

Sedimentation Basin with two - 24" CMP outlets. Daylight to natural channel

Daylight Line Staging Area

24" CMP Culvert @ 10% grade. Install adjustable closure slide gates on CMP at inlet. Riprap discharge outlet area. Flow capacity = 29 cfs each.

Tributary Drainage Area = 10.72 acres
 Pit 1 & 2 Surface Area = 1.79 acres
 Net Drainage Area = 8.98 Acres

V-shaped borrowditch (typ.) diversion channel 18" deep with 2H:1V side slopes. Flow capacity = 27 cfs.

Edge of Proposed Staging Area

Extend synthetic liner 12" above finished pad grade around perimeter of all pits. (typ.)

Pump

Manifold

Proposed Flowback Pit #1

12' Depth

Manifold

Proposed Flowback Pit #2

12' Depth

24" CMP Culvert @ 2% minimum grade

10' Buffer Zone

Daylight Line Flowback Pit

Perimeter Fencing

Trapezoid shaped diversion channel 2 ft deep with 3 ft wide bottom and 2H:1V side slopes. Flow capacity = 82 cfs.

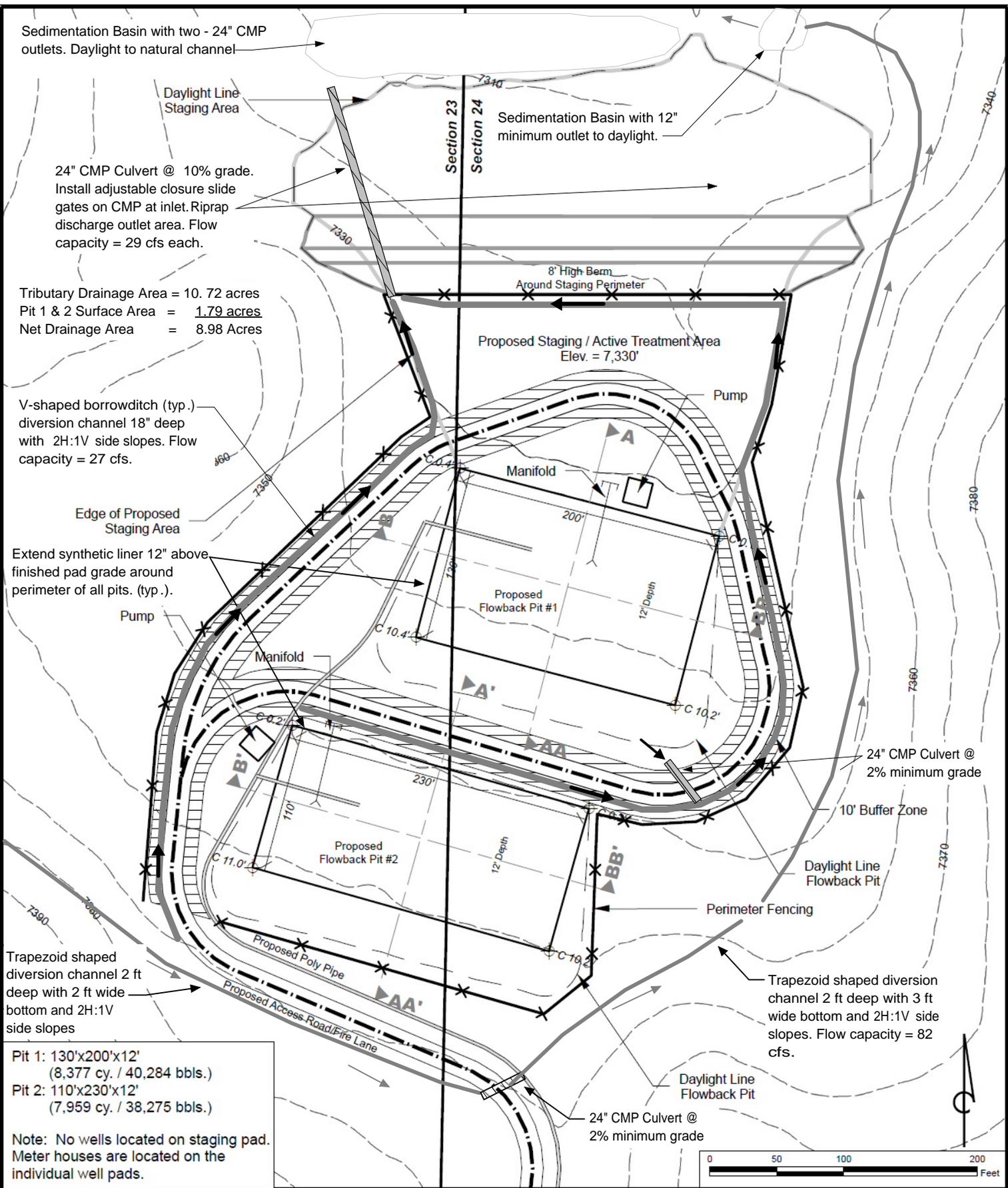
Daylight Line Flowback Pit

24" CMP Culvert @ 2% minimum grade

Trapezoid shaped diversion channel 2 ft deep with 2 ft wide bottom and 2H:1V side slopes

Pit 1: 130'x200'x12'
 (8,377 cy. / 40,284 bbls.)
 Pit 2: 110'x230'x12'
 (7,959 cy. / 38,275 bbls.)

Note: No wells located on staging pad. Meter houses are located on the individual well pads.



Estimated Dirt Quantities (cy)

ITEM	CUT		FILL	EXCESS
	SUBSOIL	TOPSOIL		
Pit 1	14,169	1,041		15,210 (C)
Pit 2	13,860	1,057		14,917 (C)
Staging		2,687	28,029	25,342 (F)
TOTAL	28,029	4,785	28,029	4,785 (C)

Notes:

1. Subsoil from pits cuts (28,029 cy.) used to create staging area.
2. Topsoil (4,785 cy.) stored in separate pile from staging area.
3. Topsoil volumes based on 8" soil depth.
4. Total Disturbed Area = +/- 4.0 Ac.

SCALE: 1" = 100'
 DATE: 10.22.2010



SG Interests
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Bull Mountain Unit
 T. 11 S, R. 90 W, Sections 23 & 24
 McIntyre Flowback Pits 1 & 2
CONSTRUCTION LAYOUT