FACT SHEET/STATEMENT OF BASIS

STORM WATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY

CONNECTED WITH SINGLE LOT HOUSING PROJECTS

OR THE "COMMON PLAN PERMIT"

UPDES PERMIT No. UTRH00000

BACKGROUND

The storm water program, authorized by the Federal Clean Water Act (CWA), went into effect in October, 1992. It requires anyone doing construction activities which will disturb 5 acres or more, or smaller parcels that are part of a common development plan, to obtain a storm water permit (Utah Administrative Code [UAC] R317-8-3.9(1)(a)). Phase II of the storm water program, later implemented by the Utah Division of Water Quality (DWQ), expanded the permit requirement to include "small construction," defined as soil disturbances from construction activity affecting from one to less than 5 acres (UAC R317-8-3.9(6)(e)).

DWQ administers the Utah Pollution Discharge Elimination System (UPDES) program (CWA Section 402) under a memorandum of agreement with the EPA dated July 7, 1987. UPDES permits issued for construction storm water discharges are required to include conditions for meeting technology-based effluent limitations guidelines and, where applicable, any new source performance standard established under the CWA Section 306.

A technology-based standard is included in the USEPA Effluent Limitations Guidelines and New Source Performance Standards for Construction and Development (C&D) related storm water discharges (40 Code of Federal Regulations [CFR] 450). This standard is referred to as the C&D Rule, and its requirements include a suite of non-numeric effluent limitations that apply to all permitted construction sites. These limits include requirements for erosion and sediment controls, pollution prevention measures, soil stabilization, dewatering, prohibited discharges, and surface outlets.

PERMIT DEVELOPMENT INFORMATION

The development of the Storm Water Permit for Construction Activity Connected with Single Lot Housing Projects (UTRH00000) is a new permit. Its purpose is to partner with the existing Utah Construction General Permit (U-CGP) for storm water discharges in providing permit coverage for construction activity. The Common Plan Permit (CPP) streamlines existing requirements and addresses climate conditions in Utah. It was created for small home builders who construct approximately 10 or less house projects a year, and/or owner builders who generally do not have the resources and permitting expertise larger entities do. Its clarity and directness will also benefit local building authorities who are often consulted to explain stormwater requirements.

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Larger residential construction ventures are not barred from applying for the coverage provided by this permit; however, taking that path would require maintaining several small area permits which could be more costly and less efficient. Likewise, small home builders are not barred from applying for coverage under the U-CGP if they are comfortable addressing compliance requirements.

DISCUSSION OF UNIQUE CLIMATE ISSUES IN UTAH

Utah is the second most arid state in the nation. DWQ has wrestled with stabilization requirements for the arid- and drought-stricken areas of the state during inspections of construction sites since the beginning of the storm water program in 1992. The general stabilization requirements given in 40 CFR 450.21(b) is not economically practicable and achievable for arid, semi-arid, and drought-stricken areas in Utah. DWQ created the CPP to address this challenging climate issue. Some of the differences observed between wetter climates and arid climates are:

1. The lack of climatic moisture causes less dense vegetative cover in arid climates. As a result, nearly all arid areas naturally have more erosion and sediment transport under normal precipitation events. The more arid the area, the more sediment transport from erosion.
2. Many streams in arid areas naturally flow heavy with sediment after storm events that produce runoff due to this less dense vegetative cover.
3. Arid areas have fewer storm events that cause runoff.
4. Moisture is a significant factor in seed germination. Regrowth of vegetation after clearing and excavating takes much longer, even years sometimes, to re-establish in arid and semi-arid areas, even when topsoil is preserved and reused, unless irrigation water is applied.
5. Topsoils in arid areas have smaller fractions of organics and biota than that found in soils in wetter climates. Only hardier plants thrive in arid areas because of the poor soil quality, reduced precipitation, and generally higher temperatures. These harsh conditions mean many indigenous plants in arid areas are not fast-growing, and those plants that are fast-growing grow in spurts during and immediately after precipitation events, then die or go dormant.
6. Stabilization factors for soil surfaces in developed areas include roads, driveways, buildings, and irrigated and designed landscaping, all of which provide a powerful stabilizing effect. In undeveloped areas, the stabilizing force for soil comes, for the most part, from the roots of natural vegetation. There are other factors like soil type, the residue of dead and dying plants on the soil surface, and the protection of branches, leaves, and aboveground vegetation that break the fall of raindrops that dislodge dirt when hitting the ground. The stabilizing force from natural vegetation in undeveloped areas is much stronger in wetter climates and is somewhat equivalent to the manmade factors influencing soil stabilization. The scarcity of vegetation or the bunching of vegetation between bare areas is more prevalent in arid areas. For this reason, undeveloped areas are more susceptible to erosion than the developed areas in arid climates.

When it rains in arid areas, more erosion happens naturally. Because there is less precipitation in arid areas, revegetation happens much more slowly and growth is slow outside of rain events. Without control measures, construction activity increases erosion in arid areas, but the increased erosion is not as significant as in wetter areas.

ARID ADAPTATIONS TO THE PERMIT

EPA recognized the arid climate issues in its stabilization requirements in 40 CFR 450.21(b) as follows:

"In arid, semi-arid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, alternative stabilization measures shall be employed as specified by the permitting authority."

The EPA CGP standard for final stabilization (70 percent evenly revegetated with no bare areas) is an example of the challenges arid areas face. This standard does not account for the time needed for revegetation to occur in arid areas. To address this issue, Utah's CPP requires erosion control measures be placed and left after the permit is terminated with no requirement to remove them. These control measures can be either permanent (e.g., rock check dam, geotextile lined waterway) or temporary, but if they are temporary, they must be biodegradable natural products. The objective is to slow erosion to match what occurs naturally while requiring a seed mix and species compatible with the climate and to allow a longer time frame for seed germination and plant maturation which permanently restores the natural stabilizing forces.

Other adaptations for temporary stabilization measures are also included in the permit, see the last paragraph under Part II, found in the section BRIEF DESCRIPTIONS FOR EACH PART OF THE PERMIT AND THE BASIS FOR THEIR REQUIREMENTS.

REQUIREMENTS CONTAINED IN THE PERMIT

All control elements found in 40 CFR 450 (The Construction and Development Point Source Category) are included in the CPP. Additional controls are incorporated by best professional judgement and are referred to as best management practices (BMPs).

The CPP is designed to be protective of water quality throughout Utah. DWQ believes that if appropriate pollution controls are properly placed and maintained in locations where erosion and sediment transport is likely to occur or is occurring, this permit is protective of all areas, including impacted waters and high-quality waters.

In the NOI, the permittee must identify the waterbody and if the waterbody is high-quality or impacted. As required in the CPP, the permittee must take steps to eliminate or mitigate any pollution effects caused by the construction activity so water quality standards are not compromised. If information becomes available indicating a permitted site is causing or contributing to a violation of a water-quality standard, coverage may be re-evaluated and may result in permit revocation, and/or a requirement to obtain an individual permit or another general permit.

DESCRIPTION OF DISCHARGE

This permit covers storm water discharges from construction activities as defined in UAC R317-8-3.9(6)(d) 10 & (e) 1. Also, under UAC R317-8-3.9(6)(e)2 any construction activity can be required to obtain a

permit by DWQ based on potential contribution to a violation of a water-quality standard or for significant contribution of pollutants to waters of the State.

Storm water discharges covered by the CPP have potential for erosion and sediment transport from areas of disturbed soil cause by construction activity (clearing, grading, and excavating for construction purposes) or by exposure to construction-related chemicals and materials.

ANTIDEGRADATION REQUIREMENTS

The antidegradation requirements for this permit can be found in UAC R317-2-3.5.b.3, which states:

"An Anti-degradation Level II review is not required where (any of the following conditions apply): ...Water quality impacts will be temporary and related only to sediment or turbidity and fish spawning will not be impaired." Therefore, because this permit relates to only temporary construction projects with sediment or turbidity constituents, a further antidegradation review is not required.

BRIEF DESCRIPTIONS FOR EACH PART OF THE PERMIT AND THE BASIS FOR THEIR REQUIREMENTS

Part I: Part I of the permit contains the scope of coverage under this permit, including types of projects and discharges allowed, and the mechanics of coverage, renewal, and termination of coverage. The contents of Part I define the tools that allow DWQ to identify, control, and permit construction activity.

Part II: Permit requirements pertaining to storm water and water quality are in Part 2 of the permit. Requirements for stockpiles of materials, perimeter controls, inlet protection, track out, and curb ramps (Parts 2.1.1, 2.1.2., 2.1.3, 2.4.1, and 2.4.2 respectively) are best management practices (BMPs) for soils and materials on a construction site and are based on best professional judgement.

The federal limitations in 40 CFR 450 required for storm water discharges related to construction activity are represented in Part II of the permit. Table 1 below outlines the federal requirements and the corresponding CPP requirements. Part IV includes portions of 40 CFR 450 that are not in Part II).

Table 1. Requirements from 40 CFR 450 and the location of their analogue in the permit.

Federal Requirement from 40 CFR 450.21		Citation for Comparable CPP SW Permit Requirement
Section Number	Section Name/Description	
(a)	**Erosion and sediment controls**	
(a)(1)	Control storm water volume and velocity to minimize soil erosion in order to minimize pollutant discharges.	Part 2.3.3
(a)(2)	Control storm water discharges, including both peak flowrates and total storm water volume, to minimize channel and stream-bank erosion and scour in the immediate vicinity of discharge points.	Parts 2.3.4
(a)(3)	Minimize the amount of soil exposed during construction activity.	Part 2.3.1

Federal Requirements From 40 CFR 450.21		Citation for Comparable CPP CPW Permit Requirement
Section Number	Section Name/Description	
(a)(4)	Minimize the disturbance of steep slopes.	Part 2.3.2
(a)(5)	Minimize sediment discharges from the site.	Part 4.1.1
(a)(6)	Provide and maintain natural buffers around waters of the United States, direct storm water to vegetated areas and maximize storm water infiltration to reduce pollutant discharges, unless infeasible.	Part 2.3.5
(a)(7)	Minimize soil compaction	Part 2.5
(a)(8)	Preserve topsoil unless infeasible	Part 2.5
(b)	**Soil stabilization**	Part 2.6
(c)	**Dewatering**	Part 2.7
(d)	**Pollution prevention measures**	
(d)(1)	Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters	Part 2.8.1
(d)(2)	Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to precipitation and to storm water	Part 2.8.2
(d)(3)	Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak-prevention and response procedures	Part 2.8.3
(e)	**Prohibited discharges**	
(e)(1)	Wastewater from washout of concrete, unless managed by an appropriate control	Part 2.9.1
(e)(2)	Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials	Part 2.9.2
(e)(3)	Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance	Part 2.9.3
(e)(4)	Soaps or solvents used in vehicle and equipment washing	Part 2.9.4
(f)	**Surface outlets**	Part 4.1.2

Other permit requirements, some that build on the requirements in 40 CFR 450 are:

1. Protection of critical and sensitive areas (Part 2.2);
2. Management of waste and debris (Part 2.4.3);
3. Securing of portable sanitary devices (Part 2.4.4), and

4. Washout procedures for paint, concrete, stucco, and etc. with management of oil-based paint cleanout (Part 2.4.5).

The list of four items immediately above are based on best professional judgement and are common construction site pollution control BMPs found in storm water permits nationwide.

Due to climate reasons stated previously, soil-stabilization requirements for arid and semi-arid areas are modified in the CPP as follows:

- Stabilization on visually flat areas will not be required.
- Stabilization for mild slopes (up to 20 percent) will not be required, but velocity dissipation devices shall be placed across all storm water drainages at a frequency that removes the energy that causes erosion.
- Non-vegetative stabilization is required on all slopes over 20 percent unless irrigation is available and vegetative stabilization can be implemented. The intent is to increase the robust nature of stabilization with increasingly steeper slopes.
- Permanent stabilization requires seeding on all areas that are not covered with structural elements such as building or paving, or that are engineered or intended for structural purposes like graveled parking or dirt roads. The revegetation process implemented must mimic the natural revegetation process for germination and growth of seeds during the infrequent storm events.
- Disturbed areas on projects outside of populated areas where no irrigation is available shall be reclaimed with a seed mix of plants indigenous to the area. No invasive species are allowed.

Part III: Part III contains requirements (based on best professional judgement) concerning inspection reports. Only the essential elements that are 1) necessary for effective oversight of permit compliance, and 2) that are necessary for good maintenance of the SWPPP by the permittee are included in this section. A weekly inspection report is required to be completed by the permittee. An inspection report form will be made available on the DWQ web site at: http://www.deq.utah.gov/Permits/water/updes/stormwatercon.htm.

Part IV: Part IV requires the development of a storm water pollution prevention plan (SWPPP). The permit continues the concept of the SWPPP as a living document used as a planning tool, as a metric to measure BMP effectiveness, and to address storm water quality concerns as construction progresses for the builder. For the regulator it provides the ability to measure performance and compliance. A SWPPP is a staple of storm water permits nationwide. They have been required from the beginning of the construction storm water program and are valuable for management of storm water in the same way that charts and specifications are for the erection of structural elements of a project. The SWPPP requirements in the CPP are streamlined compared to the U-CGP.

Part V: Part V contains the standard conditions for all UPDES permits issued by DWQ for the State of Utah. The requirements in Part V are found in UAC R317-8.

Part VI: Definitions.

PERMIT DURATION

This permit is scheduled to be effective for a duration of five (5) years from date of permit issuance. This permit and fact sheet has been drafted by Harry Campbell, P.E., CPESC, Division of Water Quality, November 19, 2015.

PUBLIC NOTICE INFORMATION

First Public Notice Period
Began: February 27, 2015
Ended: March 26, 2015

Second Public Notice Period
Began: May 26, 2015
Ended: June 26, 2015

Third Public Notice Period
Began: November 27, 2015
Ended: December 28, 2016

Public Notice Publication: Deseret News/Salt Lake Tribune
Comments Received: Comments received during the three public notice periods have each been formally responded to and sent to each of the commenters at the time of this permit issuance.