Illicit Discharge Detection and Elimination Roundtable

March 30, 2023

Staff contact: Casey Cannon

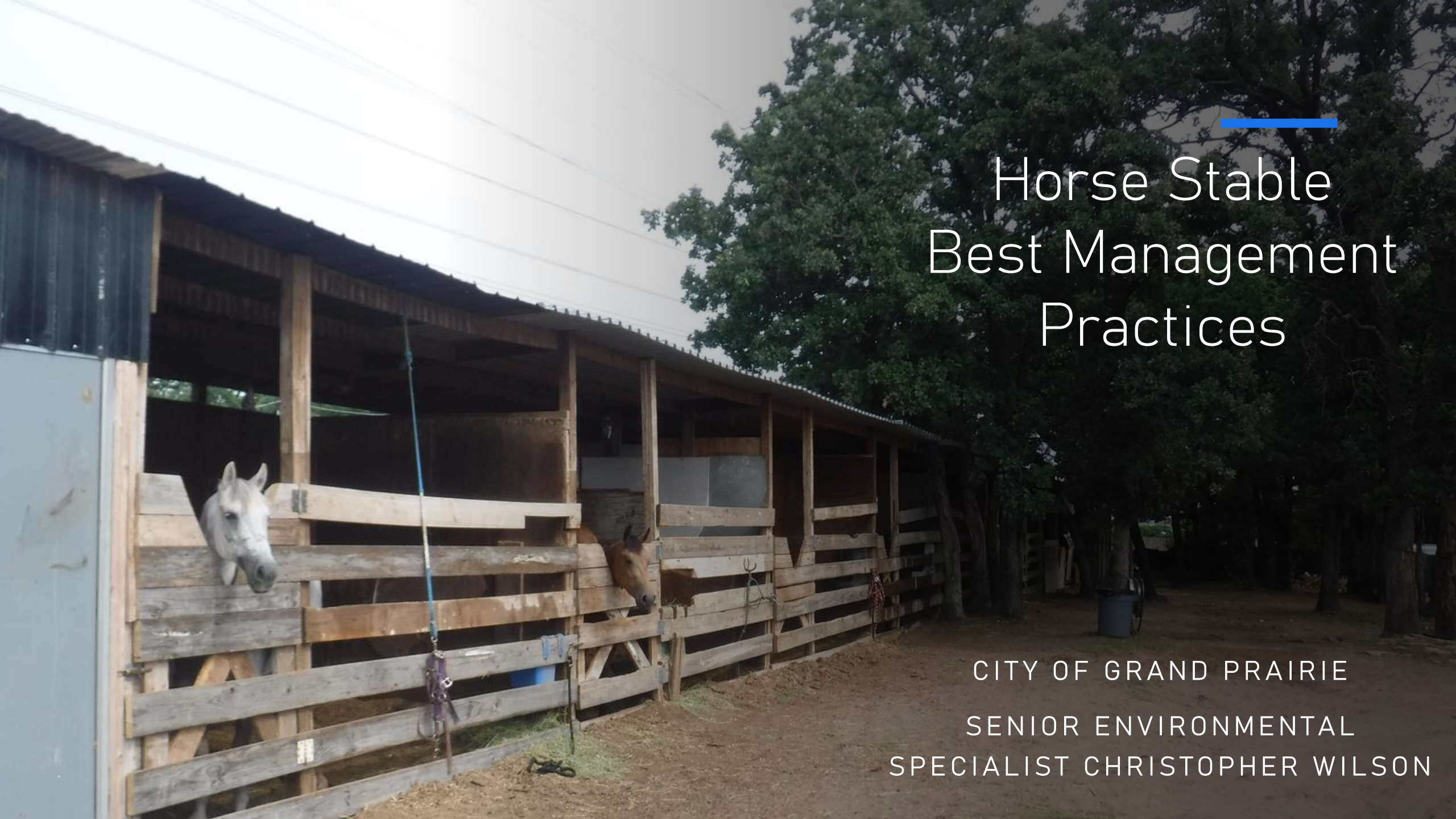
North Central Texas Council of Governments
Environment & Development

AGENDA

1) Welcome and Introductions
2) December Meeting Summary
3) Horse Stable & Manure Management Presentation
4) FY 2023 Projects
5) FY 2023 Training
6) Legislative Update
7) Roundtable

Meeting Summary Approval

- December 8, 2022, meeting summary

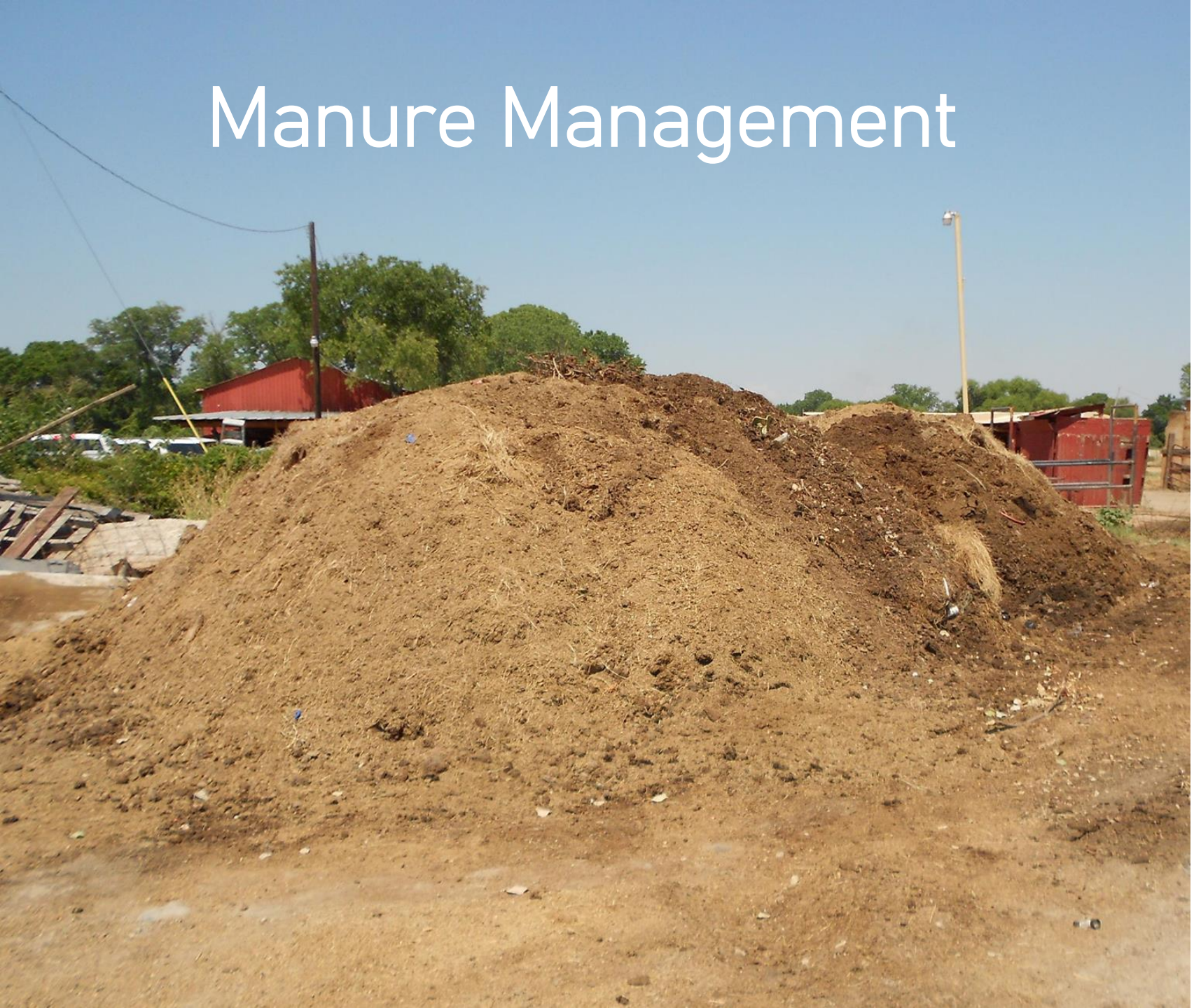


Horse Stable Best Management Practices

CITY OF GRAND PRAIRIE

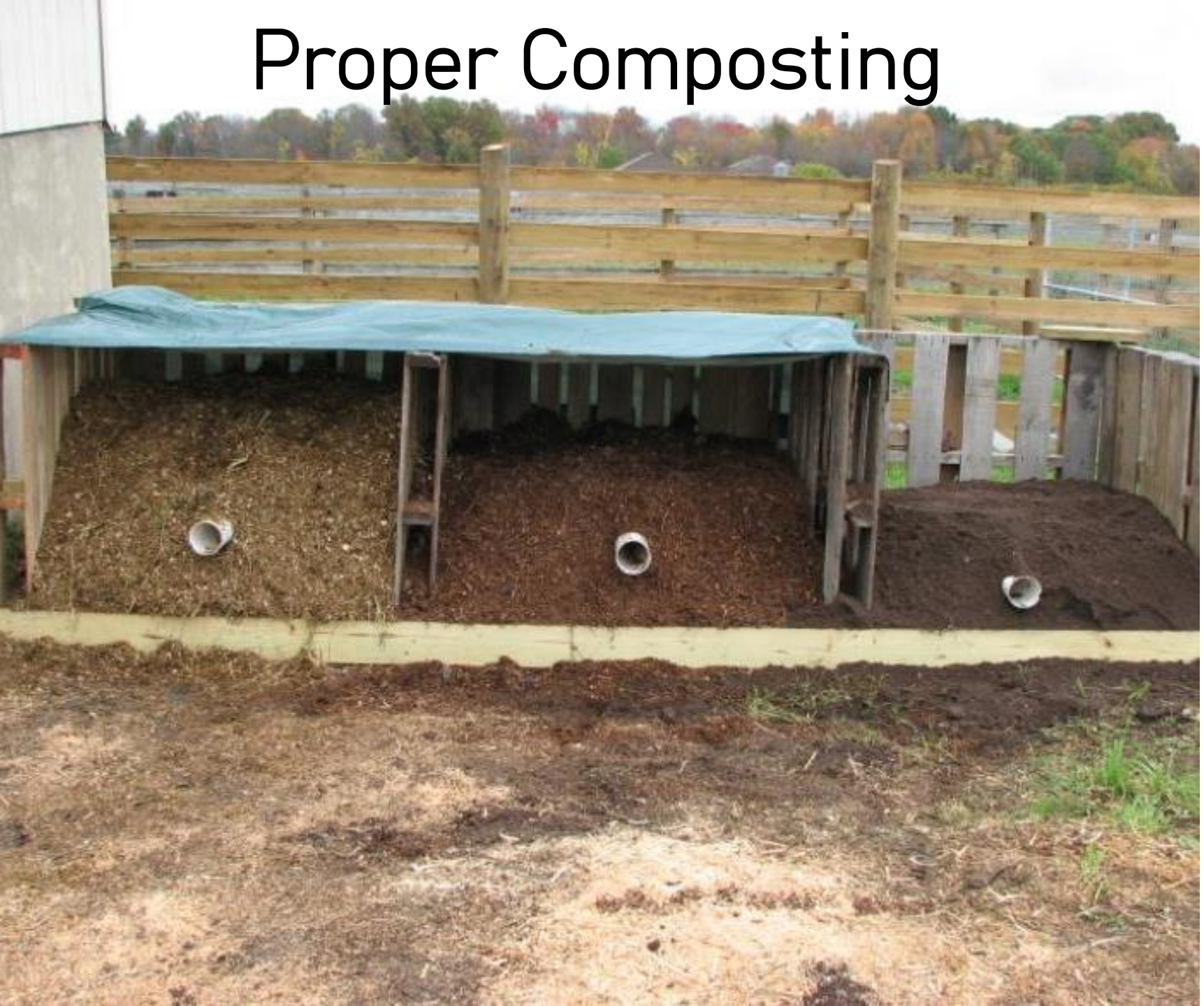
SENIOR ENVIRONMENTAL SPECIALIST CHRISTOPHER WILSON

Manure Management



- On average, one horse generates 50 pounds of manure per day, accumulating to over 9 tons annually.
- Manure should be removed from stalls daily to maintain sanitary conditions for horses and is required by Grand Prairie ordinance.
- Three main storage methods:
  - Composting
  - Trailering & Hauling Away
  - Spreading
- In all three methods, compost should be stored in a manner that it will not enter any water body or the MS4.

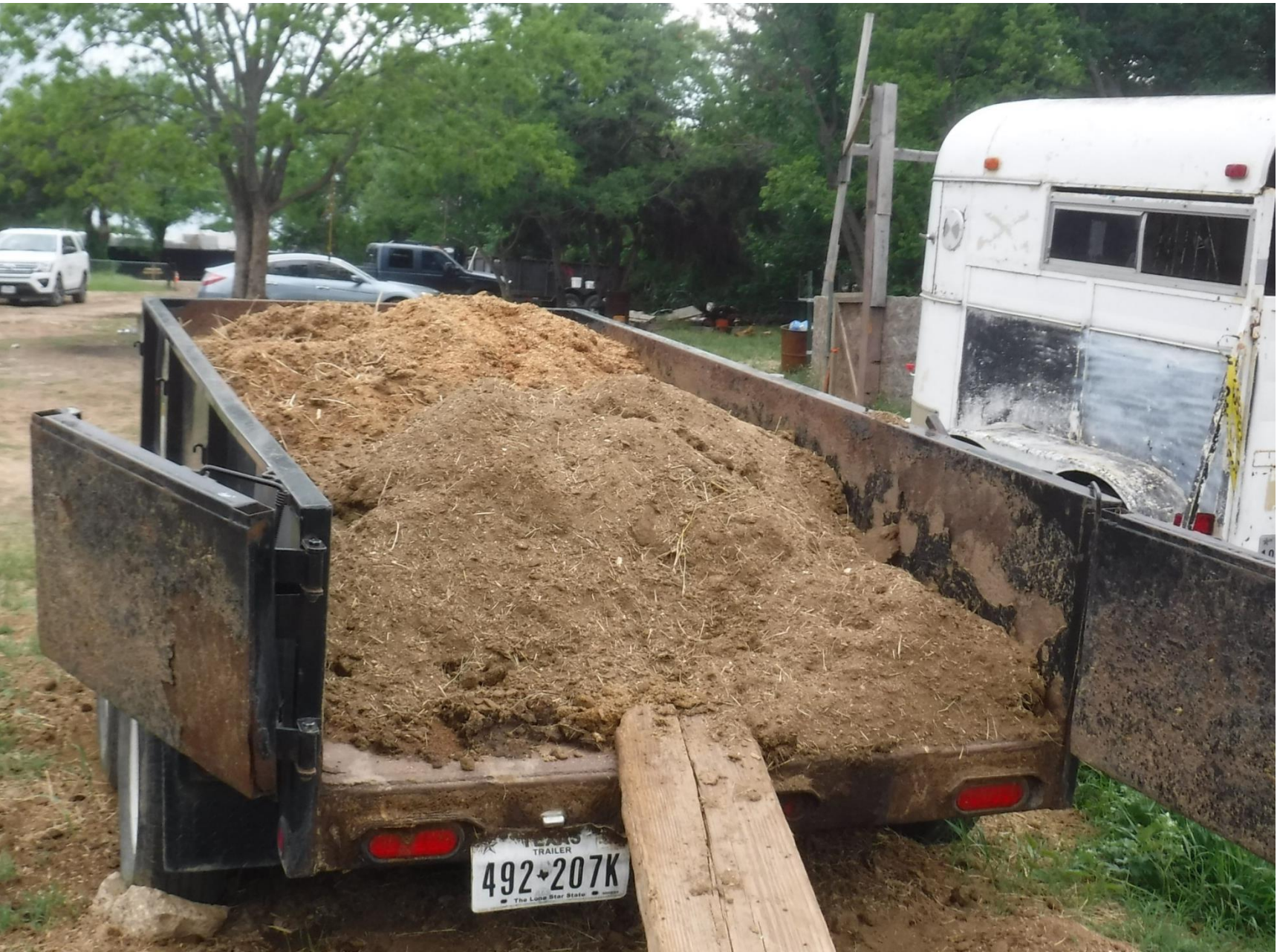
Proper Composting



- A manure pile does not constitute composting
- Microorganisms responsible for composting need food, water, air and the proper temperature:
  - The moisture content should be 50%-60%; squeezing a handful of compost should feel like a damp sponge.
  - Oxygen must be introduced to the pile. The pile should be regularly turned. Another common practice is to insert a perforated PVC pipe.
  - Horse manure's carbon to nitrogen ratio can range between 30:1 to 50:1. Ideally, nitrogen-rich material should be introduced to lower the ratio to between 25:1-30:1.

- Composting is not commonly seen at Grand Prairie inspections.

Trailering & Hauling Away

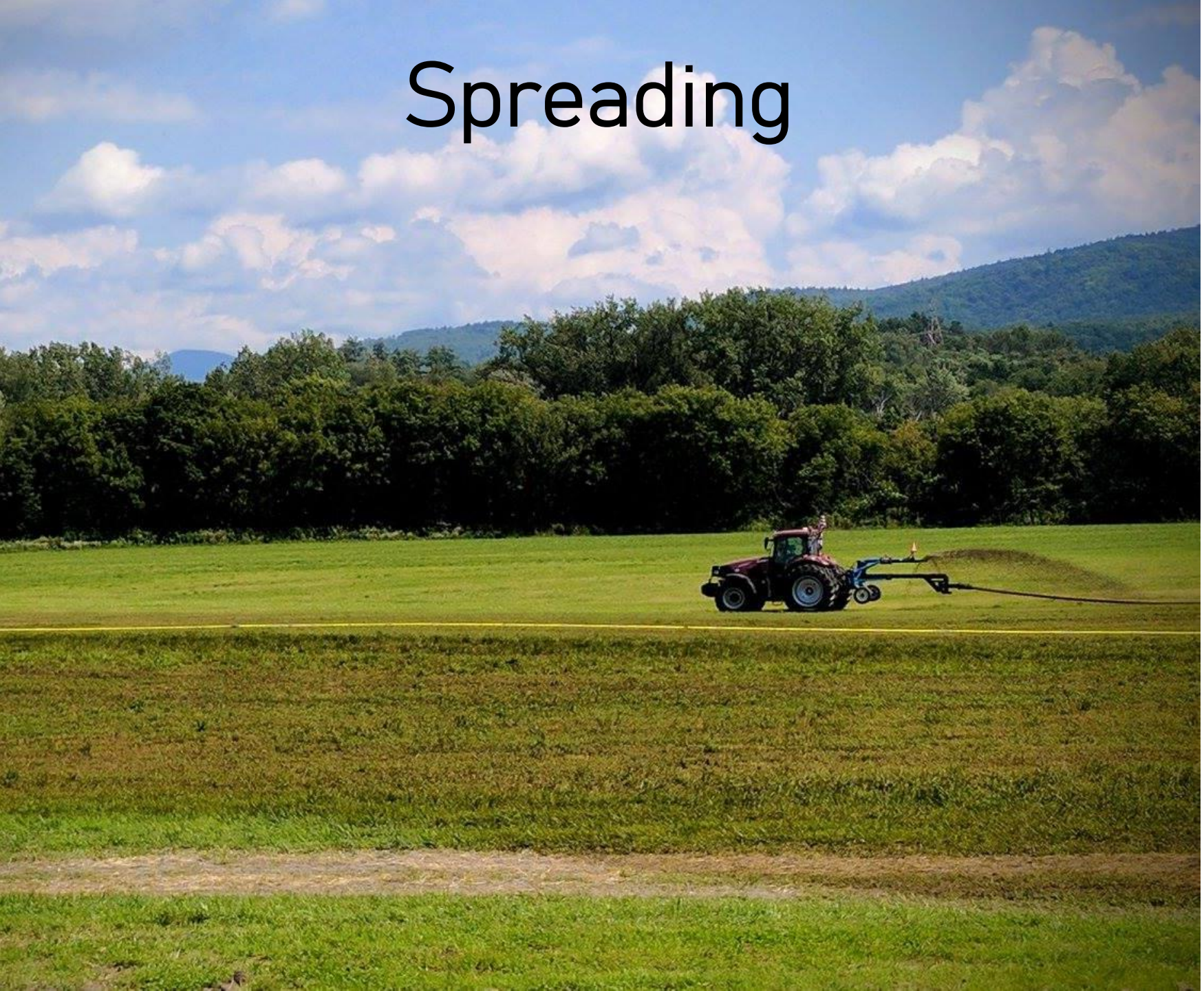


- Manure can be stored in a covered trailer or a sealed roll-off container.

- Once full, manure should be hauled for disposal or composting at a permitted facility.
  - Living Earth, Silver Creek Materials, and other businesses accept manure which is then composted at their facilities.
  - Some landfills accept manure. Grand Prairie Municipal Landfill charges $40/ton

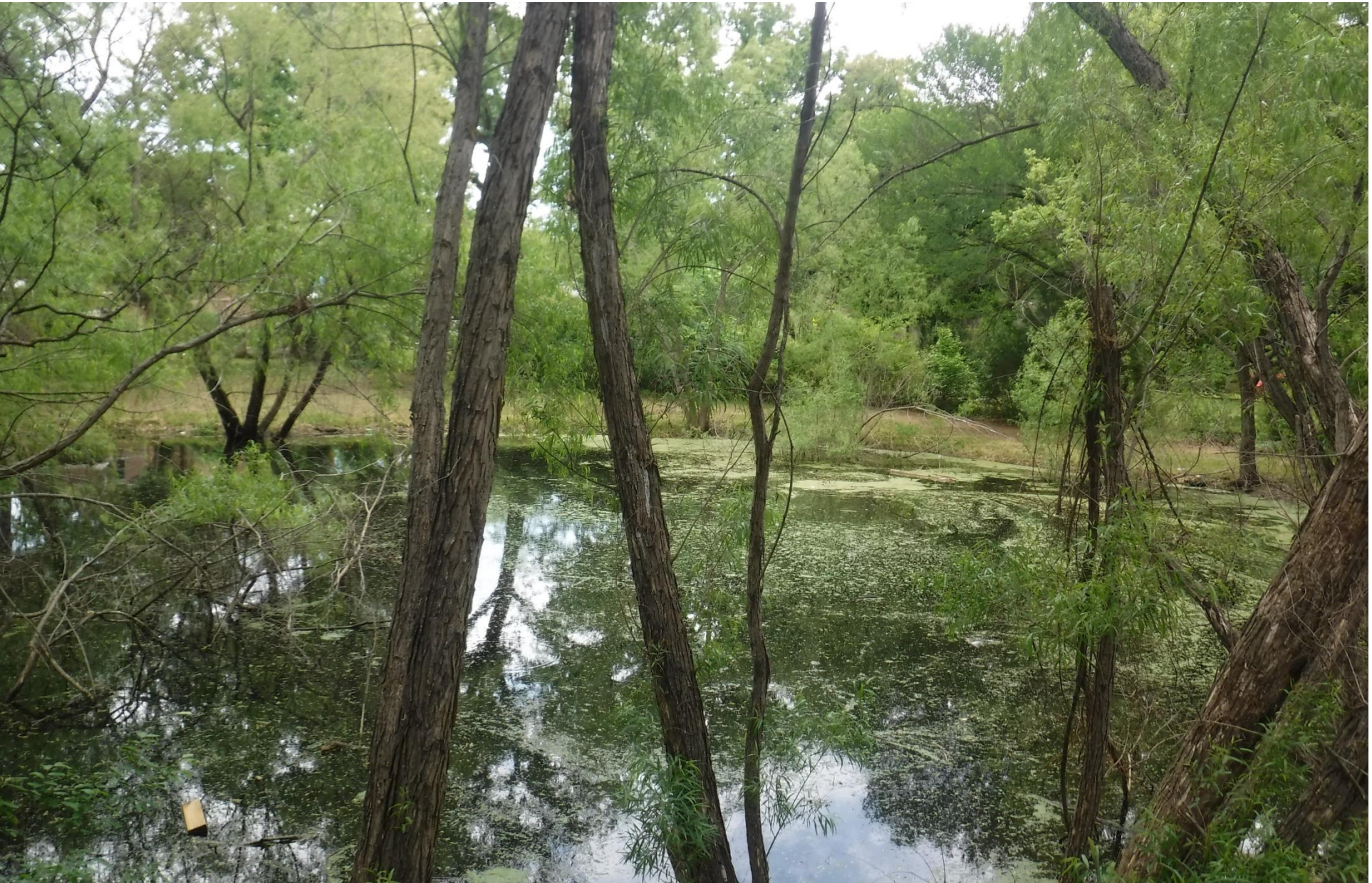
- Most common storage method seen in Grand Prairie

Spreading



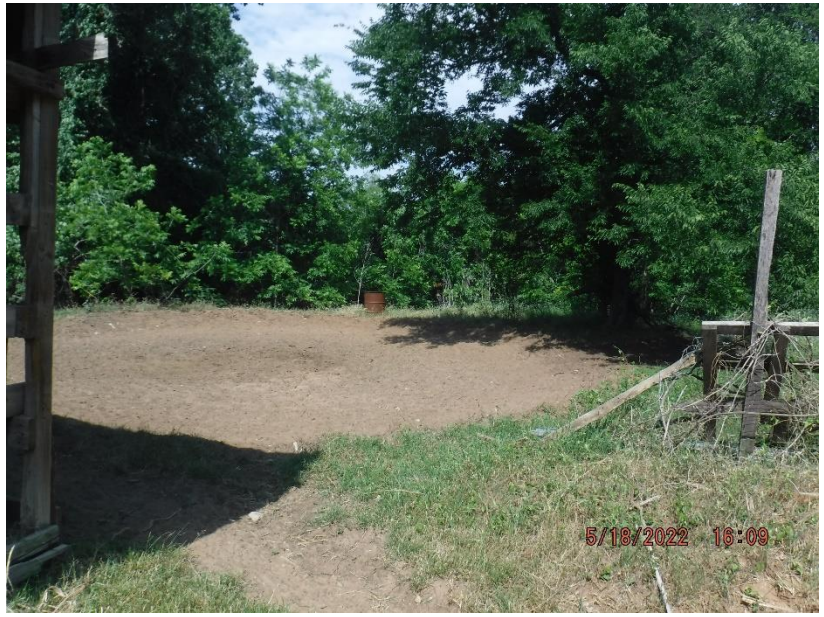
- Can cause pollution of stormwater runoff.
- Can impact animal health, as fresh manure contains more pathogens than composted manure.
- Land application of manure should occur only when certain conditions are met:
  - the manure will be used for crop production,
  - the manure is tilled into the soil, the ground is not wet or frozen,
  - there is adequate land area to provide a buffer between the manure and the MS4.
- Horse stables in Grand Prairie do not have an adequate buffer area; this practice is considered a violation of the stormwater ordinance.

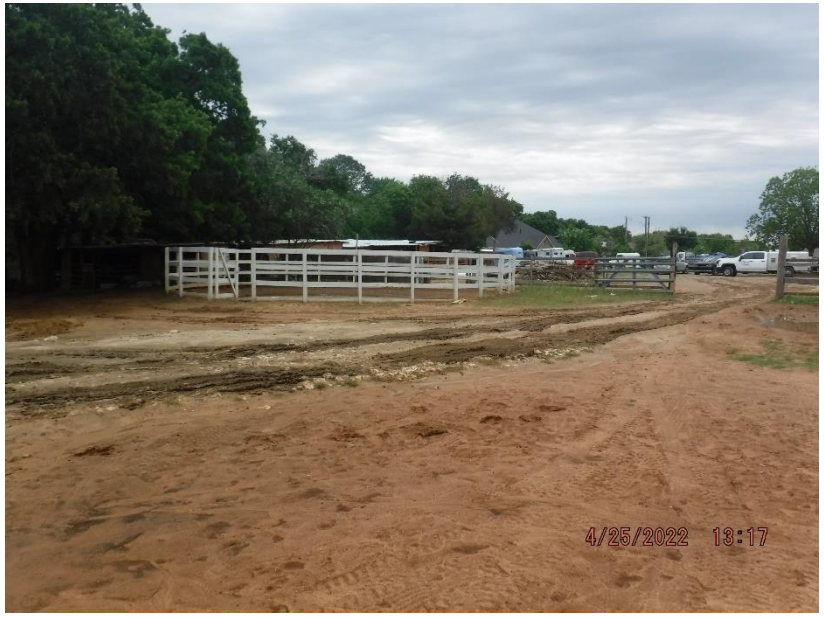
Consequences of Runoff

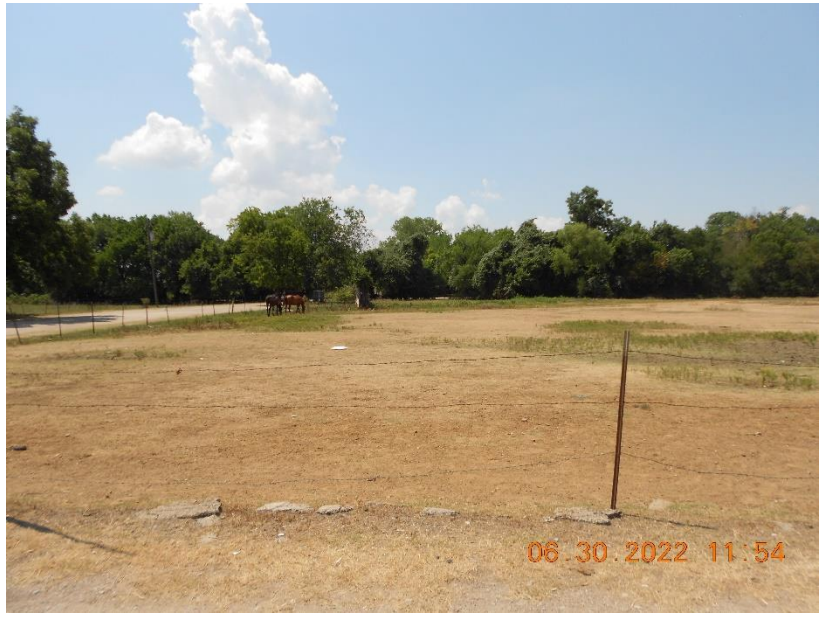


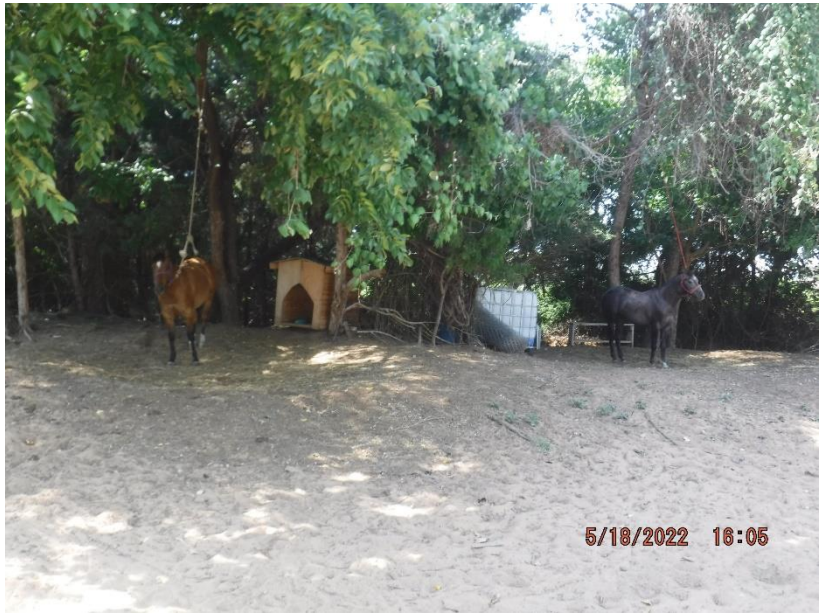
- Horse manure contains nitrogen, phosphorus, potassium, sulfur, micronutrients, and is high in organic matter.
- Typically a ton of horse manure will contain 11 pounds of N, 2 pounds of P, and 8 pounds of K
- Excess nutrients cause eutrophication and lead to algae blooms
- High TDS can cause fish kills and kill desirable plants as well
- Stables are commonly located in floodplains and along rivers

Erosion and Sedimentation



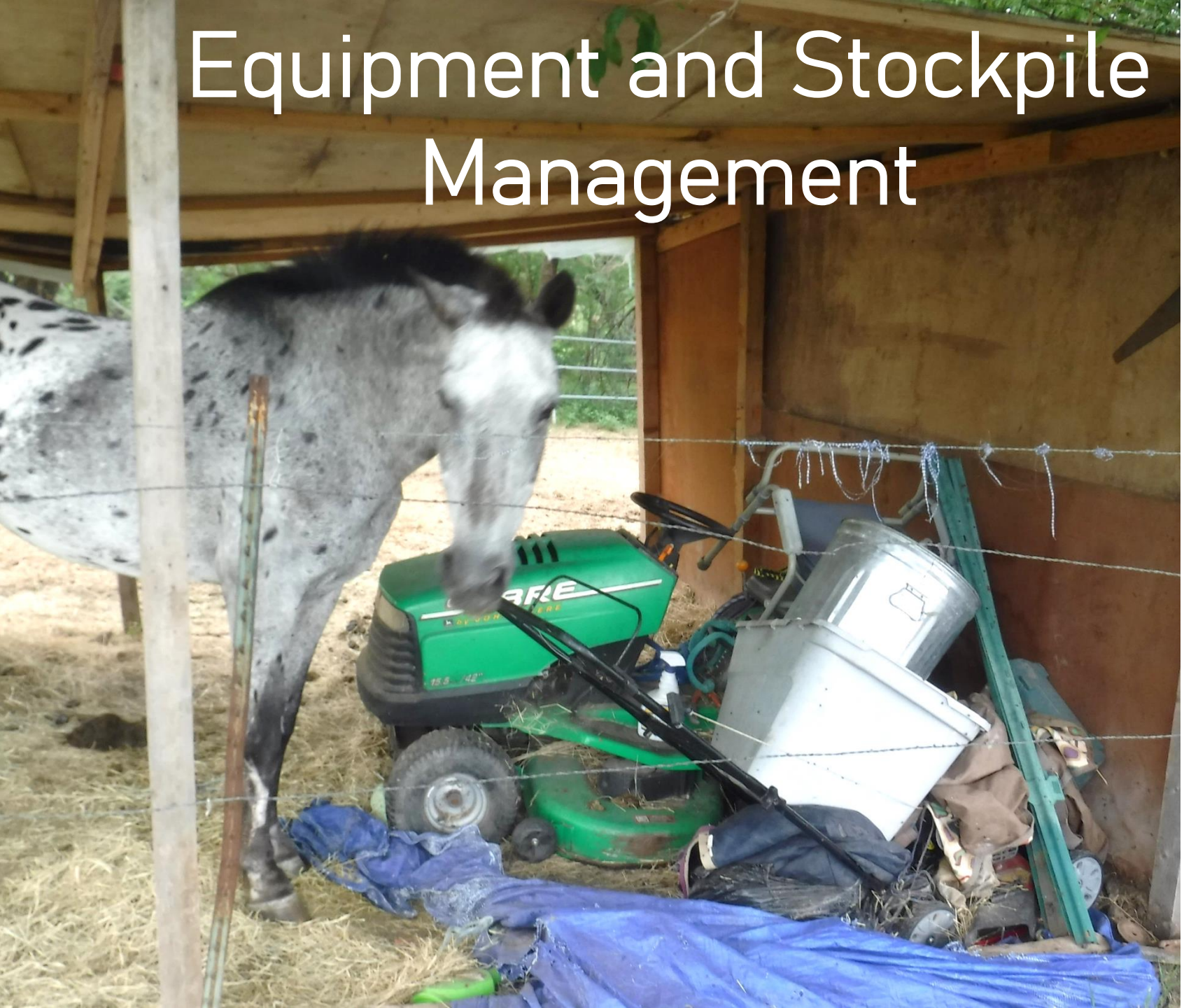






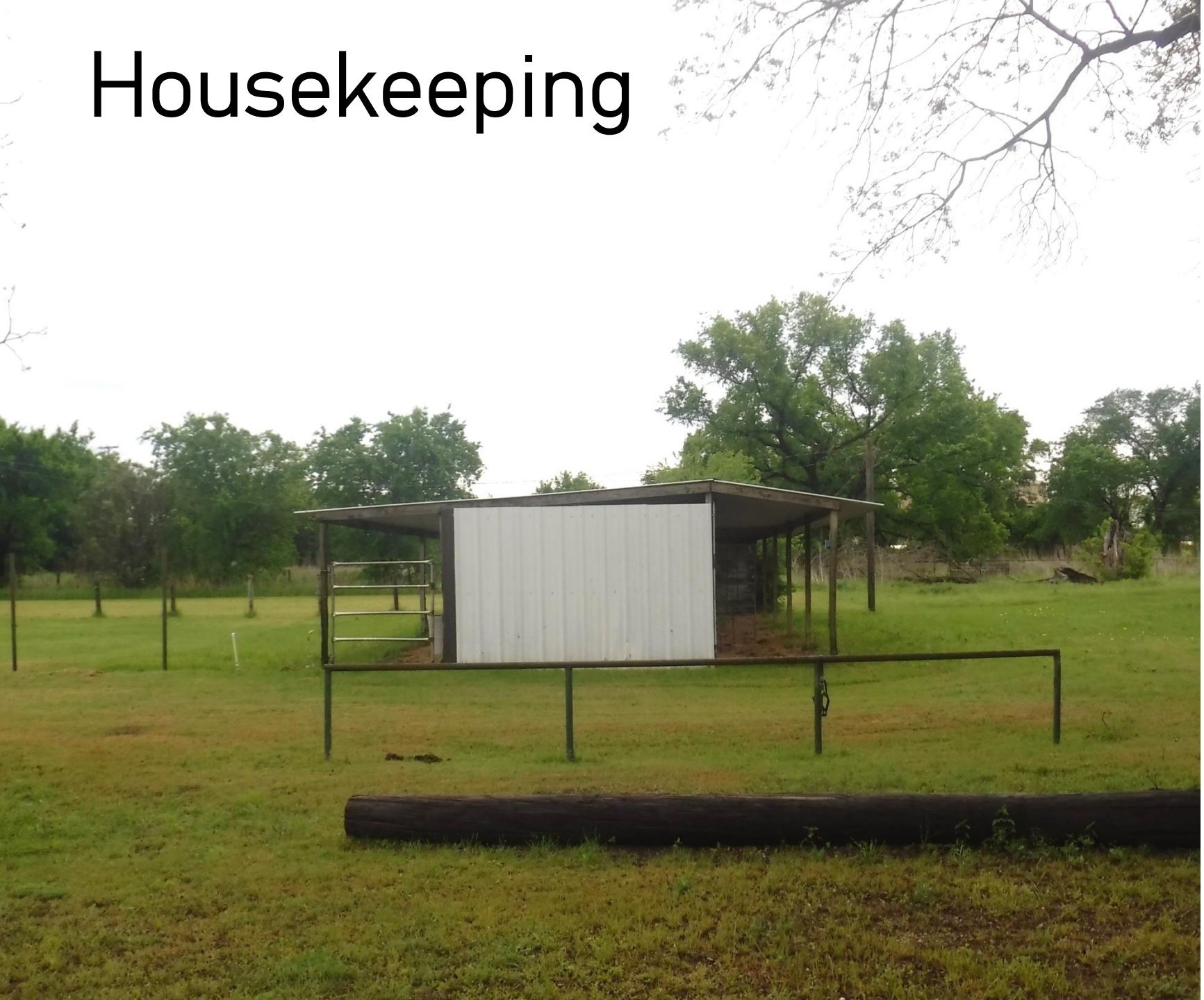
- Sediment sources: dirt roads, riding trails, arenas, longeing circles, holding pens, unvegetated areas
- These areas should be at least 200ft from waterbodies, floodplains, and storm drain inlets
- Vegetated buffer sections will filter sediment and absorb nutrients in runoff
- Trails and roads should be constructed such that runoff flows across them and not down them.
- Runoff should be diverted from high sediment areas as much as possible. Berms, ditches, swales and culverts can be utilized.
- Roads should be well maintained and regraded frequently to maintain a smooth surface.

Equipment and Stockpile Management



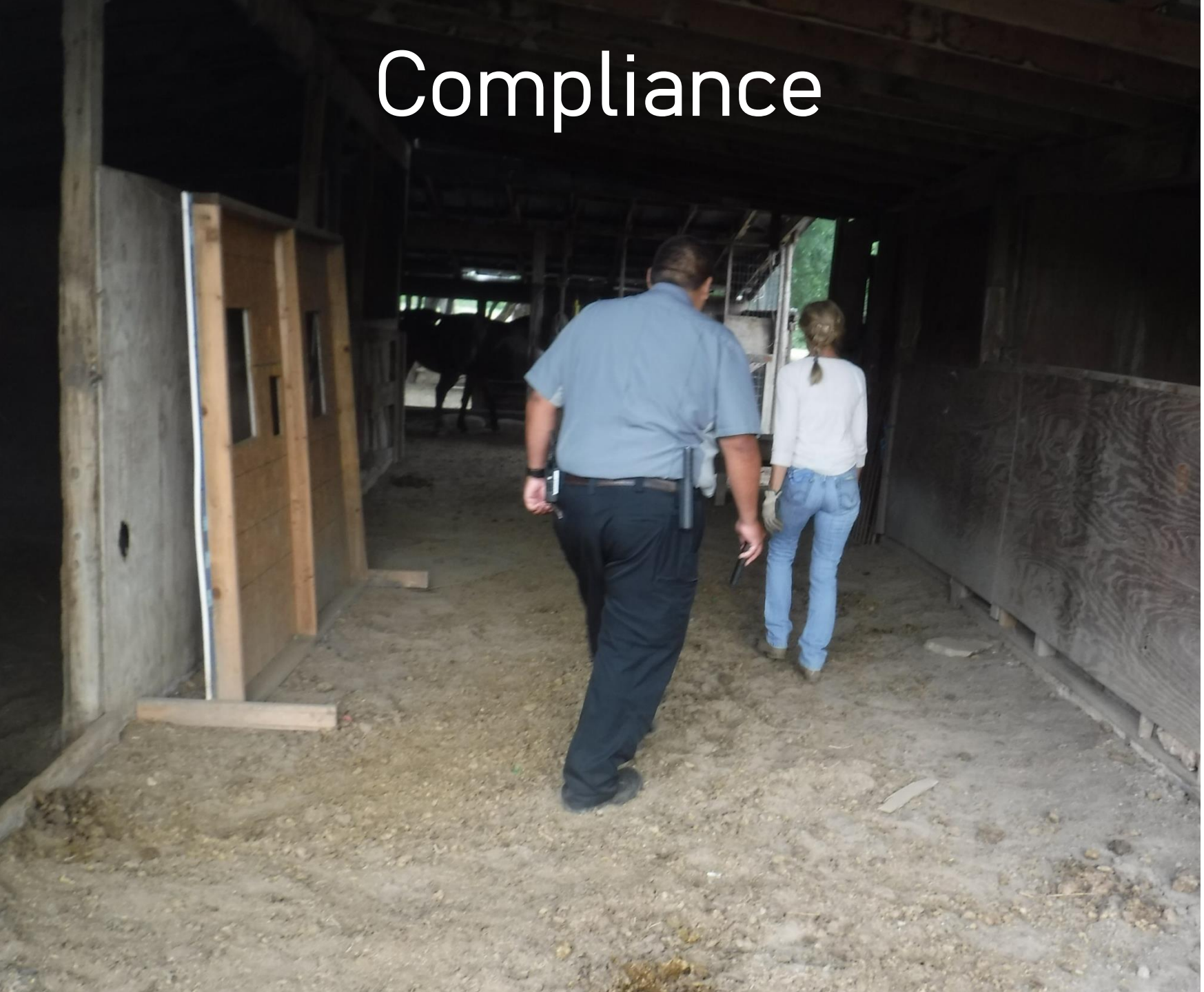
- Tractors, lawnmowers, automotive fluids, and any equipment not being actively used should be stored under a permanent cover.
- For temporary storage, a sunlight-resistant tarp may be used based on the anticipated duration of use. However, tarps degrade quickly and should only be used on a temporary basis.
- Feed, hay, and any bagged materials should be stored on pallets in addition.
- Unused vehicles, trailers, tractors and other equipment should also have drip pans placed underneath or have the fluids drained.

Housekeeping



- Minimize discharge potential:
  - Collect trash daily and ensure it is properly disposed of
  - Clean active horse areas daily
  - Small things like baling twine can easily enter waterways; they can also cause injury to horses and wildlife
  - When washing horses, water should be directed into the sanitary sewer, a mulch basin, or a well-vegetated area
  - Permanent washing stations should be on a concrete slab
  - Temporary washing stations should be rotated to prevent mud and sedimentation problems

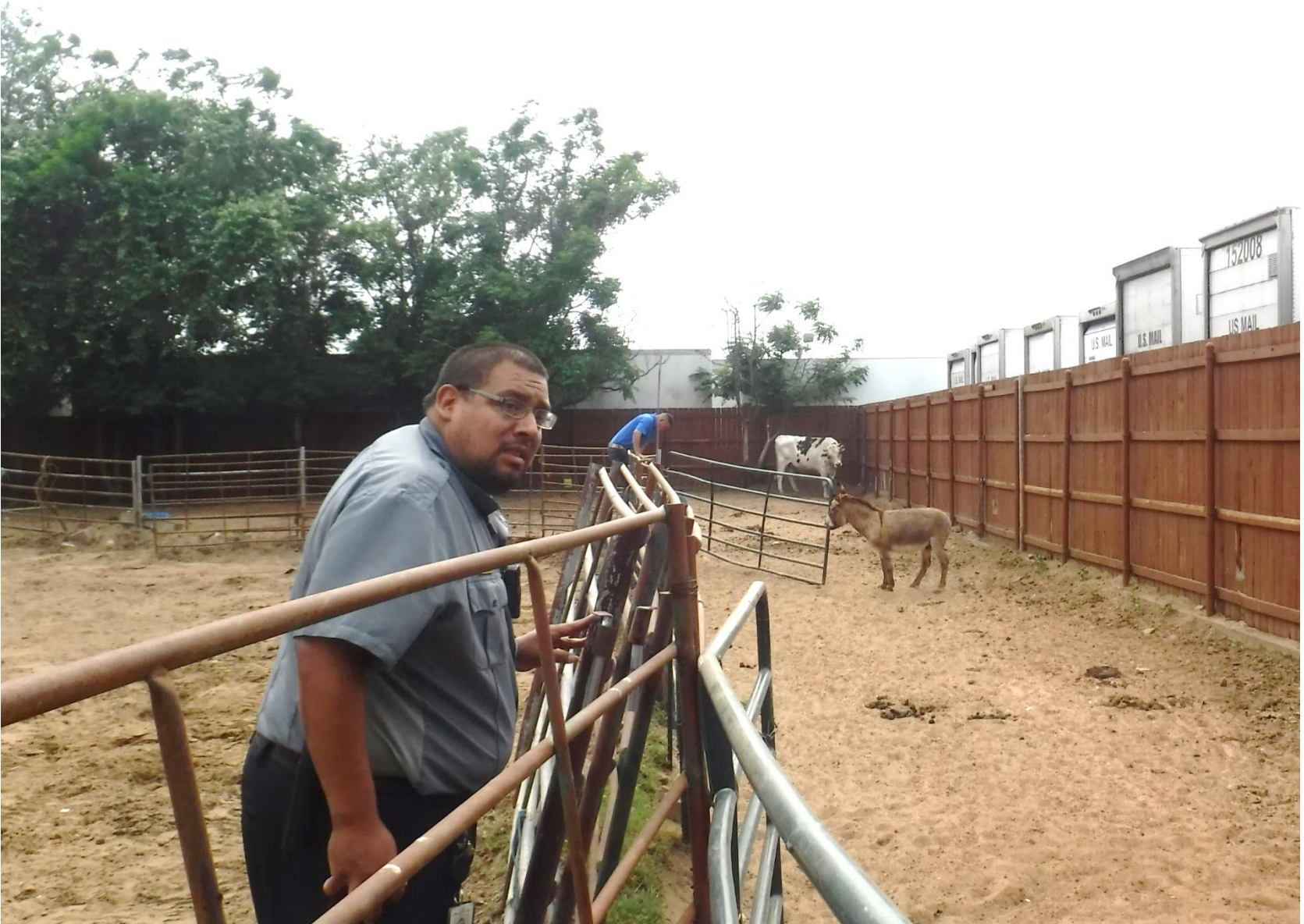
Compliance



- Environmental Quality inspects twice a year: March and September.
- Animal Services and Code Enforcement inspect alongside the EQ inspector.
- Sec. 13-605(h): No person shall use or store any solid waste, regulated waste or hazardous waste or regulated waste in a manner that the material could enter the MS4.
- Sec. 13-605(11): Any runoff or wash-down water from any animal pen, kennel or fowl or livestock containment area that exceeds the water quality standard or causes the MS4 to exceed two hundred (200) cfu/100 mL fecal coliform, the water quality standard defined in 30 Texas Administrative Code § 307.7;

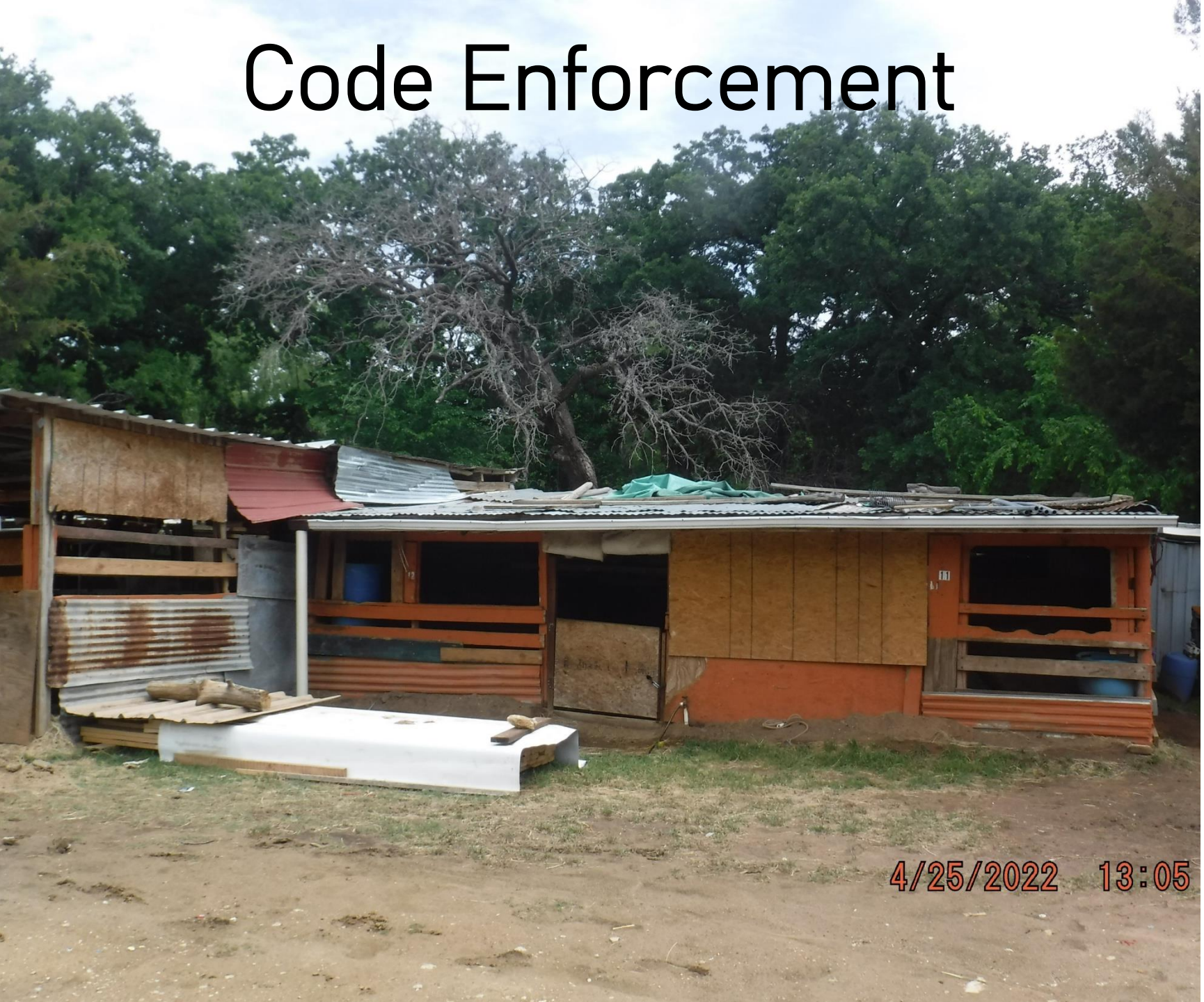
	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
1	Is manure maintained to prevent entry into waterbodies or the MS4?	❑Yes ❑No ❑ NA	❑Yes ❑No ❑ NA	
2	Is facility free of trash or debris?	❑Yes ❑No ❑ NA	❑Yes ❑No ❑ NA	
3	Are materials that are potential storm water contaminants stored inside or under cover?	❑Yes ❑No ❑ NA	❑Yes ❑No ❑ NA	
4	Does the facility have trash service?	❑Yes ❑No ❑ NA	❑Yes ❑No ❑ NA	
5	Are all open chemicals stored inside or under cover?	❑Yes ❑No ❑ NA	❑Yes ❑No ❑ NA	
6	Is the facility free of excessive oil stains or signs of liquid discharges to paved areas or soil?	❑Yes ❑No ❑ NA	❑Yes ❑No ❑ NA	

Animal Services



- The Animal Services Officer inspects:
  - The cleanliness of the horse stalls
  - The condition of the horses, including any sores, hoof lengths, and weight, to make sure they are being properly cared for
- All horse stables must provide evidence that a “Coggins” test has been completed in the last year.
  - Coggins is a blood test for the Equine Infectious Anemia virus.
  - This is a deadly virus that can spread to other horses by insect bites
  - Horses that test positive must be either euthanized or branded and strictly quarantined at least 200 yards away from other horses for the rest of their life.

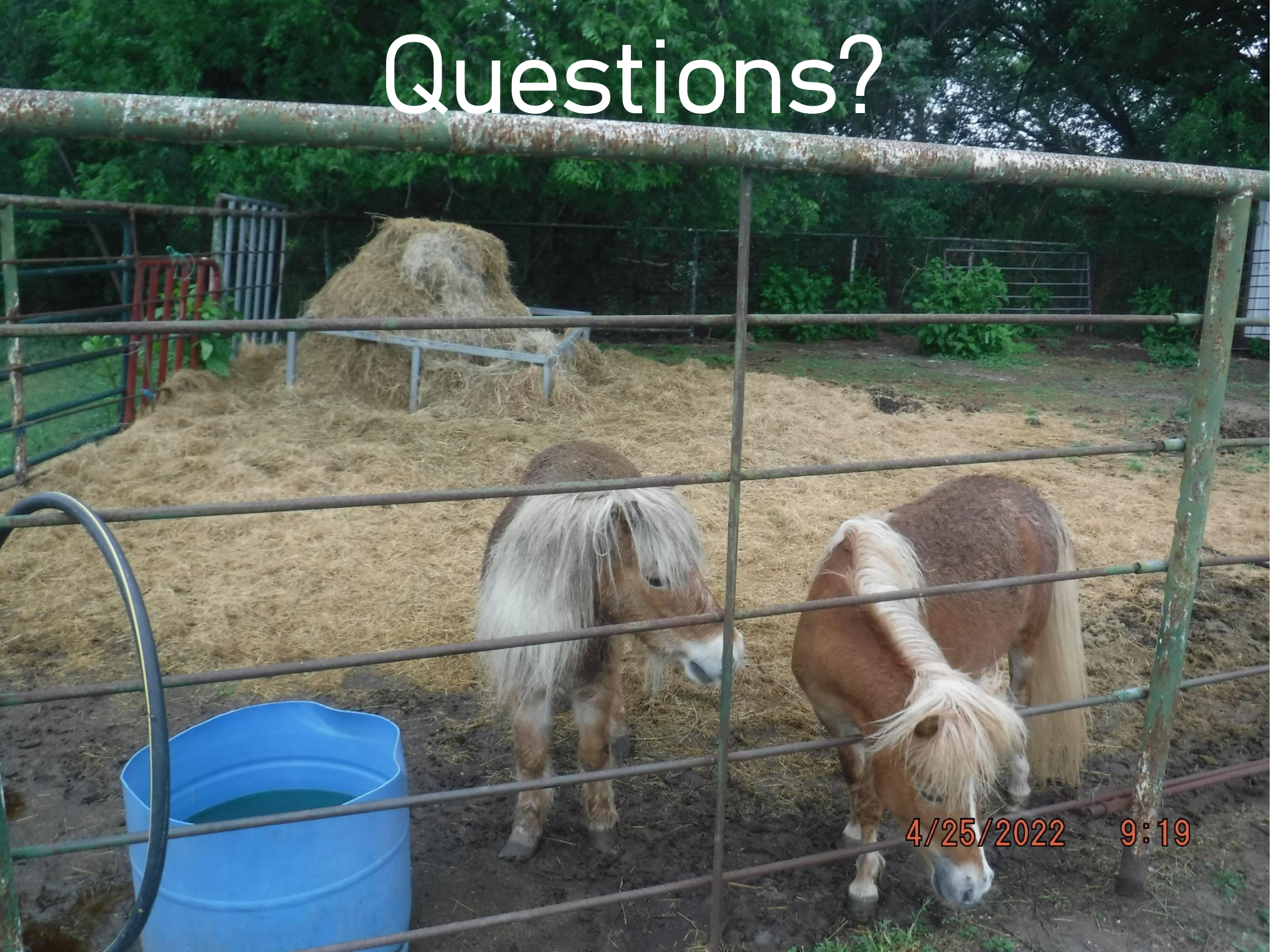
Code Enforcement



- The Code Enforcement Officer conducts a routine inspection looking for:
  - Outside storage of materials, trash and debris
  - Overgrown weeds
  - Broken fencing
  - Dangerous Structures
  - Junk/Inoperable vehicles

- Verifies permits have been issued for any new structure or modification to a structure.

Questions?



Any future questions about horse stable BMPs or our program:

Christopher Wilson
cwilson@gptx.org

Sources

- Rutgers Fact Sheet:

  https://esc.rutgers.edu/fact_sheet/horses-and-manure/

FY23 Projects

- Horse Stable BMP Resources
  - NCTCOG Staff have been developing a brochure on Horse Stable/Manure Management based on feedback from volunteers.

Homeowners, like you, can benefit from learning about proper manure management. There are several methods that can be used to lessen the burden of dealing with manure from livestock.

These methods include **Composting**. **Storing and Hauling**, and **Spreading**. Each of these methods have advantages and disadvantages that may be relevant to your situation at home.

Improve soil quality with Composting & Spreading.

Insert Slogan Here! Would we like to include a slogan?

Animal manure has a significant amount of nitrogen and phosphorus. These compounds are useful and valuable for agricultural systems when growing crops. However, they can be harmful if deposited into water bodies.

Did you know?

When manure is deposited into water resources, either directly or by runoff, it can negatively impact water quality of drinking water.

To stop contamination, prevent manure from being directly deposited into water sources.

Practice Safe Manure Management!

If you are **storing manure to be hauled away** at a later date, make sure that it is covered or sealed. Please note that landfill space may be limited.

- once full, manure should be hauled to a **permitted facility**
- can be an **expensive** option

Fact:

Additionally, **equipment** and **fluids** should be stored under a **permanent cover**. **Feed**, **hay**, and **bagged materials** should be stored on **pallets**.

Avoid a ticket!

In many cities...

Be environmentally-friendly!

Manure that enters waterways can

cause **ecological harm** by nutrient loading which can often result in eutrophication, or by serving as a vector to spread pathogens such as E. Coli.

- Excess manure in waterways can lead to eutrophication which can **harm** and even **kill aquatic life**.
- Improper spreading practices can allow contaminants to enter and **pollute** our **surface** and **groundwater resources**.

North Central Texas Council of Governments
Environment & Development

FY23 Projects

- Horse Stable BMP Resources
  - Requesting feedback by **April 27th**
  - NCTCOG Staff will work on putting together final draft ahead of **July 13th Meeting**.

FY23 Projects

- Construction Site Trash BMP Resources
  - NCTCOG previously hosted the Construction/Post-Construction Committee from 2017-2020
  - Most recent deliverable was the Post Construction Model Ordinance in 2018
  - The Construction General Permit was renewed on March 8, 2023

FY23 IDDE Training Workshops

Dry Weather Training

- Schedule?
- Volunteers?
- Venue?

Please contact Casey Cannon at ccannon@nctcog.org or (817) 608-2323 if you are interested in volunteering for this training.

88th Texas Legislative Session Update

- Full legislative Tracker available online. Will be updated through RSWMCC.

- HB 435 – Proposes amendment to Sec. 11.090 of the Water Code on Pollution and Littering.
- HB 4957 – Proposes regulation of discharge of preproduction plastic to be included under TPDES permits.

Now, It's YOUR Turn...

SCHEDULE FOR THE NEXT MEETING

Next meeting date:
July 13, 2023 at 9:30 a.m.

Format for meeting?

Please contact Casey Cannon at ccannon@nctcog.org or (817) 608-2323 if you would like to present a case study or any IDDE related findings to the group.

Contact

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