

A quarterly news bulletin to provide project managers and district environmental staff with current permit requirements, training opportunities and other environmental guidance.

STORMWATER/EROSION CONTROL

CONCRETE WASTE MANAGEMENT – A GOOD HOUSEKEEPING BMP

The Nebraska Construction Stormwater General Permit requires us to manage concrete wash water to prevent it from entering waters of the state. Concrete washout areas must be constructed to contain concrete and liquids when the chutes of concrete mixers and hoppers of concrete pumps are rinsed out after delivery.



Concrete wash water is alkaline and contains high levels of chromium, which can leach into groundwater or migrate to nearby waterbodies, increasing the pH and harming aquatic life.

There are two types of concrete washout facilities. The first type is a pre-fabricated washout. The second type, which is more widely used on NDOR projects, is the self installed variety such as the one in the photo on the left. These typically consist of digging pits throughout the project where concrete trucks can wash out into. In some areas of the state a plastic liner may be necessary to prevent leaching into the soil. This is particularly important in areas with sandy soils or high water tables. Keep in mind, future regulations

may require a liner in all washout facilities regardless of location.

While concrete washouts are a relatively simple practice there are several things to consider that will ensure these facilities operate effectively on your project. The Environmental Protection Agency (EPA) offers the following guidance on the management of these facilities.

- ❖ **Inspection** - Inspect all concrete washout facilities on a daily basis to determine if they have been filled to 75 percent capacity, which is when materials need to be removed or another facility brought online.
- ❖ **Maintenance** - Concrete washouts are designed to promote evaporation where feasible. However, if stored liquids have not evaporated and the washout is nearing capacity, vacuum and dispose of them in an approved manner. Remove liquids or cover the structures before predicted rainstorms to prevent overflows. Companies that offer prefabricated and watertight washout containers generally offer a vacuum service to remove the liquid material. You can remove hardened solids whole or you can break them up first depending on the type of equipment available at your site. You can then reuse the solids onsite or have them hauled away.
- ❖ **Sizing** - You should size your washouts to handle solids, wash water, and rainfall to prevent overflow. Concrete Washout Systems, Inc., (2006) estimates that 7 gallons of wash water are used to wash one truck chute and 50 gallons are used to wash out the hopper of a concrete pump truck.

- ❖ **Location** - According to CASQA (2003), you should not place concrete washout facilities within 50 feet of storm drains, open ditches, or waterbodies (*NDOR Note: This may not always be practical on linear projects but the idea is to locate them as far from critical resources as possible*). You should place them in a location that allows convenient access for concrete trucks, preferably near the area where the concrete is being poured. On large sites with extensive concrete work, washouts should be placed in multiple locations for ease of use by concrete truck drivers.
- ❖ **Education** – Post signage indicating the location and designated use of these areas, and provide careful oversight to inspect for evidence of improper dumping of concrete waste and wash water.

REMINDER: REMOVAL OF TEMPORARY BMPs

In order to close the stormwater permit on projects, a number of conditions must be satisfied prior to submitting the Notice of Termination (NOT). One of those conditions is the removal of all temporary BMPs (specifically non-biodegradable products such as silt fence). When a project is evaluated and perennial vegetation is determined to be at the 70% density, any remaining temporary BMPs need to be removed before the NOT can be filed.

If there are questions concerning this condition, please contact our office.

Contact Information: Ron Poe – (402) 479-4499

THREATENED AND ENDANGERED SPECIES

MIGRATORY BIRD NESTING HAS STARTED

Trees and structures such as box culverts and bridges are prime nesting spots for migratory birds. Over the past week many species of birds have been seen nesting. If you will be removing trees or working on culverts/bridges and have not taken precautions to prevent nesting, call Eric Zach at 402-479-4766 to schedule a survey.

Contact Information: Eric Zach – (402) 479-4766

VEGETATION MANAGEMENT

EACH NDOR SEED MIXTURE CONTAINS A STRATEGY

Since no single plant has every desirable quality, NDOR creates mixtures of plant species that have helpful characteristics. Putting together species that help our post-construction soil stabilization efforts is part of our strategy for re-vegetation after construction. Seed mixtures from NDOR's Roadside Stabilization Unit contain plant species that are chosen because of several traits:

- Some species germinate and become established quickly after planting. These species save the day for erosion control. NDOR relies on their fast-starting ability to stabilize the soil in the post-construction phase.
- How long a plant species persists in the vegetation also plays a part in the re-vegetation strategy. Not all species last a long time in the vegetation. Other species may be included because once they get started, they are known to stay as a part of the vegetation stand for years.
- Grasses especially are known to have distinct growth periods during the spring, summer and fall. Cool-season grasses grow vigorously during the spring and fall; warm-season grasses have their growth spurt during the hottest period of the summer. By including species from both of these categories in roadside mixtures, NDOR benefits from having actively-growing plants on the right-of-way all during the growing season.
- Plants that are able to add nitrogen to the soil (legumes) are valued for adding fertility. This is especially important in post-construction settings, where soils are nutrient-poor, compacted, and generally difficult to grow in.
- Plants whose mature height is 8 inches or less would require less mowing, a useful characteristic for use on highway rights-of-way. For this reason, NDOR chooses shorter grasses for inclusion in shoulder mixtures. Farther away from the highway, tall grasses and flowers add attractive color and variety to the roadside.

NDOR's roadside seed mixtures include cool-season and warm-season grasses, legumes, flowers, and a cover crop. Follow this link to view color photos of several of the species commonly used in NDOR seed mixtures (and other species, too): www.transportation.nebraska.gov/docs/flowers

Contact Information: Carol Wienhold – (402) 479-3917

UPCOMING TRAINING

NDOR EROSION AND SEDIMENT CONTROL FOR INSPECTORS

DATE	CLASS	LOCATION		AVAILABILITY
May 18 th	Half Day – Recertification	NDOR District 5 Office	Gering	Open

Contact Information: Ron Poe – (402) 479-4499 or Dennis Smith; UNL-LTAP – (402) 472-0976

Course information is also available on the LTAP website at:

http://www.ne-ltap.unl.edu/erosion_control.html