



# Water Evaluation And Planning System Training

PASI – La Serena, Chile  
June 27, 2013



# Exercise – WEAP in One Hour

Let's get started!

# Exercise – Scenarios in WEAP

## Scenarios

- A systematic way of thinking about the future
- Help us gain a better understanding of the *possible* implications of decisions (or non-decisions) across scales and time
- Help us work with uncertainty
- Support decision-making

# Exercise – Scenarios in WEAP

## Potential Scenarios

- Current trends
- Increasing population
- Changing irrigation demand
- Change in operations rules
- Change in supply
- Change in infrastructure
- Change in land use
- Change in climate

# Exercise – Scenarios in WEAP

## Scenario structure in WEAP

- **Current accounts**
  - The state of the system at start of simulation
- **Reference scenario**
  - A simulation of the system without any changes
  - The “no action” scenario
- **“What if?” scenarios**
  - Changes to infrastructure, demand, supply, operating rules

# Exercise – Scenarios in WEAP

Switch to WEAP

# Exercise – Refining the Supply

- Utilizing return flows
- Reservoirs
- Flow requirements
- Groundwater

# Exercise – Refining the Supply

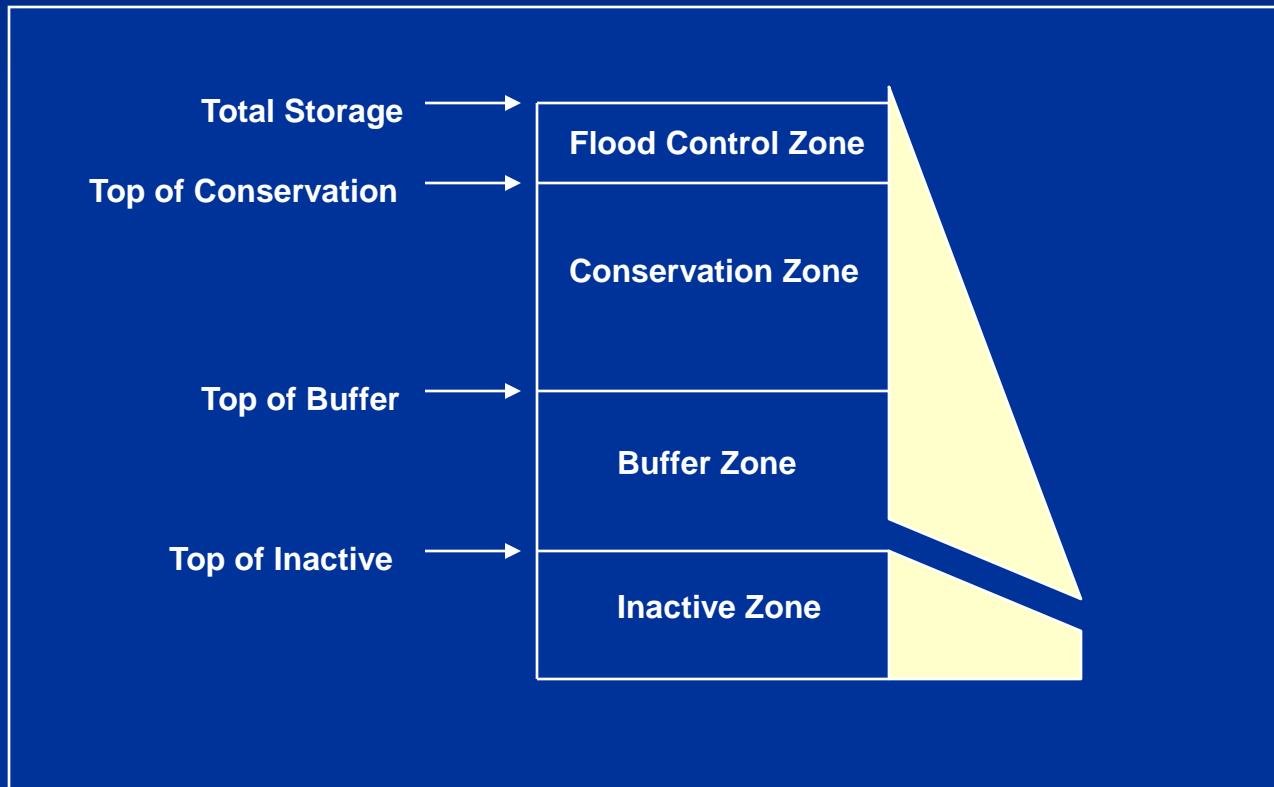
Switch to WEAP



# Exercise – Reservoirs and Power Production

- Modeling Reservoirs
- Adding Hydropower Computation

# Reservoir Operations



# Hydropower

The screenshot displays the WEAP21 software interface for the Weeping River Basin. The left sidebar contains navigation icons for Schematic, Data, Results, Overviews, and Notes. The main tree view shows the project structure, with 'Central Reservoir' selected under the 'Reservoirs' category. The 'Data for:' dropdown is set to 'Supply Measures (1999-20)'. The 'Hydropower' tab is active, showing a table of parameters for the 'Central Reservoir'. The table indicates a minimum turbine flow of 11.33 CMS for the years 1998 and 1999-2008. A callout box with arrows pointing to the 'Min. Turbine Flow' column and the '11.33' values contains the text: 'Specify capacities, efficiencies, and other properties of power generation'. Below the table, a chart titled 'Min. Turbine Flow' shows a constant horizontal line at 11.33 CMS from 1998 to 2008.

Reservoir	Scale	Unit	1998	1999-2008
Central Reservoir		CMS	11.33	11.33

Min. Turbine Flow

CMS

1998 1999 2000 2001 2002 2003 2004 2005 2006

Specify capacities, efficiencies, and other properties of power generation

Area: Weeping River Basin | Data View | Registered to: Tellus Institute

# Exercise – Reservoirs and Power Production

Switch to WEAP