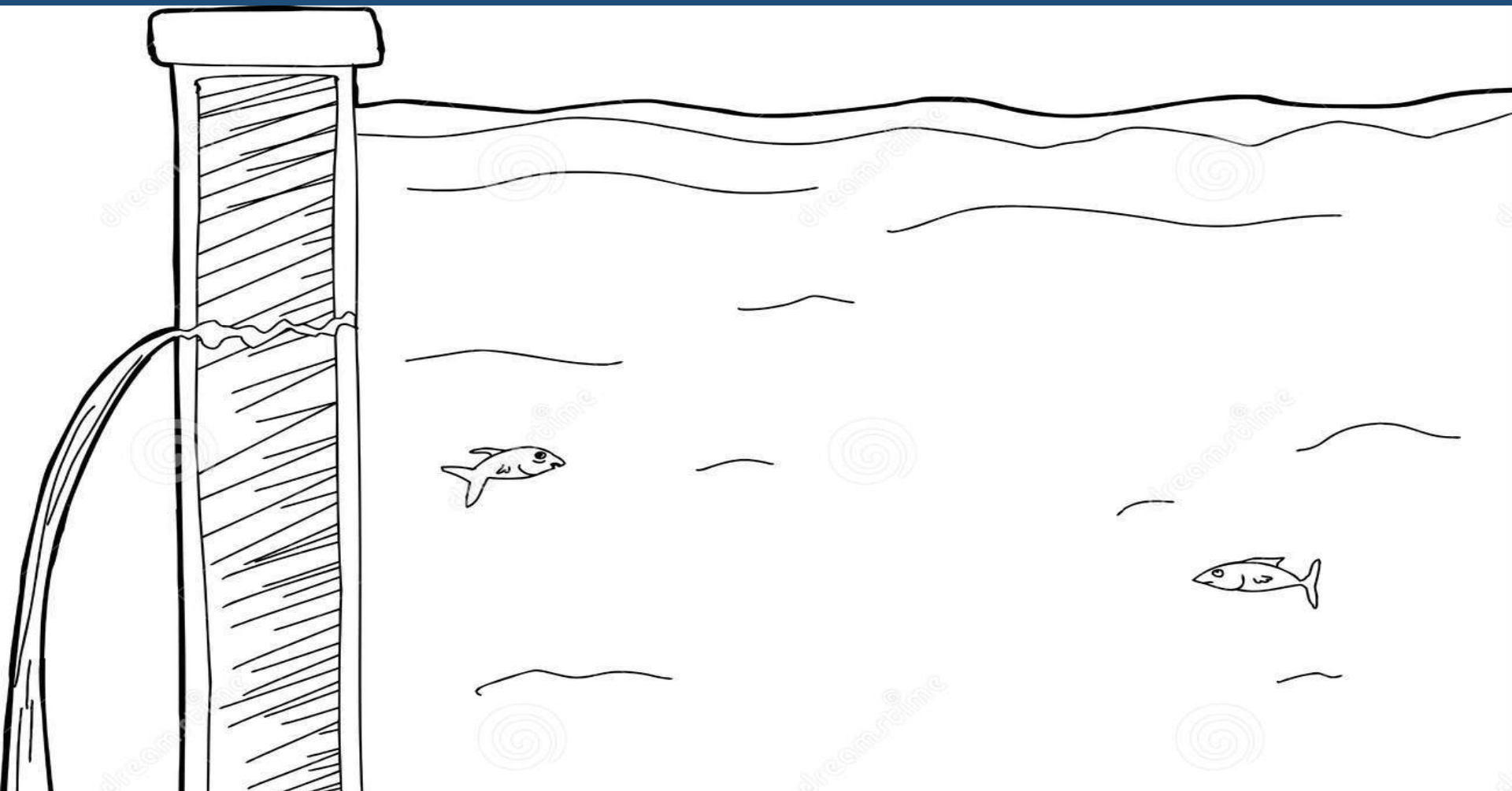


DAM: The Revitalization Of The South Carolina Watershed Program

Chris Workman
Watershed Districts Program Manager
workmanc@dnr.sc.gov



Dam Jokes



Watershed District Basic Info

- ◆ Our watershed districts are composed of 5 elected directors (in most cases).
- ◆ These directors work in conjunction with the local soil and water conservation board.
- ◆ We have 105 watershed structures in SC.
- ◆ We have over 150 directors statewide



We have One WS Position in SCDNR.

◆ I'm the Dam Guy!



Learn to Herd Cats!

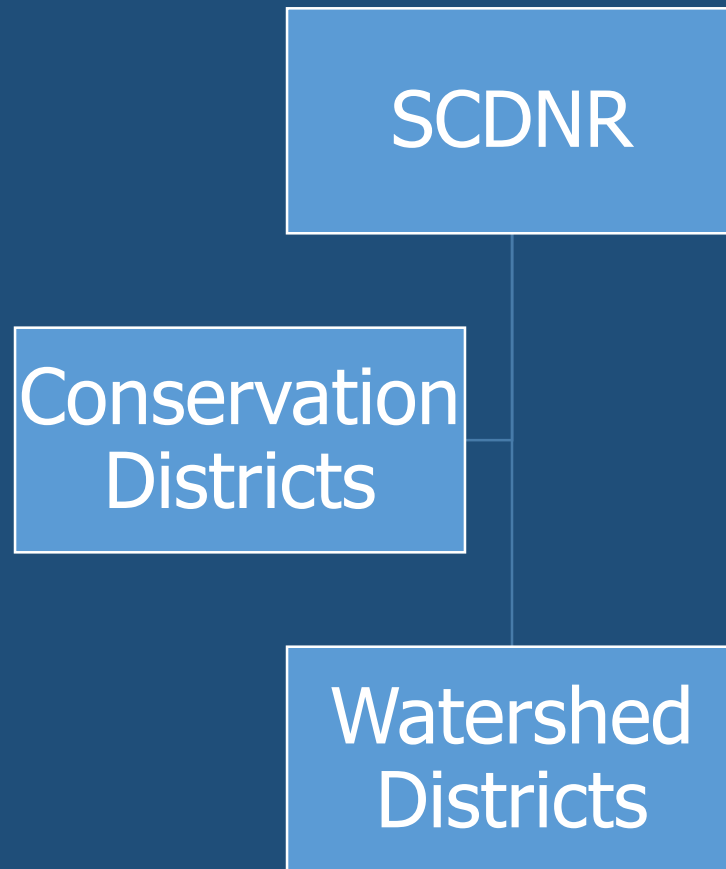


Water makes people crazy!

- ◆ Too Much
- ◆ Not Enough
- ◆ Drought
- ◆ Flood
- ◆ LAKE HOUSE HUNTERS!



Organizational Chart



Building Relationships

- ◆ SCDNR works closely with our partners to assess structures and bring them up to standard.
- ◆ Of course, like each of us, these structures have a life span.
- ◆ The majority were built in the 60's and 70's and have surpassed the 50 year life span set forth by NRCS.
- ◆ So.... Where does that leave us?



South Carolina Precipitation Storm
September 30 - October 7, 2015

inches

- < 3
- 3.1 - 5
- 5.1 - 8
- 8.1 - 12
- 12.1 - 19
- 19.1 - 24
- > 24

Precipitation grids were generated by MetStorm, a precipitation analysis system developed by the South Carolina State Climate Office. They are created using innovative algorithms to blend 857 daily and hourly precipitation stations provided by Synoptic and the South Carolina State Climate Office, dual-polarization radar estimates provided by Weather Decision Technologies, and satellite precipitation estimates from NOAA.



Precipitation grids were generated by MetStat, Inc. for the SC State Climate Office. They are calculated by MetStorm®, a precipitation analysis system, using innovative algorithms to blend 857 daily and hourly gauge stations provided by Synoptic and the South Carolina State Climate Office, dual-pol radar estimated precipitation provided by Weather Decision Technologies, Inc., and satellite precipitation estimates from NOAA.

Renewed Focus on Watershed Structures Post Joaquin



17 Lives Lost

51 Structures Failed

Renewed focus on Dam Safety

Many dams reclassified

(including watershed dams)



Watershed District and Conservation District responsibilities described in:

- State Law
- Local easements
- Contracts



Watershed Districts

The tools for addressing natural resource concerns in a watershed are outlined in State Law.

South Carolina Code of Laws

Title 48

Chapter 11

Watershed Conservation Districts



Section 48-11-15

DNR shall assist soil and water commissioners and watershed directors with the organization and function of watershed districts.



Section 48-11-110

Powers of the watershed district:

Develop and execute plans and programs

- ◆ to control and prevent soil erosion
- ◆ to control flooding
- ◆ to protect and utilize soil resources
- ◆ to protect and utilize water resources
- ◆ to manage stormwater



SC IS GROWING (and it's a double-edged sword)

South Carolina has sixth-highest growth rate in the country



Houses and Water Have To Go Somewhere!

- ◆ More hardscapes=More runoff=Less open land=More flooding
- ◆ Everyone wants to be on or near a lake.
- ◆ Watershed easement questions are increasing with increased growth.
- ◆ People want to build in 'unconventional locations'



What tools are available?

- ◆ Acquire or dispose of property
- ◆ Construct works of improvement
 - Dams, channels
 - Operation and maintenance
- ◆ Borrow money
- ◆ Sue and be sued (Tort Insurance)
- ◆ Levy an annual property tax
- ◆ Receive services and funds
- ◆ Employ consultants and employees



Section 48-11-130

Levy an annual property tax

- ◆ Develop an operating budget
- ◆ Approval by the Conservation District
- ◆ Millage shall be assessed by the County Treasurer
- ◆ Tax levy is to meet “all or part of the budget” for the watershed district
- ◆ Only 47% currently utilize millage for funding.



Receive Services and Funds

Develop Partnerships with:

- ◆ Local governments (towns, counties, etc.)
- ◆ State Agencies (DNR, DHEC, COG, etc.)
- ◆ Federal Agencies (NRCS, USFS, etc.)
- ◆ Private sources (foundations, clubs, etc.)



Employ Consultants and Others

- ◆ Mowing contractors
- ◆ Divers
- ◆ Engineers
- ◆ Machinery operators
- ◆ Administrative assistants
- ◆ Contractors



Most important tool....

Watershed and CD Boards

- Personal knowledge
- Experience
- Contacts



CD employees are the first line of defense!

- ◆ Information sharing has been key!
- ◆ Increasing awareness locally and statewide.



Watershed Program Featured in SCDNR Magazine

CONSERVATION CORNER

Watersheds in South Carolina

Strategically placed dams and canals reduce erosion and improve soil conditions across the state.

BY CHRIS WORKMAN

The water's surface reflects the world around it. Its serenity, broken only by the occasional light breeze, is fractured into a riot of color. A doe and her fawns warily step out, alert for any sign of predators. They begin to drink. Frogs, disturbed by the family's incursion, plop lazily into cooling waters. Overhead, a hawk is suspended on unseen breezes, searching for its next meal. Just below the water's surface, minnows are darting about. This is one snapshot of a scene that plays out every day around South Carolina watersheds.

With just over one hundred watershed structures around the state, South Carolina's watersheds are protected from flooding with dams and canals constructed through partnerships decades ago. These structures stand as silent sentinels to reduce erosion and sedimentation and prevent flooding of farms, homes, roads and other sensitive areas that were previously plagued by flooding and standing water.

In 1962, the South Carolina Watershed Law was implemented to address flooding issues. In conjunction with PL 566 (Public Law 566), the Soil and Water Conservation Districts were able to petition to create what would become the Watershed Districts we know today. Watershed boards are composed of five elected directors. These directors, spurred on by the desire to conserve our land, resources and wildlife, serve four-year terms.

Early on in the creation of South Carolina's Watershed Districts, directors were tasked with the initial formation of the structures themselves. This was accomplished through the cooperation of many partners. Local landowners, concerned citizens, county Soil and Water Conservation Boards, the Soil Conservation Service (now known as the Natural Resources Conservation Service or NRCS) and many other partners came together to address a multitude of issues on a local level. Areas that had been prone to flooding for generations would now become productive farmland. Roads that would get washed out after heavy rains and hurricanes were made passable.

Almost There!!

- ◆ Training has been a key aspect of our program
- ◆ NWC has been a valuable part of our efforts
- ◆ Get WS and CD involved and utilize resources for outreach and education



Next Steps

- ◆ Recognizing efforts of WS Districts and Individual Members
- ◆ Structure Assessments to be used to educate others of our aging infrastructure
- ◆ Continued training of District staff, SWCD Commissioners and WS Directors.



That's all Folks!

