil spots, if present, with water free methods prior to power-washing.
iii. Dispose of all absorbent material, if used, in the trash.
iv. Place oil-absorbent boom around storm drain inlet during power-washing if oil spots are present.
v. Protect the storm drain inlet with filter material to remove pollutants, if pollutants are known or observed to be present.

21. Surface Cleaning of Building Exteriors, Rooftops and Walls

This includes wash water that is from cleaning building exteriors, rooftops and walls of buildings.

Conditions under which allowed:

a. All feasible alternatives to discharge of non-storm water flow have been considered, including discharging to landscape areas, and are not possible.
b. No soap or cleaning agent is used.
c. The building is known to be painted with lead-free paint.

Best Management Practices (BMPs) to be implemented:

i. Sweep, collect and dispose of debris that could be washed into the storm drain system.
ii. Protect the storm drain inlet with filter material to remove pollutants and paint chips.

This Healdsburg Non-Storm Water Discharge Best Management Practice (BMP) Plan is intended to be consistent with the Basin Plan Amendment. Any Non-Storm Water Discharge not specifically listed in this Non-Storm Water BMP Plan will be governed by the Basin Plan and the Basin Plan Amendment.

Brent Salmi
Public Works Director
City of Healdsburg

Date

Attachment: City's adopted Program for Fire Fighting and Fire System Flows BMP Plan