

# *Construction Stormwater Compliance Oil and Gas Industry*

Rocky Mountain EHS Peer Group

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Kendra Kelly - CDPHE



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# *Introduction*

Kendra Kelly

Environmental Protection Specialist

[kendra.kelly@state.co.us](mailto:kendra.kelly@state.co.us)

303.692.3387



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# *Outline*

- Summary of inspection data
- Records review findings
- Compliance solutions
- Field findings
- Industry solutions
- Questions



# *Disclaimer*

Each site is different, read the permit.



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# *Inspection Data Summary*

Statistics from IY16-IY17



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# *In summary...*

- 7 permittees inspected (8 inspections)
- 30+ well pads / associated facilities
- 5/3 by location of inspection (western slope/front range)
- 25% enforcement referral rate

# *What does this mean?*

- Typically 3-10 well pads evaluated per inspection
- Average of 5 findings per well pad
- Potential total of 50 findings in the inspection
- Penalties can be up to \$10,500 per day per violation

\$525,000



# *Not Top Ten*

Ten common violations to avoid becoming a statistic.



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# *Records Review Findings*

And compliance solutions



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# *1. Inspection reports and corrective actions*

- Inspect as required
- Complete corrective actions
- Document compliance
- Train Project Personnel



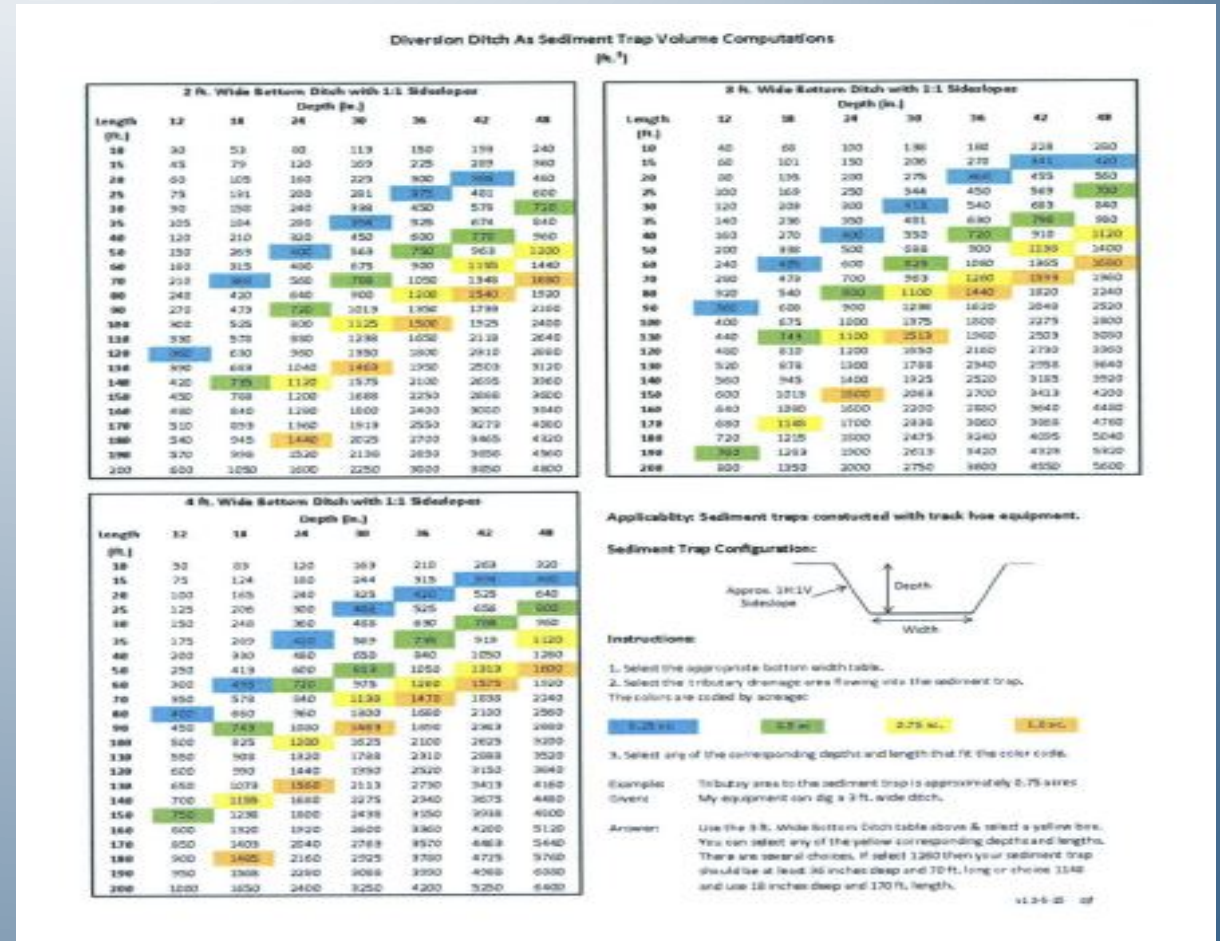
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# 2. Control measure specifications

- Design criteria
- Specs for all controls used
- Evaluate if you can meet the requirements of the control measure specs



# 3. SWMP narrative descriptions

- Materials management plans
- Field wide SWMPs, site specific information

## Appendix F - Site Specific Stormwater Management Plan

Project Name (Site): [REDACTED] Field Name: [REDACTED]  
Latitude: [REDACTED] Longitude: - [REDACTED]  
CDPS Permit Number: [REDACTED] Inspection Type: 14 Day  
Phase: Temporary Interim  
Name of Receiving Water: Dry Creek, Ultimately the Colorado River  
Estimated Distance to Receiving Water: 0.41 miles, 0.5 miles respectively  
Twp, Sec, Range: T [REDACTED] R [REDACTED]  
Major Erosion Control Facilities/Structures (BMPs) Utilized at Site: Vegetative Buffer, Diversion Ditch, Berm, Sediment Basin, and Jute Matting.

Estimate of Total Area of Site: 8.7 acres Estimate of Reclaimed Acres of Site: TBD Soil

Types: Potts Loam (6 to 12% slopes) Permeability: Moderate to rapid

Soil Erosion Potential: Moderate to severe

Existing Vegetation Description: Wheat grass, needle and thread, and sagebrush

Final Stabilization Date: Not yet determined

Estimate of Percent Vegetative Ground Cover: 60%

Seed Mix for Interim Final Reclamation: Ursa Dryland Pasture Seed Mix or Landowner Seed Mix

Description of Non-SW Discharge Components (e.g., Springs, Irrigation): None

Location of Non-SW Discharge Components (e.g., Springs, Irrigation): None

### Phased BMPs

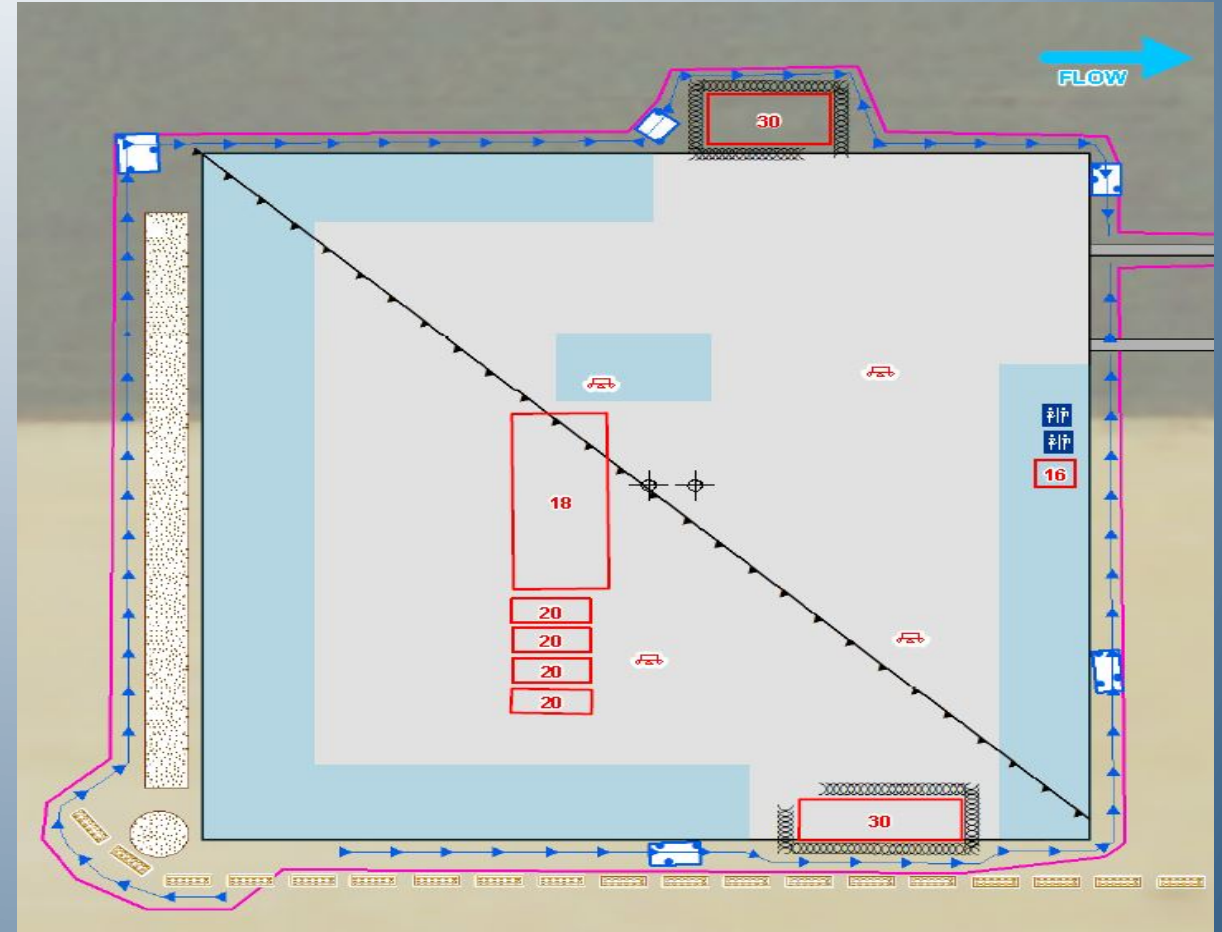
#### Construction:

- Top soil will be utilized as a berm around the north and east sides of the location.
- Two sediment ponds will be installed on the northeast corner of location.
- Spill ways will be armored with riprap.
- Berm/diversion ditch will direct water along the east and north sides of location into the sediment ponds.
- Top soil will be stockpiled on the south side of the location to prevent run-on and erosion of the cut slope.
- Gravel will be applied to the pad's surface as final grade.
- Portable lavatories will be placed inside the pad containment and will be staked down.



# 4. Site map updates

- Identify material staging areas
- Indicate area of disturbance
- Identify location of control measures



# *Field Findings*

And compliance solutions



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# 5. *Installation and maintenance of control measures*

- Straw wattle
- Culvert protections
- Soil roughening





# 6. *Material management*

- Drilling materials
- Petroleum spills
- Dumpster Policy



# 7. *Point-in-time conditions*

- New operations
- Site maps showing controls and recent updates





# 8. *Conveyance/containment control measures*

- Installation
- Maintenance
- Design





# 9. *Sediment trapping devices*

- Location
- Outfall controls
- Capacity





# 10. Implementation of control measures

- Location
- Capacity/limitations
- Intended function
- Discharge points



# *Takeaways*

- Pre-planning, intended function
- Training and use of additional personnel
- Site specific modifications/enhancements
- Documented practices/procedures



# *Stormwater Associated with Construction Activities (COR400000) RENEWAL*

[www.coloradowaterpermits.com](http://www.coloradowaterpermits.com)

Kendra Kelly  
(303) 692-3387

[Kendra.Kelly@state.co.us](mailto:Kendra.Kelly@state.co.us)





# *Questions?*

Thank you for your time.



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