

Kansas Dam Owner Inspection Checklist- NOT for engineering

Your Name _____ Inspection Date _____

Item and Location	What to look for
CREST- Top of the dam	
Cracking	Are there cracks perpendicular to the centerline of the dam? If so, how wide and deep? Cracks can be a few inches to a few feet deep, and a few feet to over a hundred feet long. Perpendicular cracks are often over the spillway pipe. Look for cracking that may have a pattern. (See Diagram)
Cracks parallel to the crest	
Cracks perpendicular to the centerline	
Erosion	Erosion removes material from the dam. Is there erosion on the top of dam caused by vehicle, animal or human traffic? Do you see areas without grass cover? Do you see gullies or ravines caused by water run-off?
Ruts caused by vehicles	
Ruts caused by animals	
Gullies and Ravines	
Bare patches, without vegetation	
Settlement	Indicates loss or compression of material. Do you see an area that is lower than the surrounding features? Settlement can be an indicator of internal erosion, and can eventually develop into a sinkhole.
Vegetation	Roots jeopardize the integrity of the dam while trees and brush provide cover for animals. Good grass cover protects the dam from erosion. Do you see trees and shrubs growing on the crest? (See diagram)
Trees and Shrubs	
Grass	
Animal Burrows	Animals may include beaver, muskrat, badger, snakes and turtles. Do you see areas where grass is shorter around a dirt pile? Signs of animals, such as tracks and droppings? (See diagram)
Type of Animal	
Size and depth	

UPSTREAM FACE	
Cracks	What is the direction of the crack? How wide and deep? Cracks can be a few inches to a few feet deep, and a few feet to over a hundred feet long. Perpendicular cracks are often over the spillway pipe. Look for cracking that may have a pattern.
Cracks parallel to the face	
Cracks perpendicular to the face	
Slump/Slide Area	Do you see an arc-shape, where soil has moved down the face of the dam? (See Diagram)
Slides and Bulges	
Erosion	Erosion removes material from the dam. Is there erosion on the top of dam caused by vehicle, animal or human traffic? Do you see areas without grass cover? Do you see gullies or ravines caused by water run-off? Is there erosion along the waterline caused by wave action? (See diagram)
Erosion at waterline	
Erosion of slope	
Sinkholes	Sinkholes may be covered with grass. They can be caused by a collapsed burrow, or internal erosion. Do you see any holes? How wide and deep are they?
Size and depth	
Vegetation	Roots jeopardize the integrity of the dam while trees and brush provide cover for animals. Good grass cover protects the dam from erosion. Do you see trees and shrubs growing on the crest? (See diagram)
Trees and shrubs	
Adequate Slope Protection	Rip Rap are rocks of a uniform shape used to protect shoreline from erosion and wave-action. Do you see a good covering of rip rap? Rip rap may also be below the waterline. Grass cover also protects the slope. Do you see any bare patches? Do you see any erosion caused by wave action?
Rip Rap Coverage	
Grass	
Animal Burrows	Animals may include beaver, muskrat, badger, snakes and turtles. Do you see
Type of Animal	

Size and depth	areas where grass is shorter around a dirt pile? Signs of animals, such as tracks and droppings?

DOWNSTREAM SLOPE	
Cracks / Slides	Are there cracks perpendicular to the centerline of the dam? If so, how wide and deep? Cracks can be a few inches to a few feet deep, and a few feet to over a hundred feet long. Perpendicular cracks are often over the spillway pipe. Look for cracking that may have a pattern. Do you see an arc-shape, where soil has moved down the face of the dam? (See Diagram)
Perpendicular Cracks	
Parallel Cracks	
Slump/Slide Area	Do you see an arc-shape, where soil has moved down the face of the dam? (See Diagram)
Slides and Bulges	
Erosion	Erosion removes material from the dam. Is there erosion on the slope caused by vehicle, animal or human traffic? Do you see areas without grass cover? Do you see gullies or ravines caused by water run-off?
Erosion of slope	
Seepage / Wetness	Do you see seepage or wetness on the slope? Plants can indicate seepage. Do you see cattails in an area where grass should be? (See diagram)
Sinkholes	Sinkholes may be covered with grass. They may be caused by a collapsed burrow, or internal erosion. Do you see any holes? How wide and deep are they?
Size and depth	
Vegetation	Roots jeopardize the integrity of the dam while trees and brush provide cover for animals. Good grass cover protects the dam from erosion. Do you see trees and shrubs growing on the crest?
Trees and Shrubs	
Grass	
Animal Burrows	Animals may include beaver, muskrat, badger, snakes and turtles. Do you see areas where grass is shorter around a dirt
Type of Animal	
Size and depth	

	pile? Signs of animals, such as tracks and droppings?

TOE (DOWNSTREAM)	
Seepage	Look for signs of water. Do you see water boiling up through a hole? Do you see a spring, or a moist area with water plants surrounded by regular plants? Take the time to measure the amount of water flow, so it can be compared to future inspections.
Boils	
Springs	
Flow measurement	
EMBANKMENT DRAINS	
Pipe	Are not found on all dams. Are the drains underwater? Are they angled down, to promote good drainage? Do you see blockage of the drain pipe? What is the condition of the pipe? What is the water quality?
Damage or rust	
Water quality	
Free-flowing	
EMERGENCY SPILLWAY	
Erosion	Do you see anything in the spillway? Look for trees, debris and trash. The spillway should be clear of all debris, and should have a consistent grassy cover. Do you see bare patches? Signs of erosion or scour?
Scour	
Gullies and ravines	
Obstructions	
Debris	
Trees and shrubs	
Vegetation Cover	
Trees and Shrubs	
Grass	
PRIMARY SPILLWAY INLET-	
Cracks / Deterioration	The primary inlet passes water and maintains the water level. Are there cracks or detritions of the pipe or concrete? Is water able to flow freely? Do you see rust or holes around the pipe? Have rocks been thrown into the inlet? The trash rack protects the inlet from debris. Do you see branches and trash around the trash rack? Debris must be cleared to maintain flow. Any rust? Is painting required? Rust areas need to be painted to protect the trash rack from deterioration. Is everything firmly in place and anchored?
Leakage	
Soil Movement	
Trash rack-	
Debris-	
Rust-	
Damaged areas	

PRIMARY OUTLET-	
Cracks / Deterioration	The primary outlet passes water and maintains the water level. Look at the condition of the pipe. Do you see any rust or damage? Do you see any indication of erosion or scour? Is there undermining of the soil around the pipe? What is the condition of the pipe support? Is there evidence of animal activity that may cause blockage? Is the area free of debris that might affect the flow? If rip rap is in place, do you see adequate coverage? (See diagram)
Debris	
Erosion	
Seepage / Piping	
Undercutting	
Stilling Basin	
Rip Rap	
Animal Activity	
OTHER COMMENTS:	

