

# Appendix E Iowa EFT Preferences for Grassed Waterways

The Engineering Field Tools suite of software programs includes a tab that allows users/states to preset some recurring values in the design process. These preferences will generally be loaded onto office computers when new versions of the program are installed. However, there may be instances when users may want to make changes for a specific project or different practices. The user may question what a value should be when they decide to reset the preferences back to the preset values.

This Appendix provides documentation of the preset values in the EFT preferences for grassed waterways for the state of Iowa.

EFT preferences for terraces/water and sediment control basins are included in EFH, Chapter 8, Terraces, Appendix C. Appendix C in Chapter 8 also includes preferences which are general and apply to grassed waterways as well as terraces/water and sediment control basins. It should be noted that in cases where an item applies to both types of practices, the specific variable will show the preference for terraces. An example of this is the “station/offset survey” item. The default offset entry panel style is shown as “cross-slope table”. For waterways, this would generally be changed to “scrolling table”.

The preferences and screen shots shown in this appendix are specifically for version 3.3.0.5 of the EFT. When new versions of the tool are released, the layout and content of some of the screens may change. However, the values used for specific variables should still be valid.

type filter text

- Cross Section Views
- Mapping
- Pipe-Line Design
- Reporting Services
- Runoff Hydrology
- SET Data Import
- State/Area Policy
- Station/Offset Survey
- Structures
- ▲ Terrace System Design
  - Cut/Fill Balance
  - Runoff Storage
  - Sediment Storage
  - Terrace Channel
  - Terrace Template
- Title Block Info
- ▲ **Waterway Design**
  - Channels
  - Soils
  - Vegetal

### Waterway Design

Initial Q Fraction (%)	100.0
Seeding Width	0.0
Low-Bank Profile Offset	20.0
Min Cross-Section Width	80.0
Slope Mode	
<input checked="" type="radio"/> Percent	<input type="radio"/> Feet per foot

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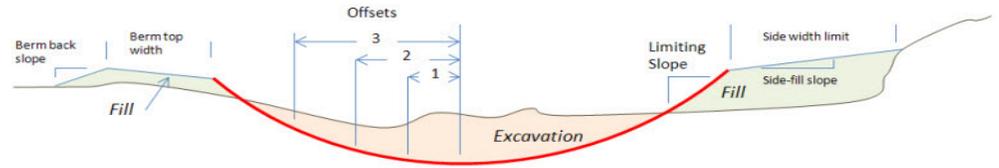
**Channels**

Default Channel Shape

- TRIANGULAR
- TRAPEZOIDAL
- PARABOLIC

Channel Shape Parameters

for  TRIANGULAR  TRAPEZOIDAL  PARABOLIC



Channel Controls

Channel Shape

Freeboard (ft)

Limiting Slope (ft/ft)

Offsets 1,2,3 (%)

Fill Controls

Side-fill slope (%)

Berm top width (ft)

Side width limit (ft)

Berm back slope (ft/ft)

Channel Ends

Start grade length (ft)

Grade channel start

End grade length (ft)

Grade channel end

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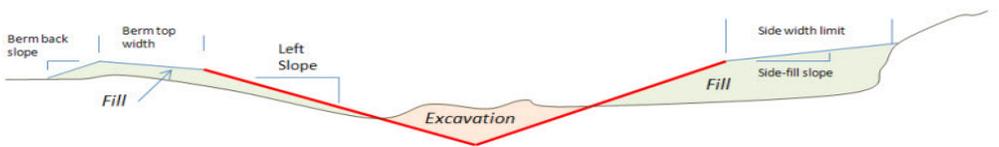
**Channels**

Default Channel Shape

- TRIANGULAR
- TRAPEZOIDAL
- PARABOLIC

Channel Shape Parameters

for  TRIANGULAR  TRAPEZOIDAL  PARABOLIC



Channel Controls

Channel Shape

Freeboard (ft)

Left Slope (ft/ft)

Right Slope (ft/ft)

Fill Controls

Side-fill slope (%)

Berm top width (ft)

Side width limit (ft)

Berm back slope (ft/ft)

Channel Ends

Start grade length (ft)

Grade channel start

End grade length (ft)

Grade channel end

Preferences

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### Channels

Default Channel Shape

TRIANGULAR  
 TRAPEZOIDAL  
 PARABOLIC

Channel Shape Parameters

for  TRIANGULAR  TRAPEZOIDAL  PARABOLIC

Channel Controls

Channel Shape: TRAPEZOIDAL

Freeboard (ft): 0.00

Left Slope (ft/ft): 6.00

Right Slope (ft/ft): 6.00

Min Bed Width (ft): 10.0

Bottom Dip: NO\_DIP

Dip Depth (ft): 0.00

Offsets 1,2,3 (%): 0.0, 0.0, 0.0

Fill Controls

Side-fill slope (%): 0.50

Side width limit (ft): 30.0

Berm top width (ft): 10.0

Berm back slope (ft/ft): 6.0

Channel Ends

Start grade length (ft): 20.0  Grade channel start

End grade length (ft): 20.0  Grade channel end

Preferences

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### Soils

Allowable Soil Stress

Enter Stress  
 Enter Soil Parameters

Allowable Stress

Easily Eroded  Erodible  
 Erosion Resistant  Very Erosion Resistant

Soil Type

GW  GP  GM  GC  SW  SP  SM  
 SC  ML  MH  CL  CH  OL  OH

Plasticity Index, PI (0 through 60): 0.0

d75 (inches, minimum=0.0156): 0.05

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### Vegetal

Stability Retardance Curve Index	4.44	
Stability Stem Length	0.1	
Stability Stem Density	11.0	
Stability Retardance Class		
<input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input checked="" type="radio"/> D <input type="radio"/> E		
Vegetal Cover		
<input type="radio"/> None (bare, 0.0)	<input type="radio"/> Weeping Lovegrass (0.5)	<input type="radio"/> Yellow Bluestem (0.5)
<input type="radio"/> Alfalfa (0.5)	<input type="radio"/> Lespedeza Sericea (0.5)	<input type="radio"/> Common Lespedeza (0.5)
<input type="radio"/> Sudangrass (0.5)	<input type="radio"/> Crabgrass (0.5)	<input type="radio"/> Redtop (0.5)
<input type="radio"/> Redfescue (0.5)	<input type="radio"/> Bunch grasses (Love grass, 0.5)	<input type="radio"/> Grass mixture (0.75)
<input type="radio"/> Reed Canarygrass (0.75)	<input type="radio"/> Mixed grasses (native grass, 0.75)	<input type="radio"/> Bahiagrass (0.87)
<input type="radio"/> Buffalograss (0.87)	<input type="radio"/> Kentucky Bluegrass (0.87)	<input checked="" type="radio"/> Smooth Brome (0.87)
<input type="radio"/> Blue Grama (0.87)	<input type="radio"/> Tall Fescue (0.87)	<input type="radio"/> Turf grasses (Buffalo grass, 0.87)
<input type="radio"/> Bermudagrass (0.9)	<input type="radio"/> Centipedgrass (0.9)	<input type="radio"/> Creeping grasses (Bermudagrass, 0.9)
Capacity Retardance Curve Index	7.64	
Capacity Stem Length	0.1	
Capacity Stem Density	11.0	
Capacity Retardance Class		
<input type="radio"/> A <input checked="" type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E		