

Options for Solid Manure Storage During High Moisture Events

By Rhonda Miller, Ph.D.



Rapid snow melt, a wet spring, or other conditions that result in a lot of extra moisture and saturated ground can create manure storage problems for AFO/CAFOs. Options are limited when the manure storage bunkers are full and the ground is saturated. At this point, damage control is often the primary focus. A few key points to keep in mind:

- The main goal is to prevent manure and/or wastewater from getting into a water of the state.
- Avoid letting the manure/wastewater enter adjacent ditches and waterbodies. For the most part, this means ensuring that manure/wastewater does not leave your property.
- If manure/wastewater leaves your property you should contact Don Hall at the Division of Water Quality (DWQ) within 24 hrs of a discharge, at 801-536-4492 or dghall@utah.gov.



[Options if Your Manure Storage Structure is Overflowing](#)

Approved Measures

- Create a temporary manure storage structure at your facility to increase your manure holding capacity.
 - Use bales of straw, old hay, or cinder blocks to build a temporary manure storage area.
 - A small berm around the temporary manure storage structure may be needed to keep any liquid runoff contained.
- Develop a manure stockpile area in an accessible area of a field and haul manure there.
 - Manure stockpile areas should have no run-on, or run-off from the temporary manure storage area.
 - Berms are often used to prevent run-on, and contain any run-off.
 - Short-term field storage areas are not recommended on coarse soils to a depth of five feet such as old river beds, or potential gravel sites.

Emergency Measures

- Apply manure to fields that have berms to contain any runoff.
- If you must discharge, apply the manure to fields that are the furthest away from streams.
 - A minimum set-back distance of 100 feet is required around canals or drainage ditches.
 - Consider increasing the setback distance when the ground is saturated.
 - If possible, berm the fields on the downhill side to retain manure/wastewater on site.

[Options if Too Much Liquid from the Solid Manure](#)

Sometimes, the solid manure capacity is fine, but there is just too much liquid (e.g., snowmelt, rain) with the solid manure that is creating problems.

Approved Measures

- Use straw bales or old hay to absorb and help contain some of the liquid.
- Create a short-term runoff pond near the manure storage area to contain the liquid.
 - Construct by digging, creating berms, or a combination of the two.
 - The wastewater should not be more than 2 feet deep.
 - Short-term runoff ponds should not hold wastewater more than 90 days total in a year.
- Use berms to prevent runoff from leaving your property. Please note, this will result in the runoff building up in some other area on your property.

Emergency Measures

- Temporary holding ponds, or containment trenches deeper than 2'.

[Exemptions for Discharges](#)

If you have an approved nutrient management plan (NMP), and are following it, then exemptions from penalties for discharges due to catastrophic weather and snow-melt events may be possible.

Who may qualify?

- Those with CAFO permits.
- Those enrolled in the AgVIP through UDAF.
- Small and medium AFOs who have obtained an AFO Permit-by-Rule.

What needs to be done?

- Make sure you are following your NMP and have records to document that.
- Keep records of the precipitation you are getting at your farm.
- Document the efforts you have made to avoid having a discharge. Take pictures before, and after, to document conditions at your location.
- If you haven't discharged, but may, keep Don Hall in the loop.
- If you have a discharge, you should contact Don Hall at the Division of Water Quality (DWQ) within 24 hrs of the discharge, at 801-536-4492 or dghall@utah.gov.

Ultimately, the goal is to not let manure or wastewater get to a water of the state. It is better to contain the manure or wastewater on your property (even if not exactly as the regulations would mandate) than to have a discharge.

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