

Municipal Separate Storm Sewer (MS4) Annual Report

MS4 Permittee Name/Organization:

MIDDLETON , CITY OF (MS4)

Enter the name of co-permittee submitting report (if applicable):

NPDES Permit Number:

Indicate Annual Report Number & Reporting Period:

- ☐ **Year 1 Reporting Period:** Oct. 1, 2019 – **Sept. 30, 2020** – **Annual Report Due Date:** Dec. 1, 2020
- ☐ **Year 2 Reporting Period:** Oct. 1, 2020 – **Sept. 30, 2021** – **Annual Report Due Date:** Dec. 1, 2021
- ☒ **Year 3 Reporting Period:** Oct. 1, 2021 – **Sept. 30, 2022** – **Annual Report Due Date:** Dec. 1, 2022
- ☐ **Year 4 Reporting Period:** Oct. 1, 2022 - **Sept. 30, 2023** – **Annual Report Due Date:** Dec. 1, 2023
- ☐ **Year 5 Reporting Period:** Oct. 1, 2023 - **Sept. 30, 2024** – **Annual Report Due Date:** Sept. 30, 2024
- ☐ Other

Section I General Information

MS4 Facility Contact Name:

MIDDLETON , CITY OF (

MS4 Contact Telephone:

(208) 585-3133

MS4 Contact Email Address:

jvangilder@middletoncity

MS4 Facility Contact Type:

☐ Owner ☐ Operator ☒ Main Contact

MS4 Facility Site (physical) Address:

1109 WEST MAIN STREET

MS4 Facility Site City, State, Zip Code:

MIDDLETON, ID, 83644

MS4 Facility Mailing Address:

, , ,

List All Receiving Water(s) for the MS4 Discharges:

Willow Creek, Mill Slough, and Boise River

Section II. Permittee Responsibility:**1. This Permittee organization shares implementation responsibility for Permit compliance with one or more Permittees.**

☐ Yes ☒ No ☐ Not Applicable

Is the agreement between the Permittees described/cited in the Stormwater Management Program (SWMP) Document?

☐ Yes ☐ No ☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

2. This Permittee organization shares implementation responsibility for Permit compliance with one or more outside (non-Permittee) entities.

☐ Yes ☐ No ☒ Not Applicable

Is the agreement with these other entity(ies) described/cited in the SWMP Document?

☐ Yes ☐ No ☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

3. **This Permittee organization maintains relevant ordinances or other regulatory mechanisms to control pollutant discharges into and from the MS4 to meet the requirements of this GP.**

☒ Yes ☐ No ☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

4. **This Permittee organization's SWMP Document is posted on a publicly accessible website.**

☒ Yes ☐ No ☐ Not Applicable

Identify the URL for the webpage where the SWMP Document can be accessed:

[http:// https://middleton.id.gov/Portals/0/Departments/Stormwater%20Management%20Program%20Year%201%202020-2021%20MS4%20IDS028100.pdf](http://https://middleton.id.gov/Portals/0/Departments/Stormwater%20Management%20Program%20Year%201%202020-2021%20MS4%20IDS028100.pdf)

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

5. *(Year 3 Annual Report only):* **This Permittee organization's SWMP Document been updated to describe the implementation of the selected Monitoring/Assessment and/or Pollutant Reduction activities cited in Permit Part 4.**

☐ Yes

Identify the URL for the webpage where the SWMP Document can be accessed:

<http://>

☐ No

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

6. **This Permittee organization regularly tracks certain activities to set priorities and assess compliance with the Permit requirements.**

☒ Yes ☐ No ☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

7. **During the reporting period, responsibility for SMWP implementation has changed due to a Transfer of Ownership or Operational Authority over a geographic portion of the MS4. This Permittee's SWMP Document has been updated to reflect these changes in responsibility for any new or transferred areas served by the MS4.**

☐ Yes ☐ No ☒ Not Applicable

This Permittee's SWMP Document has been updated to reflect these changes in responsibility for any new or transferred areas served by the MS4.

☐ Yes ☐ No ☐ Not Applicable

Please provide a brief statement summarizing the change in ownership or operational authority.

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

Section II Comments

Section III. Status of SWMP Control Measures

8. **This Permittee organization conducts an education, outreach, and public involvement program based on stormwater issues of significance in the Permittee's jurisdiction.**

☒ Yes, this organization conducts the education, outreach, and involvement activities required by the Permit

☐ Yes, this organization works through contract with other entities to conduct the education, outreach, and involvement activities required by the Permit

Please cite any relevant information and/or statistics that helps illustrate the implementation of the organization's education outreach and/or public involvement program.

Please cite any relevant information and/or statistics that helps illustrate the implementation of the organization's education outreach and/or public involvement program.

☐ No

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

9. **Target Audience: During the reporting period, this Permittee organization focused its education, outreach, and public involvement messages to the following audience(s):**

- ☒ **General Public** (including homeowners, homeowner's associations, landscapers, and property managers)
- ☐ **Business/Industrial/Commercial/Institutions** (including home based and mobile businesses)
- ☐ **Construction/Development** (e.g., Engineers, Contractors, Developers, Landscape Architects, Site Design Professionals)
- ☐ **Elected Officials, Land Use Policy and Planning Staff**
- ☐ Other

Please describe in the space provided:

10. **Topics: During the reporting period, this Permittee organization focused its education, outreach, and public involvement messages on the following topics (select all that apply):**

- ☒ General impacts of stormwater flows into surface water, and appropriate actions to prevent adverse impacts;
- ☐ Impacts from impervious surfaces, techniques to avoid adverse impacts;
- ☐ Yard care techniques protective of water quality, such as composting;
- ☐ Proper use, application & storage of pesticides, herbicides, and fertilizers;
- ☐ Litter & trash control and recycling programs;
- ☐ BMPs for power washing, carpet cleaning, auto repair & maintenance;
- ☐ Low Impact Development/green infrastructure techniques, including site design, pervious paving, retention of mature trees/vegetation, landscaping and vegetative buffers;
- ☐ Maintenance of landscape features providing water quality benefits;
- ☐ Stormwater treatment and volume control practices;
- ☐ Technical standards for stormwater site plans; including appropriate selection, installation, and use of required construction site control measures
- ☐ Source control BMPs and environmental stewardship;
- ☐ Impacts of illicit discharges and how to report them;
- ☐ Actions and opportunities for pet waste control/disposal,
- ☐ Water wise landscaping, water conservation, water efficiency
- ☐ BMPs for use and storage of automotive chemicals, hazardous cleaning supplies, vehicle wash soaps and other hazardous materials;

11. **During the reporting period, this Permittee organization began and/or continued distribution of the selected messages/activities to the intended target audience.**

☒ Yes

Please summarize the message/activity conducted during the reporting period below: Information was included in utility billings,

posted on public notice boards, and available on the City's website. City staff also reached out to HOA representatives.

☐ No

Note: Permittee is required to conduct at least eight (8) educational messages or activities by the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

12. **During this reporting period, this Permittee organization assessed, or participated in efforts to assess, the understanding and adoption of intended behaviors by the target audience.**

☐ Yes

Please summarize efforts to assess the selected education, outreach and public involvement activities conducted during the reporting period. If information is available, describe how this information is used to improve education/outreach efforts.

☒ No

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

13. **During this reporting period, this Permittee organization offered (or worked with others to offer) training/education regarding construction site runoff control measures to site operators working in the Permittee's jurisdiction.**

☒ Yes

☐ No

Note: Permittee is required to offer outreach/training on construction site control measures at least twice during the permit term no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

14. **During this reporting period, this Permittee organization offered (or worked with others to offer) training/education regarding permanent stormwater controls to audiences working in the Permittee's jurisdiction.**

☒ Yes

☐ No

Note: Permittee is required to offer outreach/training on permanent controls at least during the permit term no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

15. **This Permittee organization maintains and promotes a publicly-accessible website that provides current SWMP-related information cited in Permit Part 3.1.8. This website was recently updated prior to submitting this Report.**

☒ Yes

URL for the Permittee's webpage

:

https://middleton.id.gov/Departments/Public-Works#collapse2_2

☐ No

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

Comments on Public Education, Outreach, and Involvement Program: *Use this Comments field to explain or discuss unique implementation schedules, summarize nature of the education, outreach, and public involvement activities conducted during the reporting period.*

Illicit Discharge Detection and Elimination Program (Permit Part 3.2)

16. **To the extent allowable pursuant to authority granted under Idaho law, this Permittee organization conducts and enforces a program to detect and eliminate illicit discharges into the MS4.**

☒ Yes

☐ No

Note: Permittee is required to revise and update existing programs as necessary to comply with the Permit no later than the

date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

17. **This Permittee organization maintains a current MS4 Map and Outfall Inventory as described in the Permit.**

☒ Yes

☐ No

Note: Permittee is required to update their Map(s) and Inventory no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

18. **To the extent allowable pursuant to authority granted under Idaho law, this Permittee organization prohibits non-storm water discharges into the MS4 (*except those identified in the Permit*) through an ordinance or other regulatory mechanism.**

☒ Yes

if yes, please provide citation/web address to the ordinance/regulatory mechanism:

<https://codelibrary.amlegal.com/codes/middletonid/latest/overview>

☐ No

Note: Permittee is required to revise and update their existing programs as necessary no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

19. **This Permittee organization maintains a dedicated telephone number, email address, and/or other means for the public to report illicit discharges.**

☐ Yes

if yes, please provide phone number/web address:

☒ No

Note: Permittee is required to revise and update their existing programs as necessary no later than the date specified in the

Permit.

☒ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met. Reporting can, and is, being reported through the City's standard processes used to report issues with any City Utility. Please explain why this Permit Requirement does not apply.

20. **This Permittee organization responds and investigates illicit discharge complaints or reports within two working days.**

☒ Yes

☐ No

Note: Permittee is required to revise and update their existing programs as necessary no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

21. **Number of Public Complaints/Reports Received During this Reporting Period: 13**

22. **Number of Illicit Discharge Complaints/Reports Investigated through field visits,sampling or other follow-up action 13**

23. **Number of Illicit Discharge Complaints/Reports Resolved: 10**

24. **This Permittee organization conducts a dry weather analytical and field screening monitoring program to identify non-stormwater flows from MS4 outfalls.**

☒ Yes

☐ No

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

25. **During the reporting period, this Permittee organization used its written protocols to prioritize and identify MS4 outfalls for dry weather discharge investigation.**

☒ Yes

☐ No

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

26. **Total Number of MS4 Outfalls in the Permittee's jurisdiction of the Permit Area:** 86

27. **During the reporting period, this Permittee organization completed visual dryweather screening on at least 50 MS4 outfalls.**

☒ Yes

☐ No – Total # of outfalls screened in this jurisdiction was less than 50

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

28. **Of the outfalls screened during the reporting period:**

How many outfalls were discharging during dry weather? 14

How many of these identified dry weather discharges were sampled or otherwise investigated to determine the discharge source? 14

How many of the identified dry weather discharges resulted in the Permittee action to address and eliminate the discharge source? 0

29. **During this reporting period, how many of the Permittee's MS4 outfalls have been identified as having dry weather flows caused by irrigation return flow or ground water seepage?**

Number of outfalls identified this reporting period 14

Total number of MS4 outfalls identified to date, as having dry weather flows from irrigation or groundwater seepage 14

Note: Permittee is required to provide a complete list of MS4 outfall locations identified as having dry weather flows caused by irrigation return flow or ground water seepage as part of the Permit Renewal Application no later than the date specified in the Permit.

30. **This Permittee organization maintains written spill response procedures and coordinates appropriate spill prevention, containment and response activities with other organizations in the Permit Area to ensure maximum water quality protection at all times.**

☒ Yes

☐ No

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

31. **This Permittee organization coordinates with appropriate local entities to educate employees and the public of the proper management and disposal or recycling of used oil, vehicle fluids, toxic materials, and other household hazardous wastes.**

☐ Yes

☒ No

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

32. **This Permittee organization's staff responsible for investigating, identifying and eliminating illicit discharges, spills, and illicit connections into the MS4 are trained to conduct such activities**

☒ Yes

☐ No

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

Comments on Illicit Discharge Detection and Elimination Program:

Use this Comments field to explain any unique implementation schedules, highlight investigation results or follow-up actions, discuss subsequent enforcement actions, etc. that were conducted during the relevant reporting period.

Complaint logs are updated to reflect the current status of stormwater system complaints.

Construction Site Runoff Control Program

33. **This Permittee organization uses an ordinance or other regulatory mechanism to require erosion, sediment, and waste material management controls at construction project site activity that results in land disturbance of one**

(1) or more acres and discharges to the MS4.

- ☒ Yes
☐ No

Note: Permittee is required to update their construction site runoff control requirements no later than the date specified in the Permit.

- ☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

34. This Permittee organization requires construction site operators to submit construction site plans for projects disturbing one (1) or more acres for Permittee review.

- ☒ Yes
☐ No

Note: Permittee is required to update their construction site runoff control requirements no later than the date specified in the Permit.

- ☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

35. This Permittee organization inspects construction sites that disturb one (1) or more acres to ensure compliance with applicable requirements for erosion, sediment and waste material management controls.

- ☒ Yes
☐ No

Note: Permittee is required to update their construction site runoff control requirements no later than the date specified in the Permit.

- ☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

36. This Permittee organization inspects construction sites using an inspection prioritization system.

- ☐ Yes
☒ No

Note: Permittee is required to update their construction site runoff control requirements no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

37. **This Permittee organization implements a written escalating enforcement response policy or plan (ERP) for construction site runoff control.**

☐ Yes

☒ No

Note: Permittee is required to update their construction site runoff control requirements no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

38. **This Permittee organization ensures that all persons responsible for preconstruction site plan review, site inspections, and enforcement of construction site runoff control requirements are appropriately trained to conduct such activities - specifically, this organization provides orientation and training for new staff working on construction runoff control issues within the first six (6) months of employment.**

☐ Yes

☒ No

Note: Permittee is required to update their construction site runoff control requirements no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

Comments on Construction Site Runoff Control:

Use this Comments field to explain any unique implementation schedules, summarize the number of site inspections, follow-up

actions, and/or any subsequent enforcement actions, etc. that were conducted during the relevant reporting period.

Construction permit enforcement is primarily deferred to the IDEQ for compliance with the Construction General Permit.

Post Construction Stormwater Management in New Development & Redevelopment

39. **Through ordinance or other regulatory mechanism, this Permittee organization requires the installation and long-term maintenance of permanent stormwater controls at new development and redevelopment project sites that result from land disturbance greater than or equal to 1 acre and that discharges to the MS4. The required stormwater controls must be sufficient to retain onsite the runoff volume produced from a 24-hour 95th percentile storm event, and/or require runoff treatment sufficient to attain an equal or greater level of water quality benefit as this onsite retention standard.**

☒ Yes

Please cite to the ordinance containing the permanent stormwater control requirements: MCC 7-7-4 A.3;
https://codelibrary.amlegal.com/codes/middletonid/latest/middleton_id/0-0-0-2587

☐ No

Note: Permittee is required to update their permanent stormwater control requirements no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

40. **This Permittee organization requires permanent storm water controls through written specifications.**

☒ Yes

Please cite to the ordinance containing the permanent stormwater control requirements: MCC 7-7-4 A.3;
https://codelibrary.amlegal.com/codes/middletonid/latest/middleton_id/0-0-0-2587

☐ No

Note: Permittee is required to update their permanent stormwater control requirements no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be

met.

Please explain why this Permit Requirement does not apply.

41. **This Permittee organization requires preconstruction site plan review and approval for permanent storm water controls at new development and redevelopment sites that result in land disturbance of one or more acres and discharge to the MS4.**

☒ Yes

☐ No

Note: Permittee is required to update their permanent stormwater control requirements no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

42. **This Permittee organization has identified high priority locations in the jurisdiction where the Permittee regularly inspects the installation and long-term operation of permanent stormwater controls.**

☐ Yes

☒ No

Note: Permittee is required to update their permanent stormwater control requirements no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

43. **This Permittee organization has an enforcement strategy to ensure and maintain the functional integrity of permanent stormwater controls within this jurisdiction.**

☐ Yes

☒ No

Note: Permittee is required to update their permanent stormwater control requirements no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

44. **This Permittee organization uses a database inventory to track and manage the operational condition of permanent stormwater controls within this jurisdiction.**

☐ Yes

☒ No

Note: Permittee is required to update their permanent stormwater control requirements no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

45. **This Permittee organization requires enforceable and transferable O&M Agreements, where parties other than this Permittee organization are responsible for operation and maintenance of permanent storm water controls.**

☒ Yes

☐ No

Note: Permittee is required to update their permanent stormwater control requirements no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

46. **This Permittee organization ensures that all persons responsible for reviewing site plans for permanent stormwater controls and/or for inspecting the installation and operation of permanent controls are trained to conduct such activities.**

☒ Yes

☐ No

Note: Permittee is required to update their permanent stormwater control requirements no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

Comments on Post Construction Stormwater Management in New Development and Redevelopment

Use this Comments field as necessary to explain any unique implementation schedules, summarize inspections, actions, etc. that were conducted during the relevant reporting period.

Pollution Prevention/Good Housekeeping for MS4 Operations

47. **This Permittee organization inspects all MS4 catch basins and inlets in the jurisdiction at least once every five years and takes appropriate maintenance or cleaning action based on those inspections.**

☒ Yes

☐ No -Permittee uses an alternate inspection & maintenance schedule as outlined in the SWMP Document.

☐ No

Note: Permittee is required to update their requirements for pollution prevention/good housekeeping for MS4 Operations no later than the date specified in the Permit.

☐ Not Applicable

Please outline the alternate inspection and maintenance schedule.

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

Total Number of catch basins and inlets inspected this reporting period 54

48. **This Permittee organization operates and maintains Streets, Roads, Highways and/or Parking Lots in its jurisdiction in a manner that protects water quality and reduces the discharge of pollutants through the MS4.**

☒ Yes

☐ No

Note: Permittee is required to update their requirements for pollution prevention/good housekeeping for MS4 Operations no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

49. **This Permittee organization operates all street/road maintenance material storage locations in a manner that prevents pollutants in stormwater runoff from discharging to the MS4 or into any receiving waterbody. A description of each Material Storage Location is included in the SWMP Document, as required by Permit.**

☒ Yes

☐ No

Note: Permittee is required to update their requirements for pollution prevention/good housekeeping for MS4 Operations no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

50. **This Permittee organization sweeps all areas of the jurisdiction that discharge to the MS4 at least once annually. A description of the street sweeping program, as required by Permit, is included in the SWMP cument.**

☒ Yes

☐ No

Note: Permittee is required to update their requirements for pollution prevention/good housekeeping for MS4 Operations no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

51. **This Permittee organization has reviewed its operation and maintenance activities for the types of activities listed below and confirms that all such activities are conducted in a manner that protects water quality and reduces the discharge of pollutants through the MS4.** Municipal Activities to be addressed include: grounds/park and open space maintenance operations; fleet maintenance and vehicle washing operations; building maintenance; snow disposal site operation and maintenance; solid waste transfer activities; municipal golf course maintenance; materials storage; hazardous materials storage; used oil recycling; and spill control and prevention measures for municipal refueling facilities.

☐ Yes

☒ No

Note: Permittee is required to update their requirements for pollution prevention/good housekeeping for MS4 Operations no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

52. **This Permittee organization ensures appropriate practices to reduce the discharge of pollutants to the MS4 associated with the application, storage and disposal of pesticides, herbicides and fertilizers. All employees or contractors applying pesticides, etc. are instructed to follow all label requirements, including those regarding application methods, rates, number of applications allowed, and disposal of the pesticide/herbicide/fertilizer and rinsate.**

☒ Yes

☐ No

Note: Permittee is required to update their requirements for pollution prevention/good housekeeping for MS4 Operations no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

53. **This Permittee organization uses site specific Storm Water Pollution Prevention Plans for all Permittee-owned material storage facilities, heavy equipment storage areas, and maintenance yards located in the Permit Area.**

☐ Yes

☒ No

Note: Permittee is required to update their requirements for pollution prevention/good housekeeping for MS4 Operations no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

54. **This Permittee organization ensures that all persons responsible for municipal operations and maintenance activities are trained to conduct such activities.**

☐ Yes

☒ No

Note: Permittee is required to update their requirements for pollution prevention/good housekeeping for MS4 Operations no later than the date specified in the Permit.

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be met.

Please explain why this Permit Requirement does not apply.

Comments on Pollution Prevention/Good Housekeeping for MS4 Operations

Use this Comments field as necessary to explain any unique implementation schedules, summarize inspections, actions, etc. that were conducted during the relevant reporting period

Section IV. SPECIAL CONDITIONS FOR DISCHARGES TO IMPAIRED WATERS

Provide a current status report regarding the development of any required Monitoring/Assessment Plan and implementation of pollutant reduction activities as required by Permit.

55. Narrative Status Report:

Alternative Control Measure Plans were developed during this permit cycle.

Section V. Response To Excursions Above Idaho Water Quality Standards

56. During this or any prior reporting period, did the Permittee submit written notification to EPA and IDEQ regarding MS4 discharge that are causing or contributing to an excursion above the WQS as directed by the Permit?

☐ Yes

☒ No

☐ Not Applicable

57. During this or any prior reporting period, did the Permittee submit an Adaptive Management Report to EPA and IDEQ, as directed by the Permit?

☒ Yes

☐ No

☐ Not Applicable

Please explain why this Permit Requirement has not been met and outline the expected dates that the Requirement will be

met.

Please explain why this Permit Requirement does not apply.

58. **Provide a summary of the Permittee's efforts to date that address the MS4 discharges contributing to the original water quality excursion, including the results of any monitoring, assessment, or evaluation efforts conducted during the reporting period.**

N/A

59. **Please upload any documents that support this annual Report.**

List of Uploaded Documents	Size (MB)
No records to display	

☐ Certification: "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 gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

City of Middleton

Stormwater Alternative Control Measure Requests



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Date: September 29, 2022

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Introduction

The City of Middleton (the City) is authorized to discharge stormwater to water quality limited segments of Boise River, Mill Slough and Willow Creek under their MS4 NPDES Permit #IDS028100. Per Section 2.6.2 Actions to Address Discharges to Impaired Waters, the City is required to seek approval of three Alternative Control Measure (ACM). Under conditions established in the permit, the City requests approval of the following ACMs:

ACM1	Buried Pipeline Action Plan
ACM2	Swale Action Plan
ACM3	Stormwater Monitoring and Assessment (SMA) Plan

The first two ACMs are designed to reduce impairment pollutants (sediment, phosphorus and bacteria) from the impaired waters, Willow Creek and Mill Slough, which discharge to the Boise River. The SMA Plan will be designed to monitor and assess conditions in these waterbodies.

ACM1– Buried Pipeline Action Plan

There are many buried pipelines in older areas of Middleton that receive and convey stormwater. Many of these pipelines do not appear to have the capacity to convey the current flows and loads being discharged into them. Some of these pipelines also appear to need maintenance, and some may benefit from actions to improve water quality management.

Recently, Middleton initiated efforts to clear sediments and assess the conditions of the buried stormwater pipeline (ACM Attachment – Greenlinks/Middleton Place ditch and pipeline). The pipeline is located northwest area of the city center (ACM1 Attachment: Figure and Overview) and discharges to a ditch that drains to Mill Slough. Post-clearing photos (ACM1 Attachment: Photos A1 to A3) show one of the manholes, and remaining sediments and tree roots that still limit conveyance.

Action Plan

As part of ACM1, Middleton plans to continue efforts to clear a pipeline that has been investigated and partially cleared of sediment and other pollutants. Additionally, an Action Plan will be developed and implemented to reduce sediments, phosphorus and other pollutants that discharge from existing buried pipelines into Mill Slough, Willow Creek, and the Boise River.

The ACM1 Action Plan will include the following activities:

- Investigate and document sources of water discharged to sections of buried pipelines
- Assess buried pipelines using CCTV
- Develop strategies for reducing inflows and loads, clearing sediment, and improving functions (e.g, conveyance and water quality treatment) of pipelines
- Prioritize efforts on sections of pipeline that receive excessive sedimentation

- Prepare and distribute public information that can encourage citizens to take actions to reduce discharge of pollutant loads to the system
- Develop a long term plan to improve pipeline conveyance and treatment of pollutants
- Develop a sampling plan to quantify the loads of sediment, phosphorus and other pollutants that are removed and estimate reduction from other actions that reduce loads

Original required minimum SWMP control measure

Under Section 3.5 Pollution Prevention/Good Housekeeping for MS4 Operations “The Permittee must properly operate and maintain the MS4 and its facilities, using prudent pollution prevention and good housekeeping as required by this Part, to reduce the discharge of pollutants through the MS4”.

The permit control measure requires inspection and maintenance of “above ground” maintenance such as catch basins and inlets. Under ACM1, the city of Middleton intends to focus on existing below ground pipelines, and develop near and long terms plans for improved operation of this infrastructure. Because this older infrastructure will likely be much more difficult and costly to address, it requires long term planning and approval of a budget.

Public Notice or Engagement Process

Public information about these older stormwater pipelines will be developed and distributed to local residents. This information will explain problems, proposed measures that public can implement to reduce pollutant load, and request for their assistance. For example, citizen assistance could include a request to minimize tree plantings in the vicinity of utility lines and to ensure access to utility easements for maintenance and clearance of obstacles.

Schedule

The following is a schedule for enacting the ACM in its jurisdiction prior to the permit expiration date:

Permit Year 3 Actions

- Identify pipelines and source pollutants
- Develop near and long term strategies for improving conveyance and reducing loads
- Develop priority actions
- Develop budget for implementing near term actions

Permit Year 4 Actions

- Authorize budget
- Begin implementation near term action
- Implement public information actions

ACM2 – Stormwater Swale Action Plan

Standard designs for infiltrating swales are available and have been used by developers in the Middleton area (ACM2 Attachment - BMP Map). Some are problematic (e.g., slow draining), and likely have other performance problems and high operating costs (ACM2 Attachment – Swale Photos). Additionally, sometimes swales are installed and constructed improperly which prohibit their functionality. Common problems have included driveway extensions (reducing the swale length and capacity), adding rock (reducing the swale capacity), or filling in completely with soil and sod (eliminating the swale). The City has also noticed that some swales have been modified during home construction after approval or issuance of certificate of occupancy (i.e., homeowner has modified).

Action Plan

Middleton requests approval for development and implementation of an action plan to improve success of design, construction and operation of stormwater swales. Actions can included:

- Review design concepts and requirements for effective use (e.g., ACM2 Attachment – Example Swale Design)
- Identify subdivisions with swales (update ACM2 Attachment: Map), review the status of the swales, and determine if swale sections need rehabilitation
- Conduct facility testing if assessment is needed
- Identify existing non or low functioning swales and develop a long term plan to improve operations or remediate
- Develop educational information for builders, contractors, HOA's and residents
- Conduct informational meeting with builders, contractors, HOA's and residents
- Prepare pollutant reduction estimates resulting from actions
- Develop a formal procedure for post-construction and operational reviews, and requiring remediation of swales improperly modified

Original required minimum SWMP control measure

Section 3.4.3 Permanent Stormwater Controls Specifications states:

The Permittee must develop, or update as necessary, any written specifications to address proper design, installation, and maintenance of required permanent stormwater controls. A Permittee may adopt specifications created by another entity that complies with this Part.”

Standard designs for infiltrating swales are available and have been used for many years, but there are ongoing problems with design, construction and operations, including:

- Many contractors do not fully understand requirements for proper construction
- Many HOAs and home owners do not appear to understand how to maintain

Public Notice or Engagement Process

A public involvement program to inform contractors and area residents of negative impacts that currently occur and the measures needed to improve performance. This will include information send to the public in the City newsletter and a meeting with local contractors.

Public information about problems with swale maintenance will be developed and distributed to local residents. This information will explain problems, proposed measures that public can implement to

reduce pollutant load, and request for their assistance. Contractor information could include revised design and specifications, revised approval and review requirements. This information will be presented and discussed at a contractor meeting, and added to the Stormwater Management Plan.

Schedule

The following is a schedule for enacting the ACM in its jurisdiction prior to the permit expiration date:

Permit Year 3 Actions

- Identify problems and estimate impacts relative to costs and pollutant discharge
- Develop near and long term strategies for improving
- Develop priority actions
- Develop budget for implementing Action Plan

Permit Year 4 Actions

- Authorize budget
- Begin implementation of Action Plan
- Implement public information actions

ACM3 – Stormwater Monitoring and Assessment Plan

Middleton requests approval of the following SMA plan, designed to

1. Monitor water quality conditions in the Boise River, Willow Creek and Mill Slough
2. Stormwater sampling of selected stormwater outfalls
3. Assessing pollutant loading to the Boise River from Willow Creek and Mill Slough

1) Monitoring of Water Quality Limited Waterbodies

This MA plan includes many of the monitoring activities currently performed for Middleton's Reuse Pilot Study being conducted under a DEQ approved Work Plan and QAPP. The monitoring is summarized in ACM3 Attachment – PS Overview, and includes quarterly water quality sampling and continuous temperature monitoring of the Boise River, Willow Creek and Mill Slough.

2) Stormwater Sampling

One MS4 outfall to each of the water-quality limited tributaries to the Boise River (Willow Creek and Mill Slough) will be selected for wet weather sampling of stormwater discharges during wet weather periods.

- a) Locations: Possible locations are shown on ACM3 Attachment – Outfall Map. The outfalls will be selected after additional review and characterization including: drainage delineation, area, land uses and BMP type
- b) Sample Type: Discrete (grab) samples will be collected during wet weather periods (e.g. within 24 hours of rainfall)

- c) Parameters: Laboratory analyses will include sediment (TSS), phosphorus (TP) and bacteria (E Coli); field parameters will include temperature
- d) Frequency: Samples will be collected 3 times per year, with at least one sample collected during the September thru October period
- e) QA: A QAPP for the stormwater sampling will be prepared, and will identify all methods and protocols to be used in the wet weather sampling effort
- f) Reporting: All data collected for the PS monitoring and stormwater sampling will be submitted to DEQ and EPA with the Stormwater Annual Report

3) Assessing Pollutant Loading

Available land use mapping for the city will be used to categorize and quantify current land uses (e.g., agricultural, dispersed residential, suburban and urban). Stormwater loading from these land uses will be estimated using rainfall data, land use characteristics, and literature and information on pollutant loading. This load estimating approach is similar to that used in the Lower Boise River Total Phosphorus TMDL (DEQ 2015). Pollutant load reductions will be estimated based on changes in land use, and the stormwater BMPs applied.

Attachments

(Available as separate documents)

ACM1 Attachment – for Buried Pipeline Action Plan

ACM2 Attachment – for Swale Action Plan

ACM3 Attachment – for Stormwater Monitoring and Assessment Plan

ACM1 Attachment – for Buried Pipeline Action Plan



Figure showing Greenlinks/Middleton Place ditch and pipeline alignment

Overview of Greenlinks/Middleton Place ditch and pipeline

- Location 1. An irrigation head gate provides water for the Greenlinks subdivision irrigation system. From this head gate water runs into a pond in the Greenlinks subdivision.
- Location 2. The excess water not used for irrigation in Greenlinks goes over an overflow and runs into the drain that leads to the Middleton Place subdivision.
- Location 3. The drain collects water from three different sources. The pond in the Greenlinks subdivision, ground water and an artesian well. From observation the drain runs year round. During the summer the drain carries a good deal of water that runs into the pipe under the Middleton Place subdivision. During the winter the drain still runs water from the artesian well and ground water. The drain flows to the east edge of the park where it enters a 30" reinforced concrete pipe.
- Location 4. From here it runs under the park and into the park parking lot. Here the storm drain inlets from the parking lot run into an O&S box and into the 30" line at MH 1. The 30" line then runs to MH 2.
- Location 5. Between manhole 2 and manhole 3 is where pipeline has been working at cleaning the line.
- Location 6. Manhole 5 is located in the backyard of 706 2nd St. Here the line turns and runs to the irrigation stand pipe.
- Location 7. When the water reaches the stand pipe it backs up in the line to allow a pump in the line to pump water into the stand pipe. There is an over flow for excess water here.
- Location 8. The excess water runs under N Middleton Rd and into drain along SH 44 headed to Mill Slough.

Photo A1 Manhole showing inflow/outflow connections



Photo A2 – Gravel in pipeline after cleaning

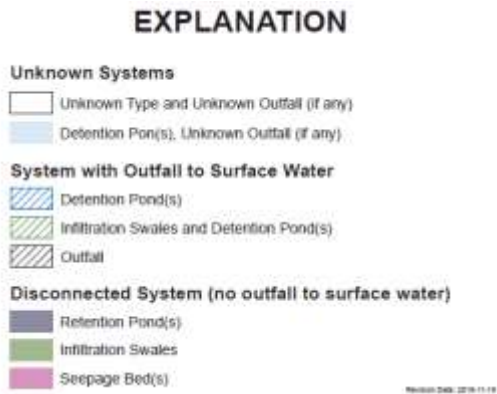


Photo A3 – Roots in pipeline after cleaning

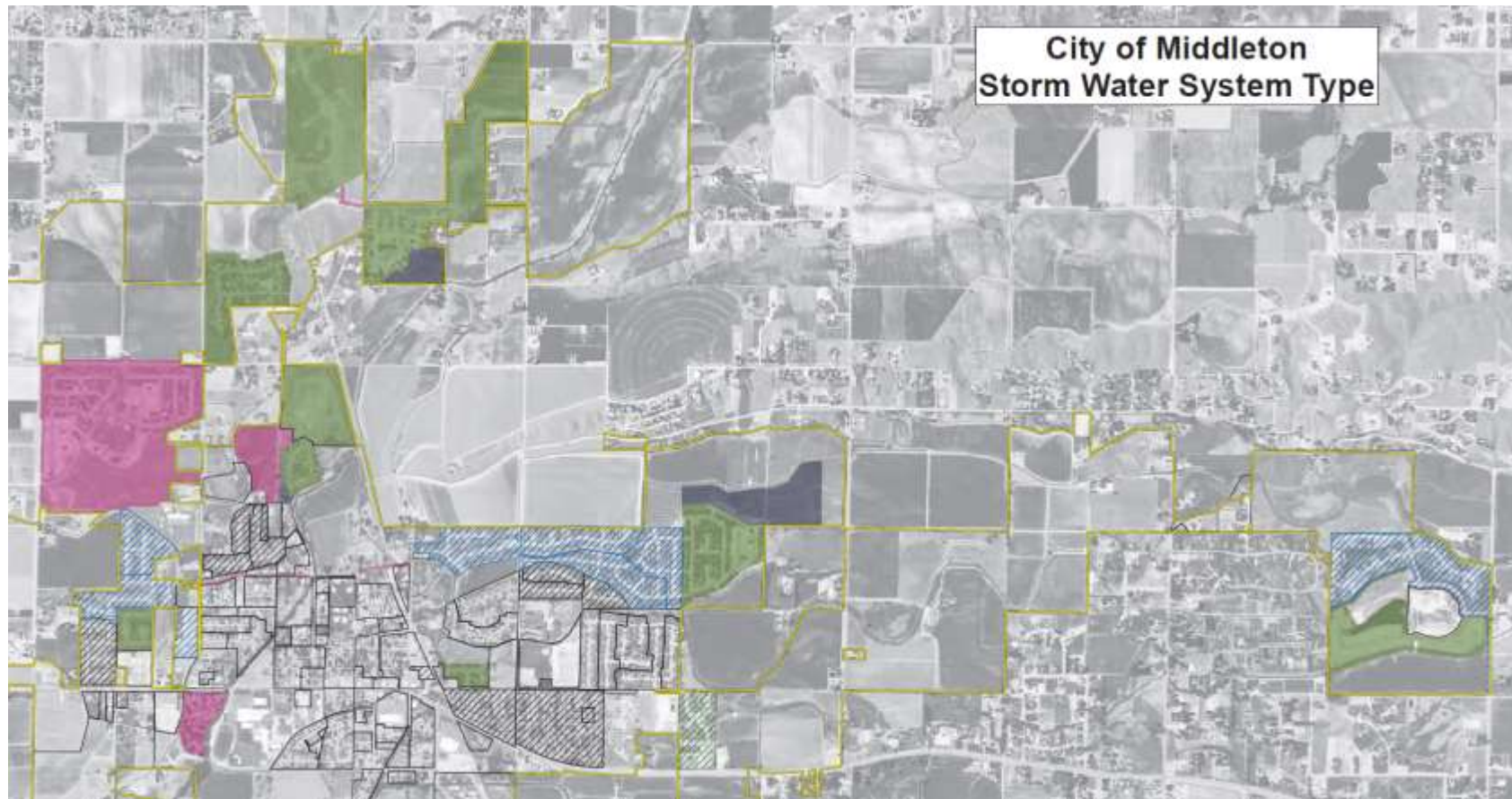


ACM2 Attachments – for Swale Action Plan

ACM Attachment – BMP Map Explanation



ACM Attachment – BMP Map



ACM2 Attachment – Swale Photos



Photo 1 - recent (Aug 2022) finished swale showing sand strip that allows water to infiltrate



Photo 2 - This older photo (circa 2014) from Powder River 2 subdivision showing construction photo of the swale just before acceptance; Example where sand strip is missing or is covered by soil, which likely lowers rate of water infiltration

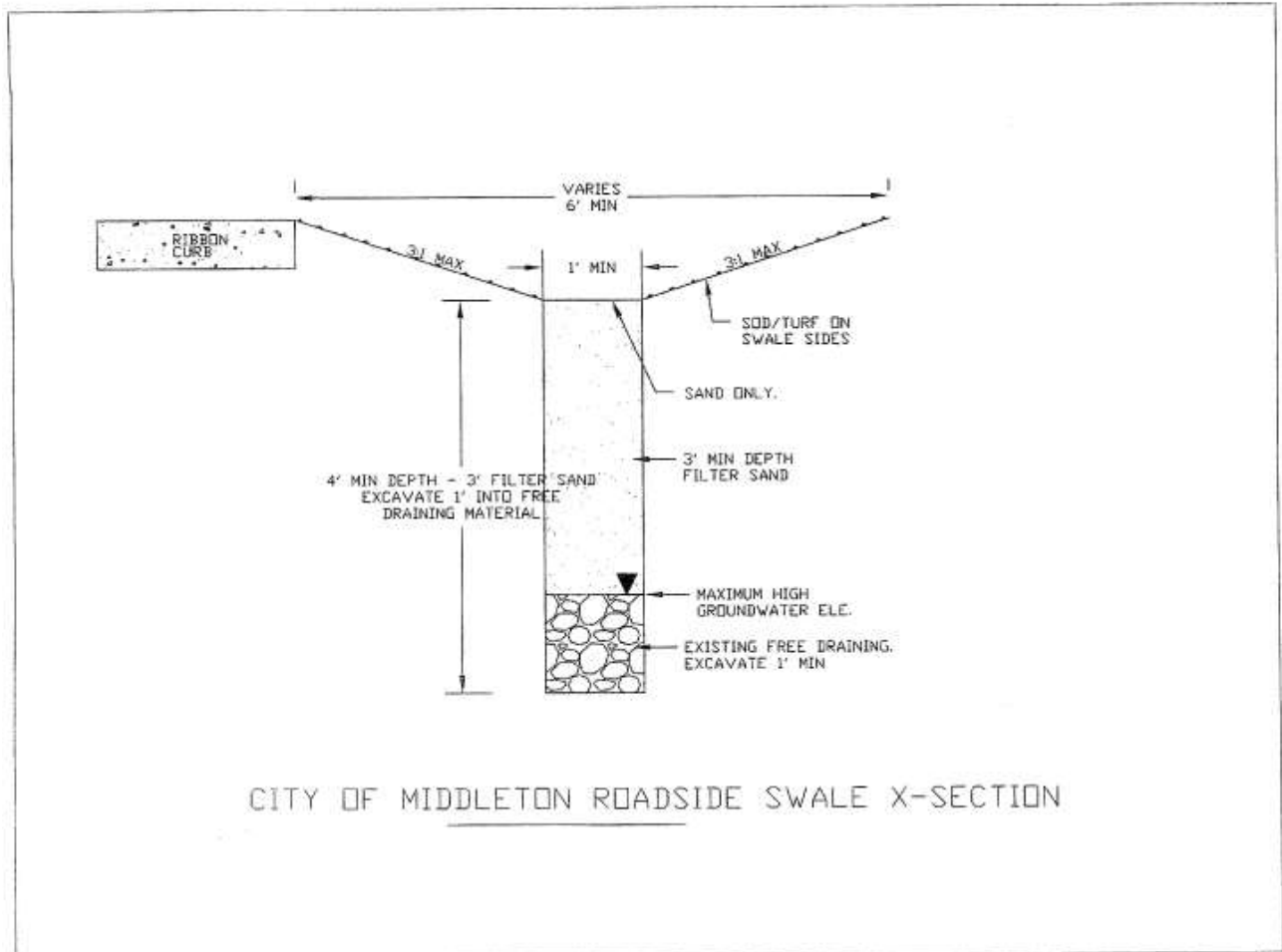


Photo 3 - Swale in Condor in Falcon Valley 2 constructed in ~2010; post occupancy and with ongoing maintenance swale appears to functioning; example showing of older BMP without sand strip; infiltration rate may be reduced



Photo 4 - Bard Street residence constructed around 2020; example of home with no swale showing the “disconnect” between stormwater design/building permit phases and final construction.

ACM2 – Attachment – Example of more recent swale design



ACM3 Attachments – for SMA Plan

ACM3 Attachment – Pilot Study Sampling Overview

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Water samples are collected from reclaimed water, supplemental irrigation water, surface water and groundwater at monitoring locations shown in (Figure A). Water level and temperature data are also collected at many of these locations.

Wastewater Monitoring Locations

Wastewater (aka, reclaimed water and recycled water) monitoring data are collected various locations:

- Water Quality: wastewater quality samples are collected downstream of the UV process unit.
- Temperature Data: Temperature data has been collected below the UV process unit was used for the reclaimed water. In the future, continuously temperature monitoring of reclaimed and supplemental water will be collected at a pump station where two separate pump sumps allow samples to be collected from each water source (recycle and supplemental).
- Flow: continuous flow data are collected at a pump station prior to application on reuse site.

Supplemental Water Monitoring Location

Mill Slough water is used for all supplemental irrigation. The monitoring data are collected various locations:

- Water Quality: collected at Mill Slough downstream location (MS-DS) which is the same for water quality sampling discussed below.
- Temperature Data: continuously temperature monitoring data of supplemental water will be collected at a pump station where two separate pump sumps allow samples to be collected from each water source (recycle and supplemental).
- Flow: continuous flow data are collected at the pump station prior to application on reuse site.

Surface Water Monitoring Locations

Surface water quality samples are collected from 4 locations (Figure A):

- BR-UP – Boise River: water quality upstream of Mill Slough on north bank
- MS-UP – Mill Slough upstream of City property boundary (near Paradise Street)
- MS-DS – Mill Slough downstream of Rubicon gate
- WC – Willow Creek at WWTF bridge

Surface water flows are measured at the following locations:

- BR-UP – Boise River: flow at Middleton Bridge (measured by Idaho Power);
- MS-UP – two locations (measured by USGS) at Mill Slough (aka North Middleton Drain) upstream of Hwy 44 and Lawrence Kennedy Ditch (aka South Middleton Drain) downstream of Middleton road; flows would be added to estimate total daily Mill Slough flow .
- MS-DS – Mill Slough at the Rubicon gate recorded during sampling events and when gate is adjusted
- WC – Willow Creek at WWTF bridge recorded during sampling events



Figure A Monitoring locations for Pilot Study (need to revise)

Surface water temperature data are collected at the following 4 locations (Figure A):

- BR-UP – Boise River: upstream of Mill Slough on north bank
- MS-UP – Mill Slough upstream of City property boundary (near Paradise Street)
- MS-DS – Mill Slough downstream of Rubicon gate
- WC – Willow Creek at WWTF bridge

Surface water level data are collected at 5 locations (Figure A):

- MS-UP – Mill Slough upstream of City property boundary (near Paradise Street)
- MS-DS – Mill Slough upstream of the Rubicon gate
- MS-DS – Mill Slough downstream of the Rubicon gate
- WC – Willow Creek at WWTF bridge
- CCWC – Canyon County Ditch

Groundwater Monitoring Locations

Groundwater monitoring (including water quality sample collection, and temperature and water level monitoring) occurs at four monitoring well locations and two piezometer locations (Figure A) as described below:

- MW-1 – Downstream of the Operational Zone (OZ) 5; near the end of the field and north of Mill Slough
- MW-2 – Upstream of OZ 5; near the supplemental irrigation ditch and power lines
- MW-3 – Downstream of city farm property; north of the Mill Slough, north of double culverts
- MW-4 – Upstream of the City's property; located along the north property line near the center of the property
- PZ-PS – Located east of pilot study pump station; originally used as large diameter dewatering well

PZ-BR – Near Boise River upstream of Mill Slough on north bank; installed with backhoe in shallow gravels; considered close approximation of Boise River water level due to close hydraulic connection

Constituents and Frequency

Water quality constituents and sampling frequency vary by type of source, purpose, risk and need (Table A). The constituents planned for monitoring were selected to allow annual phosphorus and thermal loading analyses, the primary focus of the study, and to establish and track environmental conditions around the study site.

Table A Constituents and Sampling Frequency

Type	#	Elev.	Temp	Flows	TP	DOP	NO3	NH3	TN/ TKN	TSS	TDS	Other
Water												
Reclaimed	1	--	C	C	W	M	M	M	M	M	M	
Irrigation	1	--	C	C	M	M	M	M	M	M	M	
Surface	4	M	C	C	Q	Q	Q	Q	--	Q	--	EC, pH
Groundwater	4	M	C	--	Q	--	Q	Q	--	--	Q	EC, pH
Replicate	1			--	Q	--	Q	Q	--	Q	Q	EC, pH

Notes: W= weekly, M = monthly (when applying), C = continuous, Q = quarterly

Additionally, soil samples are collected bi-annual (in spring and fall), and crop tissue samples and crop weights will be collected after each harvest. (See QAPP for more definitive list including soils and crop tissue)

ACM3 Attachment - Map of selected outfalls

