September 19, 2005

Mr. Jonathan Letz, Chairman
Plateau Water Planning Group (Region J)
700 Main Street
Kerrville, Texas 78028

Re: Comments on Initially Prepared 2006 Regional Water Plan for Region J

Dear Mr. Letz and 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 Regional Water Plan for Region J. 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 a better plan for all residents of Region J and for all Texans.

We do recognize that the draft 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. In fact, given the incompleteness of the initially prepared plan (IPP) – the executive summary, Chapter 4, and Chapter 7 are not complete in the IPP version dated June 1, 2005 and made available for comment - we specifically request that a mechanism be established to accept comments on these sections once a draft is available. Chapters 4 and Chapter 7 are critically important, especially as they relate to protection of natural resources in the region. Public review and comment is a critical component of the planning process. A reasonable opportunity for the public to review and comment on these sections of the plan is required. We look forward to discussing this issue with you.

Our organizations appreciate the amount of effort that has gone into developing the draft Plan for Region J. 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 (SB1, SB2), 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 reasonable 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 that likely will produce more controversy than water supply.

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 SB2 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. Key principles that inform our comments are summarized below, followed by specific comments keyed to different aspects of the initially prepared plan.

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 SB2 and TWDB rules since the first round of planning mandate strengthened consideration of water efficiency. 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 SB2, 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

[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

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).

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.

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 vast sums of money to develop new supply sources simply to meet those nonessential demands during rare drought periods.

C. Plan to Ensure Environmental Flows

Although critically important, designing and selecting new water management strategies that minimize adverse impacts on environmental flows is only one aspect of planning to meet environmental flow needs. 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 additional impacts. However, 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.

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.

[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).

D. 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. Generally speaking, depleting groundwater sources will not be consistent with long-term protection of the state's water resources, natural resources, or agricultural resources. This is especially important given the value, both economic and esthetic, that the region's population places on its springs, and the essential role that the region's groundwater resources play in supporting the water needs of the region.

E. Facilitate Short-Term Transfers

Senate Bill 1 directs consideration of voluntary and emergency transfers of water as a key mechanism for meeting water demands. Those approaches seem to have received little attention in the planning process to date. 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 mechanisms for facilitating 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 S.B. 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 mechanism 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.

III. PAGE-SPECIFIC COMMENTS

EXECUTIVE SUMMARY

The executive summary may well be the only portion of the water plan that many members of the public will read. For this reason, it is important that it be made available for public comment prior to the finalization of the plan.

CHAP. 1, Plateau Region Description

Section 1.2.8. This section contains a good overall discussion of the agricultural and natural resources of the region. However, in order to adequately evaluate the proposed water management strategies (WMS) (as required by §357.7 (a)(8)(C)) and to identify threats to the agricultural and natural resources in the region (as required by §357.7 (a)(1)(L)), it is important that the plan include a reasonably detailed discussion of the various types of habitats present in the region (e.g., spring-fed aquatic and terrestrial, riparian, etc.), and key species dependent on them. 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 1.2.8, Page 1-18, 2nd paragraph. It seems from this discussion that the only water quality threat to the natural resources of the region is the effect that significantly long drought conditions can have on both plant and animal species. While the plan does concede that there is a recognized concern in the region "of the effect that future development of water supplies might have on the diversity of species in the region", it does not specifically identify what these threats might entail, e.g., increased groundwater withdrawals and potential impacts on springflow and base flows to local rivers and streams, changes to natural flow conditions, etc. In addition, it is important to note that not just the diversity of the species is at risk, but associated habitat ranges, individual species abundance, etc.

Section 1.4.3, Page 1-31, 2nd paragraph. TWDB rules (§ 357.7 (a)(1)(D)) require a description of the region's major springs that are important for "water supply or natural resource protection" purposes. Th identification of springs important for natural resource protection is a new requirement applicable for this round of planning. It is unclear what criteria the group used to classify major springs in the region, apart from their importance as a municipal water supply. As the IPP acknowledges, the region has a wealth of springs that play an important role in supporting natural resources at and near the spring opening and in maintaining base flows of streams and rivers.

The group did a good job of including general information regarding the importance of springs in the Region throughout the plan. And the inclusion of Figure 1-11 – *Location of Documented Springs* – is helpful for an overall perspective on the prevalence of springs in the region.

However, it is difficult to realistically quantify the value and extent of springflow in the region without descriptions and estimations of their general nature, i.e. relative flow rates, associated aquatic and wildlife habitats, etc. We acknowledge that this level of information is probably not known for each spring shown on Figure 1-11, but a generalized overview of the range of these qualities for the springs identified would also be useful. This is especially important for use in evaluating the proposed water management strategies for impact on springflow in the region.

Section 2.3.1, Page 2-5, second-last sentence of 1st paragraph. Although we acknowledge the importance of recognizing water demands resulting from seasonal vacationers, hunters, and absentee land-owner homes, we believe the current methodology provides a reasonable mechanism for doing so. The current levels of water demand from those users are reflected in the year 2000 water-use numbers. When those use rates are multiplied by the projected population growth, the same ratio of water use for those users would seem to be included. If the ratio of those users to the normal population changes dramatically in the future, some adjustment likely would be appropriate. However, with each new planning cycle those ratios basically are automatically adjusted as new water use figures become available.

At any rate, we certainly don't support the adoption of an open-ended process for adjusting populations. Frankly, we suspect it would result in a "bidding war" as various growth proponents in the different regions sought to ensure as much water as possible for their particular region by raising the population projections.

Section 2.4, Page 2-11, 3rd paragraph. The discussion notes that the expected savings as a result of the installation of water-efficient devices in compliance with the state plumbing code are included in demand projections. We request that information about the assumed savings from those fixtures be included in the plan. We believe that is valuable information to help the public understand those savings.

Section 2.5, Page 2-23. This section includes useful information. While the discussion focuses on the competition between human uses and environmental uses, we also believe that the environmental and recreational water needs discussed here support human activities rather than just compete with human water use. For example, many people make all or part of their living by providing services for people undertaking recreational activities that are directly dependent on having adequate water in area springs, streams, and rivers. Adequate environmental flows also serve to protect water quality and to ensure the availability of water in streams and rivers for domestic and livestock uses.

Thus, while it is important to consider the impact of water management strategies on environmental flows, we also believe the plan should recognize environmental flows as a category of water need and should affirmatively plan to meet that need. See, for example, the initially prepared plan for the Lower Colorado River Region, which recognizes environmental flows as a category of water demand on page 2-19.

CHAP. 3, Regional Water Supply Sources

Section 3.2.7, Page 3-9. The plan defines groundwater availability as "a maximum level of aquifer withdrawal that results in an acceptable level of long-term aquifer impact such that the base flow in rivers and streams is not significantly affected beyond a level that would be anticipated due to naturally occurring conditions." This statement is somewhat vague and could easily be misinterpreted. Major adverse impacts occur as a result of naturally occurring conditions during drought periods. The area does suffer from prolonged droughts where aquifer levels and associated outflows from the aquifer (i.e. springs, seeps, baseflows) decline in response. But, serious droughts occur fairly rarely and for comparatively short durations and the natural systems are able to recover when drought conditions dissipate. Any additional large-scale withdrawals from the aquifer on a continual basis, other than what is naturally flowing out via springs, seeps, or through baseflows, would eventually advance the aquifer system to an unnaturally occurring condition.

Accordingly, the plan needs to qualify this statement by including what the long-term aquifer impact is projected to be – to the extent possible- given the chosen groundwater availability. If, increased groundwater withdrawals would impose drought-level impacts on the springs, seeps, and rivers on an ongoing basis, that likely would cause major adverse impacts on natural resources in the region. Accordingly, the issue requires further discussion.

Page 3-11, 1st paragraph. The plan states that the group identified reasonably acceptable levels of impact to surface water drains. It is important to state up front what these availability assumptions were (i.e., what impacts are considered acceptable) and include estimations of changes in aquifer storage and/or impacts to regional spring flows and baseflows to area rivers and streams based on these assumptions.

Section 3.2.7, Pages 3-9 through 3-11. 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, groundwater district pumping limits 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 policy condition of balancing withdrawals with a percentage of recharge might impose the most restrictive limit.

At any rate, we would request that the planning group provide more information about the process by which the availability decisions were made and, specifically, about what type of condition served to establish the most restrictive limit.

CHAP. 4, Water Management Strategies

Section 4.2, Figure 4-1, Page 4-6. This figure shows that the group identified potentially feasible strategies to meet identified needs. It is unclear why these initial lists of strategies were not included, or identified, in the text as it is necessary to have that information in order to follow the group's choices for recommended strategies.

Section 4.4, Table 4-2, Page 4-7. It is unclear whether this a listing of potentially feasible strategies or of recommended strategies. The caption should make that clear. The table is very incomplete. There is a need to clarify in the table, or elsewhere, which strategies are for which WUG and fill in the missing information. Additional background information is also needed on each of the strategies. For example: What does each of these strategies entail? Will they all be used simultaneously to fulfill demands? What are the timelines for implementation? How much water will be supplied by each strategy? As required by 357.7 (a)(9) of TWDB's rules, the plan must include specific recommendations of water management strategies to meet the needs **in sufficient detail** to allow state agencies to make financial or regulatory decisions to determine the consistency of the proposed action before the state agency with an approved regional water plan.

Given that this table and associated chapter is critically important for understanding the proposed strategies and for assessing the implications for the protection of natural resources in the region, as stated previously, we request that a mechanism be established to accept comments on this chapter once a complete draft is available.

By rule, (§ 357.7 (a)(8)(A)(ii)), the environmental impacts of each potentially feasible strategy must be evaluated quantitatively, including a description of the potential impacts to the major springs in the region. If this level of evaluation was completed to construct this table, the associated information should be included in the plan.

Drought Management Measures. 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. Drought management does not appear in Table 4-2. 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 include at least 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 – all three of the municipal

WUGs identified with needs in the region - the water plan must include a water management strategy reflecting the drought period savings from that drought plan.

Conservation Measures. Water audits and loss audits are largely a reflection of compliance with new legislation. House Bill 3338, passed in 2003, requires all retail public utilities to perform water audits. That requirement is codified in Section 16.0121 of the Texas Water Code and explained in a TWDB publication entitled "Water Loss Manual." Thus, it appears that public education is the only conservation measure recommended or evaluated (as noted above, it is not clear whether Table 4-2 lists potentially feasible or recommended strategies) that is not already mandated by other laws for all three of the WUGs with needs. We certainly support educational activities as important water conservation measures that should be included. However, there are additional fundamental steps that also should be included.

As a conservation goal, Region L's plan includes recommended reductions for all municipal water user groups (WUGs): for those with water use of 140 gpcd and greater, a reduction of per capita water use by 1 percent per year until the level of 140 gpcd is reached; and for those with water use of less than 140 gpcd (and those reaching 140 gpcd through the 1% per year reduction), a reduction of per capita use by one-fourth percent (0.25) per year for the remainder of the planning period. This goal would be particularly beneficial for both Kerrville and Camp Wood, both with per capita consumption rates greater than 140. For guidance on conservation strategies, other than public education, that could be recommended to meet the needs of Camp Wood and Kerrville, potentially feasible strategies and their associated demand reductions and costs can be found in the GDS Associates study *Quantifying the Effectiveness of Water Conservation Techniques in Texas,* March 2002.

For comparison, here is an example of cost data for municipal water conservation from the Initially Prepared Plan for Region L and estimates of cost data from the GDS Associates study for Region J.

Cost data for individual water conservation measures (=individual Best Management Practices)

Region L

measure	Cost per ac-ft of water saved*
urban, single family Toilet Retrofit	$396
urban, single family Showerheads and Aerators	$82
urban, single family Clothes Washer Rebate	$757
urban, multi family Toilet Retrofit	$352
urban, multi family Showerheads and Aerators	$47
urban, multi family Clothes Washer Rebate	$575
suburban, single family Toilet Retrofit	$478

suburban, single family Showerheads and Aerators	$99
suburban, single family Clothes Washer Rebate	$913
suburban, multi family Toilet Retrofit	$310
suburban, multi family Showerheads and Aerators	$42
suburban, multi family Clothes Washer Rebate	$575

Region J

measure	Cost per ac-ft of water saved**
rural, single family Toilet Retrofit	$477
rural, single family Showerheads and Aerators	$137
rural, single family Clothes Washer Rebate	$947
rural, multi family Toilet Retrofit	$356
rural, multi family Showerheads and Aerators	$66
rural, multi family Clothes Washer Rebate	$553

notes:
* Cost estimates taken from the Region L IPP. Region L costs are amortized at 6% over the projected length of service on the measure (e.g., toilet service life = 25 years).

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** Cost estimates taken from *Quantifying the Effectiveness of Water Conservation Techniques in Texas,* GDS Associates, March 2002. Region J costs are amortized at 5%.

Cost data for water conservation program (=assemblage of measures)

Region L

program	Cost per ac-ft of water saved*
Rural	$396
Urban	$458
Suburban	$520

note: * Region L costs are amortized at 6% over the projected length of service on the measure (e.g. toilet service life = 25 years).

Chapter 5. Water Quality Impacts and Impacts of Moving Water from Agricultural Areas

The rules require a description of the major impacts of recommended water management strategies on key parameters of water quality. This chapter seems to focus more on how the quality of the source water may potentially impact the recommended water management strategies. Table 4.2 includes a ranked scale of potential impacts to key water quality parameters, however without additional background information and details on the impact assessment, it is impossible to adequately assess the proposed strategies. For example: Which water quality

parameters are affected by the proposed strategies? Did the group assess how increased groundwater withdrawals may impact surface water quality? For these reasons, the background information used to make these qualitative rankings should be included in the text of the plan.

Section 5.6, Page 5-25. This section states that there is not expected to be any impacts to water quality from the proposed WMSs. This is not consistent with the "low" ranking that all of the WMS' received in Table 4.2.

Chapter 6. Water Conservation and Drought Contingency
Section 6.6, Page 6-13. Please include the website address for these forms. We assume that the "Word Perfect"/"PDF" references were originally hyperlinks to the forms.

Section 6.7, Page 6-15. Same comment as above.

Appendix 6B. Model Water Conservation Plans. The documents included here appear to be water conservation plan forms rather than model conservation plans. We believe that a model plan must include examples of the water conservation measures the planning group considers to be appropriate. For example, the model plan should reflect the best features of the various example plans included in Appendix 6A.

Appendix 6C. Model Drought Contingency Plans. The documents and information included here provide more information and guidance than that included in Appendix 6B. However, we still believe that a model plan should be included with examples of the drought period savings the planning group considers to be appropriate.

Chapter 7. Plan Consistency
It is impossible to review this chapter in its current, incomplete form. Given that this chapter is critically important for the protection of natural resources in the region, as stated previously, we request that a reasonable mechanism be established to accept comments on this chapter once a complete draft is available.

As you know, the Texas Legislature, in recognition of the key importance of this information, specifically provided that TWDB may not approve a regional water plan absent an affirmative finding that the plan is consistent with long-term protection of the state's water resources, agricultural resources, and natural resources. See Texas Water Code Section 16.053 (h)(7)(C).

Chapter 8. Recommendations
It is disappointing to see that the Planning Group has again declined to recommend any streams for designation as unique stream segments. 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 much clearer than stating that it only means that one thing. Despite the lack of recommendations, we appreciate the inclusion in the Appendix of information about the segments suggested for consideration by the Texas Parks and Wildlife Department.

Section 8.2.2 Conservation Management of State-Owned Lands. This recommendation makes a lot of sense.

Section 8.4.5 and 8.4.6, Page 8-11. We are assuming that the planning group is referring to these as benefits for all RWPGs. If this is true, the specific reference to the "Plateau Regional Water Planning Groups" should be removed and replaced with just "Regional Water Planning Groups."

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 relationship with the planning group during this and future planning cycles.

Sincerely,



Myron Hess	Mary Kelly	Ken Kramer
National Wildlife Federation	Environmental Defense	Sierra Club, Lone Star Chapter

cc: Ernest Rebuck, Region J liaison, TWDB
Bill Mullican, TWDB
Cindy Loeffler, TPWD
John Ashworth, LBG-Guyton Associates