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Version: 3 11/14/03
Policy Topic: Rural Water-- Effects of the Federal Safe Drinking Water Act (SDWA) on small water supply systems.

Brief Description of Issue:

Recent changes in Federal drinking water standards are proving financially and technologically difficult for small water suppliers to implement, and require additional financing that is beyond the ability of many utilities to secure.

Possible Solutions, Impacts, Considerations:

- Small water supply systems may need financial subsidies to achieve or remain in compliance.
- Disposal of water treatment by-products, caused in part by new regulations, has significant financial and environmental implications.
- Small utility systems often lack operators capable of managing the more complex treatment technologies required to comply with new standards.

Background:

Under authority of the Safe Drinking Water Act, State and Federal governments set standards for contaminants in drinking water, and water suppliers must provide drinking water for their customers that meet these standards. In many cases, additional methods of water treatment technology must be used in order to comply with the new standards. The additional treatment is often quite expensive, which can be a burden on small water systems with a limited customer base over which to spread the costs. Consequently, these systems must delay compliance or find the means by which to finance the necessary improvements.

In addition to the costs of upgrading water treatment systems to achieve SDWA compliance, increased costs are often incurred for ongoing operation and maintenance expenses (e.g. chemical additives or electric power costs). Additional personnel may be necessary to run the more sophisticated equipment and to monitor the additional treatment processes. Treatment processes to remove radioactive elements or toxins such as arsenic produce by-products that require special handling and disposal. This may require additional permits and the cost for disposal can be extremely high.

Rural and small community drinking water systems typically have limited access to conventional capital markets. They often have low or non-existent credit ratings with which to borrow money to finance required water system improvements. Government-subsidized programs may be the only recourse for some water suppliers in order to upgrade their systems. Even when current government subsidies and programs are utilized, the resulting cost per utility connection can be unaffordable in many instances.

Sources:

Texas Water Development Board Water Policy Steering Council (Stakeholders)
Summary, September 2001.

Water Quality 2000; A National Water Agenda for the 21st Century, November 1992.

Author: David Meesey
Version: 6 11/4/03
Policy Topic: Surface Water—Interbasin transfers (IBT) of surface water.

Brief Description of Issue:

Senate Bill 1 (SB 1), the omnibus water legislation passed in 1997, statutorily mandated that the priority date for new interbasin transfers of surface water be “junior” (later in time) to all rights granted before the time the IBT application was filed. SB 1 also imposed significant procedural and evidentiary requirements on the granting of IBT authorizations.

Possible Solutions, Impacts, Considerations:

- Prior to the passage of SB 1, the Texas Commission on Environmental Quality (TCEQ) could grant an IBT for water in excess of the amount required to protect existing rights if the benefits of the transfer outweighed detriments to the basin of origin. There were no specific requirements about the priority dates of IBT authorizations. Prior to SB 1, TCEQ issued IBT amendments both with the priority date of the original water right, and also with junior priority dates.
- Nearly 80 interbasin transfers of surface water that were authorized prior to 1997 currently serve metropolitan areas in Texas with 20- 25 percent of the state’s currently available surface water supply (1).
- Since the passage of SB 1, only one new IBT permit has been issued, and some suggest that the emphasis has shifted to transfer of groundwater that is governed in Texas by the “rule of capture”, which can be regulated by groundwater conservation districts.

Background:

The Texas water rights permitting system for surface water adheres to the prior appropriation doctrine, or “first in time is first in right.” Older or “senior” water rights have priority to their allotments of water before newer “junior” right holders can access theirs. In times of drought when water supplies are limited, this becomes increasingly important, because in certain basins there may not enough available water to meet all permitted rights. Changes to the Texas Water Code resulting from the passage of SB 1 made new IBT permits “junior” to all other rights in the basin that were granted before the IBT application was filed. This may make IBT amendments to existing water rights less reliable during times of drought than if they were granted with a priority date of the original water right. This change will not impact IBT requests for new water rights, since the priority date for these IBTs will be the same under rules in place before SB 1 and after. Since municipal water supplies must be highly reliable in order to justify the required investment for infrastructure and to ensure an adequate supply of drinking water at all times, the SB 1 provisions on priority dates may be causing some suppliers to look for sources other than amendments to existing water rights. Additionally, SB 1

significantly increased the procedural and evidentiary requirements that may further discourage the use of IBTs.

Prior to the passage of SB 1, Texas Water Code Section 11.085 as interpreted by Texas courts provided that TCEQ could grant an IBT permit for water in excess of the amount required to protect existing rights if the benefits of the transfer outweighed detriments to the basin of origin. There were no specific requirements about the priority dates of IBT authorizations.

SB 1 significantly amended Texas Water Code Section 11.085 by adding administrative requirements beyond the balancing test and by the “junior right” provision for transfers of water greater than 3,000 acre-feet per year. Section 791.026 of the Government Code, specifically relating to contracts for water and wastewater treatment facilities, allows a water supply contract to include a requirement that the purchaser must develop alternative or replacement water supplies prior to the expiration of the contract and may provide for enforcement through a court order. This type of provision could be utilized between two political subdivisions to recover any water involved with an interbasin transfer as well as intrabasin transfers.

Most of the requirements of the revised Water Code Section 11.085 are not applicable to transfers of 3,000 acre-feet per year or less; for emergency transfers; for transfers to adjoining coastal basins; and for transfers from a basin to a county, city, or the city’s retail service area that is partially within the basin for use in that part of the county, city, or retail service area not within the basin. On a volume basis, surface water is recommended in the 2002 State Water Plan to meet 66 percent of the needs for additional water during the next fifty years (2). Because of the currently perceived greater difficulty in obtaining permits for interbasin transfers, the new basin of origin protections created by SB 1 may affect the implementation of many water management strategies that rely on surface water supplies.

Sources:

- (1) Wasinger, B. and Mason, T.; *Interbasin Transfers-A Problem Resolved? Basin of Origin Protection*, October 1997.
- (2) Texas Water Development Board, *Water for Texas 2002*, January 2002

Author: Boeker

Version: 4 November 13, 2003

Policy Topic: Environmental--
Regional or statewide environmental mitigation system

Brief Description of Issue: What are potential advantages to developing a system or project to address environmental mitigation for water projects on a regional or statewide basis?

Possible Solutions, Impacts, Considerations:

Establishing a mitigation system would require identifying a lead entity to address question such as:

- Who would assess the need for mitigation on a regional, watershed, or statewide basis?
- Who would fund and administer such an effort?
- Who would secure necessary approvals from regulatory agencies?
- What additional legislation, if any, would be required at the state or federal level?

Background:

The National Environmental Policy Act as amended requires the mitigation of certain effects of major water projects, such as a reservoir. Federal regulations (40 CFR 1508.20) define mitigation to include:

- a. Avoiding the impact altogether by not taking a certain action or parts of an action.
- b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- e. Compensating for the impact by replacing or providing substitute resources or environments.

The Texas Commission on Environmental Quality may require major water rights applicants to take reasonable actions to mitigate the adverse impacts of a proposed application on fish and wildlife habitat (Water Code §11.152).

During preparation of a regional water plan, water management strategy evaluation requires review of the effects of each strategy on environmental factors including

environmental water needs, wildlife habitat, cultural resources, and effect of upstream development on bays, estuaries, and arms of the Gulf of Mexico. Mitigation and other environmental costs are included as part of the estimate of water management strategy costs. One approach that may be particularly applicable to the construction of a reservoir would be to estimate the acreage that would have to be set aside for mitigation purposes and the approximate costs to purchase this amount of land. Note that a more comprehensive estimate of the amount and types of mitigation necessary would require a more detailed environmental study by potential project sponsors, which could be part of the feasibility studies necessary to secure required permits.

Major water projects often provide benefits beyond the area where the project is located. However, there may be local concerns that the direct project impacts and the indirect impacts of mitigation will occur primarily near the area where the project is located. A regional approach to mitigation may allow both the benefits of mitigation (such as wildlife protection and recreation) and negative aspects (taking land out of production and removing it from county tax rolls) to extend over a larger area. The actual incidence of impacts, both positive and negative, will vary from project to project. A limiting factor to such an approach is the current regulatory preference for mitigation taking place near the affected area. "Mitigation should be required, where practicable, in areas adjacent or contiguous to the discharge site (on-site compensatory mitigation) (U.S. Army Corps of Engineers, 2002).

Mitigation banking provides an example of a more regional approach to mitigation. This includes "wetland restoration, creation, or enhancement for the purpose of compensating for unavoidable wetland losses in advance of authorized impacts to similar resources." While not the preferred option, in some cases "off-site, in-kind mitigation is acceptable" (Morales, no date). This sets up opportunities for developing mitigation banks. The Texas Department of Transportation has established several mitigation banks. This has advantages such as saving time as mitigation can occur in advance of construction projects, and allows for mitigation at a scale more likely to be successful than a series of smaller individual efforts.

Recommendations: To be developed

Sources:

1. Morales, Lisa T., *Local Government Involvement in Mitigation Banking*, Washington, D.C: U.S. Environmental Protection Agency.
2. U.S. Army Corps of Engineers, Regulatory Guidance Letter, December 24, 2002, "Guidance on Compensatory Mitigation Projects for Aquatic Resource Impacts Under the Corps Regulatory Program Pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbor Act of 1899." Available at http://www.epa.gov/owow/wetlands/pdf/RGL_02-2.pdf

Author: Boeker

Version: 6 November 17, 2003

Policy Topic: Other issues--
Inter-regional cooperation/Inter-regional water sharing

Brief Description of Issue: How can plans be prepared on regional basis without setting up potential obstacles to cooperation in securing water supplies?

Possible Solutions, Impacts, Considerations:

More fully document benefits of inter-regional cooperation, including opportunities for cost savings or cost sharing.

As recommended by one planning region, request that the Legislature make it very clear to all Texans that the boundaries of the regional water planning areas are not intended to be barriers to prevent water transport from one region to another nor to pit one region against another for any reason.

Background:

This policy topic addresses the general cooperation and sharing of water between Regional Water Planning Groups. Other related topics, including groundwater exports and interbasin transfers, will be addressed in more detail as separate issues.

Regional water planning has presented certain advantages over previous approaches, including recognition of regional differences and improving opportunities for local input. Water demand and supply vary considerably from region to region. Given the highly variable statewide distribution of water resources, some regions are not able to meet demands by relying solely on locally available supplies.

There are a number of tools that can promote coordination between regions.

- Statute provides that the Texas Water Development Board may approve a regional water plan only after it has determined that all interregional conflicts involving that regional water planning area have been resolved.
- Representation on Regional Water Planning Groups (RWPGs) promotes opportunities for coordination. Each RWPG identifies a nonvoting liaison to attend meetings of adjacent planning regions. Additionally, many regions have nonvoting representatives that are headquartered in another region, but hold substantial water rights in the region.
- Regional water planning guidelines also provide a more formal mechanism for coordination between regions.

Regional water planning groups may form voluntary associations composed of representatives of one or more regional water planning areas. These interregional planning committees may coordinate interregional issues that will benefit each regional water planning area, and may conduct joint studies of issues affecting their regions. Regional water planning groups may enter into written agreements with one or more other regional water planning groups that are binding to the extent allowed by law. These agreements could, in addition to other purposes, allow two or more regional water planning groups to jointly prepare one plan for all or a portion of their regional water planning areas subject to approval of all regional water planning groups involved.

Some examples of cooperation between regions include:

- The South Central Texas Regional Water Plan included an analysis of a strategy to include cooperation with Corpus Christi for new water sources. The regional water plan stated, “the objective of this option is to benefit both regions by improving efficiency and lowering costs of developing new sources of water for both regions.” Additional study of this strategy was recommended in the regional plan.
- The 2001 regional water plans provide other examples of potential inter-regional water sharing. For example, the LCRA-SAWS water project proposes that Colorado River water be supplied to San Antonio, while making improvements to secure local irrigation supplies.
- Following completion of the initial set of regional plans, several regions (K, L, M, N, P) examined opportunities for cooperation with financial assistance from TWDB. The report, Management Strategies for Potential Inter-Regional Cooperation, is available at:

http://www.twdb.state.tx.us/RWPG/rpgm_rpts/2002483432.pdf

Recommendations: To be developed

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