

Brazos G RWPG Streamflow Assessment Workgroup,
Agenda Item 5(a), 4/13/04

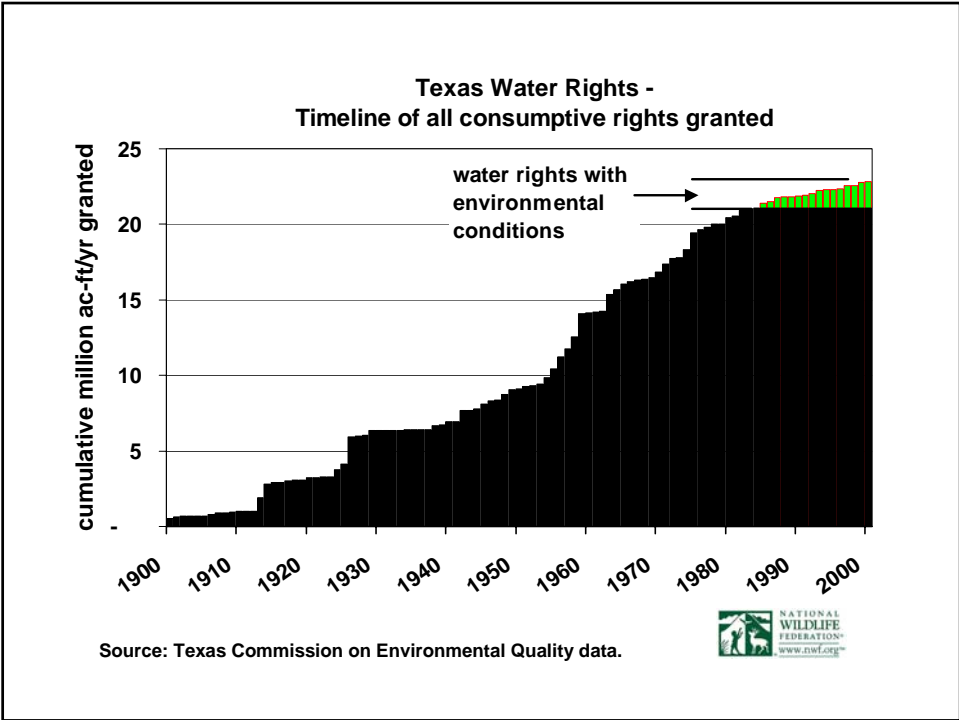
Assessing Environmental Water Needs in Region G

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National Wildlife Federation
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NWF's Goals for Assessing Environmental Flow Needs in Regional Water Planning

- Realistic, credible portrayal of all aspects of Regional Water Plan.
- Satisfy "Quantitative reporting of environmental factors including effects on environmental water needs"
- Consistency across Regions.



Major Issue Areas

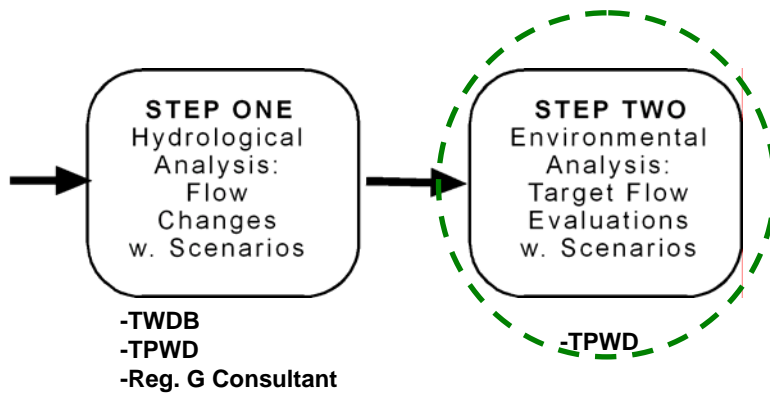
- 1) Types of Analyses
 - Purely Hydrologic
 - Environmental Assessment

- 2) Scenarios for Assessing Water Management Strategies
 - Water Rights Use Level
 - Return Flow Level

- 3) Environmental Benchmark Selection
 - TPWD Method
 - Specific Local Criteria

1) Types of Analyses

- Purely Hydrologic
- Environmental Assessment

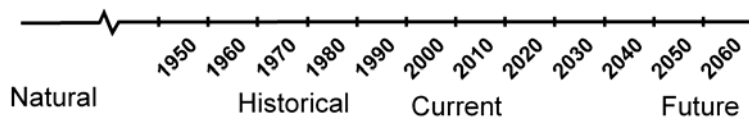


2) Scenarios for Assessing Water Management Strategies

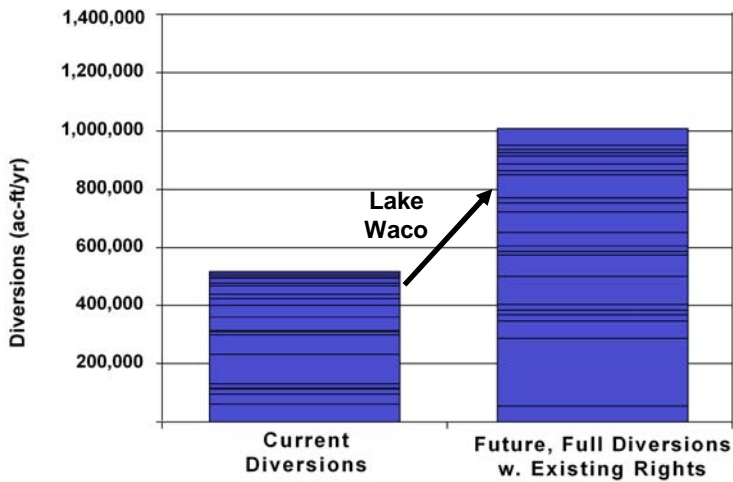
- Water Rights Use Level
- Return Flow Level

Which WAMs to compare?

NWF Agrees – Reasonable Levels of Return Flow Should be Assumed

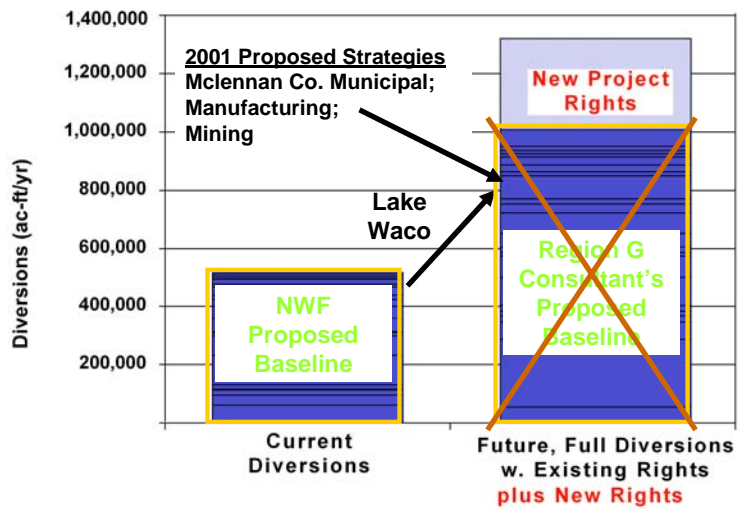


Region G - Major Water Rights* Diversions



* Those included in Table 3-1 in 2001 Region G Water Plan

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* Those included in Table 3-1 in 2001 Region G Water Plan

Increased use of existing rights = impact

No inconsistency with TWC 11.122 which applies to permit amendments.

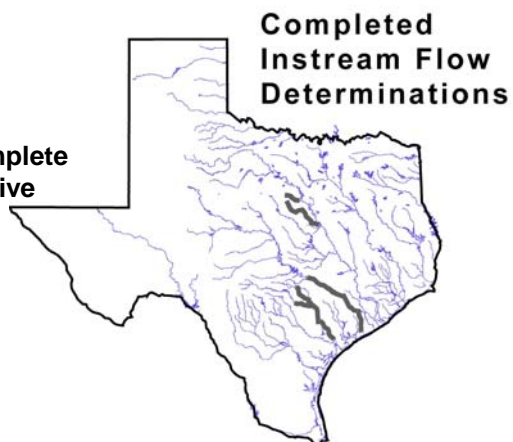
Limited permitting hurdles do not indicate no impact from increased use.

3) Environmental Benchmark Selection

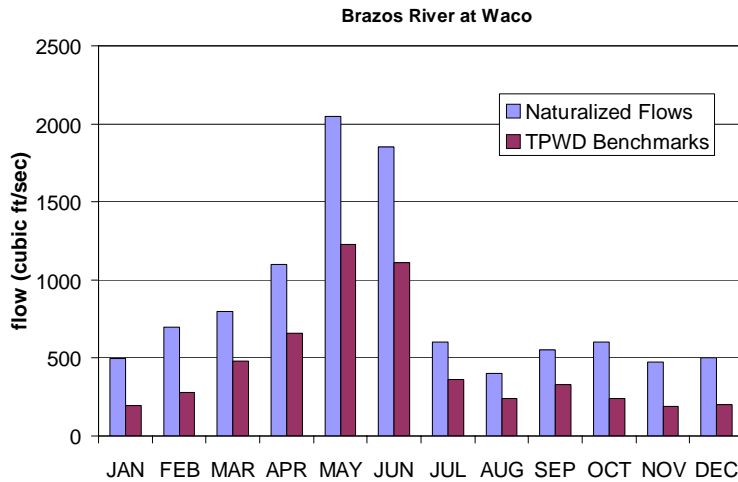
- TPWD Method
- Specific Local Criteria

Specific Criteria

- 5-7 years to complete
- field data intensive
- expensive



TPWD Benchmarks are derived from, but not equal to, Naturalized flows



TPWD Method

vs.

Consensus Criteria

-environmental evaluation for all strategies

-somewhat like permitting

-used for determining new project yield only

Example from Region H

Frequency of Meeting Monthly Galveston Bay Inflow Targets

Environmental Benchmarks

Inflow Target	Max H	Min Q	Min Q-Sal
Historical Frequency	66%	78%	82%
Target Frequency	50%	60%	75%
Naturalized	68%	67%	83%
Current Conditions	64%	59%	79%
Full Diversions w RF	65%	59%	81%
Full Diversions wo RF	43%	42%	55%
Full Diversions w RF and Reg C and H Startegies	71%	67%	87%

Region H
Acceptance
Level

Scenarios

Conclusions Regarding Assessing Environmental Flow Needs in Region G

- Purely hydrologic analysis does not meet definitions of “Quantitative reporting of environmental factors including effects on environmental water needs”
- Must assess Plan against environmental benchmarks
- TPWD method has been established for this purpose
- For a credible Plan which meets requirements, must assess against realistic Baseline, such as Current Conditions.
- Other Regions are pursuing acceptable assessments.