September 15, 2005

Mr. Curtis W. Campbell, Chairman
Region B Water Planning Group
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Wichita Falls, Texas 76301-6894

Submitted via Fax: 940-723-8531

Re: Comments on Initially Prepared Region B Water Plan- June 2005

Dear Chairman Campbell and Region B Planning Group Members:

The National Wildlife Federation, Lone Star Chapter of the Sierra Club, and Environmental Defense appreciate the opportunity to provide written comments on the Initially Prepared Region B Water Plan. We consider the development of comprehensive water plans to be a high priority for ensuring a healthy and prosperous future for Texas. We recognize and appreciate the contributions that you have made towards that goal. As you know, our organizations have provided, either individually or collectively, periodic input during the process of developing the plan. These written comments will build upon those previous comments in an effort to contribute to making the regional plan better for all residents of Region B and for all Texans.

We recognize that the Initially Prepared Plan is subject to revision prior to adoption, and is subject to continued revision in the future, and provide these comments with such revisions in mind. Our organizations appreciate the amount of effort that has gone into developing the Initially Prepared Plan for Region B. Your consideration of these comments will be appreciated.

I. BACKGROUND AND OVERVIEW

Our organizations support a comprehensive approach to water planning in which all implications of water use and development are considered. Senate Bills 1 and 2 (SB 1, SB 2), and the process they established, have the potential to produce a major, positive change in the way Texans approach water planning. In order to fully realize that potential, water plans must provide sufficient information to ensure that the likely impacts and costs of each potential water management strategy are described and considered. Only with that information can regional planning groups ensure compliance with the overarching requirement that "strategies shall be selected so that cost effective water management strategies which are consistent with long-term protection of the state's water resources, agricultural resources, and natural resources are adopted." 31 TAC § 357.7 (a)(9). Complying with this charge is essential in order to develop true plans that are likely to be implemented as opposed to a list of potential, but expensive and damaging, projects. Comprehensive regional water plans have the potential to provide clear and effective guidance for development of water supplies within the region.

This document includes two types of comments. We consider the extent to which the Initially Prepared Plan complies with the requirements established by SB1 and SB 2 and by the Texas Water Development Board (TWDB) rules adopted to implement those statutes. In addition, our comments address important aspects of policy that might not be controlled by specific statutes or rules.

We do recognize that the financial resources available to the planning group are limited, which may restrict the ability of the group to fully address some issues as much as you would like. These comments are provided in the spirit of an ongoing dialogue intended to make the planning process as effective as possible. We strongly support the state's water planning process and we want the Regional Water Plans and the State Plan to be comprehensive templates that can be endorsed by all Texans.

A one-page summary of key comments follows this page. Each of these is further explained in the following sections. Section II of the letter summarizes key principles that inform our comments and how they relate to the Initially Prepared Plan (IPP). The last section of the letter, Section III, consists of page-specific comments on the Initially Prepared Plan.

SUMMARY TABLE OF KEY COMMENTS

Area	Comment	Solution
Planning Basis	1) The IPP's planning basis of aiming to supply 20% more than projected 2060 municipal demand ("safe supply") results in including an excess of water supply strategies that are unnecessary. 2) Using "safe yield" as a basis for determining reservoir water supply results in including an excess of water supply strategies that are unnecessary.	To be consistent with planning requirements, the region should plan for projected demand, and eliminate unnecessary projects that are included as a result of inflated demand.
Maximizing Water Efficiency	The IPP: (1) fails to identify a goal for municipal water usage rates in the region, (2) doesn't correctly account for savings from passive conservation laws that will take effect as a result of federal law, (3) falls short in adopting a significant water conservation package for municipal water user groups, (4) falls short of potential for agriculture/irrigation conservation (5) does not consider conservation as a supply strategy for manufacturing or stream electric. (6) The Chloride Control Project is recommended to increase supply before water efficiency measures have been maximized.	The plan should be revised to correct all these problems through improved treatment of water efficiency measures.
Drought Management	The IPP is based on fully meeting even non-essential water needs during the drought of record and, in doing so, fails to comply with applicable requirements for implementing drought management measures.	The plan should be revised to incorporate drought management as a water management strategy for entities required to prepare drought management plans.
Environmental Flows and Protection of Agricultural and Natural Resources	The IPP fails to include a sufficient required quantitative analyses of the environmental impacts of the proposed water management strategies, particularly as it relates to environmental flows, and fails to demonstrate consistency with long-term protection of agricultural and natural resources.	The revised plan should include such analyses.
Groundwater/ Spring flow	1) The IPP does not adequately characterize current aquifer or spring conditions or trends. 2) The IPP does not include a clear groundwater management policy. 3) The IPP does not include information about any regulatory limits to pumping from the Groundwater Conservation Districts in the region.	The plan should be revised to address these deficiencies.

II. KEY PRINCIPLES

A. Maximize Water Efficiency

We strongly believe that improved efficiency in the use of water must be pursued to the maximum extent reasonable. New provisions included in SB 2 and TWDB rules since the first round of planning mandate strengthened consideration of water efficiency. Potentially damaging and expensive new supply sources simply should not be considered unless, and until, all reasonable efforts to improve efficiency have been exhausted. In fact, that approach is now mandated. Consistent with TWDB's rules for water planning, we consider water conservation measures that improve efficiency to be separate and distinct from reuse projects. We do agree that reuse projects merit consideration. However, the implications of those projects are significantly different than for water efficiency measures and must be evaluated separately.

The Texas Water Code, as amended by SB1 and SB 2, along with the TWDB guidelines, establish stringent requirements for consideration and incorporation of water conservation and drought management. As you know, Section 16.053 (h)(7)(B), which was added after completion of the first round of regional planning, prohibits TWDB from approving any regional plan that doesn't include water conservation and drought management measures at least as stringent as those required pursuant to Sections 11.1271 and 11.1272 of the Water Code. In other words, the regional plan must incorporate at least the amount of water savings that are mandated by other law.[1]

In addition, the Board's guidelines require the consideration of more stringent conservation and drought management measures for all other water user groups with water needs. Consistent with the TWDB rules, our comments treat water conservation and drought management as separate issues from reuse. Section 31 TAC § 357.7 (a)(7)(A) of the TWDB rules sets out detailed requirements for evaluation of water management strategies consisting of "water conservation practices." Section 357.7(a)(7)(B) addresses water management strategies that consist of drought management measures. The separate evaluation of water management strategies that rely on reuse is mandated by 31 TAC § 357.7 (a)(7)(C).

Both water efficiency and reuse merit consideration, but they must be evaluated independently in determining what mix of approaches to include in a regional plan. Under the right circumstances, reuse is an appropriate water management option, but it does not increase the actual efficiency of water use. Water is a finite resource. In order to meet the water needs of a growing population while ensuring the long-term protection of the state's natural resources and agricultural resources, we must use water as efficiently as possible. We certainly acknowledge the progress made by Region B in incorporating water conservation into the 2005 Initially Prepared Plan as compared to the 2001 version of the plan. However, much more progress is possible and needed

[1] This is a common-sense requirement. We certainly should not be basing planning on an assumption of less water conservation than the law already requires. TWDB guidelines also recognize the water conservation requirements of Section 11.085 for interbasin transfers and require the inclusion of the "highest practicable levels of water conservation and efficiency achievable" for entities for which interbasin transfers are recommended as a water management strategy.

B. Limit Nonessential Use During Drought

Drought management measures aimed at reducing demands during periods of unusually dry conditions are important components of good water management. As noted above, Senate Bill 2 and TWDB rules mandate consideration and inclusion in regional plans of reasonable levels of drought management as water management strategies. It just makes sense to limit some nonessential uses of water during times of serious shortage instead of spending hefty sums of money to develop new supply sources simply to meet those nonessential demands. Because drought management measures are not included as water management strategies, the Initially Prepared Plan does not comply with applicable requirements.

C. Plan to Ensure Environmental Flows

Designing and selecting new water management strategies that minimize negative impacts on environmental flows is critically important. New rules applicable to this round of planning require a quantitative analysis of environmental impacts of water management strategies[2] in order to ensure a more careful consideration of those impacts. However, this is only one aspect of planning to meet environmental flow needs.

If existing water rights, when used as projected, would cause serious disruption of environmental flows resulting in harm to natural resources, merely minimizing additional harm from new strategies would not produce a water plan that is consistent with long-term protection of natural resources or that would protect the economic activities that rely on those natural resources.

Accordingly, environmental flows should be recognized as a water demand and plans should seek to provide reasonable levels of environmental flows. Environmental flows provide critical economic and ecological services that must be maintained to ensure consistency with long-term protection of water resources and natural resources.

We were unable to locate sufficient quantitative analysis of environmental impacts of the proposed water management strategies and do not believe that the Initially Prepared Plan demonstrates consistency with long-term protection of natural resources or agricultural resources.

D. Minimize New Reservoirs

Because of the associated adverse impacts, new reservoirs should be considered only after existing sources of water, including water efficiency and reuse, are utilized to the maximum extent reasonable. When new reservoirs are considered, adverse impacts to regional economies and natural resources around the reservoir site must be minimized. Reservoir development must be shown to be consistent with long-term protection of the state's water, agricultural, and natural resources. We acknowledge that the Initially Prepared Plan does not include a proposed major reservoir project.

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[2] The rules require that each potentially feasible water management strategy must be evaluated by including a quantitative reporting of "environmental factors including effects on environmental water needs, wildlife habitat, cultural resources, and effect of upstream development on bays, estuaries, and arms of the Gulf of Mexico." 31 TAC § 357.7 (a)(8)(A)(ii).

E. Manage Groundwater Sustainably

Wherever possible, groundwater resources should be managed on a sustainable basis. Mining groundwater supplies will, in many instances, adversely affect surface water resources and constitute a tremendous disservice to future generations of Texans. Although the discussion is somewhat confusing, we are under the impression that the regional plan generally supports a sustainable management approach for groundwater supplies. We support that approach and believe that it is necessary in order to demonstrate consistency with long-term protection of the state's water resources, natural resources, and agricultural resources.

F. Facilitate Short-Term Transfers

Senate Bill 1 directs consideration of voluntary and emergency transfers of water as a key mechanism for meeting water demands. Water Code Section 16.051 (d) directs that rules governing the development of the state water plan shall give specific consideration to "principles that result in the voluntary redistribution of water resources." Similarly, Section 16.053 (e)(5)(H) directs that regional water plans must include consideration of "voluntary transfers of water within the region using, but not limited to, regional water banks, sales, leases, options, subordination agreements, and financing arrangements…." Thus, there is a clear legislative directive that the regional planning process must include strong consideration of ways to facilitate voluntary transfers of existing water rights within the region, particularly on a short-term basis, as a way to meet drought demands.

In addition, emergency transfers are intended as a way to address serious water shortages for municipal purposes. They are a way to address short-term problems without the expense and natural resource damage associated with development of new water supplies. Water Code Section 16.053 (e)(5)(I), as added by SB 1, specifically directs that emergency transfers of water, pursuant to Section 11.139 of the Water Code, are to be considered, including by providing information on the portion of each non-municipal water right that could be transferred without causing undue damage to the holder of the water right. Thus, the water planning process is intended as a way to facilitate voluntary transfers, particularly as a means to address drought situations, by collecting specific information on rights that might be transferred on such a basis and by encouraging a dialogue between willing sellers and willing buyers on that approach. It appears that the potential may exist for some such transfers within the planning area. For example, it appears that both Lake Wichita and Lake Iowa Park might hold potential for some limited transfers. However, we were unable to locate sufficient information to assess that potential or otherwise find the required information about such potential transfers.

III. PAGE-SPECIFIC COMMENTS

For ease of tracking, we have identified each page-specific comment with a number in brackets.

CHAPTER 1: Description of Region

Section 1.3 Water Use Demand Centers

[1] Table 1-6 on page 1-5 should include a column of gallons-per-capita-per-day usage rates for each of the regional demand centers in order to provide a numerical relationship between the population figures and the municipal water use figures listed, and to provide some basis for

comparison of municipal usage rates and conservation potential across the region. It would also be helpful to include a totals row in this table.

Section 1.4 Water Supply and Use

[2] Page 1-6: There appears to be an unexplained redundancy in the Chloride Control Project that removes dissolved solids and chlorides in Lake Kemp and the reverse osmosis plant currently being constructed by the City of Wichita Falls to treat water from Lake Kemp to deal with high dissolved solids and chlorides levels. That reverse osmosis plant likely would obviate the need for chloride control to produce drinking water for Wichita Falls.

[3] Page 1-7: It would be helpful to add a totals row to Table 1-7.

[4] Page 1-9 to 1-14: For Charts 1-12, it would be much more illustrative to break the period of record into pre- and post-major development (meaning water project development) time periods in order to better understand flow changes. Providing a good baseline for consideration of environmental flow changes is essential for evaluating impacts of individual water management strategies and for assessing the consistency of the plan with long-term protection of the state's natural resources.

[5] Page 1-15: The information included here on the aquifers and springs in Region B is extremely superficial. This text appears to be a duplicate of that provided in 2001. It is disappointing to see no obvious effort to build on the information included in the 2001 Region B Plan. Given the revisions to the governing statutes and TWDB rules to require specific consideration of the role of springs in protecting natural resources, this lack of attention is troubling. The Initially Prepared Plan should explain what definition was used in determining the absence or presence of major springs for purposes of resource protection. *See* 31 TAC § 357.7 (a)(1)(D). A spring that is not major for water supply purposes may nevertheless be a major spring in terms of importance for protecting natural resources. Discussion of this issue is required by that section of the rules and to provide sufficient information to support a finding that the regional plan is consistent with long-term protection of the state's water resources and natural resources. See Texas Water Code Section 16.053 (h)(7)(C).

[6] Page 1-22: In Table 1-12, it would be helpful to have a totals column in order to get a more complete picture of region-wide land use.

Section 1.8 Ecology and Wildlife

[7] Page 1-23: Because they are important indicators of river system health, it is good to see mention of freshwater mussels and minnow species native to the region. However, for this information to be truly meaningful, those issues should be considered in assessing the impacts of recommended water management strategies and the overall implications of the plan for consistency with long-term protection of natural resources.

[8] Page 1-23: More information is needed on the wetlands of the region. There is no discussion of the wetland complexes that are important to migrating birds. Information should be provided about significant wetlands associated with specific seeps or springs and with rivers or streams because those are the wetlands with the greatest potential to be affected by water management

decisions. Such information would provide a baseline against which to assess proposed water management strategies. Again, it constitutes information needed to assess the implications of the plan for consistency with long-term protection of natural resources and to provide a meaningful quantitative evaluation of potentially feasible water management strategies.

[9] Page 1-24: The information provided on the wildlife and the endangered and threatened species of the region also has limited utility. Again, it would be much more useful if it were to highlight species occurring in habitats dependent on seeps and springs or rivers and streams. Those are the habitats and the species most likely to be affected by water management decisions. This constitutes information needed to assess long-term impacts on natural resources and to perform a meaningful quantitative evaluation of potentially feasible water management strategies.

Section 1.9 Summary of Existing Local or Regional Water Plans
[10] Page 1-25: Water conservation and drought management planning are very important components of good water management and of the planning process. Unfortunately, the information contained in Table 1-14 is now quite dated. Updated information should be provided. Some non-municipal water users also are required to develop water conservation and drought contingency plans. That information also should be provided

It is unfortunate that the new requirements to establish quantified 5-year and 10-year goals in water conservation and drought contingency plans did not go into effect until May of this year. As a result, we certainly understand that the planning group was not able to fully incorporate those goals into its water management strategies. We do urge the planning group to provide for the review of as many of those revised plans as possible, particularly for the larger water user groups such as the City of Wichita Falls, to ensure that the adopted regional plan includes at least the level of water conservation and drought management called for in those updated plans.

Section 1.10 Summary of Recommendations
[11] Page 1-26: If Region B will have adequate supplies throughout the planning period, then why is the Chloride Control Project recommended as a regional water supply project? The purpose of the water planning process is certainly not to fully utilize all available water resources.

Section 1.11 Identification of Known Threats to Agriculture or Natural Resources
[12] Page 1-26: This discussion is far too general. There is no discussion of groundwater drawdown and associated affects to water quality, wells and springflows. There is no discussion of changes to natural instream flow conditions as compared to historic flows. As acknowledged on page 1-23, both mussel and minnow species are experiencing problems. There is no discussion of the impacts of impounding high chlorine waters from the Chloride Control Project. The loss of stream flows from those diversions likely would adversely affect some aquatic species. No mention is made of threats to agriculture resources.

TWDB may not approve a regional plan unless it is able to make an affirmative finding that the regional plan is consistent with long-term protection of the state's natural resources. See Texas

Water Code Section 16.053 (h)(7)(C). Without information provided on these issues, the Initially Prepared Plan simply does not provide the information necessary to support such a finding.

Sections 1.12 Water Providers in Region B and 1.13 Wholesale Providers in Region B
[13] Page 1-27 to 1-29: Although there is some information in Table 1-15 about some municipal Water Users in Region B, this section is sorely lacking in providing the information necessary to get a comprehensive picture of the water providers of Region B. Some of the major providers are listed in the text, but there is no information given about who they provide water to or how much water they provide to whom and for what use. There is also no information on who provides water for irrigation, manufacturing, electrical power, livestock or mining. In order to have a complete picture of all the water providers and users of Region B, and to determine what rules are applicable to various providers and users, this information is necessary.

CHAPTER 2: Population and Water Use Projections

Section 2.1 Region B Overview
[14] Page 2-1: The discussion about the rural nature of the region affecting projecting water conservation savings to be achieved through implementation of the plumbing fixtures code is confusing. State requirements affect the water efficiency of devices that are available for sale. Although it may well be true that a slower rate of new home construction or remodeling in some rural areas may delay full realization of those savings, fixtures in existing homes also will be replaced overtime. As a result, at least by 2060, the savings still can be expected to be realized.

[15] Page 2-1: For the purpose of transparency in the planning process, it should be mentioned in the text that Region B filed a formal request to change the water demand figures issued by TWDB, why this change was requested, and specifically what changes were made as a result of the request being approved by TWDB.

Section 2.3.1 Total Region B Water Use
[16] Page 2-3: It is stated here that one acre-foot of water is equivalent to 325,829 gallons. The TWDB publication *Water for Texas*- State Water Plan 1997 indicates that an acre-foot is equal to 325,851 gallons. Although likely not significant in the big picture, the discrepancy is confusing.

[17] Page 2-4: The figures and total listed in Table 2-2 for all Year 2000 water use categories vary significantly from those listed by TWDB as the 2006 Regional Water Plan Total Water Demand Projections for Year 2000. The total demand for Year 2000 reported by TWDB is 128,583 ac-ft and that in table 2-2 is 169,767. The TWDB figures suggest that the water consumption for the region is predicted to increase over the planning period, especially from Year 2000 to Year 2010, rather than remain approximately level as the IPP suggests. Again, the discrepancy should be explained. The same issue arises on page 2-6 and in Figure 2-4.

Section 2.3.4 Steam-Electric Power Generation
[18] Page 2-9: This demand appears to be potentially overstated. Water demand for steam electric power generation is projected to increase 125% during the planning period. By contrast, water demand for municipal use is projected to remain basically flat (with about a 10% increase in population) and for manufacturing water use is projected to increase about 40%. Given the

likelihood that these are the primary categories of use that would drive demand for electrical power, some additional explanation of the projected water demand is needed.

We recognize that these projections likely came from the Texas Water Development Board. The planning group may not be able to change them, but it could, and should, provide further explanation for this seemingly anomalous projected growth in water demand. We also note that the TWDB projections, as we understand them, include a projected .5% increase per year in per capita energy demand. Given advances in energy efficiency and escalating fuel prices, we question the reasonableness of the assumption of such continued escalation in per person use of electricity.

Attachment 2-1 Water Use Tables

[19] Table A-5: The water demand figures in this table for Year 2000 are inconsistent with the demand figures listed in Appendix A's Water User Group Summary tables for Archer City-Archer, Holliday-Archer, Lakeside City-Archer, Seymour-Baylor, Byers-Clay, Henrietta-Clay, Petrolia-Clay, Paducah-Cottle, Crowell-Foard, Chillicothe-Hardeman, Quanah-Hardeman, Bowie-Montague, Nocona-Montague, Saint Jo-Montague, Burkburnett-Wichita, Electra-Wichita, Iowa Park-Wichita, Wichita Falls-Wichita, Vernon-Wilbarger, and Olney-Young. It appears that the water user group summary tables were not updated to reflect changes to the TWDB water demand figures made by Region B, adopted 7/23/03.

[20] Tables A-6 to A-9: These tables also include many inconsistencies with their corresponding tables in Appendix A. It appears that the water user group summary tables were not updated to reflect changes to the TWDB water demand figures made by Region B, adopted 7/23/03.

CHAPTER 3: Evaluation of Current Water Supplies

Section 3.1.2 Sedimentation and Impacts to Reservoir Yields

[21] Page 3-11: The predicted sedimentation rate for Lake Kemp is very high. It appears that the projection is based on a 1976 study undertaken just after the lake was built. Given the extent of the predicted impact and the significance of the lake as a water supply, we believe that a sedimentation survey would be appropriate. As noted in Section 8.2.5, such a study has been initiated but not completed because of low water levels. It seems appropriate to note the pending study in this section. An assessment of sedimentation that has actually occurred since 1973 would give a much better basis for predicting future sedimentation rates. Obtaining updated information on sedimentation rates should be assigned a high priority in the regional plan.

Section 3.2.2 Groundwater Availability and Recharge

[22] Page 3-21: The IPP states that "mining of storage is not included in the groundwater availability estimates for the Seymour." On that same page, the IPP states that "[n]o recoverable storage from the Blaine Aquifer was included in the availability estimates." We support the apparent decision to adopt aquifer availability figures for the Seymour and Blaine Aquifers based on recharge, but in addition, we urge the planning group to include an allowance for protection of springs and seeps that contribute to surface flow .

[23] Page 3-22: The discussion on page 3-22 of the basis for determining availability from the Trinity Aquifer is quite confusing and needs to be clarified. Again, we urge the planning group to include an allowance for protection of springs and seeps that contribute to surface flow in determining groundwater availability.

[24] We urge the planning group to adopt a true sustained yield approach to groundwater management. It appears that the Initially Prepared Plan may advocate such an approach, but it is rather unclear. A sustained yield approach will provide groundwater of reasonable quantity and quality for many generations to come. Considering the importance of groundwater supplies to the people, agricultural resources and natural resources of Region B, this approach is needed. In addition, a sustained yield approach is needed in order to demonstrate that the regional plan is consistent with long-term protection of the state's water resources, agricultural resources and natural resources. *See* Tex. Water Code § 16.053 (h)(7)(C).

[25] Page 3-18 and 3-24: There are some statements in this section about determining groundwater availability:

> "Generally, groundwater supply is the supply available with acceptable long-term impacts to water levels. These impacts may vary with users and locations." (page 3-1), and
>
> "The average annual groundwater availability is the amount of water that could be reasonably developed from the aquifer. It is comprised of the annual effective recharge plus the amount of water that can be recovered annually from storage over a specified period without causing excessive drawdown or irreversible harm, such as subsidence or water quality deterioration." (page 3-19).

However, concerning how to determine groundwater availability, the TWDB guidance directs the planning group to:

> Calculate the largest annual amount of water that can be pumped from a given aquifer without violating the most restrictive physical or regulatory or policy conditions limiting withdrawals, under drought-of-record conditions. Regulatory conditions refer specifically to any limitations on pumping withdrawals imposed by groundwater conservation districts through their rules and permitting programs.

Based on this guidance, our understanding of groundwater availability determinations are that the region is to consider each of three different types of limiting conditions (physical, regulatory, and policy) and base availability determinations on the most restrictive. Thus, for example, pumping limits established by a Groundwater Conservation District may establish a regulatory condition that is more restrictive than physical conditions, such as subsidence or intrusion of poor quality water, and more restrictive than policy decisions, such as planned aquifer depletion. Conversely, a planning group's groundwater management policy of balancing withdrawals with a percentage of recharge might impose the most restrictive limit.

We are unable to locate in the text a clear groundwater management policy or a description of applicable regulatory conditions. Although there are two Groundwater Conservation Districts in Region B (Tri-County GCD in Hardeman and Foard Counties and the Rolling Plains GCD in Baylor County), neither entity, nor their regulatory conditions, are mentioned.

A clear explanation of the basis used in determined groundwater availability is needed. We request that the IPP be revised to include information on the regulatory, policy and physical conditions present for each groundwater source and which one served to establish the most restrictive limit that was then used to determine availability.

Section 3.4 System Operation and Reliability

[26] Page 3-25 to 3-26: It is stated in the text that "the region may be entering a new drought period that may surpass the historical drought of record and the firm yield may overestimate the available water supply." and that "This [safe yield] analysis [which assumes a one-year supply of water is reserved in the reservoirs at all times] has been commonly used for water resource planning in this region in the past." However, the text does not clearly state if this IPP calculates water availability on safe yield or firm yield for reservoirs. Whether this built-in cushion against future demands is included in the IPP is important information and needs to be made abundantly clear.

CHAPTER 4: Identification, Evaluation, and Selection of Water Management Strategies

Section 4.1.1 Evaluation of Safe Supply

[27] Page 4-4: It is stated that the Region B Water Planning Group decided to base water demand for municipal and manufacturing water user groups based on a "safe supply" approach, which is defined as being able to meet projected demands plus an additional 20 percent of demand. The "safe supply" approach is applied in addition to use of the "safe yield" calculation for area reservoirs. In addition, in the identification of supplies to be planned for, the "maximum need" was calculated by adding the highest need total for each water user group, regardless of decade of occurrence. For example, if one user group had a 100 acre-foot need in 2010 but that need was projected to disappear by 2030 and another user group had a 100 acre-foot need in 2030, the "maximum need" is listed as 200 acre-feet. In some instances, it may not be possible to offset the new supplies between the user groups, but it others it might. It does not appear that potential was assessed. It should be.

According to Table 4-3, the use of the "safe supply" calculation results in planning for the development of an additional 4,401 acre-feet of water for 2060. A totals row should be added to Table 4-3. With the addition of the "maximum need" calculation, the additional supply planned for would total 4,994 acre-feet.

There are at least four significant problems with the "safe supply" approach:

- The approach is **directly inconsistent with TWDB's rules** directing that the planning process be based on population and demand projections approved by TWDB. *See* 31 TAC § 357.5 (d). Region B's planning is based on 20% more than the approved projections.

- Region B's decision to reject the basic premise of using an agreed-upon planning target **undermines the value of the planning process**. The ongoing nature of the planning process involves successive plan revisions every five years. The very reason that plans are updated every five years is to allow for adjustments on an incremental basis. If recommended projects aren't moving forward when a future plan is adopted, recommendation of different strategies may be appropriate at that time. Similarly, if population and demand projections have changed at that point, appropriate adjustments in recommendations should be made. Planning should be based on the best demand projections currently available.

- Water is a limited resource in the state. It must be shared equitably. Using common assumptions for planning across all planning regions is one way to help achieve that equity. **If all regions plan consistently, then no one region should end up using state money or permits to develop or implement a plan that calls for laying claim to an undue portion of the state's limited water resources.** Nor does a possible future drought worse than the drought of record justify planning for excess supply. In fact, SB 1 is quite specific in directing the use of the "drought of record" as the appropriate target for planning. *See* Tex. Water Code Ann. § 16.053 (e)(4).

- **Region B's approach completely discounts the role of drought management.** As noted elsewhere in these comments, Region B failed to include drought management as a water management strategy. Thus, Region B bases all of its planning on always having a 20% surplus of supply in place to meet even the most non-essential demand during a recurrence of critical drought conditions. That results in the investment of money for supply sources that are projected to be needed, if at all, extremely rarely. The planning group never considers whether it might make more sense economically to spend money on drought management. Various forms of drought management are required by law and they will result in lowering water demands during drought periods. In addition, more expansive forms of drought management could be employed. For example, a voluntary program might be used that would involve dry-year options. During drought conditions, municipalities could pay farmers not to irrigate so that the water would be available for municipal uses. The farmers would be paid from funds the municipality saved by not having to develop a new water supply. Also, other than the initial fee to purchase the option, the larger expenses are incurred only when a serious drought occurs. This type of approach has been used to a limited degree in the Edwards Aquifer.

The "safe supply" approach stated in the Initially Prepared Plan for planning for demand in excess of projections does not meet regulatory requirements, undermines the planning process, is not equitable, and will waste money.

Section 4.2.1 Evaluation Procedures

[28] Page 4-15: To suggest that providing a quantitative assessment of environmental factors is fulfilled by assigning each strategy a low, medium or high impact rating is unacceptable. The text goes on to say that "[i]f a strategy is selected, a more detailed environmental evaluation may be required." Although it is true that more detailed analyses are required during various permitting or funding processes, that does not satisfy planning requirements. The purpose of

requiring a quantitative assessment of environmental factors for each water management strategy being considered is to use that information in making the decision of which water management strategy to recommend. The planning process is designed to foster a careful comparison of potential strategies so that cost-effective and environmentally appropriate approaches are recommended. *See* 31 TAC § 357.5 (e)(4). A meaningful quantitative assessment is necessary in order to ensure long-term protection of state's water resources, natural resources, and agricultural resources.

[29] Page 4-16: There is reference here to Attachment 4-1 at the end of the chapter, which is "an evaluation of the potentially feasible strategies in Region B." and Attachment 4-2 which is the associated costs for each strategy. However, water conservation is totally absent from both these attachments. Providing a comparison of the impacts and costs for water conservation is necessary for illustrating the advantages of more aggressive water conservation measures and for ensuring a more balanced comparison of available strategies. It also is expressly required by Section 357.7 (a)(8)(E) of the TWDB rules. Moreover, one of the basic tenets of regional water planning is that all potentially feasible water management strategies are evaluated "so that the most cost effective water management strategies which are environmentally sensitive are considered and adopted unless the regional water planning group demonstrates that adoption of such strategies is not appropriate." 31 TAC § 357.5 (e)(4). Water conservation must be given equal attention to other water management strategies when evaluating supply options to ensure compliance with that basic requirement.

Section 4.2 Conservation

[30] Page 4-18: The text notes that most of the projected savings from water conservation actually are associated with accounting for the impacts of federal requirements for improved efficiency for clothes washers. Certainly, it is important to account for those savings in order to have accurate projections and the planning group deserves credit for doing so. However, **savings from clothes washer efficiency will also occur in Byers, Lakeside City, and Montague County-Other categories, regardless of current per capita use rates.** They wash clothes too. **Accordingly, Table 4-9 should be revised to account for those savings.**

[31] Page 4-18: If most of the water savings resulting from the Region B water conservation package is from passive clothes washer replacement, the savings should occur fairly evenly over the decades. That does not appear to be the case, particularly for Vernon and Wichita Falls. Those entities are shown as achieving a large percentage of the total savings in one or two decades. That seems counterintuitive and should be explained.

[32] Footnote 1 to Table 4-9 is confusing. It states that no savings are assumed as resulting directly from water audits because savings are associated with system improvements occurring as a result of the audits. However, it is not clear if savings from any system improvements are included in the Table 4-9 totals. It is not reasonable to assume that system audits will identify leaks that will go completely unaddressed. Some amount of savings from system audits, including improvements, should be included and the amounts should be clearly explained.

[33] Information is needed about the water savings associated with each of the individual practices included in the "recommended municipal conservation package." What savings are

assumed to occur as a result of the "public and school education" practice? Similarly, the amount of savings projected to occur as a result of the "water conservation pricing" practice should be stated. These "active" strategies should be explained and the savings calculated separately from the "passive" strategy of clothes washer efficiency. The savings from active strategies will happen only with deliberate implementation action. Accordingly, it is important to have clear information about the action that is needed.

[34] Page 4-19: Table 4-11 lists projected costs for municipal water conservation strategies. Some information is needed about the basis for these cost estimates.

Section 4.2.3 Municipal Water Strategies

[35] Page 4-26: In discussing the environmental impacts of the reuse option for the City of Bowie, the IPP fails even to acknowledge the issue of impacts to instream flows. A quantitative analysis of potentially feasible strategies including "effects on environmental water needs" is expressly required by Section 357.7(a)(8)(A)(ii) of the Texas Water Development Board's rules. There is a passing reference under other headings on a "low to moderate effect on the receiving stream." This may be intended to address the environmental flow issue. However, some quantitative information about the extent of those flows and the comparative extent of the reuse is required. There simply is not adequate information provided to assess the significance of the potential impacts.

[36] Page 4-36: The discussion of potential environmental impacts of the options considered for the City of Wichita Falls is highly inadequate. Both of these are large-scale projects with corresponding potential for large-scale impacts. A quantitative analysis of potentially feasible strategies including environmental factors such as "effects on environmental water needs" is expressly required by Section 357.7(a)(8)(A)(ii) of the Board's rules. That quantitative analysis is lacking. No information is provided about the stream reaches that would be affected. No quantitative information is provided about the potential impacts on flows.

[37] Page 4-43: The evaluation of potential impacts on environmental factors for the canal system improvements and the raising of the Lake Kemp conservation pool are highly inadequate. Conversion to a closed pipeline system undoubtedly would impact natural resources in the area because the canals provide a water source and aquatic habitat. Some discussion of those impacts is required. Similarly, raising the conservation pool would affect flows downstream of Lake Kemp. The IPP simply does not provide sufficient information to allow for an informed assessment of those impacts.

These comments on canal system improvements and raising the Lake Kemp conservation pool are not intended as criticisms of these two underlying strategies. They both may hold great promise. However, more information is needed. In particular, a new sedimentation survey is needed before a reasonable assessment of the appropriateness of raising the conservation pool on Lake Kemp can be undertaken. In fact, without such a survey, serious legal questions would arise about the availability of the option of raising the conservation pool and the impacts on downstream water rights.

Section 4.2.7 Regional Water Strategy Chloride Control Project
[38] Page 4-45: As we understand this project, it does not meet a water supply need. If the regional planning group does intend to include this as a water management strategy for meeting a water need, it requires further explanation. In addition, more quantitative information about the potential impacts is required. The discussion on pages 4-53 and 4-54 provides a useful summary of environmental issues. However, that discussion is wholly lacking in quantitative information. Presumably, that quantitative information is available in the referenced environmental impact studies and should be summarized here.

[39] We also so encourage the evaluation of an alternate approach that relies on land stewardship measures to help address both water quality and quantity issues in Lake Kemp. Certainly brush control often is a part of land stewardship but the concept is much broader than just brush control. Information about land stewardship practices can be found at the Texas Wildlife Association website: http://www.texas-wildlife.org/PDFs/Stewardship%20II%20-%209.5.04-WEB1.pdf. The IPP discusses and endorses land stewardship at pages 8-3 and 8-4. However, that discussion is heavily focused on brush management and the potential for yield enhancement. Brush management certainly has a place in water management in Texas, but it must be undertaken carefully. We believe that a strong and broad land stewardship program also has the potential to yield great benefits in terms of controlling sedimentation rates for area reservoirs.

[40] Omission from Chapter 4: As required by 357.7 (a)(7)(B) of TWDB's rules, **drought management is a water management strategy that must be evaluated**. That provision, along with Section 16.053 (h)(7)(B) also requires that drought management be included as a water management strategy for each entity required to prepare a drought management plan pursuant to Section 11.1272 of the Water Code.

Although the planning group may decide, provided it documents the basis for that decision, not to include drought management as a water management strategy *beyond* those measures specifically required by Section 11.1272, it must *at least* include the Section 11.1272 level of drought management as a water management strategy. **SB2 made inclusion of drought management measures at least at the level required by Section 11.1272 a mandatory prerequisite for approval by TWDB of a regional water plan.** See Tex. Water Code Ann. § 16.053 (h)(7)(B). The initially prepared plan does not comply with that requirement. **For each entity required to prepare a drought contingency plan pursuant to Section 11.1272, the water plan must include a water management strategy reflecting the drought period savings from that drought plan.**

CHAPTER 5: Impacts of Selected Water Management Strategies on Key Parameters

Section 5.3 Impacts of Region B Water Management Strategies on Key Water Quality Parameters
[41] Page 5-8: Water conservation is missing from the list of preferred water management strategies. It certainly is true that water conservation measures generally will not have significant adverse impacts. However, it is important that the plan note the absence of such impacts. As acknowledged elsewhere in the Initially Prepared Plan and in TWDB rules, water conservation is a water management strategy. Providing a comparable discussion of impacts for water

conservation is necessary for illustrating the advantages of more aggressive water conservation measures and for ensuring a more balanced comparison of available strategies. It also is expressly required by Section 357.7 (a)(8)(E) of the TWDB rules. One of the basic tenets of regional water planning is that all potentially feasible water management strategies are evaluated "so that the cost effective water management strategies which are environmentally sensitive are considered and adopted unless the regional water planning group demonstrates that adoption of such strategies is not appropriate." 31 TAC § 357.5 (e)(4). Information about the environmental sensitivity of water conservation measures is necessary to ensure compliance with that basic requirement.

CHAPTER 7: Description of How the Regional Water Plan is Consistent with Long-Term Protection of the State's Water Resources, Agricultural Resources, and Natural Resources

[42] One of the key changes that SB2 made to the water planning process was to create a specific statutory criterion mandating that a regional water plan may not be approved by TWDB unless it is shown to be consistent with long-term protection of the state's water resources, agricultural resources, and natural resources. The Initially Prepared Plan devotes just over five pages to the discussion of that consistency. Although we certainly acknowledge that quality of discussion is more important than quantity, both are lacking here.

CHAPTER 8: Recommendations Including Unique Stream Segments, Unique Reservoir Sites, and Legislative and Regional Policy Issues

Section 8.2 Discussion of Regional Issues
[43] Page 8-2: It is stated that "it is the intention of the RWPG that surface water uses that will not have a significant impact on the region's water supply and water supply projects that do not involve the development of or connection to a new water source are deemed consistent with the regional water plan even though not specifically recommended in the plan." In concept, we understand the rationale behind this statement. However, it is problematic. Increased use of existing water sources also have the potential for significant impacts and must be separately assessed as part of the planning process. On the other hand, minor projects such as repair of treatment plants, storage tanks, and the like should not require such a review. We are not aware, however, that those types of projects have been held up as a result of consistency issues. We do support the creation of an expedited amendment process for regional plans to allow carefully defined "minor amendments" to be made through simplified procedures.

Section 8.2.1 Chloride Control Project
[44] Page 8-2: It is stated that the "Chloride Control Project on the Wichita and Pease Rivers is a water management strategy with high regional support." This is a subjective statement and neglects to mention that both the U.S. Fish and Wildlife Service and the Texas Parks and Wildlife Department have both formally expressed concerns over the environmental impacts of the CCP.

Section 8.3.1 Unique Stream Segments
[45] Page 8-7: It is stated that it is not clear what governmental or private activities, other than reservoir construction, might be subject to additional constraints or limitations as a result of

designation of unique stream segments, and it is not clear what geographic extent might be impacted by the designation, and therefore, Region B Water Planning Groups suggests that the Legislature may wish to clarify their intent regarding designations. The Texas Legislature acted definitively in expressly limiting the legal effect of such designations: "This designation solely means that a state agency or political subdivision of the state may not finance the actual construction of a reservoir in a specific river or stream segment designated by the legislature under this subsection." Tex. Water Code Ann. § 16.053 (f). It is difficult to imagine how that language could be made more clear other than by stating that it only means that one thing. The regional group has the latitude to recommend the extent of the river or stream segment recommended for designation.

Section 8.3.2 Reservoir Sites

[46] Page 8-7 and 8-8: Although it is stated in the Summary of Regional Recommendations on page 8-10 that no unique reservoir sites are being formally recommended at this time, the Ringgold Reservoir Site and its estimated water supply are mentioned in this section. We believe such designations should proceed carefully and support the planning group's decision not to recommend designation. Because there are private property concerns inherent in unique reservoir site designations, any recommended designation that might be considered in the future should include enough information about the boundaries of the area proposed for designation to allow a landowner to know if his or her property would fall within the area.

Section 8.5 Summary of Regional Recommendations

[47] Page 8-11: The basis for the recommendation that the gallons per capita per day (gpcd) calculation of water use be based on residential use is unclear. This recommendation conflicts with the evaluation and recommendation of the Water Conservation Implementation Task Force on this issue. In addition, using only residential use to calculate gpcd would be a poor measurement of per person water use because it wouldn't include the water we each use in our workplaces and other public places we spend much of our time, such as restaurants, hospitals, etc. There are significant opportunities for water conservation in all of these venues, so to not include them in gpcd measurements allows no means for comparing the implementation and effectiveness of these.

[48] A concern was raised at one of the planning group's public meetings that the gpcd measurement wasn't fair to Region B because some people use municipal water supplies to fill their cow troughs, and cows use more water than people. However, a comparison of gpcd water usage rates in Region B's more rural areas to the largest urban area (see below), indicates that water use in the urban area is significantly higher. Thus, the use of municipal supplies for small-scale livestock watering does not appear to be a major factor. In addition, there is no particular reason to believe the issue is so unique to Region B that it skews any potential comparison.

Year 2000				
Water User Group	**Population**	**% of Region's Population**	**Municipal Demand (ac-ft/yr)**	**Gallons per Capita per Day**
Wichita Falls-Municipal	104,197	51.6%	23,053	198 GPCD
Rest of Region B-Municipal	97,773	48.4%	18,202	166 GPCD

CHAPTER 10: Adoption of Plan

Section 10.6 Public Participation

[49] Page 10-6: The public hearings held to date by Region B have been scheduled during normal business hours and have had poor public turn-out. It is often difficult for people to take time off from work to attend public hearings. We would encourage the Planning Group to consider holding future public hearings outside of typical business hours to try to boost attendance at these important events.

[50] Page 10-6: Although the three-member Technical Advisory Committee could be seen as beneficial because they neutralized controversial issues before they were brought to the RWPG, the existence of such a group can also work against the intended nature of an effective public process. The RWPGs were intentionally set up to include representatives from many different walks of life so that each can bring their unique perspective and point-of-view to the table in discussing issues concerning this shared resource. If the TAC performs the function of making decisions before they are brought before the RWPG, then this has the effect of limiting the discussion by the RWPG and the consideration of different points of view that might be aired if allowed to occur in the context of the larger group. As a result, there was often very little discussion of many issues presented to the RWPG, perhaps in part because most decisions had a forgone conclusion. In addition, because the meetings of the Technical Advisory Committee were not announced to the public, there was no opportunity for public involvement in the discussion or decisions of the TAC.

Thank you for your consideration of these comments and please feel free to contact us if you have any questions. We look forward to a continuing positive dialogue with the planning group during this and future planning cycles.

Sincerely,

Myron Hess	Mary Kelly	Ken Kramer
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