

FLOODWAY

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 404



FLOODWAY

A floodway is a channel usually bounded by dikes, used to carry floodwater.

PRACTICE INFORMATION

Floodways may be designed to carry water from a side drainage across a flood plain into the channel of a main stream or they may be constructed parallel to the main stream where dikes use part of the floodplain to carry flood water and protect the rest from flooding.

A classification system has been developed for floodways. Since Dikes (practice code 356) are commonly used as a companion practice to floodways, the same classification system applies to both practices. The classes are defined as follows:

1. Class I - These floodways are constructed on sites where failure may cause loss of life or serious damage to homes, commercial buildings, public utilities, high value crops, and other similar improvements.
2. Class II - These floodways are constructed in highly developed and productive agriculture areas where failure may damage a few isolated homes, highways, minor

railroads, or cause interruption of relatively important public utilities.

3. Class III - These floodways are constructed in rural or agriculture areas where damage from failure of the floodway or dike would be minimal.

The design and installation of a floodway is based on detailed engineering surveys and other investigations that must be made under the direction of trained engineers and guidance provided in the NRCS National Engineering Handbook and other reference documents. Floodway designs should include the effects of future upstream construction that will increase peak rate flows. Provisions for future enlargements should therefore be considered. In addition, careful consideration should be given to preservation of fish and wildlife habitat, significant value trees, visual effects of the planned structures, and other environmental considerations.

Additional information including design criteria and specifications are contained in the local NRCS Field Office Technical Guide.

The following pages contain the conservation effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

CONSERVATION PRACTICE PHYSICAL EFFECT WORKSHEET

NOTE: recorded in Microsoft word 6.0 - use tabs to change cells/fields

STATE	Iowa	FIELD OFFICE	DATE	12/5/96
PRACTICE: 404 Floodway			NOTES:	
RESOURCE: SOIL RESOURCE CONCERN: EROSION			Help Message: Click on form field for choice lists. Tab key to move around. "N/A" is the default.	
RESOURCE INDICATORS			PHYSICAL EFFECTS	
SHEET AND RILL			insignificant	
WIND			insignificant	
EPHEMERAL GULLY			moderate reduction in ephemeral gully erosion	
CLASSIC GULLY			moderate reduction in classic gully erosion	
STREAMBANK			situational concerning streambank erosion	
IRRIGATION INDUCED			N/A	
SOIL MASS MOVEMENT			N/A	
ROADBANK/CONSTRUCTION			N/A	
OTHER				
RESOURCE CONCERN: SOIL CONDITION				
SOIL TILTH			N/A	
SOIL COMPACTION			N/A	
SOIL CONTAMINATION				
• SALTS			N/A	
• ORGANICS			N/A	
• FERTILIZERS			N/A	
• PESTICIDES			N/A	
• OTHER				
DEPOSITION/DAMAGE				
• ONSITE			moderate reduction/onsite deposition damage	
• OFFSITE			moderate decrease/offsite deposition damage	
DEPOSITION/SAFETY				
• ONSITE			moderately improve onsite safety/deposition	
• OFFSITE			moderately improve offsite safety hazard/depos.	
OTHER				
RESOURCE: WATER RESOURCE CONCERN: WATER QUANTITY				
SEEPS			moderate increase in seepage hazard	
RUNOFF/FLOODING			sign. decrease in runoff/flooding	
EXCESS SUBSURFACE WATER			situational concerning excess subsurface H2O	
INADEQUATE OUTLETS			situational concerning inadequate outlets	
WATER MGT. IRRIGATION				
• SURFACE			N/A	
• SPRINKLER			N/A	
WATER MGT. NON-IRRIGATED			N/A	
RESTRICTED FLOW CAPACITY (H2O convey.)				
• ONSITE			significant improvement in onsite drainage	
• OFFSITE			significant improvement in offsite drainage	
RESTRICTED STORAGE			sign. reduction in sedimentation of H2O storage	
OTHER				

RESOURCE: WATER	
RESOURCE CONCERN: WATER QUALITY	
RESOURCE INDICATORS	PHYSICAL EFFECTS
GROUNDWATER CONTAMINANTS	
• PESTICIDES	slight reduction GWater contam./pesticides
• NUTRIENTS AND ORGANICS	slight poten. decrease/GWater contam./nutr,organ.
• SALINITY	insignificant
• HEAVY METALS	insignificant
• PATHOGENS	slight poten. decrease/GWater contam./pathegens
• OTHER	
SURFACE WATER CONTAMINANTS	
• PESTICIDES	slight reduction in SWater contam./pesticides
• NUTRIENTS AND ORGANICS	slight reduction in SWater contam./nutr.,organics
• SUSPENDED SEDIMENTS	moderate reduction in SWater contam./susp. sedi.
• LOW DISSOLVED OXYGEN	slight reduction in SWater contam./low oxygen
• SALINITY	slight reduction in SWater contam./salinity
• HEAVY METALS	slight reduction in SWater contam./heavy metals
• WATER TEMPERATURE	slight reduction in SWater contam./H20 temp.
• PATHOGENS	N/A
AQUATIC HABITAT SUITABILITY	moderate improvement in Aqua. Hab. Suit.
OTHER	
RESOURCE: AIR	
RESOURCE CONCERN: AIR QUALITY	
AIRBORNE SEDIMENT AND SMOKE PARTICLES	
• ONSITE SAFETY	N/A
• OFFSITE SAFETY	N/A
• ONSITE STRUCT. PROBLEMS	N/A
• OFFSITE STRUCT. PROBLEMS	N/A
• ONSITE HEALTH	N/A
• OFFSITE HEALTH	N/A
AIRBORNE SEDIMENT CAUSING CONVEYANCE PROBLEMS	N/A
AIRBORNE CHEMICAL DRIFT	N/A
AIRBORNE ODORS	N/A
FUNGI, MOLDS, AND POLLEN	N/A
OTHER	
RESOURCE CONCERN: AIR CONDITION	
AIR TEMPERATURE	N/A
AIR MOVEMENT (windbreak effect)	N/A
HUMIDITY	N/A
OTHER	

RESOURCE: HUMAN	
RESOURCE CONCERN: SOCIAL CONSIDERATIONS	
RESOURCE INDICATORS	PHYSICAL EFFECTS
PUBLIC HEALTH AND SAFETY	sign. improvement in public health & safety
PRIVATE/PUBLIC VALUES	sign. improvement in private/public values
CLIENT CHARACTERISTICS	N/A
RISK TOLERANCE	situational regarding risk
TENURE	N/A
OTHER	
RESOURCE CONCERN: CULTURAL CONSIDERATIONS	
ABSENCE/PRESENCE OF CULTURAL RESOURCES	situational regarding cultural resources
SIGNIFICANCE OF CULTURAL RESOURCES	situational regarding cultural resources
MITIGATION OF NEGATIVE CULTURAL RES. IMPACTS	situational regarding cultural resources
OTHER	