

You're not a CAFO, don't become one: Environmental management for the small livestock producer

Small CAFO Professional Development Workshops
February and March, 2013



Joshua Faulkner, PhD

Agricultural Engineering Specialist

JWFaulkner@mail.wvu.edu



CAFO Law for Small Livestock Producers

- What is an AFO and a CAFO?
- How to avoid being defined as an AFO
- How to avoid being designated a CAFO
- Target audience is not Large or Medium operations
- Primary focus is pasture-based operations
 - Winter feeding areas

CAFO Type	Number of Cattle
Large	1,000
Medium	300 - 999
Small*	<300

*by designation

What makes your operation an AFO

- To be a CAFO, you must first be AFO!
- Two coupled conditions:
 - Stable or confine animals for a total of 45 days or more in any 12-month period

AND

- Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any of the lot

Is this pasture-based operation an AFO?

- EXAMPLE #1:
 - An operation confines its animals for 10-day intervals every month for 5 months. The animals are kept in an barn with slot floors.
- Is this operation an AFO?
 - Yes, meets AFO definition because it confines for 50 days each year, and the confinement area has no vegetation (i.e., slot floors)

Is this pasture-based operation an AFO?

- EXAMPLE #2:
 - An operation raises cattle on pasture; however, a number of the cattle are confined for calving each spring. The calving area is a dirt-floored pen that has only a little vegetation along the edges and in some small areas in the pen. The animals are in the pen for 90 days each spring.
 - Is this operation an AFO?
 - Yes, the operation meets the AFO definition. The animals are confined and fed for more than 45 days, and the vegetation in the confinement area is only incidental.
-

Is this pasture-based operation an AFO?

- EXAMPLE #3:
 - An operation raises cattle in a 200-acre pasture from April through November. During the winter, cattle are confined to a 2-acre area, and cannot access pasture. A site visit is made during January, and the confinement area has grass on less than 5 percent of the ground. The confinement area was completely covered by vegetation during a visit in August.
- Is this operation an AFO?
 - Yes, it is defined as an AFO. Confinement is more than 45 days, and vegetation is only incidental while confined. The fact that the vegetation reestablishes itself does not change the fact that the winter confinement results in meeting the definition of an AFO.

Avoiding AFO Status

- Are animals confined in any field for more than 45 days a year? (The days do not have to be consecutive.)
 - If “yes,” you may want to change some management practices to avoid being defined as an AFO.
- Is the vegetation destroyed in that lot or field, including winter?
 - If “yes,” make changes. Reduce pressure to maintain vegetation.
- Do animals have free access to pastures?
 - If “no,” make changes. To be proactive, keep gates open so animals have free access to pastures.

Small AFO being designated as a CAFO

- Remember: If you can avoid being defined as AFO, then you can avoid being a CAFO!

- Small AFO designated as CAFO:
 - Numbers are irrelevant
 - Case by case basis
 - Deemed 'significant contributor' of pollution to waters of the state

Small AFO designated as CAFO

- To be 'significant contributor', at least one of these conditions must be met:
 - Manure or wastewater is discharged into the waters of US through a manmade ditch or conveyance
 - Manure or wastewater is discharged directly into the waters of US that originate outside and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.

Avoiding CAFO designation

Two key concepts:

- 1. Keep clean water clean**
- 2. Deal with dirty water**

Avoiding CAFO designation

1. Keep clean water clean

Common Situations and BMPs

Roof Runoff



<http://www.crawfordconservation.com/prac-roofro.html>





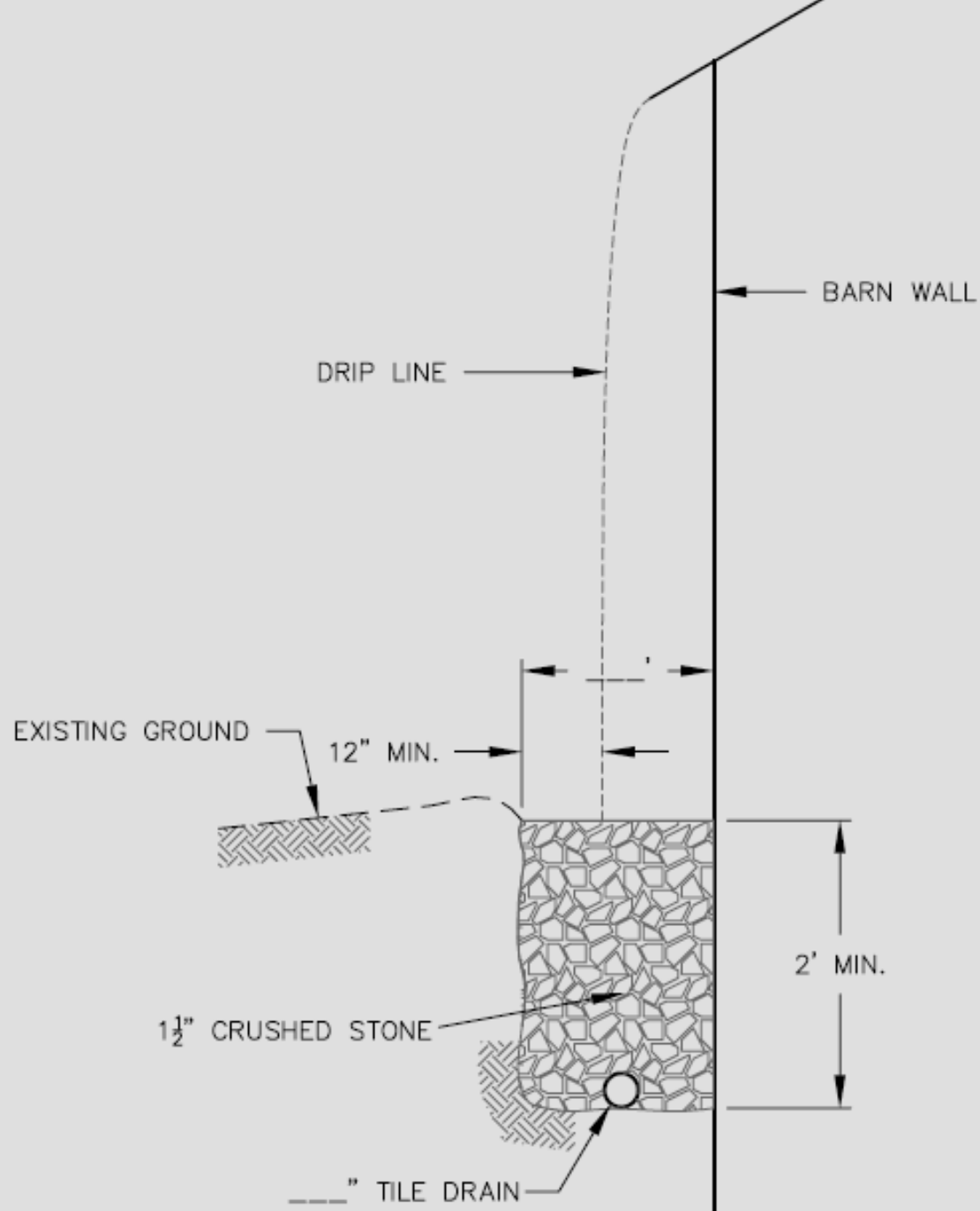
Gutters



<http://www.crawfordconservation.com/prac-roofro.html>

Trench Drains

- More expensive than gutters for installation
- Less maintenance than gutters
 - Clean-out
 - Replacement due to snow/ice/wind damage
- Higher flow volume than gutters



Waterways and Upslope Runoff





http://www.ny.nrcs.usda.gov/news/images/spotlights/equip_sss3_before_lg_nrcsny.jpg



<http://www.flickr.com/photos/widnr/6589959115/sizes/z/in/photostream/>

Exclusion and Accompanying Practices



Forested Hillside

Diversion Ditch

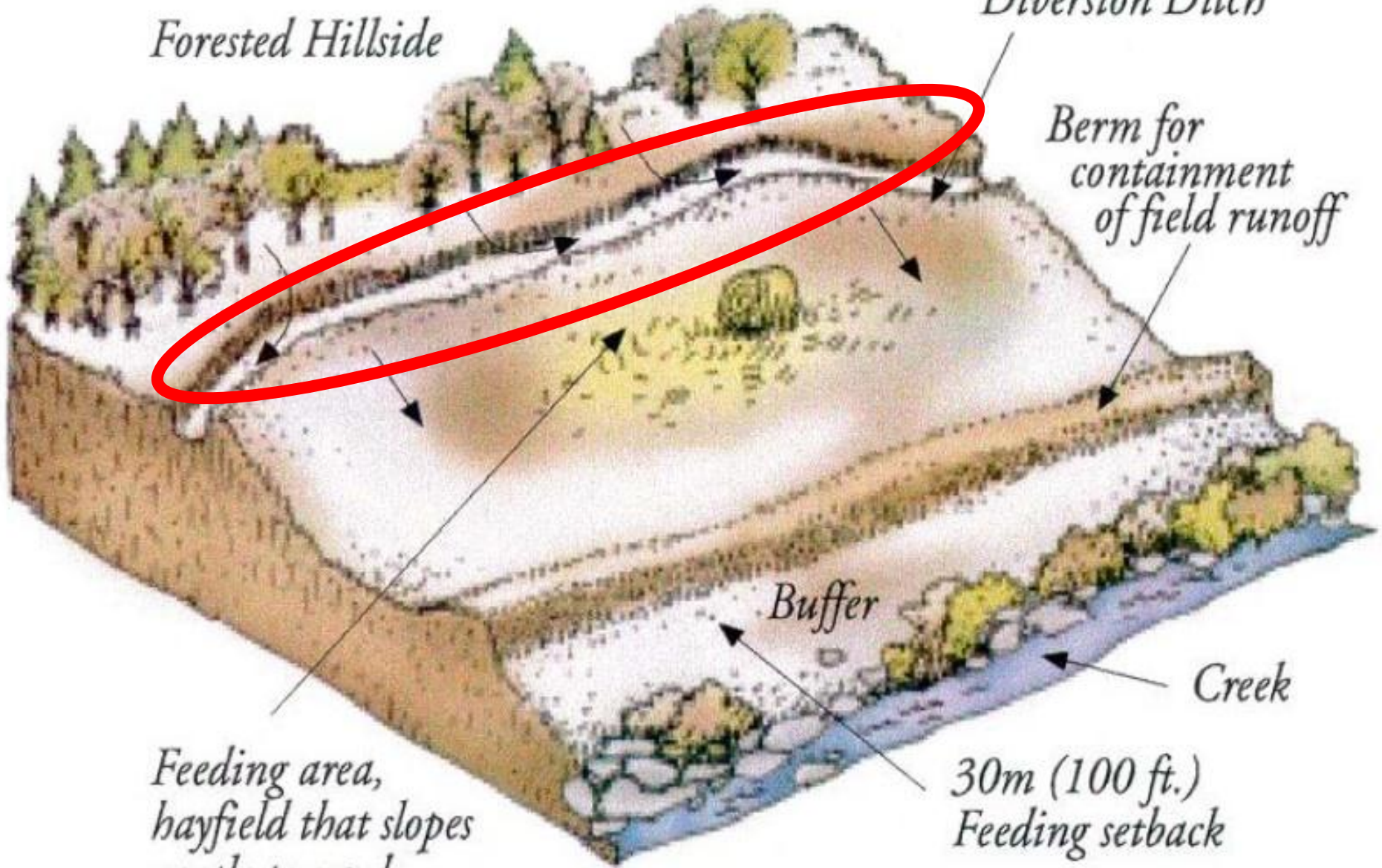
*Berm for
containment
of field runoff*

Buffer

Creek

*Feeding area,
hayfield that slopes
gently towards
creek. Hay crop
utilizes manure.*

*30m (100 ft.)
Feeding setback*



Avoiding CAFO designation

2. Deal with dirty water

Common Situations and BMPs

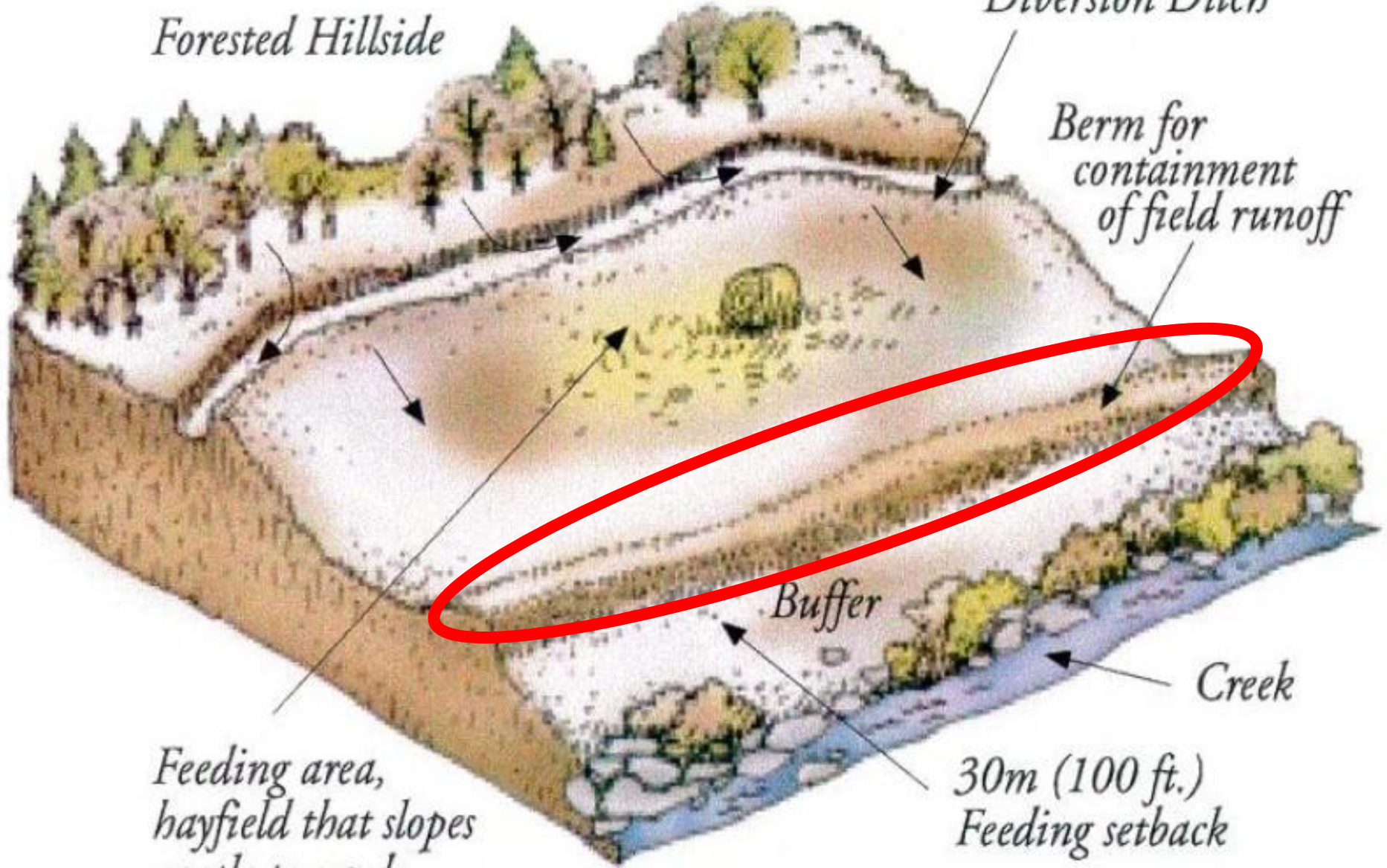
Responsibly dealing with dirty water

- Natural infiltration is most effective
 - Diversion, buffers, VTAs, etc.
- Filtration of sediment by vegetation is second line of defense
 - Buffers
 - Filter Strips
 - Grassed waterway

Forested Hillside

Diversion Ditch

*Berm for
containment
of field runoff*



*Feeding area,
hayfield that slopes
gently towards
creek. Hay crop
utilizes manure.*

Buffer

*30m (100 ft.)
Feeding setback*

Creek



Heavy use areas



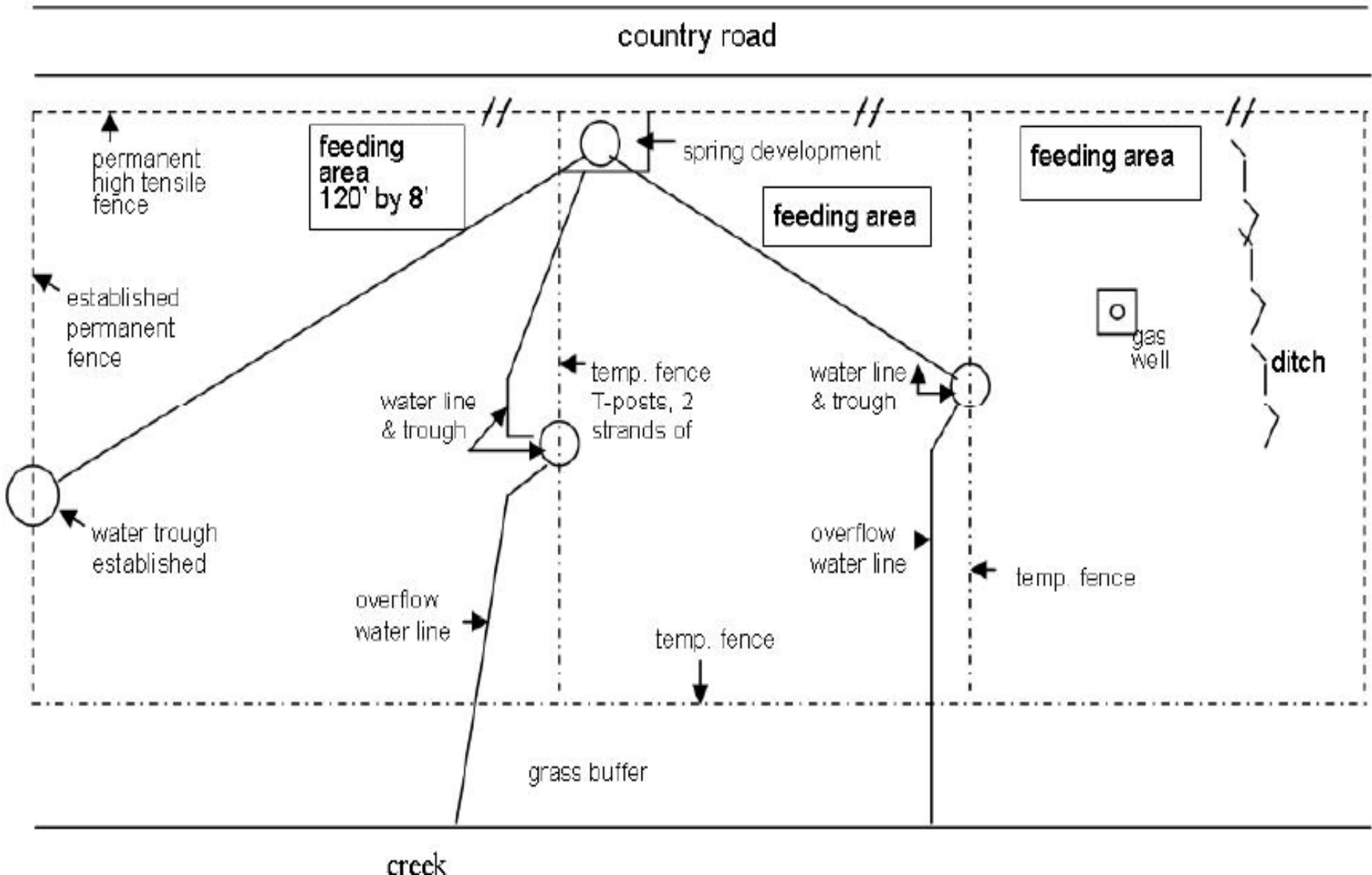
Roofed Winter Feeding Area – Example from WV



Managed Winter Feeding Area Project

- Feeding period of 120 days
- Large area subdivided into three paddocks
- Each paddock used for 40 days
- Paddocks seeded in April when conditions allow
- One hay harvest and recovery until restocking in following January

WV Winter Feeding Demonstration Site

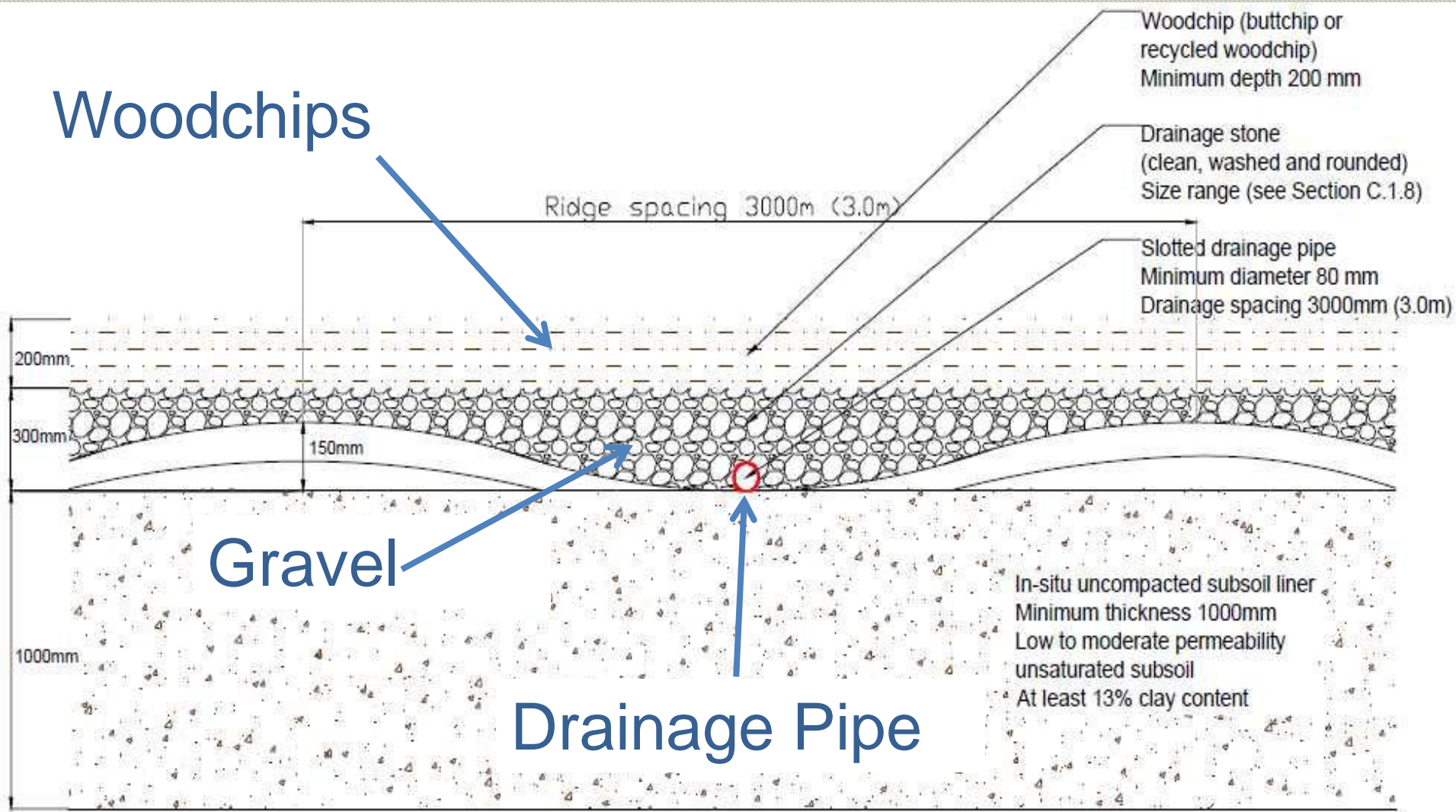


Woodchip Winter Feeding Area

Woodchips

Gravel

Drainage Pipe



Woodchip Winter Feeding Area: Dosing System



Woodchip Winter Feeding Area: In Operation



Thank you



Joshua Faulkner
Agricultural Engineering Specialist

304-293-2714
JWFaulkner@mail.wvu.edu

Extension Service
West Virginia University[®]