

Texas Water Development Board

Workforce Plan

Overview of Operations

Agency Vision and Mission

The Texas Water Development Board (TWDB) is the state's water planning and water project financing agency. The TWDB's main responsibilities are threefold: collecting and disseminating water-related data; assisting with regional water planning and preparing the state water plan for the development of the state's water resources; and administering cost-effective financial programs for the construction of water supply, wastewater treatment, flood control, and agricultural water conservation projects.

Since 1957, the TWDB has been charged with addressing the state's water needs. With the passage of Senate Bill 1 by the 75th Texas Legislature, federal and state organizations, political subdivisions, and regional water planning groups have assumed increased responsibility for ensuring sufficient water supplies for the state. The TWDB has a leadership and support role through guiding, enabling, and supporting the responsible development of the state's water resources to ensure that sufficient water will be available at a reasonable cost while protecting the agricultural and natural resources of the state.

Agency Vision: Sustainable and affordable water for Texas.

Agency Mission: The mission of the TWDB is to lead the state's efforts in ensuring a secure water future for Texas and its citizens.

Agency Values: Innovation, Impact, Pride in Public Service, and Accountability

Business Functions and Area Missions

The following is an account of the core business functions and missions of each area in the agency.

Board

TWDB is governed by a three-member Board appointed by the governor with the advice and consent of the Texas Senate. One member must have experience in the field of engineering, one member must have experience in the field of public or private finance, and one member must have experience in the field of law or business. The board has general jurisdiction over the development and implementation of a statewide water plan; the administration of the state's various water assistance and financing programs including those created by the constitution; the

administration of the National Flood Insurance Program; and other areas specifically assigned to the Board by law.

Internal Audit

The Internal Audit Division reports directly to the Board, and is a function required by the Texas Internal Auditing Act (Chapter 2102) of the Texas Government Code, with Internal Auditors governed by Government Auditing Standards and Standards for Professional Practice of Internal Auditing of the Institute of Internal Auditors. The Internal Audit Division is independent of management and provides objective assurance and consulting services designed to add value and improve the operations of the TWDB. The Division assists the TWDB in accomplishing its objectives by bringing a systematic and disciplined approach to evaluate, and improve the effectiveness of, the organization's governance, risk management, and internal controls.

Executive Administration

Executive Administration houses the offices of the Executive and Assistant Executive administrators and support staff, the Office of General Counsel, Governmental Relations, and Agency Communications.

Office of General Counsel

The Office of General Counsel is composed of the agency's General Counsel, eight staff attorneys, one program specialist, one legal assistant and one executive assistant. The Office of General Counsel is responsible for providing legal advice and representation to agency Board members and staff in the areas of financial assistance, water planning, water policy, natural resources, environmental compliance, legislation, tort claims, human resources, contracting and purchasing, real estate, ethics, open records, open meetings, and rulemaking. This includes, but is not limited to, preparing and reviewing documents, researching and preparing formal and informal legal opinions, representing the agency on interagency working groups, drafting and reviewing regulations and policies, and working with the Office of the Attorney General regarding agency litigation and contested matters.

Governmental Relations

The Governmental Relations office works with state governmental entities and representatives to help carry out the mission of the agency. Before each legislative session, the office compiles a biennial report to the legislature that details activities of the Board and its recommendation for necessary and desirable legislation.

Agency Communications

Agency Communications provides innovative, multimedia communications to share the story of Texas's evolving water needs through various marketing materials, newsletters, publications, and videos. Agency Communications is the TWDB's direct contact with the public and media, handling all media inquiries and responses.

Operations and Administration

Operations and Administration strives to provide professional, constructive, and formidable support to all areas in the agency in order to ensure delivery of an effective and efficient system of services for the employees and stakeholders of the TWDB.

Operations and Administration consist of the Information Technology Division and the Human Resources and Support Services Departments.

Support Services

The Support Services Department within Operations and Administration provides mail services, fleet management, staff support, and facility support such as office space management, lease management, building safety, telecommunications, and other support functions of the agency as needed. The division also provides Board meeting and special event coordination.

Human Resources

The Human Resources Department is an essential and indispensable force in facilitating the accomplishment of the TWDB's mission by providing services and administering benefits that promote the security and well-being of the TWDB's most important resource: its employees. This department is committed to providing administrative services to the employees of the TWDB in the areas of employee benefits, salary administration, recruitment, human resources development, personnel records, and employee relations. HR staff additionally provide file room and record maintenance services on all TWDB loans, grants, and assists General Counsel staff with open records requests and records management functions.

Information Technology

Information Technology (IT) serves as the Information Resources Liaison to internal and external stakeholders. IT oversees the digital transformation process for the TWDB, manages the agency's Shared Technology Services contract, trains new employees on agency procedures, ensures technology standards are published and followed, and resolves user requests and reported computer problems. IT staff develop and maintain agency systems, databases, and applications; serve as the project managers for various enterprise systems; oversee information security programs, oversee data management programs, and create specialized systems as requested by the Texas Legislature, various governmental entities, and the public. Web Administration staff administer the TWDB's internet and intranet websites, ensuring the public effective and quick access to the latest TWDB information.

Texas Natural Resources Information System

The Texas Natural Resources Information System (TNRIS) was originally established to serve Texas agencies and citizens as a centralized clearinghouse and referral center for natural resource data, census data, data related to emergency management, and other socioeconomic data. Today, TNRIS provides high quality historic and current geospatial data products, education and training to state agencies and the GIS community through collaboration, expertise, cost-sharing

initiatives, and exceptional customer service. Through the Strategic Mapping program, TNRIS continues to acquire and maintain critical statewide datasets such as the digital orthoimagery program, elevation program, and Address and Land Parcel collection program. TNRIS also provides information and support to the public and emergency personnel during emergency events.

Finance

The mission of Finance is to provide customers with centralized, timely, meaningful, and high-quality financial services and to ensure fiscal integrity by investing and protecting the Board's assets. The primary responsibilities of Finance are to oversee day-to-day financial activities, provide support to the agency through the timely and accurate processing of payroll and financial transactions, formulate and monitor the agency budget, report financial and budget information, coordinate all activities related to issuance of bonds, invest funds in compliance with the Public Funds Investment Act, prepare cash flow and loan analyses and interest rate calculations, and provide financial stability reviews of borrowers. Additionally Finance staff oversees contract development, compliance, monitoring and related payment authorization services, and procurement functions to acquire materials, equipment, and services in accordance with state and federal rules and regulations. Finance comprises six divisions: Accounting, Budget, Debt and Portfolio Management, Financial Compliance, Financial Operations and Procurement and Contract Services.

Accounting

Accounting maintains the general ledger, prepares timely and accurate financial reports for internal and external recipients. This staff is responsible for ensuring the integrity of financial data in multiple systems and is responsible for closing loans and registering all public securities purchased by TWDB.

Budget

Budget manages the development, preparation, and maintenance of the TWDB's operating budget and position control. Budget staff prepares budget-related financial data and reports for the Board, staff, and oversight agencies. Additionally, Budget prepares the Legislative Appropriation Request, and prepares fiscal notes, briefing documents, and responses to budget-related issues during the legislative session.

Debt and Portfolio Management

Debt and Portfolio Management provides comprehensive financial analysis for the management of the Board's portfolio; issues bonds to obtain money at the most economical cost to the Board to fund loan and grant programs; prepares cash flow analyses, loan analyses, and interest rate calculations; and invests funds in compliance with the Public Funds Investment Act.

Financial Compliance

The Financial Compliance Division monitors the loan portfolio to ensure the prevention of loan defaults through financial stability reviews of its borrowers and monitors financial assistance program requirements to ensure finance-related and contractual compliance by borrowers and grantees.

Financial Operations

Financial Operations is responsible for processing all payments to vendors and employees. This team also draws federal funds, processes accounts receivable including loan collections, and services TWDB debt.

Procurement and Contract Services

Procurement and Contract Services provides contract development, contract compliance, contract monitoring, and related payment authorization services. Contracting also provides procurement functions to acquire materials, equipment, and services in accordance with state and federal rules and regulations.

Water Supply and Infrastructure

Water Supply and Infrastructure is composed of the Regional Water Project Development and Program Administration and Reporting Divisions.

Regional Water Project and Development

Regional Water Project and Development (RWPD) is responsible for working with communities as they develop their projects from conception through the procurement of funding and ultimately, the completion of construction. The division provides assistance and guidance to the project owners throughout all phases. This is accomplished through a director, an administrative team, an application and closing team to process financial assistance applications and closings, and a disbursement and review team, responsible for programmatic approvals of payment requests. The seven project management teams are divided by geographical areas and oversee projects from concept to the end of construction. Each team consists of a team manager, engineer, environmental reviewer, and project manager. An attorney and a regional planner also work closely with each team.

Program Administration and Reporting

Program Administration and Reporting consists of four departments: Program Administration, Outlays and Escrows, Reporting, and Outreach. This division develops policies to facilitate the management of the financial assistance programs. Division staff monitor and ensure agency compliance with state and federal laws, policies, and standards as it relates to administering TWDB financial assistance programs in addition to processing financial assistance disbursements through outlays and escrows. The Outreach Department serves as a liaison between entities and the TWDB and is responsible for the coordination and facilitation of marketing TWDB programs to local communities, cities, counties, districts, authorities, and water supply corporations.

Office of Planning

Office of Planning is composed of the Water Supply Planning and Flood Planning Divisions.

Water Supply Planning

Water Supply Planning provides ongoing data and technical assistance and administrative support to 16 regional water planning groups to assist in updating regional water plans. Staff in this division also prepare the state water plan every five years and provide economic and demographic technical support to regional and state water planning processes. They collect annual water use and service boundary data from the public water systems and industrial facilities across the state. They also develop water use estimates and demand projections for municipal, manufacturing, mining, steam-electric power generation, irrigation, and livestock water users.

Flood Planning

The Flood Planning Division was established in 2019 greatly expanding the TWDB's role in state and regional flood planning. The regional flood planning process was rapidly developed with initial regional flood planning groups formation in mid-2020. The first regional flood plans will be due in 2023, and the first state flood plan will be due September 1, 2024. The division provides ongoing technical assistance and administrative support to 15 regional flood planning groups and manage and provide oversight of a number of flood protection planning studies. Staff in this division also prepare the state flood plan every five years. Flood Planning is also responsible for regional and state flood planning data dissemination, collection, and data management. The flood planning division also oversees the management of Flood Infrastructure Fund watershed protection planning grants.

Water Science and Conservation

Water Science and Conservation is composed of the Conservation and Innovative Water Technologies, Flood Science and Community Assistance, Surface Water, and Groundwater Divisions.

Conservation and Innovative Water Technologies

Water Conservation staff assists cities, utilities, and districts in establishing effective water-wise conservation programs. They lend out and provide training for leak detection and meter testing equipment, assist with water audits, and provide water conservation brochures and educational materials for schools for free or at minimal cost to utilities and government entities. This division also provides agricultural conservation grants to political subdivisions to implement conservation measures and utilizes either local districts or local lending institutions to provide loans for individual farmers to install more efficient irrigation equipment. The Water Conservation program also provides irrigation water use estimates by county or regional planning groups and conducts agricultural water conservation outreach at agricultural trade shows and other related events. The Innovative Water Technologies program works to extend the state's water resources through investigation of desalination, rainwater harvesting, water reuse, aquifer recharge (AR),

and aquifer storage and recovery (ASR). The program conducts studies of AR and ASR projects in the state water plan, among other activities. The mission of this division is to explore potential sources of water supply outside of the traditional areas of surface water and groundwater that could be made available for use within the state.

Surface Water

The Surface Water Division provides scientific and engineering expertise associated with data collection, analysis, and modeling of surface waters in Texas to ensure the continued availability of water supplies and the maintenance of the ecological health and productivity of Texas rivers, streams, reservoirs, bays, and estuaries. Division activities include 1) data collection, evaluation, and dissemination; 2) model development and interpretation; 3) performance of investigations, surveys, and research studies; 4) preparation of reports; 5) administration of contracts with private firms, government agencies, and universities; and 6) technical evaluation and review of reports and applications for financial assistance.

Groundwater

The mission of the Groundwater Division is to collect, interpret, and provide accurate and objective information on the groundwater resources of Texas to citizens, groundwater resource managers, policy makers, and law makers. The Groundwater Division is responsible for all aspects of groundwater studies in the state. The division monitors groundwater levels and quality in the state's aquifers, conducts regional-scale aquifer modeling, and houses and maintains water well records. The division's Brackish Resource Aquifer Characterization System, or BRACS program, works to characterize the state's brackish groundwater resources and designate brackish groundwater production zones. Division staff reviews and approves groundwater districts' management plans and participates in the establishment of desired future conditions for aquifers in the state's groundwater management areas. The division also provides groundwater information to Texas citizens and lawmakers.

Flood Science and Community Assistance

The Flood Science and Community Assistance Division administers the agency's flood modeling, flood mapping, grant coordination, and community assistance programs. This area develops and disseminates flood risk data and research to the public and is a participant in the Cooperating Technical Partners program with the Federal Emergency Management Agency (FEMA). The division also participates in management of state grants to political subdivisions to conduct flood studies and mitigation projects and supports the regional and state flood planning processes. Division staff administers FEMA's Flood Mitigation Assistance grant program, is responsible for the National Flood Insurance Program (NFIP) in Texas, conducts State Coordinating Agency functions for the NFIP, assists communities in enrolling in the NFIP, conducts training related to floodplain management, and provides technical assistance and compliance reviews for participating communities with ordinance, floodplain management, and other NFIP issues.

Current Workforce Profile - Supply Analysis

Full-time Equivalentents

In FY 2021 the agency had 395.1 full-time-equivalent employees (FTE). For FY 2022, 406.1 FTEs are appropriated.

Management-to-staff Ratio

The management-to-staff ratio at the agency (as of the FY 2022 second quarter [February 2022] Management-to-staff Ratio Report) was 1:12. The agency continues to evaluate its current structure to ensure maximum efficiency regarding staff and management alignment.

Race/Gender

In determining statistically under-represented Equal Employment Opportunity (EEO) groups, the TWDB uses the Equal Employment Opportunity Commission’s (EEOC) Rule of 80. A utilization analysis was conducted for the TWDB using the 80% Rule. This rule compares the actual number of employees to the expected number of employees based on the available state Civilian Labor Force (CLF) data for African American, Hispanic and female employees.

Job category:	Male	Female	African-American	Hispanic	Total Employees
Officials/Administrators (A)	19	21	1	8	40
Administrative Support (C)	1	27	2	8	28
Service Maintenance (M)	0	0	0	0	0
Professional (P)	177	162	32	68	339
Protective Services (R)	0	0	0	0	0
Skilled Craft (S)	0	0	0	0	0
Technical (T)	0	0	0	0	0
Agency Grand Totals (#)	197	210	35	84	407
Agency Grand Totals (%'s)	48.40	51.60	8.60	20.64	100.00

For the purpose of this analysis, a group is considered underutilized when the actual representation in the workforce is less than 80% of what the expected number would be based on the CLF.

The TWDB reviewed and conducted analysis to determine where underutilization was identified. The utilization analysis of the TWDB for fiscal year 2022 indicated underutilization in its workforce. The following tables summarize the results of the utilization analysis.

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Job Category - Officials/Administrators (A)		
Represented Group	TWDB Percentage in Job Category	Statewide Civilian Workforce Percentage in Job Category
Female	52.50%	41.71%
African American	2.50%	8.54%
Hispanic	20.00%	24.74%
Job Category - Administrative Support (C)		
Represented Group	TWDB Percentage in Job Category	Statewide Civilian Workforce Percentage in Job Category
Female	96.43%	74.74%
African American	7.14%	14.60%
Hispanic	28.57%	36.53%
Job Category - Professionals (P)		
Represented Group	TWDB Percentage in Job Category	Statewide Civilian Workforce Percentage in Job Category
Female	47.79%	54.13%
African American	9.44%	10.90%
Hispanic	20.06%	21.77%

Turnover Rate

According to the State Auditor’s Office, the statewide turnover rate for full-time and part-time classified employees at state agencies in FY 2021 was at 21.5 percent, based on a total of voluntary and involuntary separations, excluding interagency transfers. The 21.5 percent turnover rate is an increase from that of FY 2020 (20.4 percent). This rate is often considered a true turnover rate because it reflects preventable turnover. Employee turnover can be both negative and positive. Negatives include the associated costs of turnover, such as training and orientation of new employees, recruitment and selection of new employees, leave payout to

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departing employees, and lower productivity in the workplace during the time that a position is vacant and during the time that a new employee is learning the job.

Some turnovers will always occur and is normal for any organization. Turnover can create positive outcomes for employers because they can replace low-performing employees with high-performing employees. There is often a financial benefit gained as a result of the difference in the salary paid to an experienced employee who separates from an agency versus the salary paid to a new employee who takes the departing employee’s position. However, when organizations start losing their high-performing, highly skilled, and experienced employees, turnover may begin to negatively affect the organization’s business operations. This holds true for many of the professional positions held in the agency.

Employee Turnover at the TWDB during Fiscal Year 2021								
Involuntary Separations	Involuntary Turnover Rate	Voluntary Separations	Voluntary Turnover Rate	Retirements	Retirement Turnover Rate	Average Annual Headcount	Total Separations	Total Turnover Rate
7	2.0%	39	11.4%	13	3.8%	343	59	16.0%
Data compiled from the State Auditor's Office Annual Report on Classified Employee Turnover for FY 2021. Report includes interagency transfers.								

Staff and Workforce Skills

Executive Administration

Staff and workforce skills critical to the mission and goals of Executive Administration include, but are not limited to, the following:

- An Executive Administrator with extensive institutional knowledge of complex state and federal financial programs, knowledge of planning activities, managerial skills, and the ability to work with state leadership and bring their requests and visions to fruition
- An Assistant Executive Administrator with extensive knowledge and experience in the day-to-day operations of the TWDB
- A General Counsel that possesses recognized legal expertise in water resources, including water rights, water resources planning, and the TWDB’s financial programs
- Staff attorneys with core skills through continuing education, institutional knowledge in planning and program activities, human resources, contracts, and open records matters
- Staff with knowledge of the State Records Retention Schedule, Texas State Libraries and Archives Commission rules and regulations, and working knowledge of electronic document management systems

The active involvement and professional familiarity with the complexity of the TWDB's public financing programs provides the members of the governing Board with the judgment necessary

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to assess the specialized professional skills necessary and appropriate for the Executive Administrator position and the salary necessary to attract and retain qualified individuals.

Staff and workforce skills critical to the mission and goals of Governmental Relations and Agency Communications include, but are not limited to, the following:

- The ability to maintain effective relationships with all levels of individuals and possess excellent communication skills
- The ability to analyze, interpret, and react to information in an efficient and effective manner
- Familiarity with all the TWDB's programs
- Active involvement in print/broadcast media and social media
- Active involvement with the members of all government levels, which is critical to the success of Governmental Relations and Agency Communications

Operations and Administration

Staff and workforce skills critical to the mission and goals of Operations and Administration include, but are not limited to, the following:

- Experienced Human Resources personnel familiar with the state of Texas' rules, regulations, and benefits including recruitment, retention, compensation, classification.
- Staff with performance measurement, strategic planning, and management system analysis skills to review and implement policies and procedures
- Project Managers with experience in IT resource and software application development methodologies
- Business and Systems Analysts with strong facilitation and documentation skills
- Software Developers and Database Administrators with experience in standard software development techniques, web development tools, and deployment of web services
- Network administration and security professionals with knowledge of local, wide area network and cloud platform administration, security protocols and threat protection, identity management, standard computer hardware, software support and troubleshooting
- Programmers with multiple-level web architect skills that can initiate the development, implementation, and maintenance of the internal and external web resources, including updating web content, monitoring web resources and services, analysis of hardware and software, and evaluation of potential enhancements
- Staff with facility management, fleet, and asset management skills

Operations and Administration staff must maintain knowledge and expertise in a fast-paced environment while also demonstrating essential skills needed to effectively communicate with customers, understand critical business drivers for the agency, and determine business case justifications and return on investment. Staff must foster solid partnerships among all stakeholders.

Texas Natural Resources Information System

The need for staff with diverse Geographical Information Systems (GIS) and Information Technology (IT) backgrounds, knowledge of business improvement processes, and customer service skills are vital to delivering informed data services to emergency managers and the public.

Staff critical to the mission and goals of TNRIS include, but are not limited to, the following:

- Professional GIS and IT practitioners with skills in combining practical applications of GIS with contrasting sources of data
- Systems Analysts with strong technical skills in GIS data and mapping
- Staff trained in the computer, data, and library sciences

Finance

TWDB's total assets managed as of August 31, 2021, were \$18.1 billion. The assets are comprised of various investments, private municipal debt placements, loans, and ownership interests in water projects. Finance staff are responsible for registering securities, servicing loans, and monitoring the financial stability in each of the 580 or so entities in its various financial assistance portfolios. In addition to servicing its holdings, TWDB financial staff issue public securities to raise the capital needed in each of the programs. As of August 31, 2021, the total outstanding debt was \$9.1 billion. Finance staff are also responsible for establishing and monitoring budgets, making timely payments to employees, vendors, and independent contractors, processing revenue, maintaining the general ledger, and producing numerous financial reports for both internal and external users.

Staff critical to the mission and goals of providing public financial assistance include, but are not limited to, the following:

- Financial Analysts with expertise in the issuance of public tax-exempt debt, the ability to communicate specific financing goals to financial advisors and underwriters, the ability to ensure compliance with public disclosure requirements, and the ability to manage the debt once it is issued; Financial Analysts must be highly proficient in Excel with the ability to develop and maintain financing models and cashflow analysis
- Financial Examiners with the ability to review audited financial statements and assess the financial stability of program participants, to identify lack of covenant compliance, to develop corrective action plans and to monitor progress against such plans when necessary; Financial Examiners must have the ability to interpret complex financial information and bond covenants, including the specifics of repayment pledges and contracts related to the sale of water
- Accountants with expertise in traditional governmental accounting functions including administering federal funds as well as expertise in accounting for investments, public debt, loans, and grants

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- Budget Analysts with expertise in traditional governmental budgeting practices as well as budgeting for local funds outside of the traditional appropriations process
- Business Analyst knowledgeable in all statewide financial systems as well as external banking and underwriting systems to ensure compliance with financial reporting requirements; this role is critical to ensuring strategic success and mitigating financial system risks including cybersecurity issues
- Certified State of Texas Purchasers
- Qualified Contract Specialists to effectively administer and manage state and federal programs

These skill sets have remained constant; however, maintaining staff with these skill sets is a challenge due to the demands, the number of responsibilities, and the urgency with which any responsibility must be successfully completed. Retaining experienced and skilled staff is imperative to the success of the agency due to the complexity of its many programs. Critical functions of the Finance office include the ability to maintain accurate and sound accounting records, consistently provide accurate and timely financial information, and interpret tremendous amounts of financial data to provide sound financial information to Board members, legislative members, auditors, investors, and staff. Specialized knowledge and skills needed by Finance staff include knowledge of the municipal bond market and agency programs, the ability to manage and negotiate contracts, the ability to manage multiple investments portfolios, and the ability to create and maintain highly complex spreadsheet and databases.

Water Supply and Infrastructure

Infrastructure projects identified in the state water and the soon to be issued flood plan are funded through the various financial programs is supported by Water Supply and Infrastructure (WSI) staff. Existing programs pose challenges such as increases in federal appropriations for the State Revolving Fund programs, including the recent passage of the Infrastructure Investment and Jobs Act, balancing U.S. Environmental Protection Agency requests for information and reporting requirements with other workload requirements, potential project delays due to approval backlogs at the U.S. Army Corps of Engineers, and the challenges associated with the continued growth of the financial assets owned and managed by the TWDB. WSI is often called on to provide input on draft legislation and appropriations related to water resources policy and funding.

Staff and workforce skills critical to the mission and goals of WSI include, but are not limited to, the following:

- Financial Analysts with significant experience in TWDB financial assistance programs, credit analysis and municipal finance
- Administrative assistants with experience in TWDB financial assistance programs and related requirements and procedures

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- Division directors with significant experience in TWDB financial assistance programs and policy development
- Managers with significant experience in TWDB financial assistance programs
- Staff with performance measurement, planning, and management system analysis skills to review and implement policies and procedures to increase efficiency and effectiveness of workload flow
- Licensed Professional engineers and non-licensed engineering staff with the ability to complete technical reviews and evaluations of engineering related financial assistance documents, including plans and specifications
- Environmental review staff with significant experience in environmental regulations and associated natural and cultural resources

The workforce skill needs should not change significantly in the future, though retaining and recruiting staff with appropriate skills in a highly competitive job market is key to the successful management of the large number of complex financial assistance programs.

Office of Planning

The office requires a wide variety of technical, project management, contract management, and data management skills to support and implement both the regional water supply planning and regional flood planning programs. Each division has its own unique technical aspects and programmatic requirements and requires maintaining a unique combination of staff to fulfill the numerous aspects of the associated statutory requirements. Both divisions deal with enormous amounts of data ranging from historical data collected by the annual water use survey to the large volume of flood and water supply planning data that is produced within each 5-year regional and state planning cycle. Most of the individual staff in the office perform a wide range of activities from stakeholder interactions to contract management to highly technical tasks that will vary in frequency and intensity depending on legislative directives and planning cycles.

The entire office is involved heavily in supporting a variety of stakeholder-driven activities that vary in nature throughout each planning cycle. These programs require staff who can maintain a proactive, responsive, and forward-looking posture in order to stay ahead of our stakeholders to serve them and to ensure that we meet our contractual obligations and statutory and rule requirements.

Staff and workforce skills critical to the meeting the associated mission and goals of the Office of Planning include, but are not limited to, the following:

- A wide variety of administrative and technical staff, including licensed civil engineers and professional geologists, many of whom must also develop and manage professional contracts and develop, monitor, and oversee a variety of technical studies, including:
 - Administrative and executive assistants
 - Demographers

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- Data analysts/specialists
- Research specialists
- Economists
- Program specialists
- Water planners
- Flood planners
- Flood engineers
- GIS specialists
- Project managers
- Managers with significant experience in water planning, flood planning, data analysis and management, engineering, and communication skills to interact with the media and public.
- Division directors with significant experience in water planning and flood planning programs, policy development, and communication skills to interact with the public, media, and legislature.

The workforce skill needs are anticipated to shift as the new flood planning program grows and begins to mature but is not expected to change significantly in the future. Retaining and recruiting staff with appropriate skills is key to the successful management of these public-facing programs with disparate technical requirements.

Water Science and Conservation

Staff and workforce skills critical to the mission and goals of Water Science and Conservation (WSC) include, but are not limited to, the following:

- Hydrologists and geoscientists knowledgeable about Texas water and geologic resources
- Hydrogeologists, geoscientists, and groundwater modelers with experience with groundwater models and interpretation of geophysical data
- Other environmental scientists and/or professionals knowledgeable about Texas environmental regulations, research issues, and programs covering a wide spectrum of activities such as conservation, biology, and innovative water strategies
- Licensed professional engineers with significant experience with flood modeling and mapping including knowledge of hydrologic, hydraulic, and hydrodynamic models or other computations/numerical models
- Individuals with significant experience in data analytics, programming, data visualization, database management, and web development
- Individuals with significant experience with GIS technology and the evaluation and presentation of geospatial data
- Individuals with solid contract management skills and the ability to maintain effective working relationships with their customers

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- Professionals involved in floodplain management, flood hazard mitigation, the National Flood Insurance Program (NFIP), flood preparedness, warning and disaster recovery
Individuals who possess strong written and verbal communication skills
- Administrative professionals with experience in state government, TWDB programs, and Board procedures
- Division directors with significant knowledge of TWDB programs and expertise related to programmatic development

Retaining senior and highly skilled staff is of paramount importance for the Office of Water Science & Conservation to provide program continuity while assimilating new technological advances in engineering, innovative water strategies, water/flood modeling, geographic information systems, water supply monitoring, data analytics, terrain mapping, planning, and research. This situation requires that the office be given enough latitude in salary adjustments and competitive salary offers to be able to retain and recruit skilled, experienced workers and to provide sufficient training to all staff.

Future Workforce Profile

The TWDB will need to retain staff having the same or similar work skills that are currently present and be able to provide training to set new employees up for success.

Because of the evolving nature of the Texas Legislature and developments in technology and planning tools, the agency must ensure that staff continue to have strong interpersonal skills, technical skills, project management skills, legislative process knowledge, and policy development skills. As state water resource issues become more and more complex, it is important that staff continue to be able to interact with individuals and stakeholders who represent the broad diversity of the state of Texas.

Water Supply Planning and Flood Planning is constantly affected by the population growth of the state of Texas. As state water supply and flooding issues become more complex, and efforts continue to develop more innovative solutions and implement more projects, it is important that staff continue to be able to interact with individuals who represent the broad diversity of the state of Texas. This requires additional training and increased expertise in the coming years.

Supporting the workload brought on by legislation that led to the development of new flood science programs to support the state's unprecedented flood planning process while maintaining existing water science programs to support state water planning will require WSC to maintain and enhance the skills of its workforce. The office will need to provide training for both new and existing staff to compete with the private sector for scientists and engineers, and programs will need to engage with the latest scientific advances to remain relevant and support the needs of the state. As such, staff will need to continue to expand their expertise in technical knowledge of specific areas, new technologies, project management skills, and communication skills.

The rapidly changing technology industry impacts the office of Operations and Administration's efforts to facilitate data dissemination. While current staffing levels are projected to essentially remain unchanged, the office workforce profile will continue to evolve. The need for staff with diverse IT backgrounds, including strong web-based programming, database management, Internet-based GIS programming, network management, project/program management expertise, and strong contract management skills will increase.

Future needs throughout the agency include building a strong customer-focused workforce with skill sets needed to successfully serve agency stakeholders.

Gap Analysis

As the economy becomes more competitive, the agency will face greater challenges, given the salary levels it can support. The potential retirement of employees in all areas of the TWDB in the immediate future can have the effect of creating a shortage of expertise. It is crucial to ensure institutional and technical knowledge and resources are shared amongst staff and appropriate cross-training is conducted.

The agency continues to face challenges in maintaining staffing levels in the areas IT, contract administration, engineering, flood planning, and those who have expertise in state of Texas water resources. Specifically, flood engineers and modelers, flood grant coordinators, GIS specialists, hydrogeologists, groundwater modelers, surface water engineers, and surface water hydrologists. TWDB is faced with hiring staff at entry-to mid-level positions and providing these individuals with extensive training and development (internally and externally).

The TWDB is often unable to fill key positions at competitive salaries for two primary reasons: first is simply a matter of inadequate resources and pay scales that are competitive with private enterprise; second, because of continued increase in water demands for the state and the new emphasis on the need for improved flood risk information, the demand for water resource and flood science expertise in science and engineering is simply not being met by higher education.

An issue unique to the agency is the availability of General Revenue funding. If a shortfall continues to exist in this source of revenue, the agency will be faced with a shortage of workers who perform work related to projects dependent on General Revenue funding. The TWDB is also challenged will filling positions requiring experience and knowledge of state and federal flood regulations and financial assistance programs due the influx of state and federal flood mitigation funding in response to recent extreme flooding events.

Strategic Development

Strategic Development

The workplace has always consisted of many generations working at one time. However, today's age-diverse workforce is working past retirement age, which has led to a generation gap of more than 40 years between the oldest and youngest workers. As a result, a one-size-fits-all approach is not appropriate in an age-diverse workforce that may have four generations of workers at one time. The TWDB must be prepared to work with the communication styles of each generation and determine what motivates each generation in order to bridge the generation gap. This approach is key in developing both succession planning and knowledge transfer for future generations. Furthermore, as society in general becomes more diverse, the TWDB workforce must mirror this diversity, thereby meeting both the needs and the expectations of the population it serves. The agency continues offering trainings to staff on an ongoing basis such as Diversity and Respect and Managing Generations in the Workplace.

Open vacancies should be marketed to maintain a diverse and qualified applicant pool. The TWDB must continue to work with universities and professional organizations to ensure that we have a varied and diverse workforce. In addition to the diversity and composition of the future TWDB workforce, competitive pay will continue to impact recruitment and retention. In 2019-2020, the agency conducted an intensive agency-wide classification and salary review. The purpose of the review is to ensure proper classification and desirable salary relationships in comparison to employees in similar positions and in relevant job markets, retain key staff in critical positions and provide competitive salaries for recruitment and retention purposes. The TWDB have utilized alternative compensation strategies such as retention and recruitment bonuses to fill and/or retain staff for hard-to-fill positions.

The TWDB and state agencies in general currently cannot compete with other organizations in terms of compensating its employees for all positions. Many existing staff continue to serve the agency because they value its mission or enjoy the work-life balance that may be lacking in a for-profit company or firm. The TWDB must continue to foster an environment that offers not only fair compensation but also other incentives that attract and retain staff. Understanding the importance of the state's most precious resource is the first step in ensuring that the agency continues its role in serving the water needs of Texas.

The TWDB must focus on ensuring employees maintain the skills needed to lead and motivate staff, communicate effectively, resolve conflict, and coordinate with other program areas in the agency. Recently there has been an increased emphasis on the use of technology to serve customers and to revise and streamline work processes to make them more efficient and paperless. Employees need the technology skills to develop, maintain, and fully utilize the agency's continually advancing computer systems.

Leadership Development

Throughout the year, the Human Resources Department has conducted training courses developed for both managerial and non-managerial staff. Training programs such as Performance Management, Managing for Success/Leadership Skills, Family Medical Leave, New Hire Training for Managers, and Other Leave Guidelines and soft skills trainings are part of a continued process for staff development. These training courses focus on defining clear job responsibilities, performance management; discussing performance issues on an ongoing basis; the need for regular documentation; and the role of the supervisor in the development of staff. In addition to “in-house” training, Human Resources works with outside vendors and consultants to provide customized training on topics such as public speaking, dealing with the press/media, and providing effective presentations.

Contacts at relevant colleges, universities, and schools are established to assist with recruiting (regular hires as well as student volunteers and interns). Student volunteers and interns are afforded opportunities to interact with and learn from agency management while working closely with subject-matter-experts in their intended field. Externship programs are offered to provide students with opportunities to engage in career exploration.

The TWDB developed a succession planning process in order to maintain an effective workforce. Succession planning prepares the agency for the risks associated with the loss of knowledge that is critical to achieve its mission. The agency must identify, develop, and transfer knowledge to employees who become highly qualified and capable of filling key positions or performing crucial functions as individuals leave the agency.

As part of this process, the TWDB implemented an Aspiring Leaders Program (ALP) in 2015 to provide non-supervisory staff with access to training and development opportunities to prepare them for leadership positions. Graduates receive one year of management/supervisory experience credit with regard to TWDB job posting qualifications. In 2020, the TWDB implemented a mandatory Leadership Exploration and Development (LEAD) management-focused training program for current TWDB managers and directors. This program provided management with access to trainings focusing on leadership development, policy, procedures and laws, communication, emotional intelligence, and change management. Due to COVID, the agency’s training and leadership programs reduced drastically. The TWDB had to revamp their staff training program to provide online remote learning opportunities focusing on soft skills, internal policies and procedures and employment law. With the recent hire of a Training and Organizational Development FTE, the individual will be charged with revamping the agency’s training and leadership programs for FY23.