

Sandy City

E. Coli TMDL Compliance Plan

The Jordan Valley Municipalities Permit (Permit) was updated on August 16, 2023, to include Jordan River E. coli TMDL requirements. This TMDL Compliance Plan addresses the pollutant reduction requirements of the TMDL for Sandy City. This plan supplements and builds on the six Minimum Control Measures (MCMs) identified in Part 4.2 of the Permit. It is organized based on the new requirements in Part 3.2 of the Permit. Existing MCM Best Management Practices (BMPs) that will be updated and new MCM BMPs that will be added, are identified herein and are incorporated into the Sandy City Storm Water Management Plan (SWMP).

1. PUBLIC EDUCATION AND OUTREACH

a. Requirements

MS4 Permit Part 3.2.2.1: Identify potential sources of E. coli in the MS4 and target specific audiences that may be contributing to the E. coli sources. Provide and document education and outreach given to the target audiences on the impacts to water quality associated with these types of discharges and BMPs that can be implemented to reduce the discharge of E. coli.

MS4 Permit Part 3.2.2.1.1: The Co-Permittee can meet the requirements of permit part 3.2.2.1. through contribution to a collaborative program (e.g., storm water coalition) that evaluates, identifies, and targets sources, as well as, provides outreach that addresses E. coli.

b. MCM BMPs

Update MCM BMP 1.1 – Salt Lake County Storm Water Coalition (see MCM 1 BMP Table). Sandy City plans to meet the requirements of permit part 3.2.2.1 through contribution to and participation in the Salt Lake County Storm Water Coalition. We will work with the coalition to evaluate, identify, and target sources, and provide outreach that addresses E. coli.

Update MCM BMP 1.4 – Publish Articles (see MCM 1 BMP Table). Sandy City will include information that addresses E. coli in articles published in the newsletter or Consumer Confidence Report.

Update MCM BMP 1.6 – Publish Articles (see MCM 1 BMP Table). Sandy City will include information that addresses E. coli in flyers/educational information for distribution in schools as requested.

Update MCM BMP 1.8 – Public Electronic Media (see MCM 1 BMP Table). Sandy City will include information that addresses E. coli on the city stormwater website.

Update MCM BMP 1.12 – General Employee Training (see MCM 1 BMP Table). General training for Sandy City employees will include information related to E. coli.

Update MCM BMP 1.13 – Department Employee Training (see MCM 1 BMP Table). Department training for Sandy City employees will include information related to E. coli.

2. INVENTORY OF SOURCES OF E. COLI WITHIN THE MS4

a. Requirements

MS4 Permit Part 3.2.2.2: The Co-Permittee must maintain a written or mapped inventory of areas in the MS4 that are potential sources of E. coli (areas with septic, dense waterfowl areas, dog parks, etc.).

MS4 Permit Part 3.2.2.2.1: The Co-Permittee must create a plan to prioritize reduction activities to address the areas and sources identified in the inventory. The plan must include BMPs the permittee will implement over the permit term (structural and non-structural).

MS4 Permit Part 3.2.2.2.2: The Co-Permittee must add the inventoried areas to the priority areas identified in permit part 4.2.3.3.1. and begin inspecting the additional priority areas annually at a minimum and documenting the inspections on an inspection form.

MS4 Permit Part 3.2.2.2.3: The Co-Permittee must add the inventoried areas to the priority areas identified in permit part 4.2.6.6.2. for street sweeping and storm sewer system maintenance and begin maintaining the areas at the same frequency. The Permittee's road and parking lot sweeping and storm drain system maintenance SOPs should identify all priority areas (including E. coli sources) and must include a schedule that includes priority area frequency.

b. MCM BMPs

Update MCM BMP 3.4 – Identify Priority Areas (see MCM 3 BMP Table). Sandy City will develop and maintain an inventory of potential E. coli sources within the MS4 (including areas with septic, dense waterfowl areas, dog parks, etc.). The inventoried areas will be added to the Priority Areas Map.

Update MCM BMP 3.5 – Priority Area Inspections (see MCM 3 BMP Table). Sandy City will begin inspecting the additional priority areas annually at a minimum and documenting the inspections.

Add MCM BMP 3.10 – Prioritize E. Coli Reduction Activities (see MCM 3 BMP Table). Sandy City will identify and prioritize E. Coli reduction activities to address the areas and sources identified in the inventory. The plan will identify structural and non-structural BMPs that Sandy City will implement.

Potential Prioritization Considerations may include the following:

- Site proximity to Water of the State
- Source of E. coli
- Magnitude of E. coli loading
- Practical and economic feasibility of implementation of structural and/or non-structural controls
- Location specific factors
- Cost

Reduction activities may include the following:

- Non-structural:
 - Increase sweeping at priority areas
 - Clean-up of pet & waterfowl areas prior to storm events
 - Keep pet waste bags stocked
 - Clean out pet waste receptacles regularly (so they don't overflow)
 - Educate on regular septic system maintenance
 - Partner with programs to work with unhoused populations
 - Require regular septic system maintenance
 - Regularly educate target audiences
 - Riparian set-back (buffer zones) between waters of the state
- Structural:
 - Increase waste containment areas
 - Run on diversion (from sources of E. coli)
 - Identification and repair of illicit cross-connections
 - Updates to MS4 infrastructure
 - Installation of LID controls with bacterial listed as a medium to high effectiveness

Update MCM BMP 6.6 – Storm Water Quality Considerations SOPs for Maintenance Activities (see MCM 6 BMP Table). Update SOPs for road/parking lot sweeping to include potential E. coli source priority areas. The SOPs will include a schedule of maintenance.

Update MCM BMP 6.7 – Storm Water System Maintenance (see MCM 6 BMP Table). Update SOPs for storm drain maintenance to include potential E. coli source priority areas. The SOPs will include a schedule of maintenance.

3. MS4 OWNED/OPERATED FACILITIES & OPERATIONS

a. Requirements

MS4 Permit Part 3.2.2.3: The Co-Permittee must evaluate their written inventory of potential “high priority” permittee owned and/or operated facilities (Permit Part 4.2.6.1.) and identify sites that have potential sources of E. coli. Permittees must add to their inventory any Permittee owned or operated dog parks, parks with open water, sites with septic, or properties that are known potential sources of E. coli. Sites that have been identified as potential sources of E. coli must have BMPs (structural or nonstructural) that reduce the potential of the discharge of E. coli.

MS4 Permit Part 3.2.2.4: The Co-Permittee must evaluate the potential E. coli generating activities below to determine whether existing SOPs should target reduction of E. coli discharge or if additional SOPs should be developed for the reduction of E. coli discharge from the MS4:

- Roads, highways, and parking lots: Surface cleaning and controlling litter
- Parks and open space: Lake and lagoon maintenance
- Parks and open space: Mowing/Trimming/Planting

- Storm water collection and conveyance system: Inspection and Cleaning of Stormwater Conveyance Structures, Controlling Illicit Connections and Discharges, Controlling Illegal Dumping
- Material storage areas: Solid Waste Collection, Controlling Litter, Controlling Illegal Dumping
- Storm water collection and conveyance system: Water line Maintenance, Sanitary Sewer Maintenance, Spill/Leak/Overflow Control, Response, and Containment.

b. MCM BMPs

Update MCM BMP 6.2 – Assessment of City-Owned or Operated Facilities (see MCM 6 BMP Table). Sandy City will assure that the following are included in the inventory of city-owned or operated facilities: 1) owned/operated dog parks, 2) owned/operated parks with open water, 3) owned/operated sites with septic, and 4) owned/operated properties that are known potential sources of E. coli. Sandy City will evaluate the inventory of city-owned or operated facilities and identify sites that have potential sources of E. coli. The recently completed Sandy City Stormwater Retrofit Plan included E. coli in the analysis. The results of the Retrofit Plan will be used to identify sites that have potential sources of E. coli.

Update MCM BMP 6.3 – High Priority Facilities (see MCM 6 BMP Table). Based on the assessment completed as part of MCM BMP 6.2, Sandy City will identify any additional high priority facilities that are needed due to potential for E. coli.

Update MCM BMP 6.4 – SWPPP for High Priority Facilities (see MCM 6 BMP Table). A SWPPP will be prepared for any new high priority facilities that are added due to potential for E. coli.

Update MCM BMP 6.5 – High Priority Facility Inspections (see MCM 6 BMP Table). Inspections will be conducted on any new high priority facilities that are added due to the potential for E. coli.

Update MCM BMP 6.6 – Storm Water Quality SOPs for Maintenance Activities (see MCM 6 BMP Table). The Sandy City Storm Water Quality SOP's will be reviewed, updated, and implemented to address potential E. coli generating activities identified in Part 3.2.2.4. Additional SOP's will be developed as needed.

Update MCM BMP 6.7 – Storm Water System Maintenance (see MCM 6 BMP Table). The Sandy City Storm Drain Asset Management Plan will be reviewed, updated, and implemented to address potential E. coli generating activities identified in Part 3.2.2.4. This will include review and update of the Storm Water System Maintenance Plan and Schedule. Additional storm water system high priority facilities will be identified due to potential E. coli generating activities and areas.

4. LID CONTROLS THAT TARGET E. COLI

a. Requirements

MS4 Permit Part 3.2.2.5: The Co-Permittee must promote the use of Low Impact Development (LID) controls for which E. coli (listed a bacteria) has a medium or high pollutant removal effectiveness, as identified in the Guide to Low Impact Development within Utah, Appendix C on the division's website:
<https://documents.deq.utah.gov/waterquality/stormwater/updes/DWQ-2019-000161.pdf>.

b. MCM BMPs

No updates are required for this requirement. Sandy City is already promoting the use of LID controls for which E. coli has a medium or high pollutant removal effectiveness. The LID BMPs that are allowed in Sandy City are specified in the Sandy City Standard Specifications (B – General Conditions – Development, Part 7.0B – Storm Water Design Criteria). These are located on the Sandy City website at <https://sandy.utah.gov/395/Standard-Specifications>. The Sandy City LID Toolbox was also developed to assist with the design and implementation of the LID BMPs (see MCM BMP 5.2). A link to the toolbox is found on the website as well.

5. INCORPORATION OF E. COLI CRITERION IN RETROFIT RANKING PLAN

a. Requirements

MS4 Permit Part 3.2.2.6: The Co-Permittee must add potential E. coli reduction as a criterion for ranking when evaluating the Permittees retrofit plan (Permit Part 4.2.6.9.).

b. MCM BMPs

No updates are required for this requirement. Sandy City completed the Sandy City Storm Water Retrofit Plan in July 2023. This plan included E. coli potential and reduction as a criterion for ranking when evaluating Sandy City owned/operated facilities.