

Falcon Acres Operations and Maintenance Manual Retention Pond

County Job No.

Retention ponds have low to moderate maintenance requirements. Routine and non-routine maintenance is necessary to assure performance, enhance aesthetics, and protect structural integrity. Wet basins can result in nuisance complaints if not properly designed or maintained. Bio-degradable pesticides may be required to limit insect problems. Frequent debris removal and grass-mowing can reduce aesthetic complaints. Mosquito breeding and nuisance odors could occur if the water becomes stagnant.

Falcon Acres Contact Info

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1. Falcon Acres Retention Ponds Maintained by Thousand Hills Land & Cattle Co.

There are two retention ponds on the Falcon Acres property that Thousand Hills Land & Cattle Co. owns and maintains. The following are details of these retention ponds. Attached to this manual is a map showing the retention pond locations.

Retention Ponds – These retention ponds will be built in 2022-2023. The final drainage report for Falcon Acres covers the drainage calculations for this pond.

2. Access

The retention ponds can be accessed from the drive aisles on the property.

3. Inspections

Inspection and Frequency

□ Annually inspect retention pond to insure that the basins continue to function as initially intended. The annual inspection should evaluate the pond side slopes, the spillway conditions, downstream channel, the culverts connecting areas of the pond beneath drive aisles, and the condition of the downstream face of the ponds. A site survey will be the best indication of excessive sediment buildup and degradation of the spillway. In addition, an inspection of the vegetation on the downstream face of the spillway should be conducted. Any bare areas should be noted and repaired using native grasses. Any sloughing or erosion of the embankment should be noted and repaired. Items to record will include any items inspected and the mowing frequency of the vegetation on the facility.

- Just before annual storm seasons (that is, April and May) and following significant rainfall events, inspect for litter and debris that may plug culverts.
- A baseline survey should be performed at the time of construction and comparison surveys conducted every ten to twenty years after to monitor overall performance of the ponds. Results of inspections should be recorded and kept at a central location for review and recording by the district.

Inspection Personnel

A qualified engineer, surveyor, or certified storm water inspector should conduct inspections of the facility.

4.0 Operations

No specific operating instructions are required.

5.0 Maintenance

Maintenance of the retention ponds shall be in accordance with the guidelines included in Table RP-1, below.

Table RP-1		
Required Action	Maintenance Objective	Frequency of Action
Debris and litter removal	Remove debris and litter from the entire pond to minimize culvert clogging and improve aesthetics.	Routine – Including just before annual storm seasons (that is, April and May) and following significant rainfall events.
Erosion and sediment control	Repair and revegetate eroded areas in the basin and channels.	Nonroutine – Periodic and repair as necessary based on inspection.
Structural	Repair culverts whenever damage is discovered.	Nonroutine – Repair as needed based on regular inspections.
Inspections	Inspect basins to insure that the basins continue to function as initially intended. Examine the culverts for clogging, erosion, slumping, excessive sedimentation levels, overgrowth, embankment and spillway integrity, and damage.	Routine – Annual inspection of hydraulic and structural facilities. Also check for obvious problems during routine maintenance visits, especially for plugging of culverts.

Nuisance control	Address odor, insects, and overgrowth issues associated with stagnant or standing water in the bottom zone.	Nonroutine – Handle as necessary per inspection or local complaints.
Sediment removal	Remove accumulated sediment from the culverts and the bottom of the basins.	Nonroutine – Performed when sediment accumulation occupies 20 percent of the WQCV. This may vary considerably, but expect to do this every 10 to 20 years, as necessary per inspection if no construction activities take place in the tributary watershed. More often if they do.