



CARBON STORAGE  
SOLUTIONS

LOCATION: Front Range 2

DOCUMENT: Best Management Practices

Section 23, Township 6 North, Range 67 West

Lat: 40.466418°, Long: -104.859778°

Form 2A Doc No. 111111111

Weld County, Colorado

## **Background**

Carbon Storage Solutions seeks to develop a well that will support a Class VI Carbon Capture Sequestration program. This EPA required well will monitor pressure, temperature, and formation fluid sampling.

## **Introduction**

This Best Management Practices is intended to facilitate compliance with the ECMC Rules and Regulations, Rule 304.b.(11). Carbon Storage Solutions will employ Best Management Practices (BMPs) measures for handling all aspects of operations.

## **Table of Contents**

- 1. Construction**
- 2. Dust**
- 3. Gas Capture**
- 4. Geologic Hazards**
- 5. H2S**
- 6. Health, Safety, Environment, and Welfare**
  - a. Site Safety
  - b. Spill
  - c. Evacuation Plan
- 7. Light Mitigation**
- 8. Material Handling, Leak Detection, and Spill Prevention**
- 9. Noise Mitigation**
- 10. Odors and Emissions**
  - a. Drilling Operations
  - b. Completion Operations
  - c. Monitoring Operations
- 11. Security**
- 12. Stormwater**
- 13. Topsoil Protection and Interim Reclamation**
- 14. Traffic Reduction**
- 15. Visual Impacts**
- 16. Weeds**
- 17. Wildlife**

## 1. Construction

- During construction, no night work and no permanent lighting will be installed on the Site. Daylight operations are only performed during this phase of operation.
- All lighting will be capable of adjustment will be directed inward, downward, and shielded to avoid glare on public roads and to prevent light shining beyond the boundary of the Site, while at the same time providing a safe workplace that is free from recognizable hazards and complies with OSHA, ANSI and IESNA standards.
- All lighting on location will be temporary.
- Drilling rig lights shall be angled and shielded to avoid direct light shining beyond the boundary of the site.
- Once wells have been drilled, no night work is anticipated, and no permanent lighting will be installed on the site.
- New well equipment and all existing equipment at the Well Pad will be anchored to the extent necessary to resist flotation, collapse, lateral movement, or subsidence in compliance with applicable Federal Emergency Management Agency ("FEMA") and ECOM rules and regulations. All guy-line anchors left buried for future use will be identified by a marker of bright color not less than four feet in height and not greater than one foot east of the guy-line anchor.
- Following development, Carbon Storage Solutions will complete routine inspections at the Well Pad to identify and document any changes in ground surface (e.g., erosion, depressions, pooling water) and implement corrective actions.

## Dust

- Carbon Storage Solutions shall employ practices for control of fugitive dust caused by their operations. Such practices shall include but are not limited to the use of speed restrictions, automation of wells and production facilities, regular road maintenance, and restriction of construction activity during high-wind days.
- Carbon Storage Solutions will stabilize the topsoil stockpiles utilizing vehicle tracking perpendicular to slope angle for short term stabilization and drill seed/crimped straw mulch application for longer term stabilization measures to suppress fugitive dust caused solely by wind.
- Carbon Storage Solutions will minimize the amount of fugitive dust through the use of speed restrictions. All vehicles will be subject to a speed limit of 5 MPH on all lease roads to minimize dust.
- Carbon Storage Solutions will mitigate the creation of fugitive dust through regular road maintenance as coordinated through agreements with Relevant Local Governments or Agencies with road jurisdiction. Carbon Storage Solutions will utilize water or magnesium chloride to mitigate dust impacts during the initial construction of the drill site and may be restricted or limited during high-wind days.
- Carbon Storage Solutions will minimize fugitive dust caused by their operations, or dust originating from areas disturbed by their operations that becomes windborne.
- Carbon Storage Solutions will not use any of the following fluids for dust suppression:
  - Produced water.
  - E&P Waste or hazardous waste
  - Crude oil or any oil not specifically designed for road maintenance.
  - Solvents
  - Any process Fluids
- Carbon Storage Solutions will use only fresh water (potable or non-potable) to conduct dust suppression activities within 300 feet of the ordinary high-water mark of any water body. The access road will be watered or treated with a commercial dust suppressant if necessary.
- Carbon Storage Solutions will maintain safety data sheets ("SDS") for any chemical-based dust suppressant and make the SDS available immediately upon request to the Director and to the Local Government. Operators will maintain SDS for any chemical-based dust suppressant until the site passes final site Reclamation and transfer the records upon transfer of property ownership.

## Gas Capture

- No hydrocarbon gas is anticipated to be produced from this monitor well.

## Geologic Hazards

- Prior to construction topsoil will be removed and stockpiled, and the ground will be wetted and compacted.
- Carbon Storage Solutions will coordinate with Weld County on Stormwater Management and utilize approved stormwater controls as detailed in our future Grading Permits, and Final Drainage Reports.

## H2S

- Any field measurement of H2S during operations detected by using colorimetric tubes, hand-held personal monitors, fixed gas monitors or other field instrumentation at a concentration equal to or greater than 20 ppm shall be verified by a subsequent sampling of the source gas by laboratory gas analysis for H2S concentration.
- All subsequent Gas Analysis which reports concentrations above non-detect at a subject location shall be reported to ECMC and the Local Governmental Designee (LGD).
- Carbon Storage Solutions shall provide verbal or electronic notice to ECMC and the LGD for any gas analyses (as defined by the NTO) indicating the presence of H2S within 48-hours of receipt of the gas analysis results.
- In addition to verbal or electronic notices, the operator shall submit a Sundry Notice, Form 4 to ECMC within forty-five (45) calendar days of receipt of gas analysis results.

## Health, Safety, Environmental, and Welfare

- Carbon Storage Solutions has an existing inspection and reporting program designed to catch any potential impacts before they become an issue.
- Site Safety
  - The minimum personal protective equipment (PPE) to enter any Carbon Storage Solutions production includes hard hat, safety glasses, safety toe boots, fire resistant clothing (FRC).
  - All contractors and visitors are responsible for providing their employees with the appropriate training on and use PPE while on Carbon Storage Solutions locations.
  - All contract personnel entering a Carbon Storage Solutions location to perform work must understand and abide by Carbon Storage Solutions contractor expectations relating to environmental, health, and safety requirements.
- Spill
  - If a spill is discovered, it will be mitigated in accordance with Colorado Energy & Management Commission (ECMC), Colorado Department of Public Health and Environment (CDPHE), and Weld County LEPC requirements.
  - Once a release has been discovered, it will be immediately stopped and contained if possible and safe.
  - When containing a spill; a combination of sorbent rolls, pads, mats, socks, or containment boom may be deployed, or earthen berms will be constructed around the release to keep spilled material contained and from spreading.
  - During a spill, efforts will be made to minimize contact with live vegetation, nearby drainage, rivers, creeks, or streams.
  - If the release is outside of secondary containment or poses a threat to flow off site, or impact environmentally sensitive areas, the spill response contractor should be notified for cleanup assistance, if needed and for removal and disposal of spilled materials and containment areas
  - A spill/release will be reported to the ECMC if released material is property of Carbon Storage Solutions and meets the ECMC reporting thresholds (see below).

- A spill/release will be reported to the Weld County LEPC if released material is property of Carbon Storage Solutions and meets the ECMC reporting thresholds (see below) mandated by Section 304 of the Emergency Planning and Community Right-To-Know Act (EPCRA).
- A spill/release will be reported to the CDPHE if released material is in the custody of a third party for spills meeting CDPHE reporting thresholds or are of any size that impact or threaten to impact waters of the state, a residence or occupied structure, livestock, or public byway.
- Once a spill is determined reportable, there is a 24-hour deadline to make initial notification to the ECMC/LEPC or CDPHE depending on the product ownership.
- Spills/releases in the custody of Carbon Storage Solutions will be reported by a Company representative.
- Spills/releases in the custody of a third party will be reported by the responsible company's EHS Department to the appropriate agency and to Carbon Storage Solutions.
- Evacuation Plan
  - The Carbon Storage Solutions representative will immediately notify proper authorities, including the sheriff's office, highway patrol, and any other public officials as described above and will enlist their assistance in warning residents and transients in the calculated radius of exposure.
  - Carbon Storage Solutions will coordinate with local authorities to warn residents' down-wind of the location and within radius of exposure from the well site. Additional evacuation zones may be necessary as the situation warrants.
  - The Carbon Storage Solutions representative will coordinate with appropriate emergency personnel to divert traffic in the vicinity away from the potentially dangerous area. No trespassing and warning signs will be posted at the entrance to the well site.

### Light Mitigation

- Drilling operations will take place 7-days a week & 24-hour a day. Care will be taken to keep lighting levels at the specified levels on the lighting plans while providing safe, well-lit working areas during night-time and other low-light conditions. Care will also be taken to prevent unintended light from leaving the site and becoming a hazard or nuisance to the public or surrounding wildlife habitat.
- During the Pad Construction Operations, no night-time work is anticipated. Daylight work will be performed during this work operation.
- No permanent lighting is proposed for this project. All lighting shall conform to Federal, State, and Industry recognized standards for both on-site workplace safety and off-site public protection (OSHA, FAA, ECMC, IESNA, and ANSI). No direct light, except those governed by FAA standards, shall shine beyond the boundaries of the WPS, especially onto public roads, adjacent properties, and/or high priority habitats. All lighting shall conform with all ECMC, county, municipal, and any applicable governing body's standards.
- Temporary lighting will be 4-head LED flood lights on mobile 25-foot telescoping towers (BUG Rating is B3-U3- G5). All lighting will be capable of adjustment and will be directed inward and between 45-65° downward towards working areas on the WPS. No light should shine above the horizontal plane passing through the center point of the light source. Lights will be shielded with a photometric diffusion fabric or membrane tint to prevent direct or reflected direct light from leaving the site.
- For workplace safety, no direct or reflected direct light shall shine towards the entrance of the WPS.
- Watch for and remove glare and reflection points during all work operations of the project from temporary or permanent structures, temporary lighting, vehicles, construction equipment, and clothing/PPE.
- Any lighting damaged and/or improperly directed or angled will be promptly fixed and/or corrected to conform to the lighting plan.

- Equipment shall be operated and/or orientated and/or shielded in such a manner that lights permanently affixed to equipment do not shine above the horizontal plane passing through the center point of the light source or shine beyond the boundary of the WPS.
- For all work operations, once temporary lighting is in place, a lighting self-audit of the site will be performed to ensure that no unintended light will leave the site and become a hazard or a nuisance.
- For any change to the lighting during any work operations, a lighting self-audit of the site will be performed to ensure that no unintended light will leave the site and become a hazard or a nuisance.
- For non-working or shut-down days where no personnel are on-site or in working areas, non-essential temporary lighting will be turned off. If no personnel are on-site and essential temporary lighting is needed, the essential temporary lighting will be inspected every 24 hours.
- All redundant, unused, or not-needed lights will be turned off.
- Any additional light units used to address workplace safety concerns that are not shown on the lighting photometric plans will be verified by a lighting engineer to ensure that the modified lighting will remain within the required lighting standards stated in this report.
- Where safely applicable, the following are suggestions to aid in controlling and minimizing the site's lighting levels:
  - Using automation, timers, or motion sensors
  - Using or changing fixtures to full cut-off lighting fixtures to shield and direct light.
  - Using or changing to lighting colors that reduce light intensity.
  - Using or changing low-glare or no-glare lighting
  - Adjusting or adding additional light shields such as photometric diffusion fabric or tinted membranes
  - Adjusting or adding additional temporary wall panels (e.g., visual/sound walls)

#### Material Handling, Leak Detection, and Spill Prevention

- AVO (Audio, Visual, Olfactory) inspections of the wellhead will be performed monthly. There will be no production equipment at this proposed location.
- All pressure piping and facilities are pressure tested and inspected according to Carbon Storage Solutions Flowline Installation, Inspection and Repair SOP and in compliance with flowline integrity testing per 1100 Series Rules.
- All fluid handling employees are trained annually in spill prevention and response.
- Any spills will be immediately cleaned up and reported if volume exceeds reporting limit.
- Carbon Storage Solutions has developed a robust Leak Detection and Repair (LDAR) program, which utilizes Infrared cameras to identify and fix leaks. The infrared gas detection camera is an Approved Instrument Monitoring Method (AIMM). These inspections will begin during the drilling phase and continue throughout the life of the Proposed Location (monitoring phase). These AIMM inspections will be conducted on a monthly frequency.
- To minimize potential impacts to soil, containment will be used during fueling of equipment to contain spills and leaks during all phases of operations.
- The fluid transfer system used during completion operations is monitored from the on-site mobile command center for changes in pressure, volume, or rate which are used as indicators for leak detection.
- Operator utilizes polyethylene liners beneath the areas where completions equipment is placed on the pad to ensure there is an impermeable layer between the equipment and the ground.
- A polyethylene liner beneath the drilling rig during drilling operations to ensure there is an impermeable layer between the rig and the ground to detect and capture leaking fluids.

## Noise Mitigation

- With guidance from consultant firms that are familiar with oil and gas location noise mitigation, Carbon Storage Solutions will implement noise mitigation measures that align with current industry best practices.
- During Drilling, Carbon Storage Solutions will observe the applicable permissible limits as listed in Table 3 of the attached Noise Mitigation Plan.
- Carbon Storage Solutions will adhere to the maximum noise levels in Table 423-1 during drilling and completion operations.
- Once monitoring operations commence Carbon Storage Solutions will observe the NL-3 noise limitation.

## Odors and Emissions

- Carbon Storage Solutions will implement certain best management practices to limit the odor associated with the operations at the proposed location. These practices include, but are not limited to:
  - During all phases of operations
    - Carbon Storage Solutions will not allow burning of debris to occur at this location during any phases of Oil and Gas operations as per county code. This does not include emergency flares.
    - Carbon Storage Solutions will require all non-essential vehicles to be shut off to prevent excessive idling.
    - Truck traffic will be reduced through the following measures:
      - During drilling operations, crew will bunk in temporary housing on location.
      - During monitoring operations, traffic will be limited. Automation and cameras will be installed to reduce the number of site visits required.
  - During Drilling Operations
    - Fresh water mud will be utilized during drilling operations.
    - Carbon Storage Solutions will utilize a closed-loop system for managing drilling fluids.
    - A catch can system will be mounted around the BOP to catch any mud that falls through the rotary table preventing any spillage.
    - To reduce odors during drilling and completion, the rig will be washed of oily debris before moving in.
  - Monitoring Operations
    - Only infrequent fluid sampling will be performed on this well.
- Carbon Storage Solutions will comply with all applicable air quality requirements during all phases of operations. The Front Range 2 Pad is not covered by a site specific LDAR or Ozone Mitigations Plan. However, Carbon Storage Solutions has a Leak Detection and Repair (LDAR) program that is implemented on all locations which includes:
  - Monthly Audio Visual Olfactory (AVO) inspections on every active facility
  - Quarterly Infra-Red Camera (IRC) inspection on every active facility
  - Quarterly AVO on all long-term shut-in facilities
  - Annual IRC inspection on all long-term shut-in facilities
  - Every inspection is documented, tracked, and reported accordingly at the end of the year.
    - All leaks identified are tracked, repaired, and re-verified specifically by State and EPA requirements.
    - Repair times are specific to leak type and facility type, but a first attempt is always made to repair any detected leak within 5 business days. By the end of the 5th business day, it must be attempted or documented as repaired and verified.

- At least 1 wind direction indicator shall be clearly visible from all principal working areas at all times so that wind direction can be easily determined to evaluate the potential migration pathways of odors.
- Upon Director request, the Operator of the Monitoring Facility subject to the complaint will provide within 48 hours the Director, the Relevant or Proximate Local Government, and the complainant (should the complainant request notification) with a complete description of all activities occurring at the facility during the timeframe specified in the complaint.
- Operator will take necessary and reasonable actions to reduce odors, including, but not limited to, conducting air sampling to measure volatile organic compounds at Oil and Gas Facility or Facilities subject to the complaint if required by the Director. Operator will conduct at least two measurements made >15 minutes apart outside of property line of property where odors originate.

### Security

- During the Construction Phase, the Drilling Phase, and the Completion Phase, all visitors to the location will be required to sign in with site personnel before entering the location to maintain security and prevent unauthorized access. After drilling and completion operations, automation will be installed to allow remote monitoring of the Location. The well will be shut in except when fluid samples are actively being obtained.
- Additionally, all required signage in accordance with 21-5-425 and emergency contacts will be posted prior to the Construction Phase and will remain in place through the Monitoring Phase. If it becomes apparent during the Monitoring Phase that additional security measures are needed to prevent unauthorized access to the location, Carbon Storage Solutions will evaluate additional practical measures.

### Stormwater

- Ditch/drainage swale: a ditch or drainage swale is a drainage with a parabolic, trapezoidal, or V shaped cross section and may include a dike/berm on the lower side that is constructed across the slope. The purpose of a ditch is to prevent offsite storm water runoff (run-on) from entering a disturbed area, to prevent sediment laden storm runoff from leaving the construction site or disturbed area, to prevent flows from eroding slopes, and to direct sediment laden flows to a trapping device.
- Earth dike/berm: an earth dike (berm) is a temporary or permanent ridge of compacted soil located at the top or base of a sloping disturbed area to intercept and divert surface runoff away from areas not yet stabilized. It can also be installed around a pollutant source to prevent storm water and pollutants from leaving the location. Berms will typically be constructed from compactable subsoils which are sufficiently impermeable to retain water. Berms may be combined with lined or unlined drainage swales/ditches to divert storm water to additional sediment control BMPs prior to discharge from a site.
- Culvert: culverts are a means of subsurface storm water conveyance where surface transport is not feasible. Culverts are most often used to convey water under a roadway without impeding use of the road.
- Surface roughening: surface roughening is a temporary stabilization method designed to minimize erosion by reducing runoff velocity, decreasing wind exposure, increasing infiltration, and to a minor extent, trapping sediment. Surface roughening is typically installed on steep slopes and implemented using tracked equipment or equipment capable of scarifying or tilling exposed soils to create variations in the surface.
- Seeding: seeding, to establish perennial vegetative cover following construction, is the best long term stabilization control for areas not stabilized with other permanent controls (pavement, concrete, road base, etc.). Establishing perennial vegetation stabilizes the soil, reduces wind and water erosion, minimizes sheet flow, increases infiltration, and reduces overall runoff volumes. Seeding can be used to establish temporary stabilization when dirt moving activities have ceased and will not resume for an extended period of time (30 days or longer), or as a final stabilization technique as part of the reclamation plan for a site.

- Seed mixture for the proposed Front Range 2 Location is a Western Wheatgrass Native Mix. This is a custom mixture consisting of Western Wheatgrass, Blue Grama, Sideoats Grama, Smooth Brome, Sand Dropseed, Perennial Ryegrass, Slender Wheatgrass, Alkaligrass and Switchgrass.
- Mulching: mulching is a temporary erosion control used to stabilize exposed soils while waiting for vegetation to establish. Mulch protects soil from rain impacts and wind erosion, increases infiltration, and helps regulate soil temperatures. Typically, agricultural straw or hay is mechanically applied and crimped in, or wood splinters/fibers are surface applied by hand or machinery. Tackifiers may be sprayed over the applied mulch to enhance stabilization.
- Surface armor: surface armor is a combination of various materials (e.g., clay, concrete, dirt, rock, etc.) used to stabilize a surface on location where erosion could occur. The armor reduces erosion caused by runoff and/or raindrop impact and provides a stable working surface for various construction related activities. Surface armor is often utilized throughout the life of a location and can be incorporated on access roads, tank battery locations, and well head locations.
- Sediment trap: sediment traps are temporary sediment control BMPs constructed by excavating a depression or by placing an earthen berm across a low area or drainage swale. Sediment traps slow and temporarily detain sediment laden runoff. The reduction in velocity (energy) allows sediment to fall out of suspension and collect in the sediment trap before the runoff is discharged into a stabilized area.
- Vehicle track pad: vehicle tracking control (tracking pad) is a temporary stabilized entrance to the construction location that helps minimize offsite tracking of sediment onto public roads. Tracking pads help remove sediment from vehicles by providing a stabilized area where sediment can be tracked, shaken, and/or washed off before leaving the location.
- Good housekeeping practices: good housekeeping practices must be implemented in order to prevent storm water contamination with solid and liquid wastes generated in the construction process. Good housekeeping practices include but are not limited to employee and contactor training, designating material storage/staging areas, having standard policies and procedures regarding materials handling and waste management, implementing spill prevention procedures, developing spill response and cleanup procedures, and having equipment and vehicle fueling and maintenance policies and procedures.
- Stockpile management: stockpile management is the protection of stockpiled erodible materials through structural and nonstructural practices.
- Topsoil salvage: BMPs reflected here are also included in the Topsoil Protection Plan as the salvage and proper handling of topsoil is one of the keys to reclamation success. Topsoil is vital for the revegetation of disturbed areas following final grading. Topsoil salvage measures include the following direct and indirect protection:
  - All available topsoil would be removed from the well pad areas and stockpiled/stored adjacent to the well.
  - All available topsoil would be removed from the well pad areas and stockpiled/stored adjacent to the well pad in order to retain indigenous seed bank and soil microbes that are fundamental to site restoration. Salvaged topsoil would be stabilized using methods outlined in Carbon Storage Solutions Stormwater BMP manual.
  - BMPs such as coconut blankets, straw mulch, or straw wattles, sediment basins, and swales would be used to prevent excess erosion of soils from disturbed areas. These structures would be installed during construction and left in place and maintained for the life of the project or until the disturbed slopes have been revegetated and stabilized.
  - The site will be inspected bi-weekly by a third-party contractor for BMP integrity and current installation. Any deficiencies noted would be brought to the attention of the operator and addressed in a timely manner.

- Carbon Storage Solutions would limit construction activities during wet periods to avoid excess disturbance of areas surrounding operations.
- Carbon Storage Solutions would cross-rip all areas compacted by drilling, coring and bore logging operations which are no longer needed following completion of such operations. Ripping would be undertaken to a depth of eighteen (18) inches unless and to the extent bed rock is encountered at a shallower depth.
- Carbon Storage Solutions will regrade cut and fill areas awaiting reclamation to match pre-existing contours to the nearest extent possible to provide long term erosion control and site stability.
- Carbon Storage Solutions will grade the topsoil stockpile to ensure that all surfaces can be stabilized safely and effectively.
- Carbon Storage Solutions will stabilize and maintain areas needed for subsequent drilling operations to minimize dust and erosion to the extent possible.
- Carbon Storage Solutions will implement a Spill Prevention, Control, and Countermeasure plan to protect soil from potential spills.
- Carbon Storage Solutions will place a sign on each topsoil stockpile designating and preserving that material for reclamation purposes throughout the lifetime of the location.
- Wind erosion/dust control: Wind erosion/dust control is a group of best management practices designed to temporarily prevent sediment or other stockpiled materials from becoming suspended in the air during construction activities or windy conditions. These BMPs are typically implemented for areas of exposed soil from grading activities and on construction roadways to control vehicle generated dust.
- Riprap: riprap is a layer of loose stone installed to stabilize and protect the underlying soils from erosion or movement. When properly sized and installed, riprap can be resistant to high velocity concentrated flows.
- Routine inspections: Carbon Storage Solutions will conduct a number of routine and regularly scheduled inspections which help to ensure the facility, construction, and all associated equipment are in good working order, regularly maintained, and free of issue, which greatly decreases the probability of a negative stormwater event or discharge from the site.
  - Every fourteen (14) days: Inspection shall include stormwater inspections, SPCC (spill prevention, control, and countermeasure) and AVO (audio, visual, olfactory) inspections.
  - Monthly: Inspections shall include LDAR (leak detection and repair) and OGI (optical gas imaging).
- Training: employee training on spill prevention, stormwater, and associated practices and procedures is essential to ensuring that everyone has the knowledge needed to follow appropriate steps and be able to minimize potential impacts resulting from stormwater related incidents.
- Carbon Storage Solutions will comply with the Colorado Water Quality Control Commission regulations. Carbon Storage Solutions Stormwater permit application has been submitted to Weld County

### Topsoil Protection and Interim Reclamation

- Topsoil will be salvaged from the construction area to a depth of 6 inches or to the depth of the topsoil horizon, whichever is deeper. Topsoil depth will be assessed prior to initiation of ground disturbance operations based on changes in physical characteristics such as color, density, organic content, consistency, or texture at six (6) soil pit locations, within the disturbance boundaries.
- The current estimate of 9,810 cubic yards (yd<sup>3</sup>) of salvaged topsoil will be stored on the eastern side of the disturbance boundary in a stockpile with slopes no greater than 3:1. The stockpile will be vertically tracked by heavy equipment to inhibit wind and water erosion.
- All available topsoil would be removed from the well pad areas and stockpiled/stored adjacent to the well.
- All available topsoil would be removed from the well pad areas and stockpiled/stored adjacent to the well pad in order to retain indigenous seed bank and soil microbes that are fundamental to site restoration.

Salvaged topsoil would be stabilized using methods outlined in Carbon Storage Solutions Stormwater BMP manual.

- BMPs such as coconut blankets, straw mulch, or straw wattles, sediment basins, and swales would be used to prevent excess erosion of soils from disturbed areas. These structures would be installed during construction and left in place and maintained for the life of the project or until the disturbed slopes have been revegetated and stabilized.
- The site would be inspected bi-weekly by a third-party contractor for BMP integrity and current installation. Any deficiencies noted would be brought to the attention of the operator and addressed in a timely manner.
- Carbon Storage Solutions will limit construction activities during wet periods to avoid excess disturbance of areas surrounding operations.
- Carbon Storage Solutions will cross-rip all areas compacted by drilling, coring and bore logging operations which are no longer needed following completion of such operations. Ripping would be undertaken to a depth of eighteen (18) inches unless and to the extent bed rock is encountered at a shallower depth.
- Carbon Storage Solutions will regrade cut and fill areas awaiting reclamation to match pre-existing contours to the nearest extent possible to provide long term erosion control and site stability.
- Carbon Storage Solutions will grade the topsoil stockpile to ensure that all surfaces can be stabilized safely and effectively.
- Carbon Storage Solutions will stabilize and maintain areas needed for subsequent drilling operations to minimize dust and erosion to the extent possible.
- Carbon Storage Solutions will implement a Spill Prevention, Control, and Countermeasure plan to protect soil from potential spills.
- Carbon Storage Solutions will place a sign on each topsoil stockpile designating and preserving that material for reclamation purposes throughout the lifetime of the location.

### Traffic Reduction

- During drilling operations, crew will bunk in temporary housing on location.
- During monitoring operations, automation will be installed to reduce the number of site visits required.
- Traffic reduction measures shall be employed when feasible: such as utilizing nearby freshwater sources, supplying pipelines for drilling and completions.
- Automation will be installed to reduce the number of site visits required.

### Visual Impacts

- Equipment observable from any public highway shall be painted to blend into the natural background using uniform non-contrasting, non-reflective colors and tones that are matched to, but slightly darker than, the surrounding landscape.
- During construction and drilling any visual impacts that are visible from public highways shall be obscured in a manner suitable to mitigate the visual impact. Carbon Storage Solutions will consult with vendors, consultants, and contractors that are skilled in visual impact mitigation to ensure that all current industry best practices are utilized.

### Weeds

- Frequent inspections are made by personnel, and they will maintain the location in such a manner as to prevent noxious weeds, and keep the surface use area, as well as any roads or other areas, safe, and in good order.

- Carbon Storage Solutions will engage with contractors and consultants that are skilled in weed control and prevention to ensure that current industry standard best practices are utilized. Such practices may include but are not limited to:
  - Performing site assessments after the spring growing season.
  - Noting locations of invasive species.
  - Mowing
  - Spraying if applicable and or necessary. All spraying activities will be coordinated with the landowner and CPW.
  - Routine inspections throughout the life of the pad to identify weed mitigation as needed.

### Wildlife

- Carbon Storage Solutions has proactively worked with CPW to be sure that we observe any current wildlife restriction in the area.
- Carbon Storage Solutions will inform and educate employees and contractors on wildlife conservation practices, which includes no harassment or feeding of wildlife.
- Carbon Storage Solutions will protect culvert inlets from erosion and sedimentation and install energy dissipation structures at outfalls.
- Carbon Storage Solutions will implement fugitive dust control measures.
- Carbon Storage Solutions will post speed limits and caution signs to the extent allowed by surface owners, Federal and state regulations, local government, and land use policies.
- Carbon Storage Solutions will reduce traffic associated by temporarily storing water for drilling on location.
- During final reclamation, Carbon Storage Solutions will re-contour and re-vegetate all roads and pads to a stable condition to restore natural habitats for wildlife species.
- Carbon Storage Solutions will use remote monitoring of wells to the extent practicable.
- Carbon Storage Solutions will install automated emergency response systems.