

July 7, 2005

Definition of Sustainability Subcommittee Report

The subcommittee met March 23, 2005 at KRVN in Lexington. Present at meeting were Ron Bishop, Eugene Glock, Jack Maddux, Claude Cappel, Robert Ambrozek, from the Task Force, Jim Goeke from the University and Jim Cannia, Paul Koester, Jennifer Schellpeper and Ann Bleed from DNR. A second conference call was held on July 7. Present on the call were Robert Ambrozek, Jack Maddux, Claude Cappel, Ron Bishop, from the Task Force and Paul Koester, Jennifer Schellpeper, Jim Cannia and Ann Bleed from DNR.

The committee first discussed LB 962's definition of "sustainability". Section 46-715(2) (a) the statute states that an integrated management plan shall include ...

"clear goals and objectives with a purpose of sustaining a balance between water uses and water supplies so that the economic viability, social and environmental health, safety, and welfare of the river basin, subbasin, or reach can be achieved and maintained for both the near term and the long term;"

The subcommittee noted that the key was maintaining a balance between uses and supplies. When such a balance is achieved the total recharge to the system from precipitation and surface and groundwater inflows match the outflows due to surface and groundwater flows leaving the system and evapotranspiration and other consumptive uses resulting human activities and natural causes. A system in balance will also have groundwater table elevations and stream flows that, although they will vary due to climatic cycles, will not be declining over the long term.

They also noted that although achieving this balance is a necessary condition for maintaining the economic viability, social and environmental health, safety, and welfare of the river basin, subbasin, for both the near term and the long term, it is not a sufficient condition. Maintaining a viable economy also depends on many other factors that are well beyond the management scope of LB 962.

The committee also discussed the fact that this goal alone does not protect existing uses. It would be possible for the basin as a whole to be in balance but still have localized areas where stream flows and water tables were declining. However, Section 46-715(3) of the statute states that

"the ground water and surface water controls proposed for adoption in the integrated management plan shall, when considered together and with any applicable incentive programs... protect the ground

water users whose water wells are dependent on recharge from the river or stream involved and the surface water appropriators on such river or stream from stream flow depletion caused by surface water uses and ground water uses begun after the date the river basin, subbasin, or reach was designated as overappropriated or was preliminarily determined to be fully appropriated.”

The subcommittee further concluded that although there are uncertainties related to our ability to precisely determine the quantities of available water supply and use, the available analytical tools, such as groundwater models, will allow us to make reasonable estimates of water supplies and uses that will suffice for the development of successful integrated management plans. They also noted, however, that it will be very important for the plan to establish appropriate monitoring protocols to learn more about the system. If the plan is to successfully achieve the stated goals, the plan must also be able to be amended as needed to adapt to new information or changing conditions.

Based on this discussion, the subcommittee decided that the “definition of sustainability” in the law did not need to be changed.

The subcommittee also discussed the problem related to the Republican River Basin, which is not considered to be overappropriated under the law, but in which, it is generally agreed, current uses exceed the supplies. Although the subcommittee agreed that the existing goal of sustaining a balance between uses and supplies was sufficiently defined, the subcommittee was concerned that there was no limit on the amount of time it could take to achieve the balance between supplies and uses in the Republican Basin.

The subcommittee also noted there may be other basins or parts of basins in the state that would not be legally considered to be overappropriated but in fact were areas where uses exceed supplies. The committee discussed the need to also address these basins, but decided it would be better to limit their potential recommendations to the case of the Republican River Basin.

The subcommittee developed three options to address the concerns related to the Republican Basin, but did not agree on any one option. The subcommittee discussed the first two options as if they would be added to the current statutes. However, it would probably be possible to incorporate all three options into an integrated management plan without any further changes to the law.

Option 1: Adapt the language pertaining to overappropriated basins to the needs of the Republican River Basin.

This option would be to insert into the law the following language, taken almost directly

from the language pertaining to the overappropriated basin. Bolded language indicates pertinent differences.

(4)(a) **Within 3 years of adopting a plan for an area covered by a three state interstate compact**, the DNR and the NRD shall identify any overall differences between the current and fully appropriated levels of development in the basin, sub-basin or reach. Such determination shall take into account cyclical supply, including drought, and identify the portion of the overall difference between the current and fully appropriated levels of development that is due to conservation measures.

- (i) (b) If it is determined that there is an overall difference between the current and fully appropriated level of development and the level of current uses is greater than the supply, **then the district shall address 100 percent of the difference between current and fully appropriated levels of development within 10 years following the identification of the difference between the current and fully appropriated level of development. A certain percentage of the difference shall be addressed every year starting with year one of the plan.**
- (ii) The department and the affected natural resources districts may amend an integrated management plan subject to this subsection (4) as necessary based on an annual review of the progress being made toward achieving the goals for that increment;
- (iii) During the ten years following adoption of an integrated management plan developed under this subsection (4) or during the ten years after the adoption of any subsequent increment of the integrated management plan pursuant to subdivision (b)(iv) of this subsection, the department and the affected natural resources districts shall conduct a technical study analysis of the actions taken in such increment to determine the progress towards meeting the goals and objectives adopted pursuant to subsection (2) of this section. The analysis shall include an examination of (a) available supplies and changes in long-term availability, (b) the effects of conservation practices and natural causes including, but not limited to, drought, and (c) the effects of the plan on reducing the overall difference between the current and fully appropriated levels of development identified in subdivision (4)(a) of

this section. The analysis shall determine whether a subsequent increment is necessary in the integrated management plan to meet the goals and objectives adopted pursuant to subsection (2) of this section and further reduce any remaining difference, the overall difference between the current and fully appropriated levels of development identified in subdivision (4)(a) of this section.

- (iv) Based on the determination made in subdivision (b)(iii) of this subsection, the department and the affected natural resources districts, utilizing the consultative process described in section 46-717(2), shall if necessary identify goals for a subsequent increment of the integrated management plan. Subsequent increments shall be completed, adopted, and take effect not more than ten years after adoption of the previous increment; and
- (v) If necessary, the steps described in subdivision (b)(ii) through (iv) of this subsection shall be repeated until the department and the affected natural resources districts agree that the goals and objectives identified pursuant to subsection (2) of this section have been met and the subdivision (4)(a) of this section has been addressed so that the river basin, subbasin, or reach has returned to a fully appropriated condition.

Option II: Very similar to Option I

This option is essentially the same as Option I except that instead of trying to eliminate 100% of the difference in the first increment, the DNR and the NRD shall determine as part of the integrated management planning process what percentage of the difference shall be addressed in the first increment and in subsequent increments. This approach would provide for more flexibility to address the political realities of trying to develop a plan that can be supported by the population affected by the plan.

Option III: Define subbasin objectives as part of the integrated management planning process.

In this option, the integrated management plan would define stream flow and or water table elevation objectives for each subbasin in the district. For example, the objective may be to maintain the streamflows on a certain reach of a stream or water table elevations in a certain part of the aquifer at an existing level or to increase streamflows or water table elevations to some enhanced level that would be defined in the plan.