

ENVIRONMENTAL MANAGEMENT COMMISSION UPDATE

Cape Fear River Partnership
Annual Meeting

May 24, 2017

J.D. Solomon, PE, CRE, CMRP

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Most People Do Not Understand Probabilities

Understanding weather forecasts, or “the chance of rain”.

- A. The percent of area over which precipitation will fall
- B. The percent of time precipitation will be observed on the forecast day
- C. The amount of days similar to this one when it actually rains
- D. The amount of rain that will fall

Most People Do Not Understand Probabilities

- A. “What is the chance (or probability) that this happened?” and
- B. “In 10 situations just like this, how many times would this happen?”

The two questions almost always yield two different answers even though they actually mean the same thing.

Best Practice

- Frequency (87 of 234 cases) is preferable to percentages (37.2%)
- People do not understand percentages
- Frequency also gives insight into “confidence interval”
- Always best to present both frequency and percentage



NC DWR: Estimate Amount of Nutrients Generated by Animal Operations

Poultry Change

A Comparison of PAN and P205 produced from Poultry, Swine and Cattle Operations in North Carolina

- Tar- Pamlico Basin Plan July 2015
 - EMC requests
 - Legacy Sediment
 - Agriculture

River Basin	Percent Inventory Change		
	1992-2014	2000-2014	2006-2014
Yadkin-PeeDee	16	-6	-17
Cape Fear	9	6	3
Catawba	92	78	78
Lumber	393	183	94
Neuse	-5	-16	-20
Roanoke	44	49	20
Tar-Pamlico	-30	-20	-12
Chowan	33	10	6
Broad	331	196	134
Pasquotank	-12	-8	25
White Oak	50	59	58



Source: NC EMC Meeting, WQC, March 2017

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Forms of Communication

Sensory and Perceptual

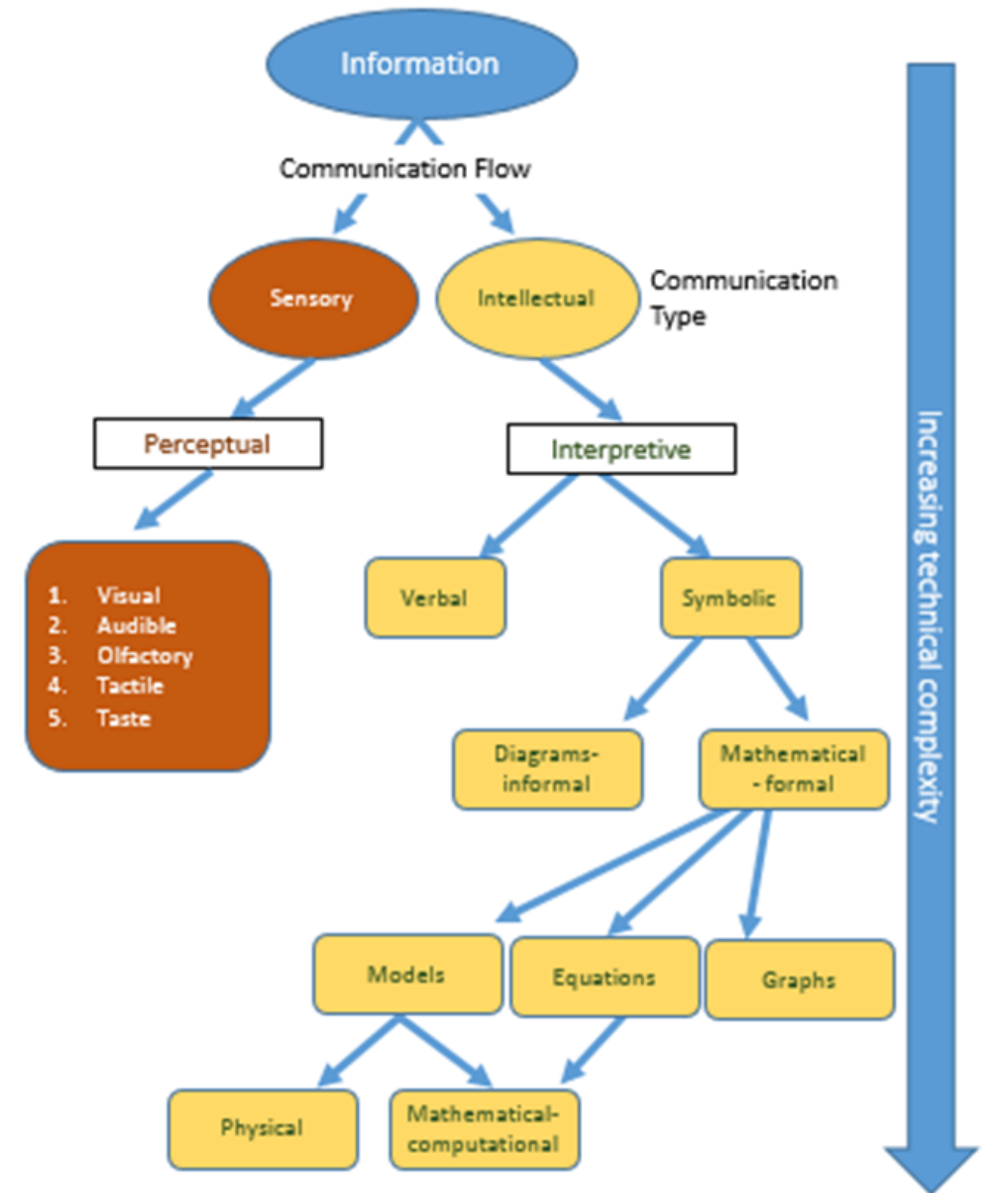
Lay Public or General Population

Interpretive and Verbal

Attorneys and Policy Makers

Interpretive and Symbolic

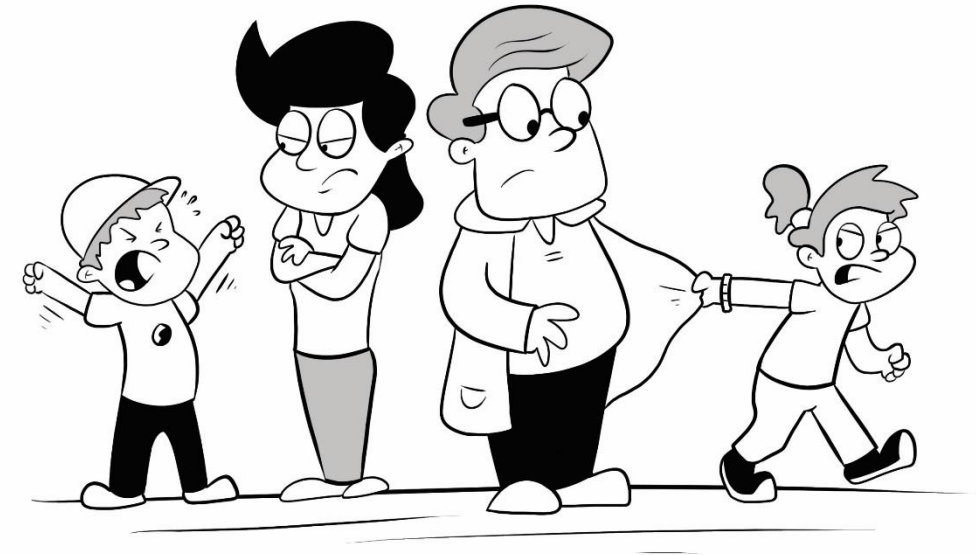
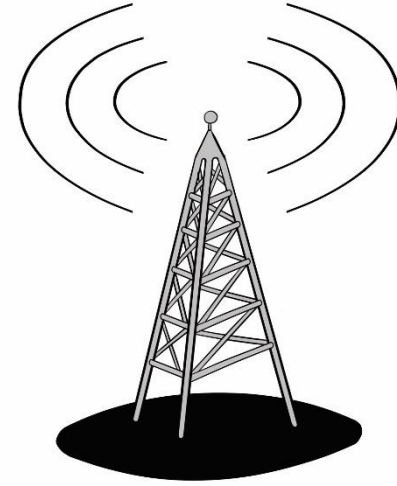
Engineers, Scientists, Technologists



Source: Green, 1989; Myers & Kaposi, 2004; Vallero, 2007

Burden is on the Sender

- Sender, Receiver, Message
- Endless Respect for your Audience
- Naive to some degree but right mistake to make
- Amateur to assume dumb audience needs visualization – this is false and patronizing
- Don't theorize about mode of presentation production and need/IQ of audience – do what it takes
- Not about “right” or “wrong” in terms of types of presentations



North Carolina Department of Environmental Quality (DEQ)

- Coastal Management
- Marine Fisheries
- Air Quality
- Energy, Mineral, and Land Resources
- Waste Management
- Water Resources
- Water Infrastructure

Coastal Resources Commission

Marine Fisheries Commission

*Environmental Management
Commission (EMC)*

*State Water infrastructure
Authority (SWIA)*

Divisions

Air Quality

Coastal Management

Energy, Mineral and Land Resources

Environmental Assistance and
Customer Service

Environmental Education & Public
Affairs

Marine Fisheries

Mitigation Services

Waste Management

Water Resources

Environmental Education

Land and Water Stewardship

Water Infrastructure

NC Environmental Management Commission (EMC)

- 15-member Commission appointed by the Governor, the Senate Pro Tempore and the Speaker of the House
- State's Environmental Rule-Making Body
 - DAQ, DWR, DWM, DEMLR
- Four Standing Subcommittees
 - Water Quality
 - Water Quantity
 - Groundwater & Waste Management
 - Air Quality
- Five Standing Two-Day Meetings per year
 - January, March, May, July, September and November

Name	Address	Telephone	Qualifications
1. John D. Solomon, Chairman of EMC psolmcojd@gmail.com	216 Stonebrook Drive Clayton, NC 27520	919-550-0061 (H)	Gov
2. Kevin C. Martin, Vice-Chairman of EMC kmartinncemc@hotmail.com	176 Juniper Trail Franklinton, NC 27525	919-270-7941 (C)	
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6. Tommy Craven tcravenncemc@gmail.com	124 Berry Hill Drive Raleigh, NC 27615	919-781-0300 (W)	
7. Charles "Boots" Elam belam43@gmail.com	102 Date Palm Court Hampstead, NC 28443	919-612-5349 (C)	S
8. F. N. Farrell	1901 Lafayette Avenue		

Environmental Management Commission

EMC General Information

EMC Members Information

EMC Minutes

Coastal Habitat Protection Plan

EMC Agendas

EMC Schedules

Proposed Rules

Some Current Activities

- 1. Rules Re-Adoption is in full force**
- 2. Coal Combustion Rules (CCR)**
- 3. Round 4 of Jordan Lake Allocation**
- 4. Interbasin Transfers (Union approved in May and Pender upcoming)**
- 5. Air Quality (PM 2.5)**
- 6. Dam Safety Rules**
- 7. Regulatory Reform is on-going, but at a slower pace**

Comprehensive Rules Re-adoption

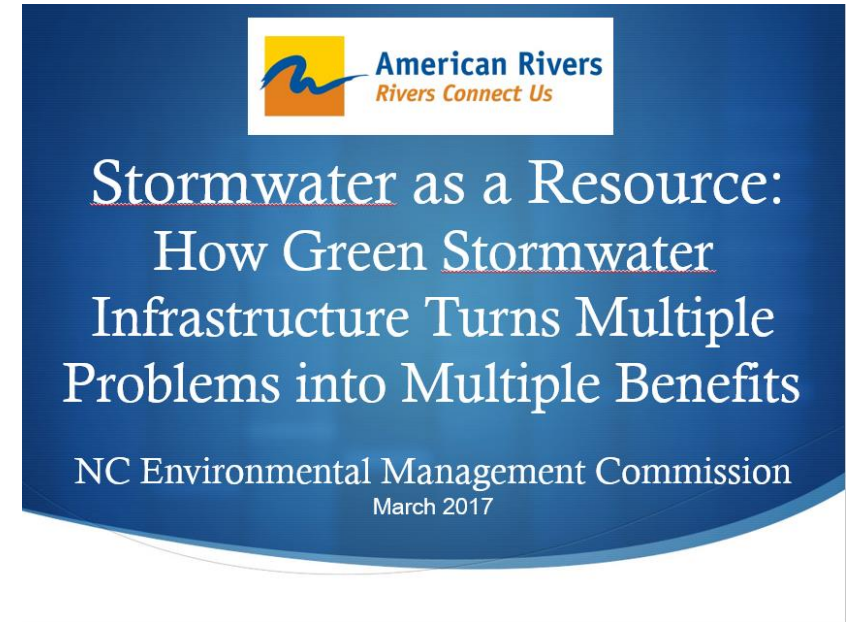
- Stormwater (2H) Rules are finished and re-adopted
- Dam Safety Rules are finished and re-adopted
- Surface Water Quality Rules
 - 484 Rules
 - Will go to public hearings this summer
- Air Quality Rules
- Solid Waste Rules
- Groundwater Rules

Public Hearings this Summer

- ✓ Air Quality Rules
- ✓ Mitigation Services Rules
- ✓ Water Quality Re-adoption

Activities Worth Noting

- **Civil Remissions**
- **Variances**
- **Declaratory Rulings**
- **Lawsuits – EMC is usually named**
- **Legislative Reports**
 - Buffer Rules, In-Situ Nutrient Treatment
- **Federal Issues**
 - Waters of the US (wetlands and streams)
 - Clean Power Plan (energy use and carbon emissions)
 - State Water Quality Rules (triennial review, 303d)
- **More Educational Topics and Knowledge Exchange**



July 2017	
✓	319 Grants
✓	Conservation Easements
✓	Integrated Water & Energy Planning

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COMMUNICATING



to **DECISION MAKERS**

"HOW TO GET YOUR BOSS'S BOSS TO UNDERSTAND"

JD SOLOMON