Course Name: Grassed Waterway and Diversion Planning, Design and Construction	
Course Coordinator: Area Engineer	**Course Number: MI-0025**

Overview:

Basic course to aid in the development of skills necessary to proficiently plan, design and construct grassed waterways and grass lined diversions. The course guides the student through the process using an example from their office.

Purpose:

Teach the basics of waterway planning design and construction to new employees or employees with limited knowledge of waterways and diversions. The course will also assist employees in finding technical resources for design in the Engineering Field Handbook.

Prerequisites:

Basic Engineering Surveys for Conservation Practices
Hydrology Training Series Modules 101 through 106

Duration:

Self Paced – (3-4 days after prerequisites are completed)

Target Audience:

Newer employees with little or no experience with grassed waterway or diversion planning, design, and construction.

Expected Outcomes:

Understanding of the basics of planning, design and construction of grassed waterways and diversions. The student will be able to design a basic waterway or diversion with minimal assistance.

Resources needed:

Trainer with basic waterway and diversion skills
Calculator, drafting paper, computer with Ohio Programs and Waterway Exel Spreadsheet

Outline for: GRASSED WATERWAY AND DIVERSION PLANNING, DESIGN AND CONSTRUCTION

Contents

Instructions

Objective

Introduction

Section 1 - Planning

Section 2 – Survey

Section 3 – Design

Soil Considerations
Peak Discharge
Open Channel Flow
Flow Velocities in Shallow Grass Channels
Stability
Sedimentation
Subsurface Drainage
Seeding and Mulching
Channel Lining
Design Programs

Section 4 - Construction Inspection and Final Checkout

Section 5 – Maintenance Requirements