

Kissimmee Basin Water Reservation Rule Development Update



*Water Resources Advisory Commission
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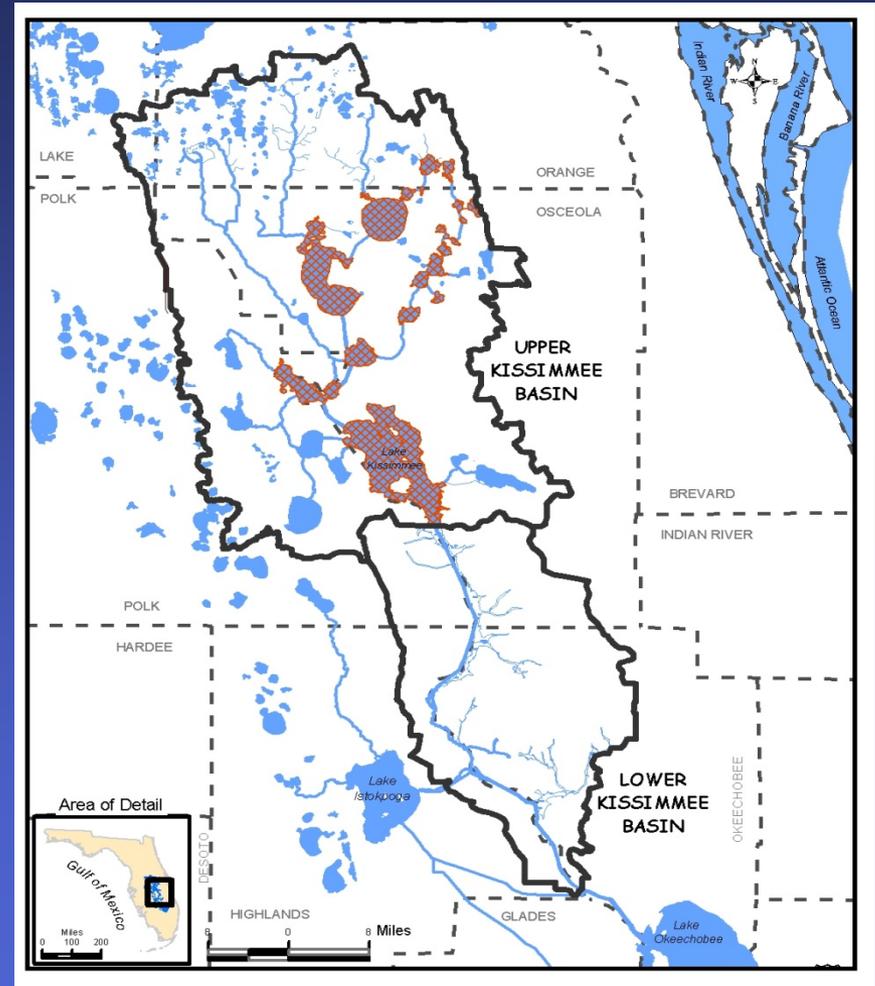
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March 5th WRAC Briefing

- Overview of methods and assumptions
- Identification of additional evaluations
 - Sensitivity analysis for determining water needed for protection of fish and wildlife
 - Identify water to be reserved
 - Identify if there is water in excess of the proposed reservations
- Document data, methods, analysis, and assumptions in a technical report
- Conduct independent scientific peer review

Today's presentation

- Results of:
 - Technical Analysis
 - Scientific peer review
- Findings of analysis
- Rule development
 - Concepts
 - Development issues



Results of Technical Analysis

- Identified ranges of hydrologic conditions which are protective of fish and wildlife
- Quantified the accuracy of the models used
- Quantified water needed for protection of fish and wildlife
 - Seven Lake Management Areas
 - Restored Kissimmee River
 - In terms of stage and flow
- Developed methodology to determine if water in excess of proposed reservation exists

Scientific Peer Review

- Conducted peer review of all data, methodologies, analyses, and assumptions
- Five nationally recognized experts representing:
 - Avian ecology
 - Aquatic vegetation / wetland ecology
 - Water resource engineering / modeling
 - Fisheries / limnology
 - Stream ecology

Scientific Peer Review

- Panel's findings:
 - Hydrologic modeling sound and sufficiently accurate for the application
 - Biologic linkages to hydrology sound
 - Approach to defining water for protection of fish and wildlife (performance measures) sound
 - Range of hydrologic conditions found equally protective of fish and wildlife with the exception of lakes Kissimmee-Hatchineha-Cypress (will use higher range for reservation)
- Peer review panel chair to present their findings to Governing Board

Findings of Analysis

- **Sources of water for protection of fish and wildlife**
 - **Rainfall and runoff important**
 - **Groundwater: surficial important, Floridan not important**
- **Existing legal uses; no significant impact to water available for fish and wildlife**

Findings of Analysis (cont.)

- Sufficient water exists for protection of fish and wildlife in the lakes
 - Some water in excess of proposed reservation exists in some lakes
- Sufficient water available for protection of fish and wildlife in the restored River
 - Some deficits occur
 - Some excess water will occur

Rule Development Concepts

- Reserve surface waters in each of the eight reservation water bodies
 - Flow and stage
- Reserve surficial groundwater and tributary flows needed for protection of fish and wildlife
- Existing legal uses are not contrary to the public interest
- Floridan aquifer use does not need to be limited under this rule
- Criteria for review of permit applications needs to be developed

Rule Development Issues

- Water may be reserved in the ‘judgment’ of the Governing Board as may be required for protection of fish and wildlife
 - Ranges in amounts of water that are protective of fish and wildlife identified
- Staff is evaluating whether water in excess of what is necessary for protection of fish and wildlife exists
 - Very complex and expensive analysis
 - Opportunity to define with stakeholder input and Board direction

Discussion

