Non-Storm Water Discharges (Table 1) – Third Submittal

This Santa Rosa Non-Storm Water Discharge Best Management Practices (BMP) Plan is being submitted as required by NPDES MS4 Permit Order No. R1-2009-0050 and sets forth approved protective measures that are required of all applicable discharges in order to minimize or prevent the effects of non-storm water discharges to the City of Santa Rosa's storm drain system.

Additionally, a number of City of Santa Rosa programs serve to mitigate such concerns. These include:

1. A 24-hour City-wide spill response program supported by:
    a. City of Santa Rosa Storm Water & Creeks spill response team that conducts field inspections for reported spills.
    b. Spill response telephone number, website with resources, and 24 hour hotline.
    c. A dedicated Environmental Crimes Police Officer & Environmental Crimes Hotline.
    d. Progressive enforcement procedure for repeat offenders.
    e. An established spill database which allows staff to obtain site specific histories, review past enforcement actions, and document action taken.
    f. Regularly scheduled monthly meetings with all members of the City spill response team including staff from the Public Works, Santa Rosa Water, Storm Water & Creeks, Environmental Compliance, Code Enforcement, Fire, Police and Community Development Departments and the City Attorney's Office.
2. Visual flow monitoring by Public Works and Santa Rosa Water field crews who report any unusual conditions in storm drain flows or local waterways to the Storm Water & Creeks team.
3. Ongoing water conservation and recycled water inspection programs that investigate and respond to calls concerning water waste, irrigation overspray, runoff and overwatering.

Table of Contents

Categories of Non-Storm Water Discharges:

1. Stream diversions permitted by the State or Regional Water Board where such flows are intentionally diverted into the storm drain system.

Conditions under which allowed:

- All feasible alternatives to discharge of non-storm water flow have been considered and are not possible.
- Provided that all necessary permits, or authorizations, are received and all permit conditions are in place prior to diverting the flow.

Best Management Practices (BMPs) to be implemented:

a) Erosion, sediment, and velocity controls to keep the diverted flows from discharging sediment to the storm drain system.
b) Storm drain shall be clean prior to diversion to prevent discharge of sediment from the storm drain into local waterways.

2. Natural springs and rising ground water that are intentionally diverted into the storm drain system.

Conditions under which allowed:

- All feasible alternatives to discharge of non-storm water flow have been considered and are not possible.
- Ground water dewatering (from construction or pumped sources) may require a separate NPDES permit.
- Permanent diversions that exist prior to the approval of this BMP Plan and are required to protect public infrastructure and public safety shall be exempt, unless they pose a threat to water quality in which case the City reserves the right to require BMPs to protect water quality.
- No sources of contamination, as mapped on the State Regional Water Quality Control Board's Geotracker website (http://geotracker.swrcb.ca.gov), within one half mile of the diversion site.

Best Management Practices (BMPs) to be implemented:

a) 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.
b) Control flow rate of discharge to minimize erosion potential.
c) Sediment, if present, shall be removed from discharge through settling or filtration prior to release.
d) BMPs, such as sand bags, shall be utilized to prevent erosion and sediment transport.
e) All sediment removed from discharge shall be collected and disposed of in a timely, legal and appropriate manner.

3. Uncontaminated ground water[1] infiltration [as defined by 40 CFR 35.2005(20)][2] into structures where flows are diverted into the storm drain system. (Private utility vault dewatering requires a separate NPDES permit).

Conditions under which allowed:

- All feasible alternatives to discharge of non-storm water flow have been considered and are not possible.
- Construction dewatering is not covered by this BMP Plan. Separate permit coverage from the North Coast Regional Water Quality Control Board is required.
- Applies to low volume dewatering of City owned infrastructure only for routine maintenance and/or inspection purposes.
- Evaluate vault water using the attached decision tree, or equivalent, to determine whether discharge to Storm drain is allowed.

Best Management Practices (BMPs) to be implemented:

a) No sources of contamination, as mapped on the State Regional Water Quality Control Board's Geotracker website (http://geotracker.swrcb.ca.gov), within one half mile of the diversion site.
b) Sediment and debris, if present, shall be removed from discharge through settling or filtration prior to release.
c) All sediment and debris removed from discharge shall be collected and disposed of in a timely, legal, and appropriate manner.

4. Overflows or diversions from riparian habitats or wetlands where such flows are intentionally diverted into the storm drain system.

Conditions under which allowed:

- All feasible alternatives to discharge of non-storm water flow have been considered and are not possible.
- Provided that all necessary permits or authorizations are received prior to diverting the flow.

Best Management Practices (BMPs) to be implemented:

a) 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.

[1] NPDES permit for ground water dewatering is required within the North Coast Region including Sonoma County.

[2] Water other than wastewater that enters a sewer system (including sewer service connections and foundation drains) from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow."

b) Control flow rate of discharge to minimize erosion potential.
c) Sediment, if present, shall be removed from discharge through settling or filtration prior to release.
d) BMPs, such as sand bags, shall be utilized to prevent erosion and sediment transport.
e) All sediment removed from discharge shall be collected and disposed of in a timely, legal and appropriate manner.

5. Flows from emergency firefighting activity.

Conditions under which allowed:

- All feasible alternatives to discharge of non-storm water flow have been considered and are not possible.

Best Management Practices (BMPs) to be implemented:

a) If time and resources allow, plug the storm drain collection system for temporary storage and proper disposal of runoff.
b) If time and resources allow, dam, dike or beam runoff from fires at industrial facilities or where hazardous materials are involved in the firefighting activities. Request Hazardous Materials Response Teams if necessary for mitigation, monitoring, damming, diking, and testing equipment.
c) Report any hazardous materials entering the storm drain system by calling a CalOES 800-852-7550. Proper agencies will be notified.
d) When putting equipment back into service do not drain any foam in an area that may enter the storm drain. Direct foam to landscaped areas or graveled or green areas whenever possible and safe to do so without causing damage or erosion.
e) Train fire safety employees on these BMPs, storm water discharge prohibitions, and wastewater discharge requirements.
f) Establish a regular training schedule, train all new employees, and conduct annual refresher training.
g) Use a training log or similar method to document training.
h) Sediment and debris, if present, shall be removed from discharge through settling or filtration prior to release whenever possible.
i) All sediment and debris removed from discharge shall be collected and disposed of in a timely, legal, and appropriate manner.

6. Flows from firefighting training and equipment repair activities.

Conditions under which allowed:

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

Best Management Practices (BMPs) to be implemented- Fire Fighting Training:

a) Whenever possible, practice drills are to be performed in areas where runoff will be contained or directed to sewer.
b) When practice drills must be performed in an area where runoff could potentially leave the site, the site shall be surveyed by the officer-in-charge prior to training activities to ensure that debris will not enter the storm drain system.
c) As determined feasible, runoff from training drills or other non-emergency activities, will be directed to landscaped areas, graveled or green areas whenever possible and safe to do so without causing damage or erosion.
d) Areas that have debris that could potentially enter the storm drain system as a result of the drill activities will not be used for training until the debris has been removed.
e) Runoff from fire training activities will be dechlorinated by containment, aeration, volatilization, or with dechlorination tablets used by trained personnel before discharge to the storm drain system.
f) Train employees on these BMPs, storm water discharge prohibitions, and wastewater discharge requirements.
g) Establish a regular training schedule, train all new employees, and conduct annual refresher training.
h) Use a training log or similar method to document training.

Best Management Practices (BMPs) to be implemented- Vehicle and Equipment:

a) Wash vehicles at a specifically designated wash area that drains to the sanitary sewer or take vehicles to a commercial, city or county wash rack.
b) If a wash rack connected to a sanitary sewer system is not available, runoff from vehicle and equipment washing activities shall be directed onto landscaped, graveled or green areas whenever possible and safe to do so without causing damage or erosion.
c) Perform maintenance or repair work indoors. Only emergency repairs and maintenance activities that do not involve fluids may be performed outdoors.
d) Do not store leaking vehicles or equipment outdoors. Contain leak (using drip pans), repair immediately or move indoors and repair.
e) Good housekeeping and dry cleanup practices will be utilized as part of standard facility maintenance procedures.

6A. Live Fire Training.

Conditions under which allowed:

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

Best Management Practices (BMPs) to be implemented:

a) Live fire training activities will be pre-planned to allow integration of structural BMP barriers to control runoff as deemed necessary.
b) Runoff from live fire training activities will be dechlorinated by containment, aeration, volatilization, or with dechlorination tablets used by trained personnel before discharge to the storm drain system.
c) Train employees on these BMPs, storm water discharge prohibitions, and wastewater discharge requirements.
d) Establish a regular training schedule, train all new employees, and conduct annual refresher training.
e) Use a training log or similar method to document training.
f) Sediment and debris, if present, shall be removed from discharge through settling or filtration prior to release.
g) All sediment and debris removed from discharge shall be collected and disposed of in a timely, legal, and appropriate manner.

7. Fire hydrant testing, service and repair.

Conditions under which allowed:

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

Best Management Practices (BMPs) to be implemented:

a) Water must be dechlorinated using aeration and/or other appropriate means including infiltration into the ground. Chlorine residual in discharge shall not exceed 0.019 mg/L.
b) Utilize BMPs to increase the distance and removal of chlorine by volatilization before discharge to a storm drain.
c) 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.
d) Control flow rate of discharge to minimize erosion potential.
e) Water deterring devices such as hoses and sand bags, shall be utilized to prevent erosion and sediment transport.

8. Discharges from potable water sources.

- Applies to water line and water lateral flushing, hydrant knockdowns, water leaks, and water line breaks as well as potable water well development and super chlorinated water discharges.
- Untended water main breaks and fire hydrant knockdowns are considered “spills” and require a CalEMA notification due to the high quantity of flow.
- Planned discharges that excess 325,850 gallons from a single discharge requires prior notification to the Regional Water Quality Control Board.

Conditions under which allowed:

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

Best Management Practices (BMPs) to be implemented:

a) Must be dechlorinated to a level of 0.019 mg/L or less and reoxygenated using aeration and/or other appropriate means including infiltration into the ground.
b) For single discharges greater than 325,850 gallons and/or any discharge of superchlorinated water, monitoring must be implemented consistent with the provisions of the Statewide General NPDES Pelmit for Drinking Water System Discharges, Order WQ 2014-0194-DWQ, Attachment E - Monitoring and Reporting Program. Levels shall not exceed receiving water limitations for turbidity and action must be taken when the turbidity level is greater than 100 Nephelometric Turbidity Units NTU untils.
c) Sediment and solids removed from discharge through settling or filtration.
d) 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.
e) Control flow rate of discharge to minimize erosion potential.
f) BMPs, such as sand bags, shall be utilized to prevent erosion and sediment transport.
g) All drinking water system discharges need to prevent riparian erosion and hydromodification with flow dissipation and erosion control and minimize sediment discharges.
h) All sediment removed from discharge shall be collected and disposed of in a timely, legal and appropriate manner.

9. Utility vault dewatering.

Conditions under which allowed:

- Only allowed for municipally owned and operated vaults when the following criteria are met and BMPs are implemented.
- All private utility vault dewatering requires separate coverage under Order No. 2006-0008-DWQ, or as updated.
- All feasible alternatives to discharge of non-storm water flow have been considered, including discharging to sewer, and are not possible.
- Evaluate vault water using the attached decision tree, or equivalent, to determine whether discharge to storm drain is allowed.

Best Management Practices (BMPs) to be implemented:

a) Sediment and solids removed from discharge through settling or filtration.

b) 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.
c) Control flow rate of discharge to minimize erosion potential.
d) BMPs, such as sand bags, shall be utilized to prevent erosion and sediment transport.
e) All sediment removed from discharge shall be collected and disposed of in a timely, legal and appropriate manner.

10. Gravity flow from foundation, footing and crawl space drains.

Conditions under which allowed:

- All feasible alternatives to discharge of non-storm water flow have been considered and are not possible.
- 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.

Best Management Practices (BMPs) to be implemented:

a) Sediment and solids removed from discharge through settling or filtration.
b) 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.
c) BMPs, such as sand bags, shall be utilized to prevent erosion and sediment transport.
d) All sediment removed from discharge shall be collected and disposed of in a timely, legal and appropriate manner.
e) No sources of contamination, as mapped on the State Regional Water Quality Control Board's Geotracker website (http://geotracker.swrcb.ca.gov), within 100 foot radius of the diversion site.

11. Air conditioning condensate.

Discharge is prohibited.

12. Water from crawl space pumps.

Conditions under which allowed:

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

Best Management Practices (BMPs) to be implemented:

a) Sediment and solids removed from discharge through settling or filtration.
b) 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.
c) BMPs, such as sand bags, shall be utilized to prevent erosion and sediment transport.
d) All sediment removed from discharge shall be collected and disposed of in a timely, legal and appropriate manner.
e) No sources of contamination, as mapped on the State Regional Water Quality Control Board's Geotracker website (http://geotracker.swrcb.ca.gov), within 100 foot radius of the diversion site.

13. Landscape irrigation runoff in the urban setting.

Conditions under which allowed:

- All feasible alternatives to discharge of non-storm water flow have been considered and are not possible.
- Reclaimed water irrigation sites must have appropriate permits from the State or Regional Water Boards, as well as the City of Santa Rosa.

Best Management Practices (BMPs) to be implemented:

a) All landscape irrigation, whether potable or recycled, must comply with the City's Water Waste Ordinance, which prohibits runoff and breaks or leaks in the delivery system.
b) All new landscape installations, whether potable or recycled, must comply with the City's Water Efficient Landscape Ordinance which has landscape planting and irrigation criteria that is designed to maximize water use efficiency and retention of irrigation water on the landscape site and minimize water waste.
c) All recycled water will be handled as prescribed in the City's "Recycled Water User's Guide" and all subsequent revisions and clarifications.
d) All recycled water sites must have a permit issued by the City of Santa Rosa and must designate a Site Supervisor, which will be trained by the City of Santa Rosa and will act as the liaison with the City to ensure all recycled water requirements are met.
e) All sites are evaluated prior to connection to ensure suitability for recycled water use. Individual valves and/or sprinkler heads may be capped or shut off as appropriate. Customers are encouraged to "brown out" portions of the landscape or convert to low water use plantings.
f) All sites using recycled water are inspected at a minimum of quarterly by City staff to ensure proper operation and to check for issues.
g) All inspections are electronically logged and tracked.

h) If any minor issues identified that result in incidental runoff only, the customer is notified of the issue and instructed to resolve it. They must notify the City that the issue has been resolved.
i) If any major issues are identified during an inspection the system is shut down by the City, and the customer is educated and the issue is corrected prior to reestablishing service.
j) Notifications to CalEMA and the Regional Board are made if the discharge reached the storm drain system or a waterway and triggered the quantity trigger.

14. Reclaimed agricultural irrigation runoff in the rural setting.

Conditions under which allowed:

- All feasible alternatives to discharge of non-storm water flow have been considered and are not possible.
- Reclaimed water irrigation sites must have appropriate permits from the State or Regional Water Boards, as well as the City of Santa Rosa.

Best Management Practices (BMPs) to be implemented:

a) All rural recycled water sites must have enter into a Recycled Water User's Agreement with the City of Santa Rosa and must designate a Site Supervisor, which will be trained by the City of Santa Rosa and will act as the liaison with the City to ensure all recycled water requirements are met.
b) All Water User's Agreements issued by the City list minimum Best Management Practices that must be followed to protect water quality.
c) All new rural recycled water accounts are conditioned to be compliant with the City's "Recycled Water User's Guide" and all subsequent revisions and clarifications.
d) All sites are evaluated prior to connection to ensure suitability for recycled water use. Based on site evaluation, irrigation areas may be modified to ensure suitability for recycled water use.
e) All sites using recycled water are inspected at a minimum of quarterly by City staff to ensure proper operation and to check for issues.
f) All inspections are electronically logged and tracked.
g) If issues are identified during an inspection the system is shut down by the City, the customer is educated and the issue is corrected prior to reestablishing service.
h) If ponding occurs a ponding report is completed.
i) Notifications to CalEMA and the Regional Board are made if the discharge reaches a waterway, storm drain system, and exceeds 50,000 gallons and is handled like a spill.

15. Dechlorinated/ debrominated swimming pool discharges.

Discharge is prohibited.

16. Non-commercial car washing by residents of private vehicles.

Conditions under which allowed:

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

Best Management Practices (BMPs) to be implemented:

a) Preferred area is at a commercial carwash or in an area where wash water infiltrates, such as vegetated areas.
b) Pumps, vacuums or physical routing BMPs may be used to direct water to the sewer, landscape, or to areas for infiltration or re-use.
c) Practices that minimize runoff, such as using a bucket and sponge, should be implemented.

17. **Pooled storm water from treatment BMPs that are intentionally discharged to the storm drain system as part of maintenance activities.**

Discharge is prohibited.

18. Municipal water tank maintenance.

Conditions under which allowed:

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

Best Management Practices (BMPs) to be implemented:

a) A plan of action, duties, responsible persons, timelines, materials, equipment and contingency plans must all be made well in advance of the isolation and be discussed with all parties involved.
    i. Make prior arrangements with RWQCB regulatory staff to discuss discharge plan.
b) Dechlorination of flushing discharge water will be done regardless of location. Dechlorination equipment depending on the application can include some of the following items:
    i. LPD-Chlor Tablets
    ii. Vita-D-Chlor™ (Ascorbic Acid - Vitamin C chemistry)
    iii. Hach Pocket Colorimeter to measure residual chlorine concentration.
c) Water that has been hyperchlorinated shall not be discharged to the storm drain system, even after dechlorination.
d) Any individual discharges greater than 325,850 gallons will include monitoring consistent with the provisions of the Statewide General NPDES Permit for Drinking Water System Discharges, Order WQ 2014-0194-DWQ, Attachment E - Monitoring and Reporting Program.

e) Inspect and clear all storm drains and drainage channels for possible blockages.
f) Inspect for possible erosion and sediment issues.
g) Inspect possible sources of contamination in storm drains, drainage channels, i.e., oil cans, hazardous waste, garbage etc.
h) Prior to each discharge, you must evaluate the impacts and minimize them to the highest degree possible with a drainage plan to include the following:
    i. Reason for the discharge
    ii. Location of the reservoir site
    iii. Site map
    iv. Water Quality data from SCWA
    v. Anticipated discharge
    vi. Flow and quantity
    vii. Prepare answers for any public concerns that may arise
    viii. Notify Santa Rosa Water Department Storm Water Division
i) Any remaining water must be dechlorinated to a level less than 0.019 mg/L and removed from the reservoir.
j) Once the drainage path is clear, follow packaging instructions for dechlorinating reagent dosing rates to achieve a level less than 0.019 mg/L.
k) Ascorbic Acid, a natural material, (Vitamin c) is relatively safe and preferred over other reagents.
l) Care must be taken when using Sodium Thiosulphate due to its oxygen depleting properties when over applied.
    i. After distributing the reagent through roof hatch and vents,
    ii. Monitor chlorine residual levels. A pocket colorimeter (Hach Company) may be used to measure residual chlorine concentration in the water.
m) In conjunction with adding the reagent to the interior of the reservoir, a perforated container of ascorbic acid tablets is placed in the flow leaving the reservoir as additional precaution.
n) Ponding can be used to aid in detention time, as well as distributing dechlorinating reagent by hand.
o) Once there is a non-detectable residual, slowly begin to discharge.
p) Inspect effluent flow and adjust accordingly.
q) Occasionally re-sample effluent to ensure the absence of chlorine.
r) If necessary, use hay bales to aid with flow, erosion and sediment issues

19. Surface Cleaning of Sidewalks and Plazas.

Conditions under which allowed:

- All feasible alternatives to discharge of non-storm water flow have been considered, including discharging to landscape or sewer in accordance with City Code, and are not possible.
- No soap or cleaning agent is used.

- Only small amounts of oil are present on the area being cleaned.

Best Management Practices (BMPs) to be implemented:

a) Sweep, collect and dispose of debris.
b) Clean all oil spots, if present, with water free methods prior to powerwashing.
c) Dispose of all absorbent material, if used, in the trash.
d) Place oil-absorbent boom around storm drain inlet during powerwashing if oil spots were present.
e) Protect the storm drain inlet with filter material to remove pollutants.

20. Surface Cleaning of Building Exteriors and Walls.

Conditions under which allowed:

- All feasible alternatives to discharge of non-storm water flow have been considered, including discharging to landscape or sewer in accordance with City Code, and are not possible.
- No soap or cleaning agent is used.
- The building is unpainted glass or steel construction.
- The building is known to be painted with lead free paint.

Best Management Practices (BMPs) to be implemented:

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

21. Cleaning of Grocery Carts.

Conditions under which allowed:

- All feasible alternatives to discharge of non-storm water flow have been considered, including discharging to landscape or sewer in accordance with City Code, and are not possible.
- No soap or cleaning agent is used.
- No oil or grease will be discharged.
- Only cold water is used.

Best Management Practices (BMPs) to be implemented:

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

This Santa Rosa Non-Storm Water Discharge Best Management Practice (BMP) Plan is intended to be consistent with the Basin Plan Amendment. Any revisions to the Basin Plan Amendment prior to adoption will result in the subsequent revision of this BMP Plan. 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.