Common Plan SWPPP for Bergen Residence

2402 N Nordic Valley Drive

Eden, UT 84401

Imprint Builders 952 S 250 E Farmington, UT 84025

Date

10/10/2019



1	. Project Information		
Addr City: Latitu Longi	ect Name: Bergen Residence ess: 2402 N Nordic Valley Drive Eden ude: 41°18'08.5"N itude: 111°51'20.2"W ES Permit Tracking Number: UTRH96715	State: UT	Zip: 84310
Conta Addr City: Telep	er: John Bergen act Person: Dave Nielsen ess: 2402 N Nordic Valley Drive Eden bhone Number: 801.292.2223 I Address: dave@olobuilders.com	State: UT	Zip: 84310
Conta Addr City: Telep	eral Contractor: IMPRINT BUILDERS act Person: Dave Nielsen ess: 942 S 250 E Farmington bhone Number: 801.292.2223 I Address: dave@olobuilders.com	State: UT	Zip: 84025
Is the	ring "no" to the two questions below mear project in Indian Country? project a residential building on a single I		Yes □ No 🗵
2. P	Ollution Sources/Best Man Answer yes or no whether the following will be used to protect each feature. If n details for proper installation in Append	features are located at your si o, continue to the next question	te. If yes, select the BMP(s) that on. Attach necessary illustrated
2.1	A. Is there a SWPPP sign on site? (see per The sign must include the UPDES track number and email, and if the SWPPP is to be readable from a publicly accessite.	ing number, the owner or gene s on-line, instructions on how to	
2.2	has been obtained to trea offsite) must be covered b	struction area is needed and a	separate dewatering permit action Dewatering (if discharged
2.3	Will there be non-storm water discha Allowable discharges include: Flushing cleaning waters), water used for dust of construction activities, water from em- exposed to construction activities. (see Please list all anticipated non-storm v	of drinking water or irrigation control, spring water or ground ergency fire-fighting activities, permit part 2.4.5 & 2.9).	water (not including wash or lwater not exposed to and water from foot drains not

		What will you do to manage the non-storm water discharges? Please list direct discharges, contained non-storm water discharges, and discharges that are treated separately. BMP(s): □ All non-storm water discharges are listed as allowable per permit part 1.3 and discharged □ All non-storm water discharges that are not allowed are properly contained (see					
		questions 2.12 and 2.16) All non-storm water di chemicals, oils, etc.) will be	scharges that are conta	minated with sec	liment only (free	e of	
		Other: Click here to en		basiii or equivari	erre (see permit p	ui (2.0.1).	
2.4	total expos If disturbar	e for the total area of disturbance to be phased, minimizing the ure of disturbed soil at one time? (see permit part 2.3.1) ce can be minimized please show the locations on the site map and summarize (here) urbances will be delayed for some of the disturbed area: Click here to enter text.					
2.5	What perir	meter controls will be used	l to prevent sediment fr	om leaving the s	ite? (permit part	t 2.1.2 &	
	BMP(s):	☑ Silt Fence☐ Vegetative Buffer☑ Staked straw Wattle☐ Other: Click here to		☐ Berms☐ Cut-Back-Cu☐ Weighted W	_		
2.6	Are surface disturbanc	e waters located within 30 es?	feet of your project's e	arth	Yes □	No ⊠	
	used, you r	' natural vegetative buffer and the must demonstrate that the buffer, and select the reason 30' Natural Vegetat If less than 30' Natural 2 Silt Fence Barr Other: Click her	additional controls offer on for exemption below. ive Buffer Vegetative Buffer selecti ier	the same protect (see permit part 2 t additional Contr	tion as a 30' nai 3.5)	tural	
2.7	around tre	critical or sensitive areas (ses, wetlands, buffer zonesothe site? (see permit part 2	by water bodies, etc.)	-	Yes □	No ⊠	
	BMP(s):		with environmental fen	cing			
2.8		c out control will be used t ee permit part 2.4.1)	o prevent dirt from beir	ng tracked on str	eets as vehicles	leave	
	BMP(s):	☐ Track Out Pad ☐ Rumble Strips ☐ Restricted Site Access ☐ Other: Click here to	☐ Cobble ☐ Wash Down Pad ☐ Selective Access o enter text.		ry Pad		
2.9	part 2.1.3)	ve storm drain inlets on or must address the curb inlet	_		Yes ⊠	No 🗆	

	Where is/a	re the nearest downstream inlet(s) and how wi	ill you protect then	1: Click here to	o enter
	text.				
	BMP(s):	☐ Rock/Sand-filled Bags	☐ Drop Inlet B	ags	
		☐ Filter Fabric		-	es
		☐ Proprietary inlet devices			
		Other: Click here to enter text.			
2.10		mps be used at the site? (see permit part 2.4.2) as are used it must be done with material [not do		Yes □	No ⊠
	BMP(s):	☐ Crushed Rock	Wood/Steel □	=	m water.
	DIVIF (5).	☐ Other: Click here to enter text.	□ wood/steel	Namps	
		Uther: Click here to effer text.			
2.11	Will there b	e stockpiles or spoil piles on the site?		Yes ⊠	No □
		t "Contained by other BMP" if another BMP on y	our site will contain		
		Materials that can be transported with precipita			
	BMP(s):	∑ Surrounded by Silt Fence	☐ Surrounded	by Staked Stra	w
	` '	☐ Covered with Tarp	Wattles	.,	
			☐ Temporary -	- Removed sam	ne dav
		☐ Contained by other BMP. Explain: Click he			,
		Other: Click here to enter text.			
2.12	Does the pr	roject include installation of concrete, masonry	,, stucco, and paint	(water Yes	⊠ No □
	based) wor	k in this project? (see permit part 2.4.5 & 2.9.1)			
	Wash wate	r must be contained, the solids dried, and dispos	sed of at a landfill.		
	BMP(s):	□ Lined Depression		pster	
		☐ Regional Washout (per development)			
		☐ Other: Click here to enter text.			
2.13		lid waste be dealt with on the site? (see permit			
		in uncovered dumpsters can blow out and scatte			ıncovered
		naterial in the dumpster and leak out the bottom	• .	•	
	BMP(s):	☐ Bag Lightweight Trash	∠ Leak Proof D	umpsters	
		\square Receptacles with Lids	☐ Other: Click	here to enter	r text.
2.14	Will there b permit part 2	ee a need to dispose of solvents, oil, fuel, etc. li	quid waste? (see	Yes □	No ⊠
	BMP(s):	☐ Contained and Removed from the site ☐ Other: Click here to enter text.	☐ Collected fo	r Reuse	
2.45		witemete be bendled on the site?	:tt 2 .4 .4\		
2.15		initary waste be handled on the site? (see permi		fram aurhl	
	BMP(s):	☑ Portable Toilet(s) (must be staked down o	on airt surjace & 10	from curb)	
		☐ Onsite or Adjacent Indoor Bathrooms	1.1		
		☐ Portable Toilet Secondary Containment (s	secured down with	straps to heavy	/ weights)
		☐ Other: Click here to enter text.			
2.46					۵)
2.16	-	ou minimize the discharge of pollutants from sp			
	BMP(s):	☐ Use of drip pans		ling, and maint	enance
		☐ Spill kit	☐ Spill respo	ise pian.	
		☐ Other: Click here to enter text.			

2.17	Minimize the	a need to store construction materials exposure of materials with a pollution esticides, herbicides, detergents). Covering Erodible or Liquid Materials Strategic Storage and Staging Enclose them in a weather proof some Other: Click here to enter text.	on risk (certain building and site of the secondary and stored off-secondary)	nd landscaping materials, Containment
2.18	Does your sit BMP(s):	e have steep slopes (greater than 70% Erosion Control Blanket Seeding Mulch Other: Click here to enter text.		Yes □ No ⊠ Irbance on slope
2.19	velocities? (se		nsport. Straw Wattles (Fiber Ro Armored channel (ripra	
2.20	-	reduce storm water volume to minimpermit parts 2.3.4 and 2.3.3) Utilize basin, depression storage of infiltrate. Prevent heavy equipment (as murwill infiltrate easier. Rip soil after heavy equipment has Other: Click here to enter text.	of storm water, cut back controls control controls controls controls control controls controls control c	urb, or other to hold and
2.21	Is there a nee reasons)? BMP(s):	ded for dust control on the site (regular ☐ Wetting with Water ☐ Use Magchloride, Calcium Chlorid ☐ Stabilize surface with mulch, grav ☐ Other: Click here to enter text.	☐ Cover dirt ¡ de or Lignan Sulfonate vel or other surface cover	Yes □ No ⊠ Diles with a tarp
2.22	stabilized be Places that a permanently BMP(s):		rmit part 2.6) days with no activity, must	Seeding

If so, how will you leave the site for the new home owner so sediment will be contained on site until the home owner completes landscaping? (the permit can be terminated when the owner occupies the house even though the site is not stabilized).					
BMP(s):	☐ Mulching/Hydro-mulching	☐ Swales	☐ Silt Fence		
	☐ Wattles	☐ Cut-Back-Curb	\square Seeding		
	☐ Vegetated Buffer	☐ Grade Front-Yard	Lower than Sidewalk		
☐ Other: Click here to enter text.					

3. Sequence of Construction Activity

Type of Construction Activity	Approximate Date Range
Start/End of the Project	10/15/19 -5/15/20
Excavation activities	10/15/19
Foundation/Footings	11/10/19
Backfill	11/25/19
Erection of Building	12/01/19
Utility Lines installed (you may need to separate this into Plumbing lines, electrical lines, gas lines, water lines, Internet lines, etc.)	04/15/20
Insert more rows for any stage that should be included	
Landscaping (if the house is sold or occupied by owner with landscaping, if not landscaping should not be included)	

4. Site Map

On a blank page (or include a page from the architectural drawings that show site layout and dimensions), please draw a map (and place this map in Appendix A) showing the layout of the site including locations of:

- 1. boundaries of project/property
- 2. boundaries of disturbance (including areas outside of property boundaries)
- 3. show slopes on site (if there are steep areas show steep areas)
- 4. location of structures/facilities
- 5. locations of:
 - a. stockpiles for soils and materials
 - b. construction supplies
 - c. portable toilets

- d. garbage/trash containers
- e. egress points/track out pads
- f. concrete washout pits or containers
- 6. water bodies, wetlands, natural vegetative buffers
- 7. placement of all BMPs, perimeter, erosion control, sediment control, inlet protection, etc.
- 8. storm water inlets and storm water discharge points (where storm water drains off the site)
- 9. areas that will be temporarily or permanently stabilized on the site
- 10. areas where disturbances will be delayed minimizing total exposed surface at one time.

5. Potential Sources of Pollutants

Potential sources of sediment to storm water runoff:

- Clearing and grubbing operations
- Grading and site excavation operations
- Vehicle tracking
- Topsoil stripping and stockpiling
- Landscaping operations

Potential pollutants and sources, other than sediment, to storm water runoff:

- Combined Staging Area—small fueling activities, minor equipment maintenance, sanitary facilities, and hazardous waste storage.
- Materials Storage Area—general building materials, solvents, adhesives, paving materials, paints, aggregates, trash, and so on.
- Construction Activity—paving, curb/gutter installation, concrete pouring/mortar/stucco, and building construction
- Concrete Washout Area

For all potential construction site pollutants, see Table 2 below.

Table 2. Potential construction site pollutants. Circle all that applies to your site and in the last column identify pollution prevention measures to minimize their discharge.

Material/Chemical	Storm Water Pollutants	Common Location*	Pollution Prevention Methods
Pesticides (insecticides, fungicides, herbicides, rodenticide)	Chlorinated hydrocarbons, organophosphates, carbamates, arsenic	Herbicides used for noxious weed control	
Fertilizer	Nitrogen, phosphorous	Newly seeded areas	
Plaster	Calcium sulphate, calcium carbonate, sulfuric acid	Building construction	
Cleaning solvents	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	No equipment cleaning allowed in project limits	

Material/Chemical	Storm Water Pollutants	Common Location*	Pollution Prevention Methods
Asphalt	Oil, petroleum distillates	Streets and roofing	
Concrete	Limestone, sand, pH, chromium	Curb and gutter, building construction	Central Washout w/ berm
Glue, adhesives	Polymers, epoxies	Building construction	
Paints	Metal oxides, Stoddard solvent, talc, calcium carbonate, arsenic	Building construction	
Curing compounds	Naphtha	Curb and gutter	
Wood preservatives	Stoddard solvent, petroleum distillates, arsenic, copper, chromium	Timber pads and building construction	
Hydraulic oil/fluids	Mineral oil	Leaks or broken hoses from equipment	
Gasoline	Benzene, ethyl benzene, toluene, xylene, MTBE	Secondary containment/staging area	
Diesel Fuel	Petroleum distillate, oil & grease, naphthalene, xylenes	Secondary containment/staging area	
Kerosene	Coal oil, petroleum distillates	Secondary containment/staging area	
Antifreeze/coolant	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Leaks or broken hoses from equipment	
Sanitary toilets	Bacteria, parasites, and viruses	Staging area	See Site map of Swppp

^{*(}Area where material/chemical is used on-site)

6. Spill Prevention and Response Plan

Describe the spill prevention and control plan to include ways to reduce the chance of spills, stop the source of spills, contain and cleanup spills, dispose of materials contaminated by spills, and train personnel responsible for spill prevention and control. Additionally, fill in all **BLUE** fields below.

Spill Plan:

Berm/Basing Concrete washout, portable toilet on site, Clean street if/when vehicles move from street to property, gravel next to curb for excavation equipment to minimize dirt in road. Fiber rolls on curbs at property lines to prevent gravel/debris in storm sewer.

Any discharges in 24 hours equal to or in excess of the reportable quantities listed in 40 CFR 117, 40 CFR 110, and 40 CFR 302 will be reported to the National Response Center and the Division of Water Quality (DWQ) as soon as practical after knowledge of the spill is known to the permittee. The permittee shall submit within 14 calendar days of knowledge of the release a written description of: the release (including the type and estimate of the amount of material released), the date that such release occurred, the circumstances leading to the release, and measures taken and/or planned to be taken to the Division of Water Quality (DWQ), 288 North 1460 West, P.O. Box 144870, Salt Lake City, Utah 84114-4870. The Storm Water Pollution Prevention Plan must be modified within14 calendar days of knowledge of the release to provide a description of the release, the circumstances leading to the release, and the date of the release. In addition, the plan must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.

Agency	Phone Number
National Response Center	(800) 424-8802
Division of Water Quality (DWQ) 24-Hr Reporting	(801) 538-6146; (801) 536-4123
Utah Department of Health Emergency Response	(801) 580-6681
Local Fire Department	(801)-782-8159

Minimum spill quantities requiring reporting:

Material	Media Released To	Reportable Quantity
Engine oil, fuel, hydraulic & brake fluid	Land	25 gallons
Paints, solvents, thinners	Land	100 lbs (13 gallons)
Engine oil, fuel, hydraulic & brake fluid	Water	Visible Sheen
Refrigerant	Air	1 lb
Antifreeze, battery acid, gasoline, engine degreasers	Air, Land, Water	100 lbs (13 gallons)

Emphasis to:

1st Priority: Protect all people (including onsite staff)

2nd Priority: Protect equipment and property

3rd Priority: Protect the environment

- 1. Make sure the spill area is safe to enter and that it does not pose an immediate threat to health or safety of any person.
- 2. Check for hazards (flammable material, noxious fumes, cause of spill) if flammable liquid, turn off engines and nearby electrical equipment. If serious hazards are present leave area and call 911. LARGE SPILLS ARE LIKELY TO PRESENT A HAZARD.
- 3. Stop the spill source and contain flowing spills immediately with spill kits, dirt or other material that will achieve containment.
- 4. Call co-workers and supervisor for assistance and to make them aware of the spill and potential dangers
- 5. If spilled material has entered a storm sewer, regardless of containment; contact the City Storm Water Division.

- 6. Cleanup all spills (flowing or non-flowing) immediately following containment. Clean up spilled material according to manufacturer specifications, for liquid spills use absorbent materials AND DO NOT FLUSH AREA WITH WATER.
- 7. Properly dispose of cleaning materials and used absorbent material according to manufacturer specifications.
- 8. Report the reportable quantity to the Weber County Storm Water Division.

Emergency Numbers

Utah Hazmat Response Officer 24 hrs (801)-538-3745 City Police Department (801) 782-6736 City Engineering Division (801) 782-8529

7. SWPPP, Inspections and Corrective Action Reports

Inspection Schedule and Procedures: The permit requires inspections once a week (see permit Part 3). You must list and provide details of your BMPs in Appendix G. Inspection reports require reporting on BMPs and how effective they are (download inspection reports from the DWQ construction storm water website under the Common Plan Permit). You may be required to maintain, modify, remove, or apply/install more or different BMPs to control pollutants on the site. Please number your BMPs in Appendix G and refer to those numbers on your inspection reports and corrective action reports when you inspect or report on them.

Describe the general procedures for correcting problems when they are identified. Include responsible staff and time frames for making corrections:

Imprint Builders job foreman or other party will correct any items found by the inspector within time frames given by inspector.

Inspections and Corrective Actions: All inspections and corrective actions must be logged using the "Inspection/Correction Action Log" attached in Appendix E. The log should be filled out completely for each BMP.

8. Training of Sub-Contractors

All sub-contractors, installers of utility connections, and others that perform activities that are affected by permit requirements will be informed about permit requirements that pertain to their scope of work.

Sub-Contractors that have been informed:

Contractor	Date	Topic(s) Covered	Initials of Trainer
Excavator			

Gas utilities	
Plumbing connection	
Electrical connection	
Concrete foundation walls	
Concrete flat work	
Landscaper	
Other: Click here to enter text.	
Other: Click here to enter text.	
Other: Click here to enter text.	
Other: Click here to enter text.	

9. Changes to the SWPPP

All changes to this SWPPP must be redlined, dated, and initialed in the SWPPP document and on the site map.

10. Record Keeping

The following items should be kept at the project site available for inspectors to review:

- 1. A copy of the Common Plan Permit (Appendix B)
- 2. The signed and certified NOI form (Appendix C)
- 3. Inspection reports (Appendix E)

11. Delegation of Authority (if any)

Duly Authorized Representatives or Positions:

Company/Organization:	IMPRINT BUILDERS
Name: Glade Jones	
Position: Owner	

Position: Owner Address: 952 S 250 E

City: Farmington State: Utah Zip: 84025

Telephone: (801) 292-2223 Fax/Email: (XXX) XXX-XXXX

Owner/General Contractor Signature: Glade Jones Date: 10/29

Additional Duly Authorized Representatives or Positions:

Company/Organization: IMPRINT BUILDERS

Name: David Nielsen
Position: General Manager
Address: 952 S 250 E

City: Farmington State: UT Zip: 84025

Telephone: (801) 292-2223 Fax/Email: (XXX) XXX-XXXX

Owner/General Contractor Signature: David Vislsen Date: 10/29/2019

12. Discharge Information

Does your project/site discharge storm water into a Municipal Separate Storm Sewer System (MS4)? ⊠ Yes ⊠ No

Municipal Storm Drain System receiving the discharge from the construction project: Click here to enter text.

Receiving Waters (look up

https://deq.utah.gov/ProgramsServices/programs/water/standards/WQmap.htm to identify your receiving water body)

Enter the name(s) of the first surface water(s) that receives storm water directly from your site and/or from the MS4 listed above. **Note:** multiple rows provided in the case that your site has more than one point of discharge in which each flows to different surface waters.

- 1. Pine River
- **2.** Click here to enter name of receiving waters.
- 3. Click here to enter name of receiving waters.
- **4.** Click here to enter name of receiving waters.

Impaired Waters (refer to http://mapserv.utah.gov/surfacewaterquality/ in the left hand column to determine status of receiving water body).

Select any impaired surface water(s) that your site will discharge to, either directly or through the MS4 selected above.

Impaired Surface Water	Is this surface water impaired?		Pollutant(s) causing the impairment	Has a TM compl		Pollutant(s) for which there is a TMDL	
Click here to enter text.	☐ Yes	□ No	Click here to enter text.	☐ Yes	□ No	Click here to enter text.	

13. Certification and Notification

I, Dave Nielsen, 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 gathered and evaluated 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 am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Type text here

X David Nielsen

Construction Operator:

This SWPPP should be signed and certified by the construction operator(s).

SWPPP Appendices

Ensure the following documentation is attached to the SWPPP:

Appendix A: SWPPP Site Maps

Appendix B: Common Plan Permit

Appendix C: Notice of Intent (NOI), and a copy of the NOT form unless you plan to terminate the

permit on-line

Appendix D: Daily Site Check Log

Appendix E: Inspection Reports and Corrective Actions

Appendix F: Additional Information (i.e. permits such as local permits, dewatering, stream alteration, wetland, and out of date SWPPP documents, delegation of authority forms, etc.)

G: BMD Specifications and Details (Jabel BMDs to match the sections identified in this

Appendix G: BMP Specifications and Details (label BMPs to match the sections identified in this document.)

APPENDIX A: SWPPP Site Maps

APPENDIX B: Common Plan Permit

Find the permit on https://deq.utah.gov/Permits/water/updes/stormwatercon.htm

APPENDIX C: Notice of Intent and Termination.

Find the Notice of Termination Form at https://deq.utah.gov/Permits/water/updes/stormwatercon.htm

However, termination of the project can be done on-line at https://secure.utah.gov/stormwater

(You must log in using the same username that you applied for your NOI with. If you completed a paper NOI you must complete a paper NOT.)

APPENDIX D: Daily Self-Inspection Log (permit part 3.2.2).

Daily Inspection Log Initials Date Initials Date Date Initials Date Initials **APPENDIX E: Inspection Reports**

Include BMPs inspected even if they are in good condition. Corrections must be completed before the next weekly inspection.

Weekly Inspection/Corrective Action Log							
Date & Time of Inspection	Weather	BMP # and Name	Description of BMP Condition or Deficiency	Initial	Correction Date (MM/DD/YY)	How the BMP was Corrected	SWPPP Changed (Y/N)

APPENDIX F: Additional Information

For permits such as local permits, dewatering, stream alteration, wetland, and out of date SWPPP documents, delegation of authority forms, etc.

Delegation of Authority

I, Glade Jones, hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Common Plan Permit, at the Ashdown Residence construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

Field Manager (name of person or position)

IMPRINT BUILDERS (company)

952 S 250 E (address)

Farmington, UT 84025 (city, state, zip)

801.292.2223 (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in UTRH96715_(Reference State Permit), and that the designee above meets the definition of a "duly authorized representative" as set forth in UTRH96715 (Reference State Permit).

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 gathered and evaluated 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 am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Dave Nielsen

Company: IMPRINT BUILDERS

Title: General Manager

Signature: David Nielsen

Date: 10/10/19

APPENDIX G: BMP Specifications and Details

Label BMPs to match the sections identified in this document.

BMP - Materials Storage

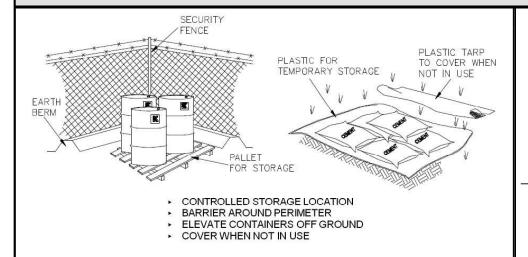
BMP - Portable Toilet

BMP - Silt Barrier

BMP - Track out Pad

BMP - Concrete Washout

MS



DESCRIPTION:

Controlled storage of on-site materials.

APPLICATION:

- Storage of hazardous, toxic, and all chemical substances
- · Any construction site with outside storage of materials

INSTALLATION / APPLICATION CRITERIA:

- Designate a secured area with limited access as the storage location. Ensure no waterways or drainage paths are nearby
- Construct compacted earthen berm (See Earth Berm Barrier Information Sheet), or similar perimeter containment around storage location for impoundment in the case of spills
- Ensure all on-site personnel utilize designated storage area. Do not store
 excessive amounts of material that will not be utilized on site
- For active use of materials away from the storage area ensure materials are not set directly on the ground and are covered when not in use. Protect storm drainage during use

LIMITATIONS:

- Does not prevent contamination due to mishandling of products
- Spill Prevention and Response Plan still required
- Only effective if materials are actively stored in controlled location

MAINTENANCE:

- Inspect daily and repair any damage to perimeter impoundment or security fencing
- Check materials are being correctly stored (i.e. standing upright, in labeled containers, tightly capped) and that no materials are being stored away from the designated location

OBJECTIVES

\boxtimes	Housekeeping Practices
\boxtimes	Contain Waste
	Minimize Disturbed Areas
	Stabilize Disturbed Areas
	Protect Slopes/Channels
	Control Site Perimeter
	Control Internal Erosion

TARGETED POLLUTANTS

HML	
	Sediment
	Nutrients
	Heavy Metals
$\boxtimes \Box \Box$	Toxic Materials
	Oil & Grease
	Floatable Materials
	Bacteria & Viruses
	Other Waste

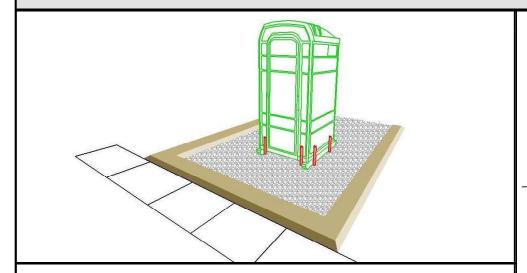
IMPLEMENTATION REQUIREMENTS

HML	
	Capital Costs
	O&M Costs
	Maintenance
$\boxtimes \Box \Box$	Training
	Staffing
	Administrative

H = High M = Medium L = Low



BMP: Portable Toilet PT



DESCRIPTION:

Temporary on-site sanitary facilities for construction personnel.

APPLICATION:

All sites with no permanent sanitary facilities or where permanent facility is too far from activities.

INSTALLATION / APPLICATION CRITERIA:

- · Locate portable toilets in a convenient locations throughout the site
- Prepare level, gravel surface and provide clear access to the toilets for servicing and for on-site personnel
- Construct earth berm perimiter (see Earth Berm Barrier Sheet), control for spill / leak protection.
- · Anchor the portable toilet to prevent tipping

LIMITATIONS:

No limitations

MAINTENANCE:

- Portable toilets should be maintained in good working order by licensed service with daily observation for leak detection
- · Regular waste collection should be arranged with licensed service
- All waste should be deposited in sanitary sewer system for treatment with appropriate agency approval

OBJECTIVES

\boxtimes	Housekeeping Practices
\boxtimes	Contain Waste
	Minimize Disturbed Areas
	Stabilize Disturbed Areas
	Protect Slopes/Channels
	Control Site Perimeter
	Control Internal Erosion

TARGETED POLLUTANTS

HML	
	Sediment
	Nutrients
	Heavy Metals
$\boxtimes \Box \Box$	Toxic Materials
	Oil & Grease
	Floatable Materials
$\boxtimes \Box \Box$	Bacteria & Viruses
$\square\square$	Other Waste

IMPLEMENTATION REQUIREMENTS

HWL	
	Capital Costs
	O&M Costs
	Maintenance
	Training
	Staffing
	Administrative

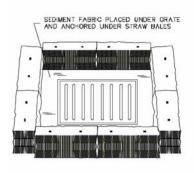
 $\mathbf{H} = \mathbf{High} \ \mathbf{M} = \mathbf{Medium} \ \mathbf{L} = \mathbf{Low}$



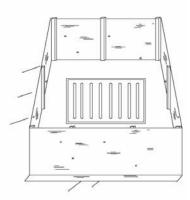
BMP: Inlet Protection - Silt Fence or Straw Bale

IP-SF

STRAW BALE BARRIER



SILT FENCE



DESCRIPTION:

Sediment barrier erected around storm drain inlet.

APPLICATION:

 Construct at storm drainage inlets located downgradient of areas to be disturbed by construction (for inlets in paved areas see other information sheets for inlet protection)

INSTALLATION / APPLICATION CRITERIA:

- Provide upgradient sedimant controls, such as silt fence during construction of inlet
- When construction of linet is complete, erect straw bale barrier or silt fence surrounding perimeter of inlet. Follow instructions and guidelines on individual BMP information sheets for straw bale barrier and silt fence construction

LIMITATIONS:

- · Recommended maximum contributing drainage area of one acre
- · Limited to inlets located in open unpaved areas
- · Requires shallow slopes adjacent to inlet

MAINTENANCE:

- Inspect inlet protection following storm event and at a minimum of once every two weeks
- Remove accumulated sediment when it reaches 4" in depth
- Repair or realign barrier/fence as needed
- Look for bypassing or undercutting and recompact soil around barrier/fence as required

OBJECTIVES

	Housekeeping Practices
	Contain Waste
	Minimize Disturbed Areas
	Stabilize Disturbed Areas
	Protect Slopes/Channels
\boxtimes	Control Site Perimeter
\boxtimes	Control Internal Erosion

TARGETED POLLUTANTS

HML	
$\boxtimes \Box \Box$	Sediment
	Nutrients
$\square\square\boxtimes$	Heavy Metals
$\square\square\boxtimes$	Toxic Materials
	Oil & Grease
$\boxtimes \Box \Box$	Floatable Materials
$\square\square\boxtimes$	Bacteria & Viruses
$\square\square\square$	Other Waste

IMPLEMENTATION REQUIREMENTS

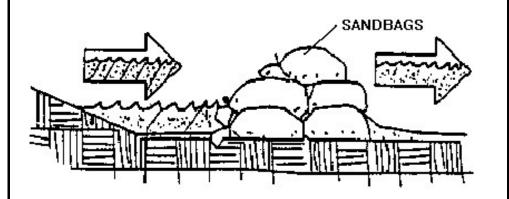
HWL	
	Capital Costs
$\square\square\boxtimes$	O&M Costs
$\square \boxtimes \square$	Maintenance
	Training
	Staffing
	Administrative

H = High M = Medium L = Low



BMP: Sand Bag Barrier

SBB



DESCRIPTION:

Stacking sand bags along a level contour creates a barrier which detains sediment - laden water, ponding water upstream of the barrier and promoting sedimentation

APPLICATION:

- · Along the perimeter of the site
- May be used in drainage areas up to 5 acres
- Along streams and channels
- · Across swales with small catchments
- · Around temporary spoil areas
- Below the toe of a cleared slope

INSTALLATION / APPLICATION CRITERIA:

- Install along a level contour
- · Base of sand bag barrier should be at least 48" wide
- Height of sand bag barrier should be at least 18" high
- 4" PVC pipe may be installed between the top layer of sand bags to drain large flood flows
- Provide area behind barrier for runoff to pond and sediment to settle
- Place below the toe of a slope
- UV resistant bags should be used

LIMITATIONS:

- Sand bags are more expensive than other barriers, but also more durable
- · Burlap should not be used

MAINTENANCE:

- Inspect after each rain and a minimum of once every two weeks
- Reshape or replace damaged sand bags immediately
- · Remove buildup of sediment

OBJECTIVES

	Housekeeping Practices
	Contain Waste
	Minimize Disturbed Areas
	Stabilize Disturbed Areas
\boxtimes	Protect Slopes/Channels
\boxtimes	Control Site Perimeter
∇	Control Internal Erosion

TARGETED POLLUTANTS

Sediment
Nutrients
Heavy Metals
Toxic Materials
Oil & Grease
Floatable Materials
Bacteria & Viruses
Other Waste

IMPLEMENTATION REQUIREMENTS

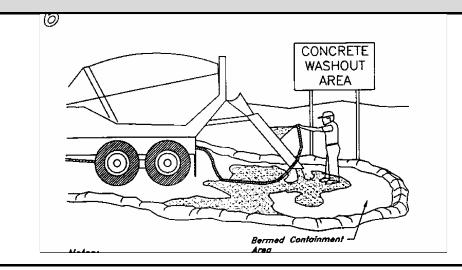
HWL	
$\boxtimes \Box \Box$	Capital Costs
	O&M Costs
$\square\square\boxtimes$	Maintenance
	Training
	Staffing
$\square\square\boxtimes$	Administrative

 $\mathbf{H} = \mathbf{High} \ \mathbf{M} = \mathbf{Medium} \ \mathbf{L} = \mathbf{Low}$



BMP: Concrete Waste Management

CWM



DESCRIPTION:

Prevent or reduce the discharge of polllutants to storm water from concrete waste by conducting washout off-site, performing on-site washout ina designated area, and training employees and subcontractors.

APPLICATION:

This technique is applicable to all types of sites

INSTALLATION / APPLICATION CRITERIA:

- Store dry materials under cover, away from drainage areas
- · Minimize excess mixing of fresh concrete, mortar or cement on site
- Do not wash out concrete trucks into storm drains, open ditches, streets, or streams
- Do not allow excess concrete to be dumped on-site, except in designated areas
- When washing concrete to remove fine particles and expose the aggregate, avoid creating runoff by draining the water within a bermed or level area (6" tall X 6' wide)
- Train employees and subcontractors in proper concrete waste management

LIMITATIONS:

Off-site washout or concrete wastes may not always be possible

MAINTENANCE:

- Inspect subcontractors to ensure that concrete wastes are being properly managed
- If using a temporary pit, dispose of hardened concrete on a regular basis

OBJECTIVES

	Housekeeping Practices
\boxtimes	Contain Waste
	Minimize Disturbed Areas
	Stabilize Disturbed Areas
	Protect Slopes/Channels
	Control Site Perimeter
	Control Internal Erosion

TARGETED POLLUTANTS

HML	
	Sediment
	Nutrients
$\square\square\boxtimes$	Heavy Metals
$\square\square\boxtimes$	Toxic Materials
$\square\square\boxtimes$	Oil & Grease
$\square\square\boxtimes$	Floatable Materials
$\square\square\boxtimes$	Bacteria & Viruses
$\boxtimes \Box \Box$	Other Waste

IMPLEMENTATION REQUIREMENTS

HML	
	Capital Costs
$\square\square\boxtimes$	O&M Costs
$\square \boxtimes \square$	Maintenance
	Training
	Staffing
$\square\square\boxtimes$	Administrative

H = High M = Medium L = Low



Below are links to various Construction Storm Water BMP Manuals for reference.

Salt Lake County

http://slco.org/uploadedFiles/depot/publicWorks/engineering/final_bmp_constructi.pdf
BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES

Davis County

http://www.daviscountyutah.gov/docs/librariesprovider20/default-document-library/stormwater-best-management-practices.pdf?sfvrsn=c9cd4053 2

A Guide to Stormwater Best Management Practices

Nevada DOT

https://www.nevadadot.com/home/showdocument?id=9417

Stormwater Quality Manuals: Construction Site Best Management Practices (BMPs) Manual

Caltrans

http://www.dot.ca.gov/hq/construc/stormwater/CSBMP-May-2017-Final.pdf

Construction Site Best Management Practices (BMP) Manual

Oregon

http://www.oregon.gov/deq/FilterPermitsDocs/BMPManual.pdf

Construction Stormwater Best Management Practices Manual

Los Angeles

http://dpw.lacounty.gov/cons/specs/BMPManual.pdf

Construction Site Best Management Practices (BMPs) Manual

Maricopa County (Arizona)

https://www.maricopa.gov/DocumentCenter/View/2368/2015-03-Drainage-Design-Manual-for-Maricopa-County-Volume-III-Erosion-pdf

Drainage Design Manual for Maricopa County (Erosion Control)

Minnesota

https://www.pca.state.mn.us/sites/default/files/wq-strm2-09.pdf

Stormwater Compliance Assistance Toolkit for Small Construction Operators