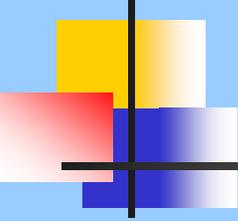


Use of MIF Information for Regulatory Purposes

Presented by:
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Natural Resource Planner
Clarke County, Virginia

Overview



- Background
- What currently doing
 - A) Regional water supply planning - RWRPC
 - B) Comprehensive Water Supply Plan
 - includes low flow drought agreement utilizing data Jen has discussed
- Future goals

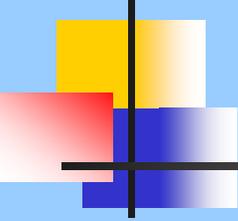
Background

How region got started in MIF - 1991

■ Surface Water Mgmt area designation Application

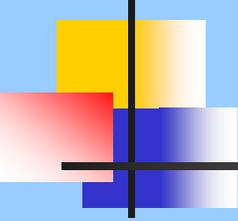
3 criteria:

- 1. A stream has substantial instream values as indicated by evidence of fishery, recreation, habitat, cultural or aesthetic properties;
- 2. Historical records or current conditions indicate that a low flow condition could occur which would threaten important instream uses; and
- 3. Current or potential offstream uses contribute to or are likely to exacerbate natural low flow conditions to the detriment of instream values.



1993 - 1994

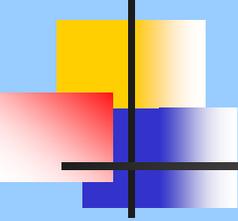
- Began MIF study because couldn't meet criteria #2
- Goal was to establish min instream levels – mainly aquatic thresholds – where would fish populations be impacted
- Contracted w/ USGS – main stem – developed model - 1994

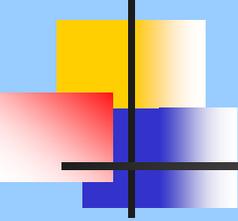


1999

- North Fork Study –
 - Funding – localities based on population/General Assembly/USGS
 - As study progressed it became apparent that Voluntary and cooperative water withdrawal management in the basin is preferable to a Surface Water Management District.

1999-2002

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- Severe drought
 - The region's water supply planning shows growth outstripping supply by 2025 for the North Fork.
 - Regional Water Relationships Forum in 1999
 - Formation of Regional Water Resource Policy Committee
 - Goal – Develop a long term water supply plan for this region utilizing Minimum In-stream Flow factors



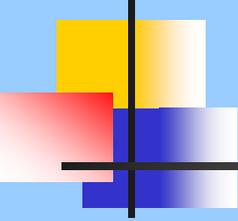
Resource Policy Committee - Actions

- Watersheds Policy Integration Assessment
 - a regional water resources goals framework
 - an assessment of how existing information sources and activities support the goals
 - a proposed Comprehensive Plan outline

Current Actions

Low flow/Drought Response

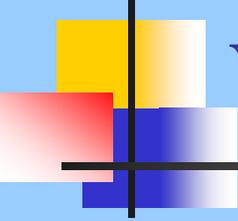
- NF Study Complete
- As nearing completion – Jen & Don suggested developing a framework for a low flow/drought response plan that would **incorporate data** developed by USGS/VA Tech
- Established subcommittee



Subcommittee work

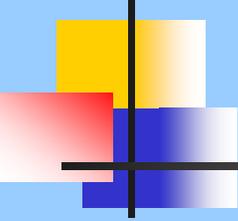
Looked at Interstate Commission on the Potomac River Basin (ICPRB) manages water for DC metro area - their planning efforts

- Requested conservation plans from basin localities, compiled
- Modified VA Drought Assessment Plan – unique to Shenandoah Valley
 - - incorporate data – science to back up policy
- Establish web site with drought indices/thresholds – PR tool



What have we learned

- within NF basin – variability
- river starts small therefore water withdraws more critical in upper reaches
- natural systems experience drought regardless of man
- conservation efforts of public systems may need to be coupled with supplemental flow to be effective
- we are missing critical data – ag withdraws
- water quality may have significant impact on aquatic life when combined with flow
- need more info on impact of groundwater withdraws
- all this is very complicated and takes a long time!



Future Steps/Outcomes

- Meet goal of RWRPC
- – regional cooperative drought management
 - finalize draft of low flow/drought agreement
 - establish politically acceptable MIF levels – based on science
 - incorporate data from other ongoing studies – USGS groundwater
 - science forum – now lots of research being conducted in Valley