From: Crystal Hocking
To: Hudson, Roberta
Subject: FW: [EXT] [External Email]Clean Nuclear Energy - October Jinx - Seed Mix and Schedule
Date: Wednesday, December 4, 2024 9:28:48 AM
Attachments: image007.png
image008.png
image009.png
image010.png
image011.png
image012.png
image013.png
image014.png
image015.png
image016.png

FYI – USFS Confirmation of Clean Nuclear seed mix below.

Crystal Hocking
crystal.hocking@respec.com
605-394-6451
605.431.7416

From: Manning, Jonathan - FS, SD <Jonathan.Manning2@usda.gov>
Sent: Tuesday, December 3, 2024 4:06 PM
To: Crystal Hocking <crystal.hocking@respec.com>
Cc: Mike Blady <mikeblady@gmail.com>; John Glasscock <cowboyexpjwg@msn.com>
Subject: RE: [External Email]Clean Nuclear Energy - October Jinx - Seed Mix and Schedule

Crystal,

I have confirmed that the USFS is supportive of using the seed mix recommended by the NRCS in Table 2 below.

Table 2. Reclamation Seed Mix Table: Recommended by NRCS

Species	Percent of Seed Mix
Sideoats grama	10
Western wheatgrass (Pascopyrum smithii)	50
Blue grama	5
Green needlegrass	15
Slender wheatgrass (Elymus trachycaulus)	10
Purple prairie clover	2
Little bluestem	8

Application Rate: 14 Pounds Live Seed/Acre

Thank you!

Jonathan Manning, EIT
Geological Engineer
Forest Service
Black Hills National Forest
p: 605-673-9314
jonathan.manning2@usda.gov
1019 N 5th St
Custer, SD 57730
www.fs.usda.gov
Caring for the land and serving people

From: Crystal Hocking <crystal.hocking@respec.com>
Sent: Wednesday, November 27, 2024 9:46 AM
To: Manning, Jonathan - FS, SD <Jonathan.Manning2@usda.gov>
Cc: Mike Blady <mikeblady@gmail.com>; John Glasscock <cowboyexpjwg@msn.com>
Subject: [External Email]Clean Nuclear Energy - October Jinx - Seed Mix and Schedule

Jonathan,

We received comments back from the SD DANR regarding Clean Nuclear Energy's EXNI application for the October Jinx Project.

One comment is in regard to the proposed **seed mix**. The proposed seed mix for the project was previously approved by the NRCS for lands on the adjacent drilling project to the south in Section 36, and I've messaged Andrea Westlake at the NRCS to verify her office is still in agreement with that seed mix, or to see if she has recommended changes. However, while I wait for her response, I wanted to also check with you if the USFS has a preference for reclamation seed mix other than what's proposed in the POO and EXNI application (attached pdf has the seed mix Clean Nuclear is proposing for both adjacent projects)?

The other comment was regarding needing an approved or nearly complete Plan of Operations. I know that is not where we're at in the process, but can you provide an update and timeline on your review, getting an MOU, and moving to the next steps of the process so that Clean Nuclear can better understand the timeline to get to an approved (or nearly

complete) POO?

Thanks and Happy Thanksgiving,
Crystal

Crystal Hocking
Project Geological Engineer
crystal.hocking@respec.com
605-394-6451
605.431.7416
3824 Jet Dr.
Rapid City, SD 57703

From:	Crystal Hocking
To:	Hudson, Roberta; Holm, Eric
Cc:	Mike Blady; John Glasscock
Subject:	FW: [EXT] [External Email]Clean Nuclear Energy Consultation with Conservation District for Reclamation Plan
Date:	Thursday, November 28, 2024 5:17:13 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png OctoberJinx Seeding Rec.pdf

Ms. Hudson,

The NRCS has confirmed the submitted seed mix is appropriate for this area. See communications below.

I've also contacted the USFS and expect to hear back soon.

Crystal Hocking
crystal.hocking@respec.com
605-394-6451
605.431.7416

From: Westlake, Andrea - FPAC-NRCS, SD <andrea.westlake@usda.gov>
Sent: Wednesday, November 27, 2024 12:29 PM
To: Crystal Hocking <crystal.hocking@respec.com>
Cc: Mike Blady <mikeblady@gmail.com>; John Glasscock <cowboyexpjwg@msn.com>
Subject: RE: [External Email]Clean Nuclear Energy Consultation with Conservation District for Reclamation Plan

Hi Crystal,

The seeding mix used for the previous site will work for this one, so I have attached an updated seeding sheet for these acres. In the document, you will also find information on the species varieties that are commonly used in South Dakota, as well as the guidance for critical area seedings.

If you need anything else, feel free to contact me.
Thanks!

Andrea Westlake
Area Rangeland Management Specialist
Belle Fourche Field Office
1837 5th Avenue S
Belle Fourche, SD 57717
Office: 605-892-3368 x3076

Cell: 605-220-4749

From: Crystal Hocking <crystal.hocking@respec.com>
Sent: Wednesday, November 27, 2024 9:32 AM
To: Westlake, Andrea - FPAC-NRCS, SD <andrea.westlake@usda.gov>
Cc: Mike Blady <mikeblady@gmail.com>; John Glasscock <cowboyexpjwg@msn.com>
Subject: [External Email]Clean Nuclear Energy Consultation with Conservation District for Reclamation Plan

Andrea,

Clean Nuclear Energy has submitted another Exploration Notices of Internet ("EXNI") Application with the South Dakota Department of Agriculture and Natural Resources ("DANR"). This EXNI application ("October Jinx") will was submitted for the project on USFS land in Fall River County, but is in need of approval or revision of the recommended seed mixture for the application.

This new application is immediately north of Clean Nuclear Energy's other EXNI project (in Sec 36, T7S, R2E) and included a seed mix that was previously recommended from your office. Clean Nuclear Energy would request consultation on a recommended seed mixture to be utilized under the reclamation plan(s) that will be submit as part of the EXNI application for Clean Nuclear Energy for the October Jinx project per SDCL 45-6C-8(2).

Enclosed with the email are the following for use for your review to assist in your consultation on a recommended seed mixture:

- ***3_OctJinxTopopdf:*** Proposed project site
- ***6a Seed Reclamation.pdf***: Previously communication and recommended and approved seed mixture being utilized on Clean Nuclear Energy's EXNIs in Section 36 to the south of the October Jinx project.
- ***6b 20240810_1127811343_35_All_Ecological_Sites-.pdf***: All Ecological Sites report that was created from the NRCS website on the USFS side of the drilling project.

Clean Nuclear Energy would prefer to utilizes the currently recommended seed mixtures in this area too, and would request your concurrence if appropriate. However, should you recommend an alternative seed mixture, Clean Nuclear Energy would implement that recommended seed mixture as part of the submitted reclamation plan to the DANR as part of the EXNI Application.

Thank you for your time as it pertains to this matter and your assistance. Should you need any further information, please contact me.

Regards,

Crystal

Crystal Hocking
Project Geological Engineer
crystal.hocking@respec.com
605-394-6451
605.431.7416
3824 Jet Dr.
Rapid City, SD 57703

Instructions

SEEDING PLAN

Producer: Clean Nuclear Energy | Conservation District: | MLRA: 60A

Program: CTA | Practice No.: 342 | Practice Name: Critical Area Seeding

CI or Referral No.: | Contract #:

Resource Concern (CPPE Impact)	Purpose:
	342- Stabilize areas with existing or expected high rates of soil erosion by wind or water

PLANNED		
Tract		Seedbed Preparation
Field	NA	Clean, smooth, weed free seedbed will be prepared
Acres	201.60	
Group or Site	Critical Area Group	
Site (Web Soil Survey)	Loamy or Silty Texture	Have the past 3 years of Herbicide Carryover been considered?
Date to be Planted (TechNote4)	Early Spring Prior to 5/15	No
Alternative planting dates		Protection Provided
Alternative planting dates		Clip weeds before they compete for moisture and light
Seeding Equipment	Special Grass Drill	
Companion Crop		

PLANNED

Species * **	max % or Rating	1/ Select Improved Variety (recommended) or select common seed (see note below)	Percent in Mixture 100	Pure Live Seeds (PLS) per square foot ***32.93***	Pure Live Seed (PLS) LBS/Acres Needed ***9.52***	Acres to be Seeded	Pure Live Seed (PLS) LBS Required ***1919.15***
Sideoats grama			10.0	3.75	0.91	201.60	182.95
Western wheatgrass			50.0	15.00	5.83	201.60	1176.12
Blue grama			5.0	2.25	0.13	201.60	26.35
Green needlegrass			15.0	5.63	1.36	201.60	274.43
Slender wheatgrass			10.0	2.55	0.72	201.60	144.47
Purple prairie clover			2.0	0.75	0.11	201.60	22.71
Little bluestem			8.0	3.00	0.46	201.60	92.12

To meet SD NRCS Standards Please Note:

1/ Improved varieties recommended above have no restrictions on their origin.

1/ Origin of Common grass seed must be ND, SD, NE, MT, WY, MN, or IA. Exception: Smooth Bromegrass any locale.

1/ Common Native forbs and legumes will originate or be grown in (USA): ND, SD, NE, MT, IA, WY, ID, WA, OR, MN, WI, and (CAN): AB, BC, MB, ON, SK.

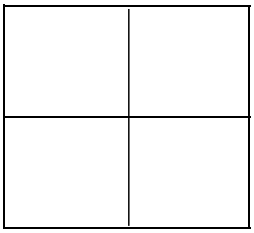
- Seed test must be completed according to SD Seed laws (see link below) and no more than 9 months prior to the date planted.
- All legumes must be pre-inoculated . Producer will provide all seed tags to NRCS — Legume inoculants
- Tetrazolium (TZ) tests may be used as a substitute for germination tests ONLY for Green Needlegrass
- For Alfalfa Salinity tolerence use F or G from the web site link ---> Alfalfa Variety Ratings

* Pubescent wheatgrass and Intermediate wheatgrass are the same species and can be substituted for one another at any time.

** Thickspike wheatgrass may be substituted for western wheatgrass if the later is not available but only west of the Missouri River. To calculate the amount needed multiply the western wheatgrass seeding rate by .72

SD Seed Laws: Codified Laws Statute 38-12A | Seed testing: SD state seed-lab

LOCATION MAP



Tract

N

S.

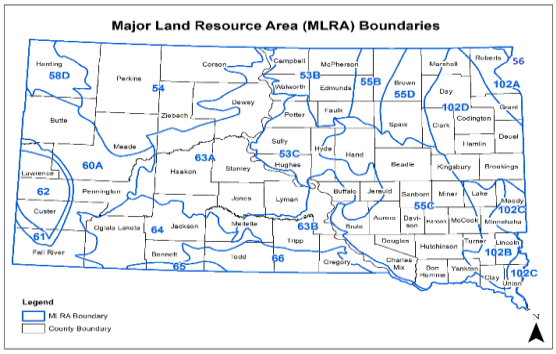
T.

R.

Planning Assistance By: Andrea Westlake (Name) 11/27/2024 (Date)

Plan Meets SD Standards (if no explain) Yes ☐ No ☐

The seeding plan was developed from recommendations based on the NRCS Soil Survey and South Dakota Field Office Technical Guide.



Critical Area Group **Loamy or Silty Texture**

This seeding is planned in Major Land Resource Area (MLRA) **60A**

Varieties/Cultivars that are approved for South Dakota Include:

Sideoats grama

Butte	Central Iowa Germplasm	Common	Killdeer
Northern Iowa Germplasm	Pierre	Southern Iowa Germplasm	Trailway

Western wheatgrass

Arriba	Barton	Common	Flintlock
Recovery	Rodan	Rosana	Walsh

Blue grama

Bad River	Birdseye	Common

Green needlegrass

AC Mallard Ecovar	Common	Lodorm

Slender wheatgrass

AC Pintail Ecovar (Bearded)	AC Sprig Ecovar (Bearded)	Adanac	AEC Hillcrest
Common	Elbee	FirstStrike	Primar
Pryor	Revenue		

Purple prairie clover

Bismarck	Common	Kaneb

Little bluestem

Badlands Ecotype	Blaze	Camper	Central Iowa Germplasm
Common	Itasca	Northern Iowa Germplasm	Southern Iowa Germplasm

Guidance for Critical Area Planting (342)

The following is an excerpt from RANGE TECHNICAL NOTE NO. 4 PERENNIAL VEGETATION ESTABLISHMENT GUIDE.
SD/Range_Tech_Note_4.pdf

14. GUIDANCE FOR CRITICAL AREA PLANTING (342)
Seeding of a critical area may take place at any time of the year as long as a reasonable expectation of a successful seeding establishment is expected.

Site Preparation:

Follow guidance for seedbed preparation (Section 2 above) and the additional following criteria.

If necessary, divert offsite water away from the critical area. This may require a permanent conservation practice, or in other instances, a temporary measure that will be effective during the period of establishment.
Where practical, grade to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and anchoring. Cabling of equipment to prevent rollover may be necessary on some slopes such as newly constructed dams.
On construction sites where the exposed and underlying soil material will not support adequate vegetation, minimum topsoil dressing of six inches will be applied as part of construction.

After construction is complete, the seedbed will be worked to a depth of three to five inches to break up compacted areas and permit rapid root development. Drag or pack to break up large clods and firm the seedbed.

Where slopes are steeper than 1.5:1, use some means other than vegetation to stabilize slopes.

Species Selection:

Allowable species will be selected from Table 7 for the appropriate MLRA.

Between 50 to 75% of the mixture will be made up of sod forming species. Grass mixtures may include all native species, all introduced species, or a mixture of native and introduced species. Mixing smooth bromegrass, Kentucky bluegrass, and/or crested wheatgrass with native species is not recommended.

When smooth brome is to be seeded in a mixture, do not include more than 10% of other native or introduced species for early establishment.

Single species may be used on saline or wet areas (Table 7).

Do not select aggressive species such as smooth bromegrass when the adjacent area is dominated by native species.

When quick growth and/or protection of a critical area is needed, a quick establishing grass can be added in addition to the selected permanent seeding mixture. Use either slender wheatgrass or annual ryegrass. Slender wheatgrass can be used statewide and annual rye grass can be used in MLRAs 102A, 102B, 102C, 53B, 53C, 55B, 55C, 63B, 66, and 62. Add a maximum of three PLS lbs./ac of slender wheatgrass or a maximum of two PLS lbs./ac of annual ryegrass to the selected full seeding.

Conventional Seeding:

Seeding activities will follow recommendations found elsewhere in this technical note unless otherwise stated in this section.
Seeding rates will be 1.5 times those recommended in Table 2 when using a drill (recommended rate multiplied by 1.5).

When possible, drilling will be accomplished perpendicular to the slope. On grassed waterways, drilling will follow a serpentine pattern.

Broadcasting:

Many critical area plantings are too steep or too small to efficiently and safely utilize a drill. In these cases, seed may be broadcast and incorporated by harrowing, packing, or raking by hand. When broadcast seeding, increase the seeding rates found in Table 2 by two times (recommended rate multiplied by two).

Hydroseeding:

On sites that are too steep for regular equipment to operate, the use of a hydro seeder is an acceptable alternative. Seed, fertilizer, and mulch materials will be applied in one operation. Limit the application of 150 lbs. of solids per 100 gallons of water. If a legume seed is included in the mixture, any lime or fertilizer should be applied separately. A second trip may also be needed to apply an asphalt emulsion to long fiber mulches.
When using hydroseeding technique, increase seeding rates found in Table 2 by a factor of two (recommended rate multiplied by two).

Sodding:

Sod may be used on areas requiring immediate cover to prevent erosion. The sod should be in strips or blocks of native grass mixture, switchgrass, prairie cordgrass, reed canary grass, or other suitable grasses. Bluegrass sod is to be used only when the areas is irrigated and is desired for aesthetic purposes. Sod materials are to be taken from solid, thick growing stands.

Sod will be cut in strips of uniform width and to a uniform thickness of at least three inches for tall grass and ½ to 1½ inches for short grasses. Lay sod within 24 hours after it was cut.

Sod strips should be carefully placed in rows across (at right angles) to the direction of slope. The sod strips will be placed together tightly so that no open joints are left between the strips or between the end of strips. Joints between the end strips will be staggered. Any spaces between the joints will be filled with topsoil and all edges covered with topsoil at least two inches deep. The edge of the sod at the top of slopes will be turned under and a layer of soil compacted over the edge so as to conduct surface water over and onto the top of the sod. The sod will be well tramped to help it remain in place.

Fertilizing:

Do not fertilize predominantly warm-season grass seeding unless the soil material is very infertile.

Thoroughly mix all fertilizer into the upper three to five inches of the soil during final seedbed preparation.

Apply fertilizer based on the recommendations from a soil test or apply 30 to 40 lbs. of actual Nitrogen (N) and 40 to 60 lbs. of Phosphorus pentoxide (P_2O_5) per ac. Ten to 15 tons of manure per ac may be used in lieu of the commercial fertilizer and will also increase organic matter.

On medium textured soils, the addition of 5 to 10 lbs. of zinc per ac may speed up growth.

Mulching:

All mulching will be done in accordance with the SD CPS for Mulching (484). Mulching of critical area plantings is required for any of the following conditions:

Where seeding cannot be accomplished during the approved seeding periods and a cover crop is not used;

On grassed waterways, where a cover crop or companion crop is not used, and seeding is placed on a bare seedbed, and the design velocity is more than 2.5 ft per second;

Where a grassed waterway is established at the time of terrace construction, and the channel slope is 2% or greater;

On slopes 3:1 or steeper that are 10 ft or more in vertical height or longer than 20 ft; on cut south and west facing slopes; On all saline and alkaline areas.

Drill grass in the prepared seedbed, immediately prior to mulching or at the next suitable seeding period after mulching.

Management of Critical Areas During and After Establishment:

Weeds will be controlled as described elsewhere in this technical note. All use will be excluded until vegetation is well established.

Mow grassed waterways for hay annually after establishment. Other critical areas may be mowed as needed for stand maintenance.

Fertilize as necessary to maintain stand.

Inspect critical areas each spring and following heavy rain. Reshape and reseed eroded areas promptly. Reinforce grass seeding where stands are thin.

Manage any grazing use to ensure long-term survival of the stand.

Lift tillage implements and shut off sprayers when crossing critical areas. Do not till parallel to grassed waterways.

Avoid vehicular travel on critical areas.

Providing Food, Cover, and Shelter for Wildlife:

Wildlife habitat should be considered when developing critical area planting plans and species selection. For plant species to improve wildlife habitat, refer to the SD CPS Upland Wildlife Habitat Management (645).