Tax Court Valuation of Water Rights
Garwood Irrigation Company Case Study

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Editor

On August 30th, the United States Tax Court held that Garwood Irrigation Company's right to divert 168,000 AF of water from the Colorado River in Texas was worth $22.5 million when Garwood elected to be treated as an S corporation effective January 1, 1997. The Tax Court's decision is noteworthy for how it addressed the speculative economic value of marketing water rights, although it overvalued Garwood's water rights as the court did not consider one of the three pillars of the forgotten economics of water trades (see "Forgotten Economics of Water Trades," ***WS** April 1993*).

Background on Water Rights and Marketing. Garwood Irrigation Company was formed in 1900 and had developed rights to use 168,000 AF of Colorado River water in Texas for the irrigation of up to 32,000 acres of land within its service area. With a priority date of November 1, 1900, Garwood had the most senior water right in Texas's Colorado River Basin. Historically, Garwood's water right was used in rice farming and averaged 100,000 AF annually. The balance of its water right (an average of 68,000 AF annually) was unused and flowed into Matagorda Bay.

Garwood had actively pursued marketing its water right to municipal and industrial users. In 1992, it entered into an option agreement to sell the right to 35,000 AF to the City of Corpus Christi for $400/AF. The City paid $20,000 per month in option payments that would be credited towards the purchase price. In 1993, the Texas Natural Resources Conservation Commission granted an amendment to Garwood's certificated right authorizing the change of use for the 35,000 AF subject to the option. In 1994, the option agreement was extended for two additional years and increased the monthly option payment to $25,000 and the purchase price to $450/AF.

The Tax Issue. In 1997, Garwood filed a petition with the Internal Revenue Service to become an S Corporation (which enables small eligible corporations to be taxed as partnerships) effective January 1, 1997. Under federal tax law, a "built-in gains tax amount" must be computed as of the effective date of the election based on a valuation of the corporation's assets. The taxpayer and the IRS could not agree on the valuation of Garwood's water rights as of January 1, 1997.

A key fact was that no transactions were closed as of January 1, 1997. In fact, the 1997 session of the Texas Legislature had just convened which yielded landmark legislation, SB 1, which enacted a new provision concerning interbasin transfers in which water rights lost their original priority date and were assigned a new priority date based on the date of a transfer. After almost two years of negotiations within the highly-charged political atmosphere of interbasin transfers, Garwood sold its water rights and related assets to the Lower Colorado River Authority and the City of Corpus Cristi in early 1999.

Tax Court Decision. The central dispute involved the forseeability of transfer activity as of the January 1, 1997 valuation date. The court will not generally consider events subsequent to a valuation date in determining an asset's fair market value "except to the extent that they were reasonably foreseeable as of the date of valuation." As of the valuation date, Garwood's only actual customers were rice farmers. However, there was a signed option agreement between Garwood and Corpus Christi.

The Tax Court's valuation of Garwood's water rights at $22.5 million was based on four components: sales to rice farmers, the Corpus Christi transfer, potential transfer of historically unused water, and the potential for additional unused water due to long term reductions in rice farming. Based on evidence submitted by various expert opinions regarding fair market value, the court reached the following conclusions regarding the economics of irrigation and the risks and delay in transfer activity:

• *Irrigation Income:* the net annual income from irrigation will grow at the rate of inflation, but reflect an overall decline in farming of 40 percent over the next 20 years. The court used an interest rate of 8% to reflect the risk of farming income relative to a risk-free investment in Treasury bonds, which averaged 6.73% during 1996-97.

• *Corpus Christi Transfer:* The court concluded that a three-year approval period was reasonable. To reflect the risk of approval, the Court concluded that the anticipated payments at closing of the transfer should be discounted at 15%, substantially below the 30% interest rates proposed by the taxpayer.

• *Other Unused Water:* After the Corpus Christi transfer, Garwood would still have 33,000 AF of unused water rights available for transfer. The court recognized that without even a buyer as of the valuation date, Garwood would have to find a buyer, negotiate an agreement, and complete regulatory review. Based on the expert opinions, the Court concluded that it was reasonably foreseeable that Garwood would close a transaction within 6 years at the same price it sold water rights to Corpus Christi (adjusted for inflation). To reflect the higher risk than the Corpus Christi transaction, the court concluded that the anticipated payments should be discounted at 17%.

• *Potentially Unused Water:* As discussed above, rice farming was anticipated to decline over the long-term. The reduced use of irrigation water would make additional water rights available for sale in future years. The court concluded that it was reasonably foreseeable that Garwood would have been able to sell 20,000 Af of water rights no longer used for irrigation ten years after the valuation date and sell another 16,000 AF of water rights no longer used for irrigation twenty years after the valuation date, all at the same price that water rights were sold to Corpus Christi (adjusted for inflation). To reflect the yet higher risk for the sale of potentially unused water rights, the court concluded that anticipated payments should be discounted at 20%.

There are three noteworthy aspects to the court's decision.

First, the court found that, despite the political controversies, legislative battles, and hurdles facing water transfers, the sale of Garwood's water rights was reasonably foreseeable. Therefore, the valuation as of January 1, 1997 had to consider more than the income historically earned from the sale of water for rice farming. While not closed, the Corpus Christi transaction had received regulatory approval and, although significant political opposition to the transaction existed as of the valuation date, the transaction had economic value. Even historically unused water rights without buyer agreements had value.

Second, the tax court concluded that an economic valuation must take into account the risks and delay of approvals. The court's conclusions regarding the proper interest rates implicitly assumed significant default risks (see table). For the continuation of rice farming, an annual default risk of 1.2% translates into a

10% likelihood that farming is no longer viable in its entirety by year 10, 20% by year 20, and 30% by year 30. For the transfer activity, the valuations effectively assumed that the Corpus Christi transfer, as of the valuation date, faced a 20% likelihood of failure. The valuations for the other transfers had significantly higher implicit default risks. The transfer of the remaining 33,000 AF of historically unused water rights was judged twice as likely to fail as the Corpus Christi transaction. The potential transfer of unused water rights due to a reduction in long term farming activity, while "reasonably foreseeable", had a high likelihood of failure.

Default Risk Assumptions Inherent in Court's Decision

Portion of Water Right	*Interest Rate*	*Default Risk*	*Structure of Risk*
Farming	8%	1.2%	annual
Corpus Christi	15%	20%	not completed at end of period
Unused	17%	42%	not completed at end of period
Potential Unused			
Sold in 10 Years	20%	69%	not completed at end of period
Sold in 20 Years	20%	90%	not completed at end of period

Finally, the tax court's valuation neglected a third element of the forgotten economics of water trades. Transactions involve delay, risks of failure and, as participants in transactions can attest, working capital. To use the vernacular of capital markets, transactions have a "burn rate" for negotiations, approvals, litigation, etc. Unlike the financial rewards of transfers, themselves, working capital costs are a given. By failing to include working capital requirements, the court overvalued Garwood's water rights as of January 1, 1997 (for further discussion of valuation issues, see "The Forgotten Economics of Water Trades," *WS April 1993*).

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