

**Alton Coal Development, LLC**

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CO250005  
Incoming  
#4386  
OK

July 30, 2013

Daron R. Haddock  
Coal Program Manager  
Oil, Gas & Mining  
1594 West North Temple, Suite 1210  
Salt Lake City, UT 84114-5801

Subject: **Completion of Mid-Term Review, Response to Deficiencies Task ID # 4317,  
Coal Hollow Project, Kane County, Utah, C/025/0005**

Dear Mr. Haddock,

Alton Coal Development, LLC has attached response to the deficiencies identified under Task ID #4317. Changes have been made and are submitted for review. Please find enclosed 2 (two) clean copies for review and insertion into the MRP. Please do not hesitate to contact me if you have any questions.

Sincerely

B. Kirk Nicholes  
Environmental Specialist

File in:

- Confidential
- Shelf
- Expandable

Date Folder 073113 CI 0250005

*Incoming 0001*

**RECEIVED**

**JUL 31 2013**

**DIV. OF OIL, GAS & MINING**

**R645-301-143** Please provide an update as required by Special Condition item 5 as an addendum to the 2012 Annual report. [PWB]

*An evaluation, in accordance with Permit Condition #5, has been prepared by Petersen Hydrologic and has been submitted in response to deficiencies identified in Task ID #4314.*

**R645-301-521.131** County records show that surface owners in surrounding fee and BLM coal lands have changed since the time of permitting. Please update the surface ownership map Dwg 1-3. [PWB]

*Dwg 1-3 has been updated and included in this submission.*

**R645-301-731.200** The Permittee shall update Table 7-5 to reflect that monitoring station BLM-1 will be monitored for dissolved and total selenium. [KMH]

*Table 7-5 has been updated and included in this submission.*

**R645-301-732.200** The Permittee shall update MRP Appendix 5-2 to reflect the enlarged capacities of Pond 3. [KMH]

*Capacities for pond 3 were updated in MRP Appendix 5-2 in the June 6th 2013 submission.*

**R645-301-742.110** The Permittee shall update and add ASCA's and ASCM's and needed to the MRP text and maps. All disturbed area drainage must be clearly depicted on appropriate maps and identified with their respective sediment control measure. A disturbed area acreage calculation for each sediment control area will be provided in the plan in either tabular or narrative form. Designs may be in written, tabular, or graphical form, and must comply with R645-301-742.110. A proposed sediment control measure's design shall include adequate detail to determine the functionality of the specific practice. [KHM]

*The need for ASCA's and ASCM's throughout the life of the mine will change, therefore Appendix 5-7 has been added to make additions/deletions less disruptive to the body of the MRP. Appendix 5-7 includes Table 1 which summarizes all ASCAs currently in use with information on the area intended to provide control for. Also, Drawing 1 of this appendix 5-7 shows the location of the ASCAs. Finally, general designs for various sediment control practices in use or that potentially could be used, have been included.*

**R645-301-121 – 300,**

1) Pagination associated with task #4100 in Chapter 3 and appendix 3-5 have been identified during the mid-term review that eliminated references to a commitment previously found in the MRP. Please reinstate the following commitment on page 13 in appendix 3-5 with the following language. **"ACD will meet with DOGM and DWR six months prior to conducting mining and reclamation activities in the Alton Lek area to discuss methods, using the best technology currently available, to avoid impacts to the sage grouse."** Sage grouse monitoring information in the current Appendix 3-5 is located on page 19-25. [JHC]

*This deficiency does not have any bearing as the historic Lek has been disturbed; Alton Coal will proceed with mining under the approved MRP as it is written. Note: It has been determined the State does not have the authority to mandate seasonal restrictions on private lands under the Utah Sage Grouse Conservation Plan.*

2) The Table of Contents for Chapter 3 list page numbers for Reclamation Plan Sections 340, 341, 341.100 and 341.200, however these sections could not be found in the MRP. These pages may also have been inadvertently eliminated with task #4100. The following text needs to be reinstated in the MRP beginning on page 3-57: [JCH]

*The missing sections have been included in this submission along with a revised Table of Contents to reflect the changes.*

# APPLICATION FOR COAL PERMIT PROCESSING

Permit Change  New Permit  Renewal  Exploration  Bond Release  Transfer

**Permittee:** Alton Coal Development, LLC

**Mine:** Coal Hollow

**Permit Number:** C/025/0005

**Title:** 2012 Annual Report Review Completion Midterm Review

**Description,** Include reason for application and timing required to implement:

Response to Deficiencies Task ID #4314 4317

**Instructions:** If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

- Yes  No 1. Change in the size of the Permit Area? Acres: \_\_\_\_\_ Disturbed Area: \_\_\_\_\_  increase  decrease.
- Yes  No 2. Is the application submitted as a result of a Division Order? DO# \_\_\_\_\_
- Yes  No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
- Yes  No 4. Does the application include operations in hydrologic basins other than as currently approved?
- Yes  No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
- Yes  No 6. Does the application require or include public notice publication?
- Yes  No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
- Yes  No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
- Yes  No 9. Is the application submitted as a result of a Violation? NOV # \_\_\_\_\_
- Yes  No 10. Is the application submitted as a result of other laws or regulations or policies?  
*Explain:* \_\_\_\_\_
- Yes  No 11. Does the application affect the surface landowner or change the post mining land use?
- Yes  No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
- Yes  No 13. Does the application require or include collection and reporting of any baseline information?
- Yes  No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
- Yes  No 15. Does the application require or include soil removal, storage or placement?
- Yes  No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
- Yes  No 17. Does the application require or include construction, modification, or removal of surface facilities?
- Yes  No 18. Does the application require or include water monitoring, sediment or drainage control measures?
- Yes  No 19. Does the application require or include certified designs, maps or calculation?
- Yes  No 20. Does the application require or include subsidence control or monitoring?
- Yes  No 21. Have reclamation costs for bonding been provided?
- Yes  No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
- Yes  No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

**Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you.** (These numbers include a copy for the Price Field Office)

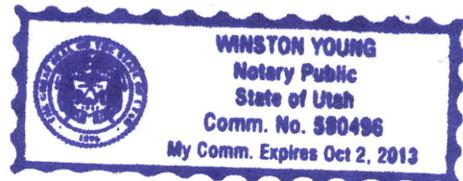
I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

B. Kirk Nicholas  
Print Name

B. Kirk Nicholas 7-30-13 Env. Spec.  
Sign Name, Position, Date

Subscribed and sworn to before me this 30 day of July, 2013

[Signature]  
Notary Public  
My commission Expires: \_\_\_\_\_, 2013 }  
Attest: State of UTAH } ss:  
County of IRON



<b>For Office Use Only:</b>    	<b>Assigned Tracking Number:</b>   	<b>Received by Oil, Gas &amp; Mining</b>  <div style="font-size: 2em; color: red; font-weight: bold;">RECEIVED</div> <div style="font-size: 1.5em; color: red; font-weight: bold;">JUL 31 2013</div> <div style="color: red; font-weight: bold;">DIV. OF OIL, GAS &amp; MINING</div>
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**Table 7-5 Hydrologic monitoring locations and protocols for operational and reclamation phase monitoring.**

<b>Site</b>	<b>Protocols</b>	<b>Comments</b>
<b><u>Streams</u></b>		
BLM-1	A, 1, 8	Lower Robinson Creek adjacent to mined areas
RID-1	A, 2	Irrigation ditch in Robinson Creek
SW-2	A, 1	Kanab Creek below Robinson Creek
SW-3	A, 1	Kanab Creek above permit area
SW-4	A, 1	Lower Robinson Creek above permit area
SW-5	A, 1, 8	Lower Robinson Creek above Kanab Creek
SW-6	A, 1, 8	Sink Valley Wash at permit boundary
SW-8	A, 1	Swapp Hollow Creek above permit area
SW-9	A, 1, 8	Sink Valley Wash below permit area
SW-101	A, 2	Lower Robinson Creek in permit area
<b><u>Springs</u></b>		
Sorensen Spring	B, 4	Developed alluvial spring in Sink Valley at Sorensen ranch
SP-3	B, 4	Spring in upland pediment alluvium south of permit area (developed and piped down canyon in Sink Valley Wash)
SP-4	B, 3	Developed spring in Sink Valley Wash 1 mile below permit area
SP-6	B, 3	Seep in Sink Valley below permit area
SP-8	B, 3	Developed alluvial spring in Sink Valley at Dames ranch
SP-14	B, 3	Alluvial spring in Sink Valley
SP-16	B, 4	Alluvial spring in Sink Valley
SP-20	B, 3	Alluvial spring in Sink Valley
SP-22	B, 4	Alluvial spring in Sink Valley
SP-23	B, 4	Alluvial spring in Sink Valley
SP-33	B, 3	Developed spring in lower Sink Valley alluvium
<b><u>Wells</u></b>		
Y-36	C	Coal well in Sink Valley above permit area
Y-38	C, 7	Coal well in Sink Valley in permit area
Y-45	C	Coal seam well in Swapp Hollow above permit area
Y-61	C, 5, 7	Water well in Sink Valley artesian alluvial groundwater system above permit area
Y-63	C	Monitoring well in lower Sink Valley Alluvium below mining areas
Y-98	C	Alluvial well in Robinson Creek above permit area
Y-102	C	Alluvial well in upper Sink Valley in permit area
C0-18	C	Alluvial monitoring well in Lower Robinson Creek drainage
C0-54	C	Monitoring well in Lower Robinson Creek drainage near coal seam
C1-24	C	Alluvial monitoring well in Lower Robinson Creek drainage
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# Appendix 5-7

Location of  
&  
Standards and Specifications  
for ASCAs and ASCMs  
in use at  
Coal Hollow Mine

## Coal Hollow Mine – ASCAs and ASCMs

Protection of surface water quality at the Coal Hollow Mine is an important part of the mining process. By utilizing various methods for treatment of surface runoff, Alton Coal Development, LLC (ACD) will minimize the sediment that could potentially flow from active disturbance or newly reclaimed areas into drainages that are in or surrounding the project area or adjacent property.

Therefore, ACD has compiled Standard and Specification for various methods that can be used for small areas of reclamation or disturbance that pose potential for impacting the surrounding area. These methods are found on pages 3 – 9. One or more methods may be selected and modified to meet the needs of the operator to reduce the potential of down gradient degradation.

Current ASCAs and ASCMs in use at the Coal Hollow Mine are shown on Figure 1 included at the end of this appendix. Table 1 summarizes the ASCAs and ASCMs in use and provides details of the potential area they treat.

**Table 1**

Name	Type of Treatment	Linear Feet		Notes:
		Treatment	of Acreage Treated	
1 North Entry Drainage	Straw Bales	6	16,569	Runoff from a portion of Primary Road
2 South Entry Drainage	Straw Bales	6	8,940	Runoff from a portion of Primary Road
3 Pond 1B Outslope	Excelsior Wattle	1305	4,343	Planted with interim seed mix
4 End of L. Robinson Diversion	Straw Bales	15	12,648	
5 Reclamation below Ditch 4 (1)	Excelsior Wattle/Straw Bales	168	20,996	Planted with interim seed mix
6 Reclamation below Ditch 4 (2)	Excelsior Wattle	96	14,102	Planted with interim seed mix
7 Pond 3 Outslope (1)	Excelsior Wattle	278	11,452	Planted with interim seed mix
8 Pond 3 Outslope (2)	Excelsior Wattle	130	3,508	Planted with interim seed mix
9 South Spoils Pile	Excelsior Wattle	416	501,098	25% reclaimed with Final Seed Mix in the Fall 2012, remainder in various stages of slopping and Topsoiling

# STANDARD AND SPECIFICATIONS FOR STRAW BALE DIKE



## Definition

A temporary barrier of straw, or similar material, used to intercept sediment laden runoff from small drainage areas of disturbed soil.

## Purpose

The purpose of a bale dike is to reduce runoff velocity and effect deposition of the transported sediment load. Straw bale dikes have an estimated design life of three (3) months.

## Conditions Where Practice Applies

The straw bale dike is used where:

1. No other practice is feasible.

2. There is no concentration of water in a channel or other drainage way above the barrier.
3. Erosion would occur in the form of sheet erosion.
4. Length of slope above the straw bale dike does not exceed these limits.

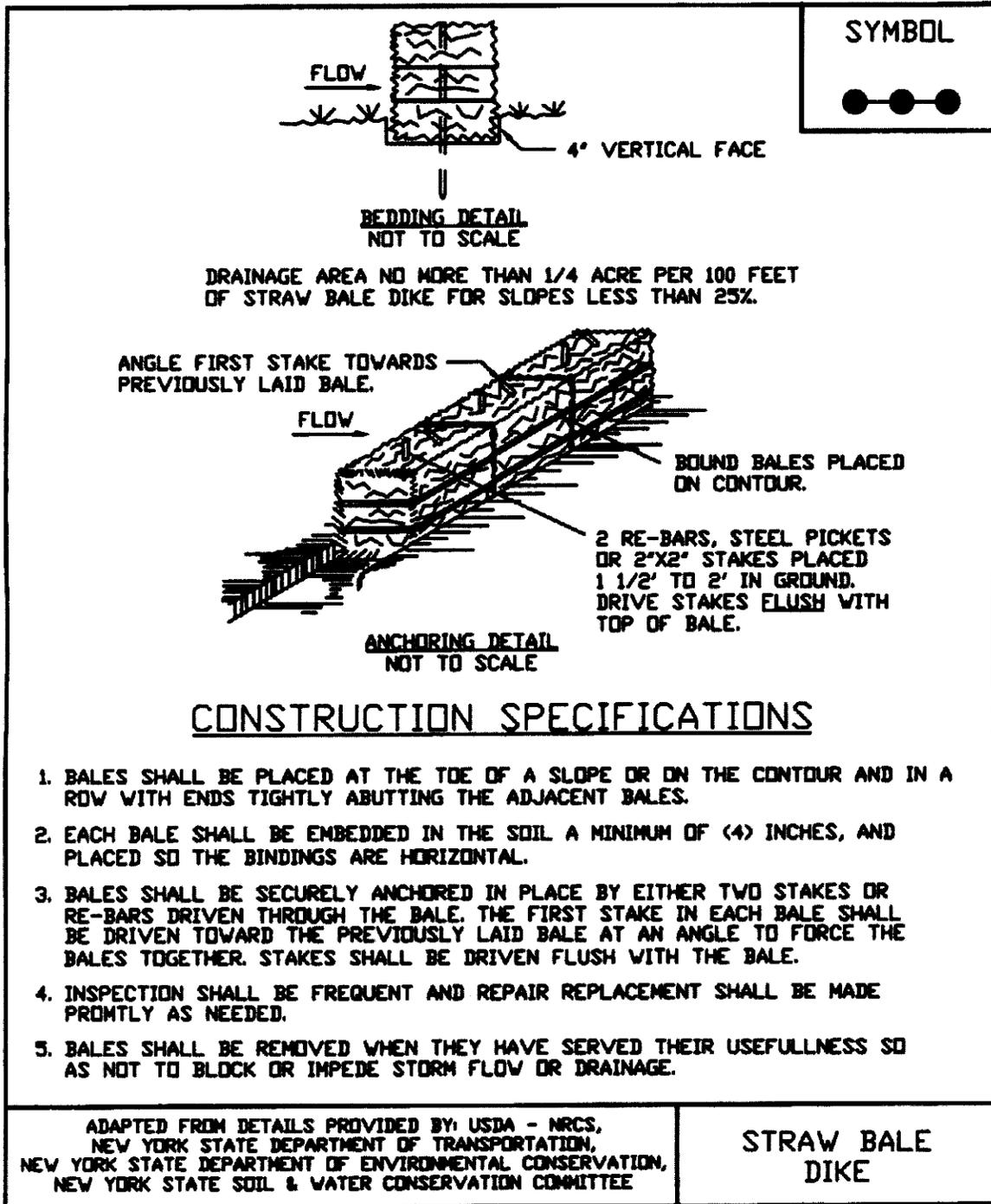
Constructed Slope	Percent Slope	Slope Length (ft.)
2:1	50	25
3:1	33	50
4:1	25	75

Where slope gradient changes through the drainage area, steepness refers to the steepest slope section contributing to the straw bale dike.

The practice may also be used for a single family lot if the slope is less than 15 percent. The contributing drainage areas in this instance shall be less than one quarter of an acre per 100 feet of fence and the length of slope above the dike shall be less than 200 feet.

## Design Criteria

The above table is adequate, in general, for a one-inch rainfall event. Larger storms could cause failure of this practice. Use of this practice in sensitive areas for longer than one month should be specifically designed to store expected runoff. All bales shall be placed on the contour with cut edge of bale adhering to the ground. See Figure 5A.7 on page 5A.18 or details.



# STANDARD AND SPECIFICATIONS FOR SILT FENCE



## Definition

A temporary barrier of geotextile fabric installed on the contours across a slope used to intercept sediment laden runoff from small drainage areas of disturbed soil.

## Purpose

The purpose of a silt fence is to reduce runoff velocity and effect deposition of transported sediment load. Limits imposed by ultraviolet stability of the fabric will dictate the maximum period the silt fence may be used (approximately one year).

## Conditions Where Practice Applies

A silt fence may be used subject to the following conditions:

1. Maximum allowable slope lengths contributing runoff to a silt fence placed on a slope are:

Slope Steepness	Maximum Length (ft.)
2:1	25
3:1	50
4:1	75
5:1 or flatter	100

2. Maximum drainage area for overland flow to a silt fence shall not exceed ¼ acre per 100 feet of fence, with maximum ponding depth of 1.5 feet behind the fence; and
3. Erosion would occur in the form of sheet erosion; and
4. There is no concentration of water flowing to the barrier.

## Design Criteria

Design computations are not required for installations of 1 month or less. Longer installation periods should be designed for expected runoff. All silt fences shall be placed as close to the areas as possible, but at least 10 feet from the toe of a slope to allow for maintenance and roll down. The area beyond the fence must be undisturbed or stabilized.

Sensitive areas to be protected by silt fence may need to be reinforced by using heavy wire fencing for added support to prevent collapse.

Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent sediment bypass. A detail of the silt fence shall be shown on the plan. See Figure 5A.8 on page 5A.21 for details.

## Criteria for Silt Fence Materials

1. Silt Fence Fabric: The fabric shall meet the following specifications unless otherwise approved by the appropriate erosion and sediment control plan approval authority. Such approval shall not constitute statewide acceptance.

Fabric Properties	Minimum Acceptable Value	Test Method
Grab Tensile Strength (lbs)	90	ASTM D1682
Elongation at Failure (%)	50	ASTM D1682

Mullen Burst Strength (PSI)	190	ASTM D3786
Puncture Strength (lbs)	40	ASTM D751 (modified)
Slurry Flow Rate (gal/min/sf)	0.3	
Equivalent Opening Size	40-80	US Std Sieve CW-02215
Ultraviolet Radiation Stability (%)	90	ASTM G-26

2. Fence Posts (for fabricated units): The length shall be a minimum of 36 inches long. Wood posts will be of sound quality hardwood with a minimum cross sectional area of 3.0 square inches. Steel posts will be standard T and U section weighing not less than 1.00 pound per linear foot.

3. Wire Fence (for fabricated units): Wire fencing shall be a minimum 14 gage with a maximum 6 in. mesh opening, or as approved.

4. Prefabricated Units: Envirofence, Geofab, or approved equal, may be used in lieu of the above method providing the unit is installed per details shown in Figure 5A.8.

**STANDARD AND SPECIFICATIONS  
FOR  
ASPEN EXCELSIOR WATTLES**

## **9" Aspen Excelsior Wattles**

Erosion logs shall be curled aspen wood excelsior with a consistent width of fibers evenly distributed throughout the log. The casing shall be seamless, photodegradable tube netting and shell conforms to the specifications below. The curled aspen wood excelsior shall be fungus-free, resin-free, and shall be free of growth or germination inhibiting substances.

### **SPECIFICATIONS\***

**LENGTH**..... 25' Standard  
**DIAMETER**..... 9" (+/- 10%)  
**CORE**..... Aspen Wood Excelsior with Interlocking Barbs  
80% Fibers at least 6"  
**NETTING TYPE**..... U.V. Stabilized/Photodegradable  
Heavy Duty - 94% High-Density Polyethylene  
With 6% UV Inhibitor  
**NETTING THICKNESS**..... Strand Thickness of 0.03"  
Knot Thickness of 0.055"  
**NETTING WEIGHT**..... 0.50-Ounce per Foot  
**NETTING COLOR**..... Black  
**ROLL WEIGHT**..... Average 40 lbs.  
**WEIGHT PER L.F.** ..... No Less Than 1.6 lbs.

Our Sediment Control Products are used in a multitude of applications, providing benefits such as:

- Better Filtering of Runoff Waters
- Preventing Check Dam Blowouts
- Protecting Water from Going Around Check Dams
- Preventing the Spread of Non-Native Vegetation
- Easier to Handle and Install than Straw Bales
- Safe to use around livestock: non-food source for animals

\*Verified at time of manufacture

## Installation Procedure

### Wattle Installation

Proper installation of the **Wattles** is essential in order to insure the success of the product. Wattles are designed for low surface flows, not to exceed 1 cfs for small areas. While they work well on streambanks, they should not be placed in the path of high waterflow. On slopes, Wattles should be installed on contour with a slight downward angle at the end of the row in order to prevent ponding at the mid-section. No overall slope preparation is needed prior to installation, however Wattles should always be installed in shallow trenches according to the guidelines given below. Running lengths of Wattles should be abutted firmly to ensure no leakage at the abutments. Guidelines regarding vertical spacing are given below. The Wattles should be pinned securely to the ground according to instructions in order to insure their stability and the success of the installation.

### SPACING - DOWNSLOPE

Vertical spacing for slope installations should be determined by site conditions: slope gradient and soil type are the main factors. A good rule-of-thumb is:

- 1:1 slopes - 10 feet apart
- 2:1 slopes - 20 feet apart
- 3:1 slopes - 30 feet apart
- 4:1 slopes - 40 feet apart, etc.

However, adjustments may have to be made for the soil type: For soft, loamy soils - adjust the rows closer together; For hard, rocky soils - adjust the rows further apart.

### TRENCHING

Use a hand tool such as a maddox or pick to score the ground. Using a shovel, dig the trench to the needed depth. Soil from excavating the trenches can be placed on the uphill, or flow side, of the trench to be used during installation.

For soft, loamy soils dig a 3 - 5 inch trench.

For hard, rocky soils dig a 2 - 3 inch trench.

### INSTALLING

Lay the first Wattle snugly in the trench. **No daylight should be seen under the Wattle.** Pack soil from trenching against the Wattle on the uphill side. When installing running lengths of Wattles, butt the second Wattle tightly against the first. **DO NOT overlap the ends on top of each other.** Overlapping behind each other has been done with some success. Stake the Wattles at each end and four foot on center. For example:

- A 25 foot Wattle uses 6 stakes
- A 20 foot Wattle uses 5 stakes
- A 12 foot Wattle uses 4 stakes

Stakes should be driven through the middle of the Wattle, leaving 2 - 3 inches of the stake protruding above the Wattle. A heavy sediment load will tend to pick the Wattle up and could pull it off the stakes if they are driven down too low. It may be necessary to make a hole in the Wattle with the pick end of your maddox in order to get the stake through the straw or wood fiber. When Wattles are used for flat ground applications, drive the stakes straight down; when installing Wattles on slopes, drive the stakes perpendicular to the slope.

Drive the first end stake of the second Wattle at an angle toward the first Wattle in order to help abut them tightly together. If you have difficulty driving the stake into extremely hard or rocky slopes, a pilot bar may be needed to begin the stake hole.

### FLAT GROUND APPLICATIONS

For installations along sidewalks or behind curbs it may not be necessary to stake the Wattles, however trenches must still be dug. If you have not yet back-filled behind the sidewalk or curb, lay the Wattle snugly against it first, then backfill behind the Wattle: your trench is done! For installations around storm drains and inlets, trenches and staking will be needed.

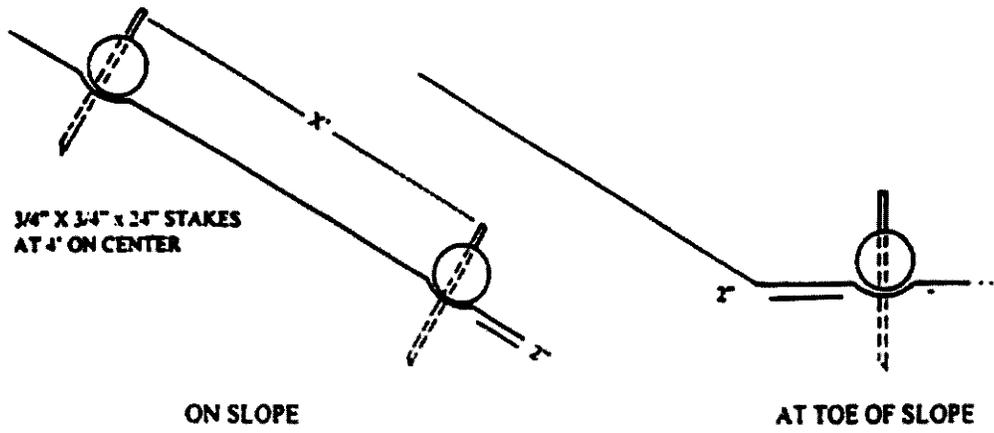
Fit Wattle in trench snugly up against the sidewalk or curb. Around storm drains or inlets, the Wattle should be back 1 - 1 1/2 ft. and should direct water flow toward the angle of drainage. If all drainage angles into the inlet, snake the Wattle all the way around the inlet, using more than one Wattle if needed.

### STAKING

We recommend using wood stakes or willow cuttings, rather than metal pins, to secure the Wattles. Wood stakes will eventually bio-degrade, and willow cuttings will grow and provide extra stabilization. Be sure to use a stake that is long enough to protrude several inches above the Wattle: 18" is a good length for hard, rocky soil. For soft, loamy soil use a 24" stake for greater security. The diameter of the stake should be approximately 1" for ease of driving through the Wattle.

[Click here for Drawing 1](#) [2](#)





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R645-301-300

August 27, 2009

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## 340. RECLAMATION PLAN

### 341. REVEGETATION

This document contains the revegetation plan for final reclamation of all lands disturbed by coal mining and reclamation operations, except water areas and the surface of roads approved as part of the postmining land use, as required in R645-301-353 *through* R645-301-357. It also shows how the Coal Hollow Project will comply with the biological protection performance standards of the State Program.

#### 341.100. Reclamation Timetable

A detailed schedule and timetable for the completion of each major step in the mine plan has been included in Chapter 5 of the MRP. Briefly, the mine will conduct operations in one area (segment) at a time. No more than 40 acres will be disturbed at one time for mining. Once mined, the plan includes redistributing subsoil and topsoil followed by seeding this segment with the final seed mix contemporaneously, or at the same time the mining of the next segment begins. However, seeding will be accomplished only in appropriate periods (usually late-fall, but early-spring could also be an option). The mine plan has been engineered to disturb the smallest practicable area at any one time. With prompt establishment and maintenance of vegetation, immediate stabilization of disturbed areas will minimize surface erosion. Details of the plan has been included in Chapter 5 of this document.

#### 341.200. Reclamation Description

The Coal Hollow Project will be reclaimed and revegetated to meet the appropriate postmining land use. Most areas will be reclaimed to the native plant communities that existed prior to mining conditions. Other areas will be reclaimed to enhance habitat for sage-grouse or other wildlife species. Finally, in those areas where the landowner requests a change in the plant community to increase productivity for domestic livestock, they will be reclaimed accordingly.

#### 341.210. Seed Mixtures

Revegetation seed mixtures for each plant community disturbed by mining activities in the Coal Hollow Project area are given in this section. Table 3-36 shows the plant communities that may eventually be disturbed by mining operations at the Coal Hollow Project area.

MAP SYMBOL (see <i>Vegetation Map</i> , Drawing 3-1)	PLANT COMMUNITY
S/G	Sagebrush/Grass
P	Pasture Land
P-J	Pinyon-Juniper
M	Meadow
OB	Oak Brush
RB/SB	Rabbitbrush/Sagebrush (Disturbed; previously Sagebrush/Grass)

Seed mixtures for each disturbance type are shown on Tables 3-37 *through* 3-42. These rates have been based on drill seeding methods described in this document. When broadcast seeding is employed these rates will be doubled.