

Routing Model – Cascade 2001

A CD of Cascade 2001 and a user's guidebook can be obtained for \$100 (check or cash, no credit cards). The Program can be purchased by visiting one of the following Service Centers [Lower West Coast/Ft. Myers](#), [Okeechobee Service Center](#), [Orlando Service Center](#), or [West Palm Beach Headquarters](#) or by mailing a check payable to the South Florida Water Management District to the address below:

**South Florida Water Management District
Regulation Division - Regulatory Support Bureau – MSC 9610
3301 Gun Club Road, West Palm Beach, FL 33406-4680
Attn: Cascade 2001**

(Telephone Contact Information: 561-682-6736 or 561-686-8800. Toll free in Florida: 1-800-432-2045)

Computer Routing Model Cascade 2001

First created in the early 1980's and substantially updated in 1988 and 1999, "Cascade 2001" is the latest edition of the popular multi-basin routing program (known variously as "RC-4", "Cascade", or "Multi-Basin Routing"),

This thoroughly-tested and well-checked model is a hydrologic/hydraulic routing program which computes stormwater runoff from user-provided rainfall amounts, durations, and land use information; and then routes the runoff through basins connected in series or parallel, to outfalls. The program can compute simultaneous flows through more than one discharge control structure in a basin.

The methods of computing and routing hydrographs remain largely unchanged from earlier model versions. Cascade 2001 includes the following features; those with an "(n)" are new:

- Data entry by random access
- Storm frequencies: 3-, 5-, 10-, 25-, and 100-year
- NT, Windows 7 compatible
- Designed to be run on a personal computer
- Santa Barbara Hydrograph model
- Storm durations: 1- and 3-day
- Gravity, pump, or (n) gated spillway discharges
- Accounts for off-site receiving body tailwater impacts
- Control devices ("bleeders"): V-notch, circle, rectangle, rectangular notch, inverted triangle
- Weir devices: broad-crested, sharp-crested, drop inlet
- Methodologies based on those in the District's Environmental Resource Permit Information Manual Volume IV
- Rainfall distributions: South Florida Water Management District; and Orange County, Florida
- (n) Simplified initial installation
- (n) Link to DSS (Data Storage System), a data storage format developed by the U.S. Army Corps of Engineers
- (n) Duration of rainfall event may be established by use of calendar dates and clock times
- (n) Multiple off-site receiving bodies
- (n) Compute stage-storage relationship from site information
- (n) Flap gate on outfall pipe as an option
- (n) Choose coefficients of flow for most weirs and orifices
- (n) Tailwater elevation control option for pump outfalls
- (n) For each basin, specify stage at which modeling begins
- (n) Option for user-defined rainfall distribution

(n) = new updates

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