

**FACT SHEET STATEMENT OF BASIS**  
**JORDAN VALLEY MUNICIPALITIES STORM WATER PERMIT**  
**UPDES PERMIT NUMBER UTS000001**  
**PERMIT RENEWAL**

**1.0. Introduction**

The Federal Clean Water Act requires that storm water discharges from certain types of facilities be authorized under storm water discharge Permits. (See 40 CFR 122.26.) The goal of the storm water Permits program is to reduce the amount of pollutants entering streams, lakes and rivers as a result of runoff from residential, commercial and industrial areas. The original 1990 regulation (Phase I) covered municipal (i.e., publicly-owned) storm sewer systems for municipalities over 100,000 population. The regulation was expanded in 1999 to include smaller municipalities as well. This expansion of the program to include small MS4s is referred to as Phase II. This Permit serves as a re-issuance or replacement of the previous Jordan Valley Municipalities Permit UTS000001, issued September 5, 2013. A Draft of this Permit was Public Noticed on July 25, 2018. The Utah Department of Environmental Quality, Division of Water Quality (the “Division”) received significant comments on the July 25, 2018 Draft. The Division’s responses to the comments are attached. In 2019, the Division then entered into stakeholder collaboration with a subcommittee of the Land Use Task Force facilitated by the Utah League of Cities and Towns (ULCT). The committee included members of the Division, ULCT, the Utah Home Builders Association and MS4 representatives among others who worked together to refine the Permit language.

According to EPA guidance, each Co-Permittee’s original designation of Small or Medium-sized MS4 will remain the same for the renewed Permit and associated permit cycle regardless of any increase or decrease in population. This Permit covers new or existing discharges composed entirely of storm water from both Phase I and Phase II Co-Permittees within Salt Lake County.

**2.0. Background**

The State of Utah was granted primacy in the National Pollutant Discharge Elimination System (NPDES) program by USEPA in 1987. In Utah, storm water discharge Permits are issued by the “Division”. Utah’s program is known as the Utah Pollutant Discharge Elimination System (UPDES) Program. The requirements of this Permit are intended to reduce the discharge of pollutants to the maximum extent practicable (MEP) and meet water quality standards through the development and implementation of a Storm Water Management Program (SWMP).

Both Phase I and Phase II Co-Permittees are required to develop and implement a SWMP which includes a variety of Best Management Practices (BMPs) to reduce the discharge of pollutants from the MS4. MEP is the standard that establishes the level of pollutant reductions that operators of regulated MS4s must achieve through implementation of BMPs included in their SWMPs. There are no numeric effluent limitations included in this Permit. SWMP requirements are the controls used in place of numeric limits to achieve a reduction of pollutants in the storm water discharge from small MS4s. A SWMP is comprised of six minimum control measures which include:

- 1) Public Education and Outreach
- 2) Public Involvement/Participation
- 3) Illicit Discharge Detection and Elimination
- 4) Construction Site Storm Water Runoff Control
- 5) Long-Term Storm Water Management in New Development and Redevelopment (Post-Construction Storm Water Management)
- 6) Pollution Prevention and Good Housekeeping for Municipal Operations

The Co-Permittees must develop a SWMP that meets the requirements of the six minimum measures and protects state waters from pollution, contamination, and/or degradation. The Permit allows the MS4 flexibility to determine appropriate BMPs to satisfy each of the six minimum control measures. The BMPs employed to reduce pollutants to the MEP may be different for each small MS4 given the unique local concerns that may exist and the different possible pollutant control strategies. The Division may evaluate the Co-Permittees' proposed storm water BMPs to determine if they meet the requirements of this Permit and if an improvement to the MEP can be achieved. Evaluation of the effectiveness of a SWMP and application of the MEP standard should be an iterative process. The standard of MEP and the necessary modifications to the SWMP should continually adapt to current conditions and BMP effectiveness. The Co-Permittees must continually assess the effectiveness of the current BMPs and expand or better tailor the BMPs to comply with this Permit and protect water quality, and to satisfy the appropriate water quality requirements of the *Utah Water Quality Act*.

### **3.0. Changes in the Jordan Valley Municipalities MS4 Permit**

Significant changes and clarifications to the Permit are listed below:

#### **Permit Area and Eligibility**

Permit Part 1.2.1.1 describes the Phase I Co-Permittee as all areas within unincorporated Salt Lake County not owned or operated by the Greater Salt Lake Municipal Service District (MSD).

Millcreek City and the MSD have been added to Permit Part 1.2.1.2.

#### **Application and Storm Water Management Program**

This Permit serves as both a renewal Permit for those covered under the previous Permit as well as provides coverage for New Applicants. **Renewal Co-Permittees** should have fully implemented SWMPs that reflect the permit requirements of the previous permit cycle. An exception to this is given for Co-Permittees that were designated during the previous Permit term who have 5 years from the date of their submitted NOI to develop, fully implement and enforce their SWMP. Renewal Co-Permittees must continue to implement their SWMP developed in accordance with the Previous Jordan Valley Municipalities Permit, while updating their SWMP document pursuant to the renewed Permit. New applicants are given the full Permit term to implement a SWMP except where specific deadlines are indicated.

New Applicants will have **180 days** from Division notification to submit a Notice of Intent (NOI) and SWMP in accordance with Part 2.1 of this Permit. Renewal Co-Permittees have 180 days

from the effective date of this Permit to submit an updated SWMP in accordance with Part 2.3. of this Permit.

### **Limitations on Coverage**

The reference to the Endangered Species Act has been removed from the Permit.

### **Threatened or Endangered Species and Historic Properties**

The reference to threatened or endangered species or historic properties has been removed from the Permit.

### **Nitrogen and Phosphorus Reduction**

The significant increase in recent years of nitrogen and phosphorus in water bodies across the country has intensified water quality problems. Too much nitrogen and phosphorus can cause serious water quality problems. Nutrient pollution impairs drinking water, endangers aquatic life and threatens the recreational use of Utah's streams, rivers, and lakes.

The Division has already identified numerous watersheds in the state that are affected by high nutrient levels. In an effort to reverse this disturbing trend,

As part of Utah's adaptive management approach, site-specific strategies that account for the differences in water bodies and their sources of nutrient pollution must be addressed. Therefore, Co-Permittees must incorporate specific measurable goals regarding the need to reduce nutrients in storm water. Compliance with this requirement can be achieved by determining sources that are contributing to, or have the potential to contribute, nutrients to the waters receiving the MS4 discharge authorized under this Permit. Co-Permittees must then prioritize these targeted sources and distribute educational materials or equivalent outreach accordingly. More information on nutrient issues in Utah's waters can be found at: [nutrients.utah.gov](http://nutrients.utah.gov)

### **Public Education and Outreach on Storm Water Impacts**

Permit Part 4.2.1. lists four audiences that documented education and outreach efforts must address. The second audience has been changed from businesses, institutions, and commercial facilities to institutions, industrial and commercial facilities. The fourth audience has been changed from MS4 industrial facilities to MS4-owned or operated facilities.

A frequency of action has been added to Permit Part 4.2.1.3. Upon the effective date of this Permit, Co-Permittees must provide and document information given to institutions, industrial, and commercial facilities on an annual basis of the Co-Permittee's prohibition against and the water quality impacts associated with illicit discharges and improper disposal of waste.

Although there is little change in this minimum control measure since the last Permit term, the Division wishes to clarify that "outreach" is active and requires contact by the Co-Permittee and an exchange of education and information. Making information only available on a website without further action or outreach is passive education and does not adequately meet the intent of the Permit requirements. The Division expects that the Co-Permittee will actively "reach out" to

targeted audiences and targeted sources and provide information and education. The Division encourages and recommends that Co-Permittees collaborate on the nutrient-related requirements in this renewal Permit as well as other targeted audiences and pollutants.

Co-Permittees must include written documentation or rationale as to why particular BMPs were chosen for its public education and outreach program as well as thorough documentation of all activities, frequency of activity, and content of public education and outreach deliverables.

### **Public Involvement/Participation**

If a Co-Permittee maintains a website, a current version of the SWMP document must be posted on the website within 180 days (increased from 120 days) from the effective date of this Permit (Permit Part 4.2.2.3.). The online SWMP document must be updated as needed (according to Permit Part 4.4.) and shall remain on the website for the entire Permit term. In order for the public to review and provide input for the life of the Permit, the online SWMP document must indicate a contact person and phone number or email address in which to provide input or pose questions (Permit Part 4.2.2.3.).

### **Illicit Discharge Detection and Elimination**

The requirements for priority areas inspections and dry weather screening have been separated into two distinct Permit citations (Permit Parts 4.2.3.3.2 and 4.2.3.3.3, respectively) to improve clarity. Priority area inspections are to be conducted annually at a minimum (Permit Part 4.2.3.3.2). Dry weather screening of each outfall must be conducted at least once every 5 years (Permit Part 4.2.3.3.3).

The Division has added the requirement that the Co-Permittee notify the Division of dischargers to the MS4 that need a separate UPDES Permit such as an Industrial Storm Water Permit or Construction Dewatering Permit (Permit Part 4.2.3.3.4).

Permit Part 4.2.3.11 includes the wording “Co-Permittees shall require that all staff, contracted staff, or other responsible entities, that as part of their normal job responsibilities might come into contact with or otherwise observe an illicit discharge or illicit connection to the MS4 including office personnel who might receive initial reports of illicit discharges, receives annual training in the IDDE program...” in. The wording has changed to clarify which MS4 staff should be trained. Co-Permittees must ensure through tracking of attendance that appropriate staff has received annual training. If some staff were unable to attend the yearly training that was offered, it is the Co-Permittee’s responsibility to offer another form of training to meet this Permit requirement. Although online training and certification is not specifically required by this Permit, this is one option to ensure that all appropriate staff receives the necessary training that is required throughout this Permit. A requirement to ensure that new hires are trained within 60 days of hire date has also been added to Permit Part 4.2.3.11.

Based on a comment received regarding Co-Permittee responsibility for third-party discharges, Permit Part 4.2.3.6.2 was added: “ Although Co-Permittees are required to prohibit illicit discharges within their boundaries and to take appropriate action to detect and address any violations, this Permit does not impose strict liability on Co-Permittees.”

### **Construction Site Storm Water Runoff Control**

The threshold for construction site storm water runoff control has been clarified to “construction sites with a land disturbance of greater than or equal to one acre, including projects that are part of a larger common plan of development or sale *which collectively disturbs land greater than or equal to one acre...*”

Permit Part 4.2.4.2.1 has added an appeals process as part of the procedures to ensure compliance to be posted in a publicly available location. An appeals process will allow a construction operator to appeal an enforcement option.

Permit Part 4.2.4.3.1 has changed the pre-construction SWPPP *review* requirement to a pre-construction meeting requirement.

Permit Part 4.2.4.3.2 has clarified the factors for determining a priority construction site.

Permit Part 4.2.4.4. prohibits an individual or entity who prepares a SWPPP for a construction project from performing construction site inspections on behalf of a Co-Permittee on that site.

Permit Part 4.2.4.4.1 has added the requirements for qualified Co-Permittee storm water inspectors.

Permit Part 4.2.4.4.4 allows for the use of an electronic inspection tool by the Co-Permittees in place of in person, on-site inspections for up to one-half of inspections at a construction site.

Permit Part 4.2.4.5. has added language that requires the Co-Permittee to ensure annual training of staff as well as the training of new hires within 60 days of hire.

### **Long-Term Storm Water Management in New Development and Redevelopment (Post-Construction Storm Water Management)**

The threshold for long-term storm water management has been clarified to “construction sites with a land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale *which collectively disturbs land greater than or equal to one acre...*”

### **Modified Post-Construction Retention Standard**

Permit Part 4.2.5.2.1 *requires* by **July 1, 2020** all new development projects meeting the applicable threshold, to manage rainfall on-site, and prevent the off-site discharge of runoff associated with precipitation less than or equal to the 80th percentile rainfall event. The 80<sup>th</sup> percentile rainfall event is the event whose precipitation total is greater than or equal to 80 percent of all storm events over a given period of record. Guidance related to this requirement is

available on the Division's website at <https://deq.utah.gov/water-quality/low-impact-development>. If not feasible, a rationale must be provided for the use of alternative design criteria.

By **July 1, 2020**, redevelopment projects meeting the applicable threshold that increase the impervious surface by greater than 10%, shall manage rainfall on-site, and prevent the off-site discharge of the net increase in the volume associated with the precipitation from all rainfall events less than or equal to the 80<sup>th</sup> percentile rainfall event. This water quality volume-based methodology will reduce the runoff from a site from the small frequently occurring storms which have a strong negative cumulative impact on receiving water quality.

#### *Rationale for Post-Construction Retention Standard*

The Division has determined that the retention standards outlined in Section 4.2.5, meet the intent of the maximum extent practicable (MEP) standard to prevent or minimize water quality impacts from new and redevelopment post-construction storm water management through clear, specific, and measurable requirements.

In reviewing literature, evaluation of the diversity of site conditions and climates around the state, and consulting with practicing design engineers, the Division determined that the 80<sup>th</sup> percentile event represents the MEP for retention in the Jordan Valley permit area. In addition, the Division has made this standard identical to the standard used in the modification to Permit UTR090000 which is applicable to small municipal separate storm sewer systems (MS4s) across the state.

In developing this standard, the Division reviewed literature and design guidelines for storm water quality management throughout the intermountain west. The purpose of the post-construction retention standard is to maintain or restore stable hydrology in receiving waters and protect water quality by reducing the effect of first-flush events on receiving waters. The Division recognizes the cascading water quality effects of development to include increases in pollutant sources, storm water runoff, and the erosional impacts of storm events. These effects are associated with increased impervious cover and activities associated with developed lands.

The Division reviewed the following studies related to storm water runoff and water quality volume: Guo and Urbonas, 1996 and Urbonas, Roesner, and Guo, 1996. These studies formed the basis of a recommendation by the Water Environment Federation and American Society of Civil Engineers (1998) that stormwater quality treatment facilities (i.e., post-construction BMPs) be based on the capture and treatment of runoff from storms ranging in size from "mean" to "maximized" storms (70<sup>th</sup> to 90<sup>th</sup> percentile storm). The Division selected the 80<sup>th</sup> percentile as a mid-range target, based in part on this recommendation. The Division determined that retention of the "maximized" storm was impractical for Utah.

Further, the Division determined that the Urban Storm Drainage Criteria Manual developed for the State of Colorado is applicable to Utah's climate and topography. The USDCM states that "capturing and properly treating this volume [80<sup>th</sup> percentile storm] should remove between 80 and 90% of the annual total suspended solids (TSS) load, while doubling the capture volume was estimated to increase the removal rate by only 1 to 2%." Based on this analysis, an increase to the 90<sup>th</sup> percentile storm, as proposed in a previous draft of the Permit, would result in a negligible

improvement in water quality. Further, this standard is consistent with other similarly situated states in the intermountain west, such as Montana (0.5") and Colorado (80<sup>th</sup> percentile storm).

Although a previous draft of the Permit included a retention requirement equivalent to the water quality volume associated with the 90<sup>th</sup> percentile storm event for new and redevelopment, this permit requirement was never put into effect due to concerns raised from Utah's engineering, planning, and building communities. This resulted in an additional stakeholder process that took place in 2019 in partnership with the Utah League of Cities and Towns Land Use Task Force. This stakeholder process and review of other states' retention standards revealed greatly increased cost associated with achieving 90<sup>th</sup> percentile retention standard versus the 80<sup>th</sup> percentile, but not greatly increased water quality benefits such that the Division determined that 80<sup>th</sup> percentile represents MEP.

This final Permit also clarifies that implementation of the post-construction retention standard applies only if impervious surface area increases by greater than 10%. It would be impractical to require that any size redevelopment meet the new retention standard because redevelopment projects that do not increase surface area by greater than 10% would often not be able to meet the standard without removing existing impervious surfaces. Further, this change allows cities to work within the context of existing storm water master plans and proceed with retrofits of existing facilities through requirements identified in section 4.2.5.3.3 of the Permit.

#### Low Impact Development Requirements

The Permit requires that the post-construction retention standard be accomplished through the use of a combination of practices: site design (including reduction in impervious cover), structural and non-structural controls Low Impact Development practices that are designed, constructed, and maintained to infiltrate, evapotranspire and/or harvest and reuse rainwater. This requirement is described in Permit Part 4.2.5.1.3.

Co-Permittees must allow for use of a minimum of five LID practices from the list in Appendix C of "A Guide to Low Impact Development within Utah." If a Co-Permittee has not adopted specific LID guidelines, any LID approach that meets permit requirements and is feasible may be used to meet this requirement.

If an LID approach cannot be utilized, the Co-Permittee must document an explanation of the reasons preventing this approach and the rationale for alternative criteria per Permit Part 4.2.5.1.5. Guidance for assessing and documenting site conditions and feasibility can be found in DWQ's "A Guide to Low Impact Development within Utah" Appendix B "Storm Water Quality Report Template" located on the DWQ website at: <https://documents.deq.utah.gov/water-quality/stormwater/updes/DWQ-2019-000161.pdf>.

The definition of LID infeasibility has been expanded to include high groundwater, drinking water source protection areas, soil conditions, slopes, accessibility, excessive costs, or others.

#### Other Changes to Section 4.2.5

Permit Part 4.2.5.3.1. requires procedures for site plan review that evaluate water quality impacts and that are applied though the life of the project from conceptual design to project closeout.

Permit Part 4.2.5.3.2 requires Co-Permittees to review post construction plans to ensure long-term controls are implemented which meet the permit requirements.

Permit Part 4.2.5.24 requires that permanent structural BMPs be inspected to ensure the BMPs were constructed as designed. Prior to closing out a construction project.

Permanent structural BMP inspection requirements have been reduced from a minimum or annually to at least every other year or as necessary to maintain functionality of the control (Permit Part 4.2.5.2.5).

Previous Permit Part 4.2.5.3.3 requiring a retrofit plan has been moved to Permit Part 4.2.6 Pollution Prevention and Good Housekeeping for Municipal Operations.

Permit 4.2.5.6. requires that all staff involved in post-construction storm water management, planning and review, and inspections and enforcement be trained on an annual basis. New hires must be trained within 60 days of hire.

Previous Permit Part 4.2.5.4.2 has been removed.

### **Pollution Prevention and Good Housekeeping for Municipal Operations**

This minimum control measure has been reorganized to more clearly outline the requirements for “high priority” municipal facilities and overall SOP development and implementation for all facilities and municipal operations. Guidance for evaluating “high priority” municipal facilities and preparing SOPs will be developed as separate Fact Sheets by the Division.

Permit Part 4.2.6.4. requires Co-Permittees to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for each “high-priority” Co-Permittee-owned or operated facility within 180 days from the effective date of this Permit. The SWPPP must identify potential sources of pollution, describe and ensure implementation of practices that are to be used to reduce pollutants in storm water discharges associated with activity at the facility and must include a site map showing the information required in Permit Part 4.2.6.4. The previous Permit required SOPs to address many of these requirements and these SOPs, provided that they meet the Permit requirements, may be used as part of this SWPPP document. SOPs must be tailored to the specific Co-Permittee, facility, or operational procedure and must not contain generic descriptions of municipal activities.

In Permit Part 4.2.6.5.1, visual inspection frequency has been reduced from weekly to monthly.

In Permit Part 4.2.6.5.2, comprehensive inspection frequency has been reduced from quarterly to semi-annually.

In Permit Part 4.2.6.5.3, visual observation frequency has been reduced from quarterly to annually.

Previous Long-Term Storm Water Management in New Development and Redevelopment Permit Part 4.2.5.3.3 requiring a retrofit plan has been moved to Permit Part 4.2.6.9.

Permit Part 4.2.6.10. requires that all employees, contracted staff, and other responsible entities involved in construction, operation, or maintenance job functions that are likely to impact storm water quality be trained on an annual basis. New hires must be trained within 60 days of hire.

#### **Industrial and High Risk Runoff (Phase I Co-Permittee only)**

The previous Permit required that Phase I Co-Permittee, Salt Lake County develop and implement an inspection and oversight program to monitor and control pollutants in storm water discharges to the MS4 from industrial and high risk commercial sites/sources. As of January 1, 2017 Millcreek City, as well as the Metro Townships of Emigration Canyon, Magna, Kearns, Copperton, and White City incorporated. On March 2, 2018, Millcreek City subsequently submitted an NOI for coverage as a Phase II Co-Permittee under the Jordan Valley Municipalities Storm Water Permit. As part of incorporation process, the Greater Salt Lake Municipal Services District (MSD) was created to provide municipal services to its members including the Metro Townships and the remaining unincorporated County areas. The MSD will manage the UPDES Permit and operation of its members MS4s. On March 2, 2018, the MSD submitted an NOI for coverage as a Phase II Co-Permittee under the Jordan Valley Municipalities Storm Water Permit.

As a result of the jurisdictional changes, at the time of the permit preparation, Salt Lake County no longer had Industrial and High Risk runoff sites within its jurisdiction and therefore was not subject to the Phase I Co-Permittee requirements for Industrial and High Risk Runoff. Permit Part 4.3 was retained in the event that there are future jurisdictional changes.

#### **Wet Weather Monitoring**

The previous Permit required that Phase I Co-Permittee, Salt Lake County implement a wet weather monitoring plan. Due to the jurisdictional changes described above, Salt Lake County no longer owns or operates any outfalls nor does the County have jurisdiction over any municipal storm drainage infrastructure as this infrastructure is covered by separate municipalities and other Phase II permits. Therefore, due to the jurisdictional changes, at the time of the permit preparation, Salt Lake County was not subject to the Phase I Co-Permittee requirements for Wet Weather Monitoring. Permit Part 5.2.1 was retained in the event that there are future jurisdictional changes.

#### **Record Keeping**

The Co-Permittees shall retain all required plans, records of all programs, records of all monitoring information, copies of all reports required by this Permit, and records of all other data required by or used to demonstrate compliance with this Permit, for at least five years as stated in Part 5.5.4. Some records, as in the case of common plans of development, may need to be retained longer than five years.

#### **Reporting**

All Co-Permittees must submit an annual report to the Division by October 1 following each year of the Permit term. As stated in Permit Part 5.6, signed copies of the annual report and all other reports required by this Permit must be submitted directly to the DWQ electronic document system at: <https://deq.utah.gov/water-quality/water-quality-electronic-submissions>

### **Standard Permit Conditions**

Permit Part 6.12 Oil and Hazardous Substance Liability has been removed as this section is redundant.

### **Definitions**

A definition of “Developed site” was added. The definition of “Indian Country” was removed.

## **4.0. Permit Duration**

As stated in UAC R317-8-5.1(1), UPDES permits shall be effective for a fixed term not to exceed five (5) years. Therefore, this Permit will be set to expire on February 25, 2025, five years after the effective date of reissuance.

## **5.0. Comments Received and DWQ Responses**

The public notice was published in the Salt Lake Tribune and Desert News newspapers. The Permit was also announced on the Utah Division of Water Quality’s Public Notice website at <https://deq.utah.gov/division-water-quality>

The 30-day public notice began on December 22, 2019, and ended on January 21, 2020. Please refer to the Utah Division of Water Quality’s website at <http://www.deq.utah.gov/Permits/water/updes/stormwatermun.htm> for the response to comments received.

This Permit and Fact Sheet were drafted by Trisha DiPaola, MS4 Program Coordinator, and Jeanne Riley Storm Water Section Manager, Utah Division of Water Quality. For questions or comments contact Ms. DiPaola at [tdipaola@utah.gov](mailto:tdipaola@utah.gov) or 801-536-4193 or Ms. Riley at [jriley@utah.gov](mailto:jriley@utah.gov) or 801-536-4369.

DWQ-2020-005248