

WinTR-55 for Plan Reviews

Small Watershed Hydrology
Training Introduction

Welcome to WinTR-55 Training.

Training Objectives

Upon completion of this training you will:

- ◆ Be familiar with the parameters used in WinTR-55.
- ◆ Be able to develop and enter data inputs for the computer program.
- ◆ Be able to run the model and interpret the results.



WinTR-55 Introduction

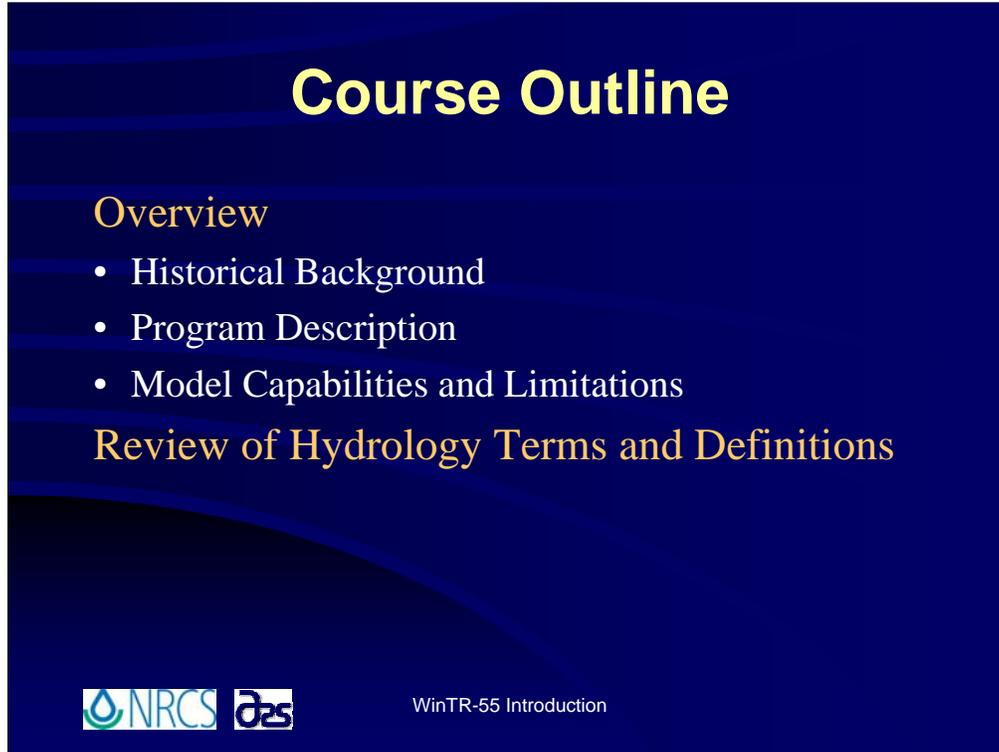
Training Objectives.

Upon completion of this training :

◆ **You will be familiar with the parameters used in WinTR-55.** As we go along, we'll review the technical aspects of the hydrologic analyses, but the real focus is on getting you familiar with the computer program, so we'll only dwell on the hydrology aspects as much as is necessary to define terms and make sure you understand where the information comes from and how it is utilized in the program.

◆ **You will be able to develop and enter data inputs for the computer program.** Again, understand where the information comes from, particularly because you will have to develop a good portion of it yourselves.

◆ **You will be able to run the model and interpret the results. That is, you will be able to develop the inputs, enter them into the program and run the model.** We will also talk about debugging model runs, and interpreting output to help you make the decisions as to whether or not the output is reasonable, and if necessary, make corrections to your data.



Course Outline

Overview

- Historical Background
- Program Description
- Model Capabilities and Limitations

Review of Hydrology Terms and Definitions

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The next couple of slides show the overall Outline for the Training. As we work our way through the listed items, we'll look at all the WinTR-55 features and work example problems.

The first thing we'll do is an Overview of WinTR-55. We'll look at how TR-55 evolved into WinTR-55, give a brief technical description of the program and overview of the model, including looking at the capabilities and limitations.

Finally, we'll take a look at some common hydrology related terms to make sure we all understand what is meant by terms like sub-area, reach, and others in context of WinTR-55.

Course Outline

Basic WinTR-55 Training

- Modeling Single Sub-area Watersheds
 - Starting the Program
 - WinTR-55 Program Windows
 - Developing Data for Single Sub-area Watersheds
 - Entering Data and Running the Program
 - Interpreting Output



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After the Overview is complete, we'll go through what is titled "Basic WinTR-55 Training."

Basic will focus on single sub-area watersheds. Even the simplest single sub-area watershed will require the user to look at several different windows within the WinTR-55 interface, so we'll look at starting the WinTR-55 program; go through a description of the various windows; talk about development of curve numbers and times of concentration and how to utilize WinTR-55 to compute them; enter some data; run the program; and examine the program output.

This level of training is beneficial to all users of WinTR-55.

Course Outline

Intermediate WinTR-55 Training

- Multiple Sub-area Watersheds
 - Sub-area / Reach Concepts
 - Developing data for Multiple Sub-area Watersheds



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Intermediate WinTR-55 training covers modeling of multiple sub-area watersheds. The concepts regarding sub-areas and reaches may be new to some users, so we'll spend time explaining those concepts and how to enter data so that WinTR-55 understands you are working with multiple sub-areas. We'll also talk more about interpreting output as the output interpretation is more complicated when working with multiple sub-areas than when working with single sub-areas.

Course Outline

Intermediate WinTR-55 Training

- Modeling Structures
 - Structure Concepts
 - Developing data for Structures
 - Entering structure data and running the program
 - Interpreting Output



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Intermediate also covers modeling of simple structures. We'll go through how to enter the structure data and how to interpret output for multiple trial runs.

This level of training is suitable for advanced Technicians, and most NRCS Field Engineers.

WinTR-55 Availability

NRCS CCE Users:

http://servicecenter.kcc.usda.gov/sfw_s_z.htm

Users outside of NRCS:

<http://www.wcc.nrcs.usda.gov/hydro/hydro-tools-models-wintr55.html>



WinTR-55 Introduction

The WinTR-55 computer program is available via the Internet at the listed download sites. The program is provided free of charge to anyone who wishes to use it.

Along with the WinTR-55 program a tutorial PowerPoint presentation and User Guide are included in the download package.

WinTR-55 Development Team

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|-------------------|-----------------|-----------------|
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| • Karl Visser | Champaign, IL | NRCS |
| • Jon Werner | Portland, OR | NRCS (inactive) |
| • Don Woodward | NHQ, D.C. | NRCS Retired |



WinTR-55 Introduction

These are the names behind the program. This is a listing of all the members of the WinTR-55 development team. Feel free to contact members of the team with questions and comments.



Now. Let the TRAINING begin!!!