Where Are The Pipelines

Under the Texas Water Code (TWC) 11.021(a), the water of the ordinary flow, underflow, and tides of every flowing river, natural stream, and lake, and of every bay or arm of the Gulf of Mexico, and the stormwater, floodwater, and rainwater of every river, natural stream, canyon, ravine, depression, and watershed in the state is the property of the state. In essence, all-natural surface water found in Texas watercourses is owned by the state and is held in trust by the state for the good of the people.

On February 12, 2018, consistent with Federal and State laws and policies, the Fort Worth District office of the United States Army Corps of Engineers (USACE) issued Permit Number SWF-2009-00264 to the Palo Pinto County Municipal Water District No. 1 ("District"). Under Section 404 of the United States Clean Water Act[1], this permit granted the authority to the District to construct Turkey Peak Reservoir, which includes Special Conditions #2 and #3 requiring a minimum flow in Palo Pinto Creek at all times. During the USACE 404 permitting process, the District made several attempts to include a pipeline as part of the future operations of the District's surface water system. The USACE evaluation concluded that the inclusion of a pipeline would have had negative implications on the ecological condition of Palo Pinto Creek and was subsequently removed from the permitting process. In addition, it was noted that diverting all raw water supplies through a pipeline from Lake Palo Pinto defies the intent of the District's 1962 Certificate of Adjudication 12-4031, a water right[2], and the USACE Permit Number SWF-2009-00264 to construct Turkey Peak Reservoir. Neither the District nor any of its professional representatives have ever denied the fact that there are losses in Palo Pinto Creek. These losses, along with losses within Lake Palo Pinto, Hilltop Pre-sedimentary Reservoir, and the planned Turkey Peak Reservoir, have been, currently are, and will continue to be part of the exhaustive calculations that go into determining the firm yield[3] of the District's surface water system based on the most current drought of record.

The Turkey Peak Reservoir Project has been a recommended strategy to meet the needs of the District through several Regional and State Water Plans[4]. Since 2008, the District has actively pursued progress on the project through preliminary engineering, permitting, final design, and land acquisition. As an approved project on the State Water Plan, the District was able to modify its water right and acquire funding for pre-construction activities from the Texas

Water Development Board. As required by law, the State Water Plan must perform an evaluation of the state's progress in meeting future water needs, including an evaluation of the extent to which water management strategies and projects have been implemented (TWC 16.051(a-1)(1)). The District's commitment and participation in the State Water Planning Process are testaments to the resolve needed to achieve regional water security through the addition of Turkey Peak Reservoir.

In recent weeks, there has been a renewed public discussion on the concept of delivery of Lake Palo Pinto raw water supplies via pipeline rather than Palo Pinto Creek to avoid losses occurring along the creek. There has also been renewed public discussion of the concept of obtaining future water supplies via pipeline from wholesale water suppliers to the east rather than constructing Turkey Peak Reservoir.

Pipelines do not create new water. Water security and sustainability in this region of Texas require solutions that create new sources of water.

More than forty years of study and public consideration, fifteen years of permitting, and five years of design have led to the development of Turkey Peak Reservoir, creating new water by increasing the storage capacity of Districts' impoundment at Lake Palo Pinto. Each of these alternative pipeline concepts were carefully evaluated and rejected based on the following:

a) Simple economics: The unit cost of water supplies from Lake Palo Pinto and Turkey Peak Reservoir is lower when delivered via Palo Pinto Creek and is less expensive than water purchased and delivered by pipeline from the east.

b) Public amenities and environmental enhancement: delivery of raw water supplies via Palo Pinto Creek and Turkey Peak Reservoir sustains and enhances thriving natural ecosystems. In contrast, the expansion of Lake Palo Pinto enhances aquatic and riparian recreation and an active fishery with the added benefit of Palo Pinto Mountains State Park development as part of Turkey Peak Dam mitigation.

c) Local control and management of existing and future water supplies.

Before 1985, environmental flow conditions were rarely imposed on Texas water rights. However, after 1985, it became more common for water rights to have special conditions to protect in-stream flows. The Texas Instream Flow Program[5] (TIFP) was created by the Texas

Legislature in 2001 to assess how much water rivers need to maintain a sound ecological environment.

Three agencies administer the program:

1) Texas Commission on Environmental Quality (TCEQ).
2) Texas Parks and Wildlife Department (TPWD).
3) Texas Water Development Board (TWDB).

A variety of instream flows[6] are necessary to maintain a healthy river or stream. Instream flow programs aim to balance ecosystem needs and human requirements for using the same water and determine how much water should remain in our rivers and streams. Environmental flows[7], environmental flow regimes[8], and environmental flow standards[9] are used to describe the flow of water. (both quantity and timing of flow) needed to maintain ecologically healthy streams, rivers, and the bays and estuaries they feed.

During the 2012-2015 drought, the District's engineers updated the alternatives analysis of the USACE 404 permitting process by introducing a pipeline as an option for consideration. Although theoretically possible, the proposed pipeline was ultimately rejected by the USACE and removed from the permitting process for the following reasons.

Implementation of a pipeline to deliver raw water supplies from the existing or an expanded Lake Palo Pinto would force Palo Pinto Creek to revert back to an intermittent stream[10] with only occasional spills from the reservoir passing downstream. The District's responsibility is to serve its customers and follow all local, state and federal laws. The elimination of planned releases from Lake Palo Pinto into Palo Pinto Creek was determined to be inconsistent with current state law. TWC 11.0235(c) states that the legislature has expressly required the commission,[11] while balancing all other public interests, to consider and, to the extent practicable, provide for the freshwater inflows and instream flows necessary to maintain the viability of the state's streams, rivers, and bay and estuary systems in the commission's regular granting of permits for the use of state waters. The USACE requested additional environmental flow analysis[12] on the feasibility of constructing a pipeline in such a way that would not require additional federal or state permits. While constructing a pipeline is conceivably possible, it would be impossible without substantial cultural resource surveys and

coordination with the Texas Historical Commission. It was made clear that adding a pipeline would not relieve the District of its obligations to provide mitigation and conservation efforts to replace the ecological system to be inundated by Turkey Peak Dam and the expansion of Lake Palo Pinto.

30 TAC 30.21(c)(2) says that when the available flow is not sufficient to meet the demands of existing declarations of intent for minimum streamflow requirements that the commission determines necessary, the watermaster may order that water right holders with reservoir(s) allow inflows to pass through such reservoir(s) to the extent required to honor downstream minimum streamflow requirements.

The USACE focused on finalizing the mitigation plans, which began with a move to force the District to use a mitigation bank more than 100 miles away at a cost exceeding $30M for only a fraction of the needed credits required to satisfy the preservation and enhancement credits required. The analysis of all alternative proposals, a process required by the 404 permitting process, finally paved the path for the USACE and other agencies to consider the dry weather / low flow release commitments in the Turkey Peak management and enhancement plan, which allowed our TXRAM lift and mitigation calculations for perennial streams to be approved at approximately 1.2:1, instead of the much higher ratios they typically require. As seen in Table 1, the District's engineering/environmental team negotiated well below-average mitigation ratios when compared to other Texas reservoirs in planning, recently completed or under construction.

Reservoir	Conservation Acreage	Surface Acreage	≈ Ratio
Marvin Nichols	134,000	66,000	>2:1
Ralph Hall	16,000	7,600	>2:1
Bois D'Arc	17,000	16,000	>1:1
Turkey Peak	225	650	**<1:3**

Table 1 - Conservation to Surface Acreage Ratios

Additional state laws, such as the ones listed below, paint an even clearer picture that maintaining adequate environmental flows within its watercourses is of the utmost importance to the State of Texas.

Texas Water Code Sec. 11.0235. Policy Regarding Waters Of The State.

Texas Water Code Sec. 11.0236. Environmental Flows Advisory Group.

Texas Water Code Sec. 11.1471. Environmental Flow Standards And Set-Asides.

Texas Water Code Sec. 11.152. Assessment Of Effects Of Permits On Fish And Wildlife Habitats.

[1] The Clean Water Act (CWA) is the primary Federal statute regulating the protection of the nation's water. The CWA aims to prevent, reduce, and eliminate pollution in the nation's water in order to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters", as described in CWA section 101(a). A stated goal of the CWA is to eliminate the discharge of pollutants into navigable waters, as that term is defined in CWA § 502(7) and corresponding case law. Based on the Federal Water Pollution Control Act of 1948, the CWA underwent significant reorganization and expansion in 1972, with subsequent major amendments in 1977 and 1987. The CWA does not specifically address contamination of groundwater resources, a subject addressed by provisions in other laws, including the Safe Drinking Water Act, the Resource Conservation and Recovery Act, and the Comprehensive Environmental Response, Compensation, and Liability Act. (epa.gov)

[2] Water right means a right acquired under the laws of this state to impound, divert, or use state water (TWC 11.002(5)).

[3] Firm yield is the amount of water that the reservoir could have produced annually if it had been in place during the worst drought of record. In performing this simulation, naturalized streamflows will be modified as appropriate to account for the full exercise of upstream senior water rights is assumed as well as the passage of sufficient water to satisfy all downstream senior water rights valued at their full authorized amounts and conditions as well as the passage of flows needed to meet all applicable permit conditions relating to instream and freshwater inflow requirements (30 TAC 297.1(7)).

[4] State Water Plan requires that no later than January 5, 2002, and before the end of each successive five-year period after that date, the board shall prepare, develop, formulate, and adopt a comprehensive state water plan that incorporates the regional water plans approved under Section 16.053 (Regional Water Plans). The state water plan shall provide for the orderly development, management, and conservation of water resources and preparation for and response to drought conditions in order that sufficient water will be available at a reasonable cost to ensure public health, safety, and welfare; further economic development; and protect the agricultural and natural resources of the entire state (TWC 16.051).

[5] Texas Instream Flow Program (TIFP) determines how much water is required to support a sound ecological environment in the state's rivers (twdb.texas.gov).

[6] Instream flow is an amount of water running in a river, usually measured by the volume moving down the channel in a specified amount of time (twdb.texas.gov).

[7] Environmental flow is the amount of water that should remain in a stream or river for the benefit of the environment of the river, bay, and estuary while balancing human needs (twdb.texas.gov).

[8] Environmental flow regime is a schedule of flow quantities that reflects seasonal and yearly fluctuations that typically vary geographically, by specific location in a watershed, and that are shown to be adequate to support a sound ecological environment and to maintain the productivity, extent, and persistence of key aquatic habitats in and along the affected water bodies (TWC 11.002(16)).

[9] Environmental flow standards are those requirements adopted by the commission under Section 11.1471 (TWC 11.002(17)).

[10] Intermittent stream - A stream that flows only when it receives water from rainfall runoff or springs, or from some surface source such as melting snow. (epa.gov).

[11] Commission means the Texas Commission on Environmental Quality (TCEQ) (TWC 11.002(1)).

[12] Environmental flow analysis is the application of a scientifically derived process for predicting the response of an ecosystem to changes in instream flows or freshwater inflows (TWC 11.002(15)).