# Applicability:

Owners/operators of the following are required to obtain a storm water permit from Bountiful City:

- □ Projects disturbing one acre or more of land surface
- □ Projects disturbing less than one acre that are within a common plan of development that disturbs one acre or more of land surface

### Before Construction Begins

- □ Complete Storm Water Pollution Prevention Plan (SWPPP) and Utah Notice of Intent (NOI).
  - Single family sites disturbing < 1 ac. may use the simplified Utah Common Plan Permit
  - SWPPP must be stamped by a Professional Engineer
- Submit copy of each (electronic pdf format is preferred) with a Storm Water Permit Application *After SWPPP has been reviewed and found to be acceptable...*
- $\Box$  Pay fees assessed by City
  - Based on project duration, long-term storm water controls, etc.
  - Fee typically ranges from \$540 minimum for small project to \$2000 for larger project
- Post Bond assessed by City (Cash or Standby Letter of Credit)
   \$600 + \$2200/acre
- □ Implement SWPPP on Site

The city will do a storm water pollution prevention inspection before work begins

#### **During Construction**

- □ Continue to keep SWPPP implemented on site
- □ Update/revise SWPPP as appropriate
- Derform self-inspections as indicated by the SWPPP and State of Utah Storm Water General Permit
  - Generally, this means having qualified personnel inspect the site at least every 14 days and within 24 hours after the end of a storm event of 0.5" or greater OR every 7 days
- □ The contractor must schedule an inspection for any long term controls being installed on site such as detention ponds, infiltration basins, rain gardens, etc.

The city will do monthly inspections (bi-weekly for "high-priority" sites)

#### After Construction/Project Close-Out

- □ Site must be stabilized (landscaped) and clean. Temporary storm water controls must be removed
- □ Complete and file a State of Utah Notice of Termination (NOT).
- □ Submit as-built plans for any long-term storm water management controls (including detention basins).
  - The as-built plans must include design and maintenance standards for the controls
  - The as-built plans must be stamped by a Professional Engineer
- $\hfill\square$  Schedule a final storm water inspection

Bond may be released when above conditions are met

## **BEST MANAGEMENT PRACTICES (BMPs) FOR CONSTRUCTION SITES**

Construction sites should be managed to minimize the pollution that can leave the site with storm water. Taking appropriate measures to reduce erosion, remove suspended sediment, and manage construction materials and equipment will minimize storm water pollution.

**Reducing soil erosion** is a crucial aspect of storm water pollution prevention for construction sites. Reducing erosion is easier and less expensive than attempting to remove sediment from the storm water.

Contributions to an *increase* in erosion are:

- Removing vegetation
- Exposing sub-soil to weathering
- Exposing sub-soil to vehicle traffic
- Re-shaping the land
- Allowing gullies to form and grow
- Longer/Steeper slopes



Steps must be taken to *minimize* these factors of erosion during and after construction.

**Removing the sediment** that does get into the storm water is also important to protect the storm drain system and waterways.

**Managing construction material and equipment** to prevent pollution is important for all construction sites. There must be means for safe disposal of all types of waste. The tracking and washing of soil into the street must be prevented. Downstream storm water inlets should also be protected.



# Regular inspection and proper maintenance

of the site will help ensure the effectiveness of the BMPs in minimizing storm water pollution.

Best Management Practices (BMPs) that are useful for reducing pollutants leaving construction sites A fact sheet for each BMP gives essential information regarding the practice. A collection of these for local use has been produced. A link for fact sheets is at: <u>https://www.daviscountyutah.gov/publicworks/storm-water-coalition</u>

Not all possible are available from this menu. If you would like to use a BMP that is not included, propose it to your local jurisdiction.

Implementing these measures is important because the water from the storm drain systems drains directly into the streams, usually untreated, and ultimately to the Great Salt Lake. Construction sites can be a significant source of pollution to the streams and wetlands.





# CONSTRUCTION

**Best Management Practices** 

INDEX

| STOP      | RM WATER<br>SALITION                          | Waste and<br>Material<br>Management | Vehicle and<br>Equipment<br>Management | Stabilization | Runoff<br>Diversion | Velocity<br>Reduction | Sediment<br>Removal |
|-----------|---|-------------------------------------|--|---------------|---------------------|-----------------------|---------------------|
| BE        | Benching                                      |                                     |  |               | ✓                   |                       |                     |
| BRF       | Brush or Rock Filter                          |                                     |  |               |                     |                       | $\checkmark$        |
| BRRC      | Building Repair, Remodeling, and Construction | $\checkmark$                        |  |               |                     |                       |                     |
| CD        | Check Dams                                    |                                     |  |               | $\checkmark$        |                       |                     |
| CESA      | Contaminated or Erodible Surface Area         |                                     |  | $\checkmark$  |                     |                       |                     |
| CM        | Chemical Mulch                                |                                     |  | $\checkmark$  |                     |                       |                     |
| CP        | Compaction                                    |                                     |  | $\checkmark$  |                     |                       |                     |
| CR        | Construction Road Stabilization               |                                     |  | $\checkmark$  |                     |                       |                     |
| CST       | Curb Sedimentation Trap                       |                                     |  |               |                     |                       | $\checkmark$        |
| CWM       | Concrete Waste Management                     | $\checkmark$                        |  |               |                     |                       |                     |
| DC        | Dust Controls                                 |                                     |  | $\checkmark$  |                     |                       |                     |
| DD        | Diversion Dikes                               |                                     |  |               | $\checkmark$        |                       |                     |
| DI        | Drainage Isolation                            |                                     |  |               | $\checkmark$        |                       |                     |
| EBB       | Earth Berm Barrier                            | $\checkmark$                        |  |               |                     |                       |                     |
| ECB       | Erosion Control Blankets                      |                                     |  | $\checkmark$  |                     |                       |                     |
| EVWA      | Equipment and Vehicle Washdown Area           |                                     | $\checkmark$                           |               |                     |                       |                     |
| FR        | Fiber Rolls                                   |                                     |  |               |                     |                       | $\checkmark$        |
| FS        | Filter Strips                                 |                                     |  | $\checkmark$  |                     |                       |                     |
| GM        | Geotextiles and Mats                          |                                     |  | $\checkmark$  |                     |                       |                     |
| HM        | Hydromulching                                 |                                     |  | $\checkmark$  |                     |                       |                     |
| HWM       | Hazardous Waste Management                    | $\checkmark$                        |  |               |                     |                       |                     |
| IP-F      | Inlet Protection - Excavated                  |                                     |  |               |                     |                       | $\checkmark$        |
| IP-GB     | Inlet Protection - Gravel Bags                |                                     |  |               |                     |                       | $\checkmark$        |
| IP-SB     | Inlet Protection - Silt Bags                  |                                     |  |               |                     |                       | $\checkmark$        |
| IP-SE     | Inlet Protection - Silt Fence or Straw Bale   |                                     |  |               |                     |                       | $\checkmark$        |
| MS        | Material Storage                              | $\checkmark$                        |  |               |                     |                       |                     |
| MU        | Mulching                                      |                                     |  | $\checkmark$  |                     |                       |                     |
|           | Outlet Protection                             |                                     |  |               |                     | $\checkmark$          |                     |
|           | Preservation of Existing Vegetation           |                                     |  | $\checkmark$  |                     | •                     |                     |
|           | Preservation of Existing Vegetation           |                                     |  | •             |                     |                       |                     |
|           | Sodimont Booin                                | •                                   |  |               |                     |                       | 1                   |
|           | Send Pag Parrier                              |                                     |  |               |                     |                       | •<br>•              |
| SDD       | Stabilized Construction Entrance              |                                     |  | 1             |                     |                       | •                   |
| SCE       |   |                                     |  | •             |                     |                       |                     |
| 500       | Spill Clean-Op                                | v                                   |  |               |                     |                       |                     |
| <u>SD</u> |   |                                     |  |               | v                   |                       |                     |
|           |   |                                     |  | ./            |                     |                       | v                   |
| <u>5P</u> | Seeding and Planting                          |                                     |  | v             |                     |                       |                     |
| <u>5R</u> |   |                                     |  |               |                     | •                     | 1                   |
| 55        |   |                                     |  |               |                     |                       | V                   |
| <u>31</u> |   |                                     |  |               |                     |                       | V (                 |
| SIB       | Straw Bale Barrier                            |                                     |  |               | 1                   |                       | ✓                   |
|           | I emporary Drains or Swales                   |                                     |  | /             | ✓                   |                       |                     |
| TPS       | I emporary and Permanent Seeding              |                                     |  | ✓             |                     |                       |                     |
| TSC       | I emporary Stream Crossing                    |                                     |  |               | ✓                   |                       |                     |
| VEC       | Vehicle and Equipment Cleaning                |                                     | <b>√</b>                               |               |                     |                       |                     |
| VEF       | Vehicle and Equipment Fueling                 |                                     | ✓                                      |               |                     |                       |                     |
| WD        | Waste Disposal                                | $\checkmark$                        |  |               |                     |                       |                     |

A link for a collection of these BMPs is available at: https://www.daviscountyutah.gov/publicworks/storm-water-coalition

| Project   | UTRC  | JTRC City Permit # |                      |  |  |  |
|---|---|--------------------|----------------------|--|--|--|
| Disturbed Area (ac.)  | Bor   | nd Amount \$       |                      |  |  |  |
| Estimated Duration  | Fe  | Fee Amount \$      |                      |  |  |  |
| Reviewed By:  |   |                    |                      |  |  |  |
| Storm Water Pollution Prevention Plan (SWP)<br>UTRC00000 (adopted July 1 2019)  | PP) Checklist   | InSWPPP?<br>(Y/N)  | Reference            |  |  |  |
| SWPPP stamped by P.E.   |   | ()                 | City Code 6-15-116   |  |  |  |
| Maintenance Agreement for Long-Term Controls  |   |                    | City Code 6-15-120   |  |  |  |
| <ul> <li>SWPPP identifies storm water team listing personnel w</li> </ul>   | ith responsibilities  |                    | Utah CGP 7.3.1       |  |  |  |
| SWPPP describes nature of construction including size   | of property, area of disturbance  |                    | Utah CGP 7.3.2.a-c   |  |  |  |
| <ul> <li>SWPPP describes intended sequence (&amp; dates/duration<br/>following: installing controls, land disturbance, cessatic<br/>stabilization, removal of equipment and removal of tem<br/>SWPPP includes Site Map w</li> </ul>   | n) of construction activities including the<br>n of activities, temporary and final<br>porary controls<br>//th the following: |                    | Utah CGP 7.3.2.e-f   |  |  |  |
| a property boundaries   | nur ure renewing.   |                    | Litah CGP 7 3 3 a    |  |  |  |
| b.(1) disturbed area with phasing   |   |                    | Utah CGP 7 3 3 b (1) |  |  |  |
| <ul> <li>b.(2) slopes before and after construction and iden</li> </ul>   | tify "steep slopes" (>= 70%)  |                    | Utah CGP 7.3.3.b.(2) |  |  |  |
| b.(3) stockpile locations   | , (   |                    | Utah CGP 7.3.3.b.(3) |  |  |  |
| b.(4) surface water crossings   |   |                    | Utah CGP 7.3.3.b.(4) |  |  |  |
| <ul> <li>b.(5) site exit point(s)</li> </ul>  |   |                    | Utah CGP 7.3.3.b.(5) |  |  |  |
| <ul> <li>b.(6) planned structures and impervious surfaces a</li> </ul>  | t project completion  |                    | Utah CGP 7.3.3.b.(6) |  |  |  |
| b.(7) construction support locations  |   |                    | Utah CGP 7.3.3.b.(7) |  |  |  |
| <ul> <li>c. nearby surface waters and wetlands, noting impa</li> </ul>  | irments and category 1 & 2 waters   |                    | Utah CGP 7.3.3.c     |  |  |  |
| d. Pre-disturbance vegetative cover   |   |                    | Utah CGP 7.3.3.d     |  |  |  |
| e. pre-development drainage patterns and post-maj   | or-grading drainage patterns  |                    | Utah CGP 7.3.3.e     |  |  |  |
| • f. all discharge locations and storm drain inlets on s  | ite   |                    | Utah CGP 7.3.3.f     |  |  |  |
| g. locations of potential pollutant-generating activitie  | es  |                    | Utah CGP 7.3.3.g     |  |  |  |
| <ul> <li>h. locations of storm water conrol measures, includi</li> </ul>  | ng natural buffers  |                    | Utah CGP 7.3.3.h     |  |  |  |
| Identification of all non-storm discharges  |   |                    | Utah CGP 7.3.4       |  |  |  |
| Stormwater pollution prevention controls f  | or the following, as applicable:  |                    |                      |  |  |  |
| <ul> <li>Buffers (if within 50' of receiving surface water)</li> </ul>  |   |                    | Utah CGP 2.2.1       |  |  |  |
| Preserve natural vegetation to maximize infiltration, where the second sec | ere possible  |                    | Utah CGP 2.2.2       |  |  |  |
| Perimeter sediment controls   |   |                    | Utah CGP 2.2.3       |  |  |  |
| Minimize track-out and clean up any track-out   |   |                    | Utah CGP 2.2.4       |  |  |  |
| <ul> <li>Stockpiles: outside of buffers, with sediment barrier, sta</li> </ul>  | abilized or covered if left >14 days  |                    | Utah CGP 2.2.5       |  |  |  |
| <ul> <li>Minimize: dust, steep slope (&gt;70%) disturbances, remo</li> </ul>  | val of topsoil, and compaction  |                    | Utah CGP 2.2.6-9     |  |  |  |
| Provide inlet protection  |   |                    | Utah CGP 2.2.10      |  |  |  |
| Minimize erosion of storm water conveyancy channels   |   |                    | Utah CGP 2.2.11      |  |  |  |
| <ul> <li>Sediment Basins: outside of buffers, engineered, outle</li> </ul>  | t takes water from top  | -                  | Utan CGP 2.2.12      |  |  |  |
| <ul> <li>Provide means to eliminate discharges from equipment</li> <li>Minimize expective of building products materials abort</li> </ul>   | ideling, maintenance, and washing   |                    | Utah CGP 2.3.1-2     |  |  |  |
| Minimize exposure of building products, materials, cher     Concrete and other week out to look proof pit   | nicais, hydrocarbons, & wastes  |                    | Utan CGP 2.3.3       |  |  |  |
| Concrete and other wash-out to leak-proof pit   | on provention control   |                    | Utah CCP 7.2.5       |  |  |  |
| <ul> <li>Design and maintenance specifications for each politicity</li> <li>Spill prevention response and reporting procedures</li> </ul>   |   |                    | Utah CGP 7 3 5(7)    |  |  |  |
| <ul> <li>Describes procedures for inspection, maintenance, and</li> </ul>   | corrective action also:   |                    | Utah CGP 7 3 6       |  |  |  |
| a person responsible for doing inspections  |   |                    | Utah CGP 7.3.6(a)    |  |  |  |
| b.c. inspection schedule being followed (source of r  | ain data, if applicable)  |                    | Utah CGP 7 3 6(h c)  |  |  |  |
| <ul> <li>d. expected start/end dates of frozen conditions (if i</li> </ul>  | using alternate inspection schedule)  |                    | Utah CGP 7 3 6(d)    |  |  |  |
| e. inspection checklist and maintenance checklist(s   | ) that will be used   |                    | Utah CGP 7.3.6(e)    |  |  |  |
| Compliance with Class V UIC program   | ,   |                    | Utah CGP 7.3.8       |  |  |  |
| Certification by someone with signatory authority   |   |                    | Utah CGP 7.3.9       |  |  |  |
| <ul> <li>Evluation of opportunities for use of low impact design a</li> </ul>   | and green infrasturcture  | 1                  | MS4 Permit 4.2.4.3.3 |  |  |  |
| Site Prioritization: sites >= 1ac w/ receiving water travel   | rse through the site are "high priority"  |                    | MS4 Permit 4.2.4.3.4 |  |  |  |

Note: There are additional requirements if Treatment chemicals are to be used

CGP 7.3.3.i & 2.2.13

| Pro                                  | Project UTRC  |                 | City Permit #               |  |  |  |  |
|--------------------------------------|---|-----------------|-----------------------------|--|--|--|--|
| Disturbed Area (ac.) Bc              |   | ond Amount \$   |                             |  |  |  |  |
| Estimated Duration Fee Amount \$     |   |                 |                             |  |  |  |  |
| Reviewed By: Date:                   |   |                 |                             |  |  |  |  |
| Common Blan Sub Site SWPPP Checklist |   |                 |                             |  |  |  |  |
| Ba                                   | sed on Utah Permit UTRH00000  | SWPPP?<br>(Y/N) | Reference from<br>UTRC0000  |  |  |  |  |
| •                                    | Name and address of operator  |                 |                             |  |  |  |  |
| ٠                                    | Location of site  |                 |                             |  |  |  |  |
| ٠                                    | Contact information   |                 | 4.2.1                       |  |  |  |  |
| •                                    | Stockpiled materail not planned to be stored on impervious area and placed appropriately  |                 | 2.1.1                       |  |  |  |  |
| •                                    | SWPPP includes perimeter controls   |                 | 2.1.2                       |  |  |  |  |
| •                                    | SWPPP includes inlet protection at inlets on site and on adjacent roads down-gradient from<br>project   |                 | 2.1.3                       |  |  |  |  |
| ٠                                    | Sensitive Areas are to be clearly marked and isolated with environmental fencing  |                 | 2.2                         |  |  |  |  |
|                                      | Minimizing sediment transport:  |                 |                             |  |  |  |  |
| ٠                                    | Area of soil disturbance is minimized   |                 | 2.3.1                       |  |  |  |  |
| ٠                                    | Minimize soil disturbance on steep slopes (>35 degrees), and provide a stabilizer where<br>disturbed  |                 | 2.3.2                       |  |  |  |  |
| •                                    | Storm water volume and velocity is controlled to minimize erosion and sediment transport  | İ               | 2.3.3                       |  |  |  |  |
| •                                    | Stormwater peak flow and volume discharges are controlled   |                 | 2.3.4                       |  |  |  |  |
|                                      | Good Housekeeping Measures:   |                 |                             |  |  |  |  |
| ٠                                    | Track out is addressed by providing a track out pad or prohibiting vehicles on site   |                 | 2.4.1                       |  |  |  |  |
| ٠                                    | No dirt curb ramps on street or sidewalk (may be steel or other material)   |                 | 2.4.2                       |  |  |  |  |
| ٠                                    | Waste and debris must be disposed of daily  |                 | 2.4.3                       |  |  |  |  |
| ٠                                    | Portable toilets must be staked and placed away from gutter   |                 | 2.4.4                       |  |  |  |  |
| ٠                                    | Lined/leak-proof washout area is provided   |                 | 2.4.5                       |  |  |  |  |
| •                                    | Topsoil preserved & minimize compaction in landscape areas, or else document infeasibility  |                 | 2.5                         |  |  |  |  |
| ٠                                    | Stabilization Required on slopes over 20%; velocity control devices on areas 5% to 20%  |                 | 2.6.2                       |  |  |  |  |
| ٠                                    | Construction dewarting allowed if not discharged from site, otherwise need separate permit  |                 | 2.7                         |  |  |  |  |
| •                                    | If receiving H2O impaired for sediment or nutrients, must have BMPs to minimize discharges  |                 | 2.10                        |  |  |  |  |
| •                                    | Daily site check log for dirt in street and trash on site   |                 | 3.2                         |  |  |  |  |
| ٠                                    | Weekly self inspections must include items listed in permit section 3.3.1, 3.3.2, and 3.4   |                 | 3.3 & 3.4                   |  |  |  |  |
| ٠                                    | Corrective actions must be completed before the following weekly inspection   |                 | 3.5                         |  |  |  |  |
| ٠                                    | SWPPP must be designed using consideration for climate and soil conditions  |                 | 4.1.1                       |  |  |  |  |
| •                                    | Basins and impoundments must discharge from the water surface unless infeasible   |                 | 4.1.2                       |  |  |  |  |
| •                                    | Sequence and estimated start/stop dates listed for excavation, grading, and landscaping   |                 | 4.2.2                       |  |  |  |  |
| ٠                                    | SWPPP includes Site Map with the following:   |                 | 4.2.3                       |  |  |  |  |
| ⊢                                    | a. property boundaries  | ļ               | 4.2.3.a                     |  |  |  |  |
|                                      | b. disturbed area   |                 | 4.2.3.b                     |  |  |  |  |
| <u> </u>                             | c. stopes, and identity "steep stopes" (see 2.3.2)  | ļ               | 4.2.3.C                     |  |  |  |  |
| L                                    | <ul> <li>a. location of stockpiles, solis, const. materials, portable tollets, trash containers, concrete<br/>washout areas, egress points, and track out pads</li> </ul> |                 | 4.2.3. <b>0</b>             |  |  |  |  |
|                                      | e. waterbodies, wetlands, and natural buffer areas  |                 | 4.2.3.e                     |  |  |  |  |
|                                      | f. locations of BMPs and controls for runon and runoff  |                 | 4.2.3.f                     |  |  |  |  |
|                                      | g. locations of inlets and stormwater discharge points  |                 | 4.2.3.g                     |  |  |  |  |
|                                      | h. areas that will be temporarily or permanently stabilized   |                 | 4.2.3.h                     |  |  |  |  |
| •                                    | SWPPP shows 50' natural butter to surface waters (or explanation why it was not feasible) or smaller natural buffer and with controls making the buffer an equivalent     |                 | 2.3.5 & 4.2.4               |  |  |  |  |
| •                                    | SWPPP identifies receiving water, whether it is impaired, and any impairments   |                 | 4.2.5                       |  |  |  |  |
| •                                    | SWPPP lists activities with correcponding potential pollutants  |                 | 4.2.6                       |  |  |  |  |
| •                                    | SWPPP describes waste management procedures (including soil, debris, demolition material,   |                 | 2.4.1, 2.4.2, 2.4.3, 2.4.4, |  |  |  |  |
| •                                    | SWPPP includes training component for subcontractors and utility providers to prevent pollution   |                 | 4.2.8                       |  |  |  |  |
|                                      |   |                 | 4.0.0                       |  |  |  |  |
| •                                    | SWPPP must include copy of permit and NUI   |                 | 4.2.9                       |  |  |  |  |
| •                                    | SWERE must be certified by both owner and general contractor  | <b> </b>        | 4.2.10 & 5.16.1.a           |  |  |  |  |
| ⊢                                    |   | Į               |                             |  |  |  |  |
|                                      |   |                 |                             |  |  |  |  |