

NORTH DAKOTA DEPARTMENT OF WATER RESOURCES

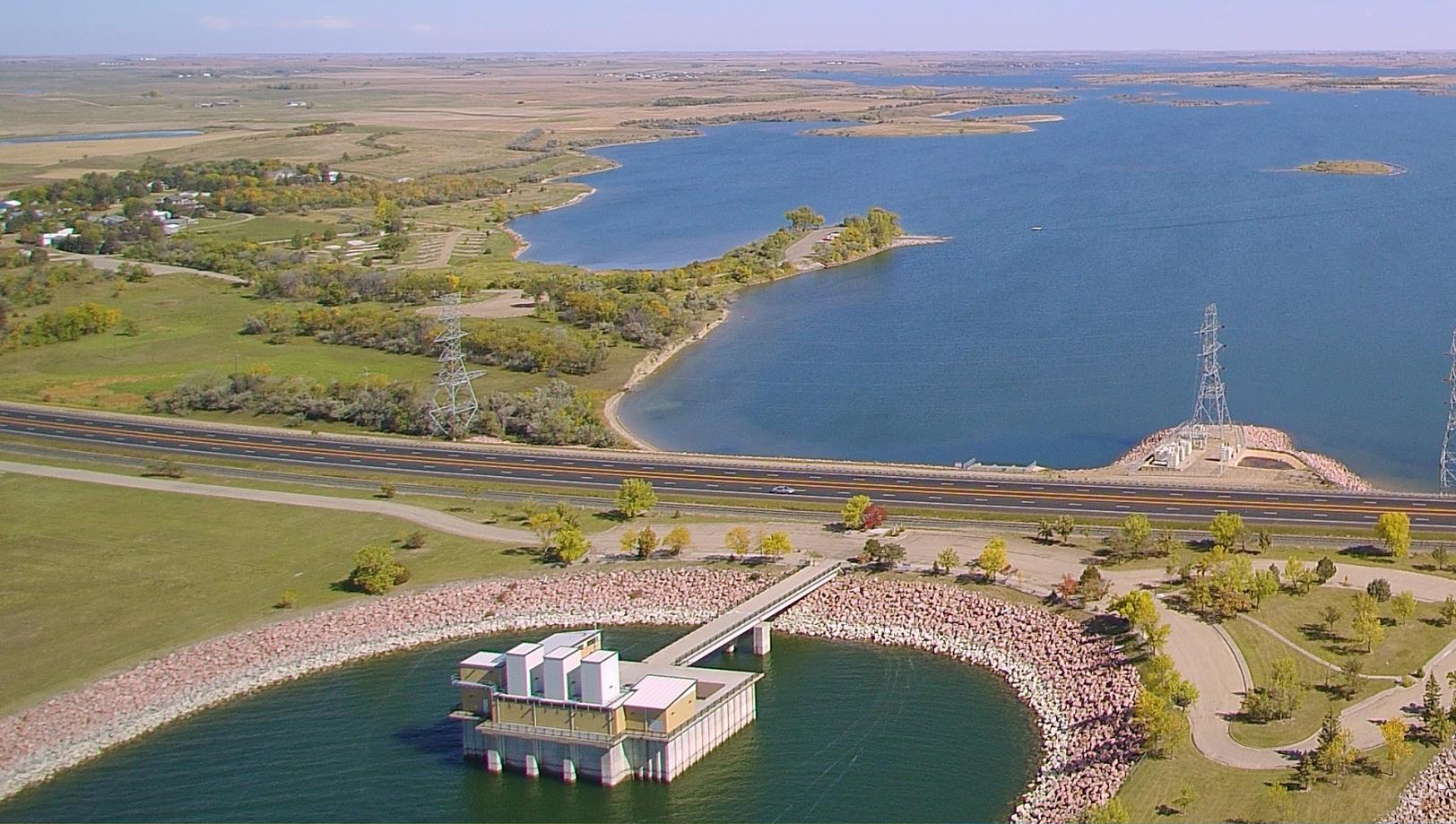


# 5 Year Strategic Plan

July 1, 2022 Through June 30, 2027

NORTH  
**Dakota** | Water Resources  
Be Legendary.





## BACKGROUND AND DUTIES

The North Dakota Department of Water Resources (DWR) was created in 2021 by legislative action through House Bill 1353. DWR was previously called the State Water Commission, which itself was created by legislative action in 1937 for the specific purpose of fostering and promoting water resources development throughout the state. In addition to the creation of DWR, the 2021 legislation also moved functions of the Office of the State Engineer within the DWR and allows the Governor to appoint a DWR Director, subject to approval by a majority of the members of the State Water Commission per NDCC § 61-03-01.1.

DWR has the authority to investigate, plan, construct, regulate, provide water appropriations, develop water-related projects, and serves as a mechanism to financially support those efforts throughout North Dakota. There are currently six divisions that make up the DWR: Administration, Atmospheric Resources, Planning and Education, Regulatory, Water Appropriation, and Water Development.

The DWR Director provides overall leadership and decision-making, has hiring responsibilities, and oversees the department staff. The director also acts as a liaison between the department and the legislative and executive branches of state government, as well as a liaison between the Governor and the federal government on water related issues. In addition, the Director serves as Secretary of the State Water Commission board.

North Dakota's State Engineer is responsible for several regulatory functions and responsibilities as part of the Department of Water Resources, including allocation of the state's waters, dam safety, and drainage, as well as associated technical duties related to public safety.

The authorizing legislation for the DWR is found in Chapter 61-03 of the North Dakota Century Code. Primary DWR functions and statutory responsibilities include:

- Allocation of the state's waters, including obtaining and recording data for the determination, development, and appropriation of the state's waters
- Hydrographic surveys and investigations of each stream system and source of water supply in the state, beginning with those most used for irrigation



- Facilitation of water rights determinations
- Water-related data collection
- Dam safety, including receipt of emergency action plans for high-hazard or medium-hazard dams
- Construction and drainage permits
- Staffing and analysis for the State Water Commission and execution of its decisions
- Rulemaking authority
- Oversight of water storage reservoirs
- Implementation of economic analysis for water conveyance projects and flood-related projects
- Implementation of life cycle cost analysis for water supply projects
- Cooperation with federal agencies in the execution of topographic surveys and maps of North Dakota
- Custodian of all plats, field notes, and similar records provided to the state by a federal government entity
- Inspection or investigation of alleged statutory violations
- Removal or modification of unsafe or unauthorized works
- Sovereign land management
- Removal, modification, or destruction of dangers in, on the bed of, or adjacent to navigable waters
- Hearings for persons aggrieved by an action or decision of DWR
- Cost-Share Program administration
- Floodplain management
- Cloud Modification Program administration
- State Water Development Plan
- Emergency response

## PURPOSE

DWR developed this five-year strategic plan to guide the deployment of resources toward certain key objectives, goals, and tactics that will remain a focus for DWR from July 1, 2022 through June 30, 2027. This plan is also intended to help create awareness among the public and stakeholders.

While the strategic plan does not include every statutorily assigned duty, it is comprehensive in bringing focus to areas that require significant dedication of resources within DWR.

## EXECUTIVE SUMMARY

In developing this plan, DWR commissioned a third-party vendor, Odney, Inc., to engage DWR team members and stakeholders with surveys, personal interviews, and focus groups to gather input for the development of objectives, goals, tactics, and metrics. Through this process, DWR was able to engage both internal and external input from:

- DWR Personnel
- State Water Commission Members
- State and Federal Partner Agencies
- Legislators
- Water Resource Districts and Joint Boards
- Cities
- Counties
- Tribes
- Consultants/Private Businesses
- Non-Profit Partners
- Citizens with Water Expertise

## SURVEYS

An online survey was conducted from February 9 through February 18, 2022. A total of 116 people completed the survey.

## INTERVIEWS

Personal interviews were conducted from February 16 through April 5, 2022. A total of 77 interviews were completed.

## FOCUS GROUPS

Two internal focus groups with DWR team members were completed.



# MISSION STATEMENT

*A mission statement describes an organization's fundamental and unique purpose. The mission statement of the North Dakota Department of Water Resources is:*

To responsibly manage North Dakota's water needs and risks for the people's benefit.

# VISION STATEMENT

*A vision statement describes what the organization hopes to achieve or where it is going. The vision statement of the North Dakota Department of Water Resources is:*

The Department of Water Resources will sustainably manage and develop North Dakota's water resources for the health, safety, and prosperity of its people, businesses, agriculture, energy, industry, recreation, and natural resources.

# VALUES STATEMENT

*A values statement defines an organization's beliefs and how people in the organization are expected to behave. The values statement of the North Dakota Department of Water Resources is:*

The Department of Water Resources values fairness, objectivity, accountability, responsiveness, engagement, and credibility. We pledge to use professional and scientific methods to maintain the highest of standards in our delivery of services.

# GOVERNOR DOUG BURGUM'S STRATEGIC INITIATIVES FOR NORTH DAKOTA

This strategic plan furthers the implementation of Governor Doug Burgum's strategic initiatives.



## Main Street Initiative

Wherever possible, DWR will work with communities to utilize existing water infrastructure to its fullest potential to reduce costs and create vibrant, healthy cities.

Through outreach, DWR, will partner with city leaders across the state to ensure, when it comes to water, they have the tools, programs and empowerment they need for smart, healthy growth.



## Tribal Engagement

DWR will explore opportunities for government-to-government relations with each tribe's leadership and water commissions.

Through active engagement with tribal governments, DWR will discuss water related issues with each tribe and listen and learn about each tribe's individual challenges and opportunities.



DWR will collaborate and develop MOUs with each tribe to address information sharing, water needs, Missouri River allocations, water rights, and access to capital for water projects.

## Reinventing Government

DWR will embrace technology to build and manage water infrastructure and resources for the 21st Century in a cost-efficient manner.



## Behavioral Health and Addiction

DWR will continue to encourage staff to improve their overall well-being and grow through educational opportunities and training.



## Transforming Education

DWR will improve and promote NDRAM and utilize floodplain management education to realize a more flood risk informed and resilient North Dakota.

DWR will continue to develop and promote water education opportunities for students and adults.

# OBJECTIVES, GOALS, AND TACTICS

## OBJECTIVES

Objectives are what an organization would like to accomplish. It is the big idea. It is a broad statement of what an organization wants to achieve.

## GOALS

Goals are at the level of measurement and evaluation. They can either be wholly accomplished or measured for progress. Goals may or may not have specific tactics to carry them out. Goals may be amended, but usually infrequently, during the life of a strategic plan.

## TACTICS

Tactics are specific ways or strategies for carrying out the goals. They help answer how a specific goal may be accomplished. They must remain adaptable and flexible, and subject to amendment on a frequent basis and as part of the frequent monitoring and adjustments made to carry out the strategic plan.

## DEFINITIONS

**Stakeholders:** Water Commission members, state and federal partners, legislators, congressional delegation, international water interests, water resource districts, basin boards, cities, counties, tribes, private consultants and businesses, non-profit partners, and citizens.

**Team members:** Internal DWR personnel.

## OVERARCHING OBJECTIVES

### OBJECTIVE 1

Effectively communicate with the public and stakeholders with a primary focus on collaboration and building partnerships.

### OBJECTIVE 2

Develop world-class, sustainable, and resilient water development and management practices.

### OBJECTIVE 3

Support beneficial use of Missouri River system water and other available water supply sources.

### OBJECTIVE 4

Implement innovative ideas, technology, and grow analytic capabilities to improve efficiencies in water management and development.

### OBJECTIVE 5

Improve the department's internal resilience and promote a positive culture.

# Objective 1

Effectively communicate with the public and stakeholders with a primary focus on collaboration and building partnerships

## Goal 1-1.

Increase public outreach and public relations to inform citizens of the department's mission, vision, and values for the purpose of broadening public education, awareness, and support.

**Tactic 1-1-a.** Utilize DWR brand for all communications.

**Tactic 1-1-b.** Pro-actively engage with all forms of institutional media in the state.

**Tactic 1-1-c.** Continue existing communication tools, including ND Water magazine and The Current newsletter.

**Tactic 1-1-d.** Use social media with at least bi-weekly positive and interesting posts.

**Tactic 1-1-e.** Highlight DWR-related events, activities, and programs.

**Tactic 1-1-f.** Highlight stories, successes, and impacts of funded projects to the state, communities, and people of North Dakota.

**Tactic 1-1-g.** Highlight the relationship between water supply and its importance for daily life.

**Tactic 1-1-h.** Visually document and share progress of high-profile DWR projects.

## Goal 1-2.

Expand communication efforts to improve opportunities to better inform DWR stakeholders about operations, priorities, projects, programs, and data resources both within and outside the department.

**Tactic 1-2-a.** Identify at least bi-annual opportunities to engage certain stakeholders in in-depth discussions, with particular emphasis on:

- State legislators (including key policy and appropriations committee members)
- Congressional leaders and staff
- State partners
- Indian Affairs Commission and Tribal Water Commissions
- Federal partners
- International partners
- Key local partners
- Higher education institutions, especially the Energy and Environmental Research Center

**Tactic 1-2-b.** Periodically review the agency website and utilize analytics to improve functionality and information availability.

**Tactic 1-2-c.** Consider an annual stakeholder meeting or a larger engagement conference.

**Tactic 1-2-d.** Educate about, and promote, federal programs that can be leveraged and maximized for stakeholders.

**Tactic 1-2-e.** Support floodplain management education to realize a more risk informed and resilient North Dakota.

- Improve the Risk Assessment MapService (NDRAM) and expand its capabilities
- Continue implementation of a public awareness program for NDRAM

## Goal 1-3.

Establish a communication process to regularly update North Dakota policymakers on the department's mission, vision, values, and progress, and to equip legislators to make informed decisions regarding DWR and water-related issues.

**Tactic 1-3-a.** Consider quarterly briefings for key legislators with in-person and virtual options.

**Tactic 1-3-b.** Set up an in-person briefing for key legislators on budget and policy requests prior to each legislative session.

**Tactic 1-3-c.** Proactively engage the Intern Water Topics Overview Committee on strategic directions for water project investments and water management issues.

## Objective 2

Develop world-class, sustainable, and resilient water development and management practices.

### Goal 2-1.

Support smart, efficient infrastructure and improve resiliency to floods and drought.

**Tactic 2-1-a.** Collaborate with stakeholders to modify and improve Cost-Share Program policies for both rural and urban applications.

**Tactic 2-1-b.** Promote information on the National Flood Insurance Program.

**Tactic 2-1-c.** Work with the Department of Emergency Services to develop and implement programs and partnerships that promote stakeholder awareness and education in disaster and emergency preparedness.

**Tactic 2-1-d.** Work with entities and associations that can assist local communities, especially small ones, to facilitate planning for, and updating of aging infrastructure, and to identify redundant or alternative potable water supply sources in case of short-term emergencies or long-term droughts.

**Tactic 2-1-e.** Support research into best water conservation and recycling practices in other states and provinces.

**Tactic 2-1-f.** Consider development of an inspection program for levees and dikes, and continue inspection of dams to identify repair and maintenance issues.

**Tactic 2-1-g.** Continue efforts that enhance sustainable water infrastructure development through local implementation of Capital Improvement Plans (CIP) and Replacement and Extraordinary Maintenance (REM) funds.

**Tactic 2-1-h.** Develop a 50-year water management plan that includes options for water storage, aquifer recharge, water reuse, and continued sustainable appropriation of the state's water resources.

### Goal 2-2.

Assist and support public entities and citizens.

**Tactic 2-2-a.** Support community-based water development driven by local needs within the confines of existing agency policies.

**Tactic 2-2-b.** As resources allow, appoint and embed one DWR team member as a liaison to stakeholders involved with the development of large-scale water supply and flood protection projects:

- Red River Valley Water Supply
- Fargo-Moorhead Area Diversion Project
- Mouse River Enhanced Flood Protection Project
- Northwest Area Water Supply
- Other large-scale projects identified by DWR

**Tactic 2-2-c.** Assist public entities with technical support.

**Tactic 2-2-d.** Track and publish water use data from across the state to allow trends to be evaluated.

**Tactic 2-2-e.** Develop a comprehensive mapping tool that consolidates existing water resource data collections from multiple entities and agencies into a single source and dashboard.

### Goal 2-3.

Complete water project planning efforts with continued emphasis on short and long-term planning horizons and incorporation of best practices.

**Tactic 2-3-a.** Support flood protection projects whenever economically possible to mitigate flood risks to people and infrastructure.

**Tactic 2-3-b.** Support water supply projects whenever economically possible to mitigate water quality and quantity risks to beneficial water use.

**Tactic 2-3-c.** Avoid duplication of facilities wherever possible, including regionalization of water supply systems when economically efficient.

<p><b>Goal 2-4.</b> Engage key stakeholders to provide education on water resources, identify needs, and develop policies and projects to support business, industry, and economic development.</p>	<p><b>Tactic 2-4-a.</b> Consider semi-annual sessions with other cooperating agencies and key stakeholders.</p> <p><b>Tactic 2-4-b.</b> Develop and make available maps of water supply sources for economic development projects.</p>
<p><b>Goal 2-5.</b> Support efficient allocation of state investments in water infrastructure.</p>	<p><b>Tactic 2-5-a.</b> Continue implementation of Economic Analysis and Life Cycle Cost Analysis processes.</p> <p><b>Tactic 2-5-b.</b> Identify long-term funding needs, show projected costs, and work with policymakers to identify sustainable, long-term funding sources and tools to supplement the Natural Resources Trust Fund for sustainable cash management and financing of projects from both state and local sources.</p> <p><b>Tactic 2-5-c.</b> Identify and support regionalization efforts that reduce infrastructure and operational costs for water supply systems.</p> <p><b>Tactic 2-5-d.</b> Support development of water supplies for users who have challenges related to water shortages or water quality.</p>
<p><b>Goal 2-6.</b> Support efforts to develop and improve irrigation opportunities where appropriate.</p>	
<p><b>Goal 2-7.</b> Continue efforts toward resolution of tribal water rights.</p>	
<p><b>Goal 2-8.</b> Maintain and operate the Devils Lake Outlets and Tolna Coulee Control Structure.</p>	
<p><b>Goal 2-8.</b> Enhance sovereign lands for shore fishing, canoeing, swimming, hiking and other forms of water recreation.</p>	

## Objective 3

Support beneficial use of Missouri River system water and other available water supply sources.

**Goal 3-1.** Support smart, efficient infrastructure and improve resiliency to floods and drought.

**Goal 3-2.** Complete construction of the Northwest Area Water Supply Biota Water Treatment Plant Phases I and II, Minot Water Treatment Plant Phase III, and the Souris Reservoir and Pump Station.

**Goal 3-3.** Work with Garrison Diversion Conservancy District in their efforts to advance the Red River Valley Water Supply project, Eastern North Dakota Alternative Water Supply (ENDAWS), and Central North Dakota Water Supply (CNDWS) projects.

**Goal 3-4.** Secure additional allocations for irrigation and industrial water use, including from the Missouri River.

**Goal 3-5.** Collaborate and develop MOUs with tribes for sharing of information, water needs assessments, allocations from the Missouri River, protection of water rights, and access to capital for water projects.

**Goal 3-6.** Collaborate with the Department of Commerce to identify and support economic development opportunities that strengthen North Dakota's economy.

## Objective 4

Implement innovative ideas, technology, and grow analytic capabilities to improve efficiencies in water management and development.

### Goal 4-1.

Expand the Pushing REmote SENSors (PRESENS) initiative to a fully integrated solution for hydrologic data collection.

**Tactic 4-1-a.** Continue efforts to include additional environmental sensors (i.e. soil temperature, soil moisture, and frost depth).

**Goal 4-2.** Enhance data analysis tools, including use of artificial intelligence, to leverage available data and collection technology for improved water management.

**Goal 4-3.** Streamline application processes and make it easier for stakeholders and the public to access services through on-line portals and project dashboards.

**Goal 4-4.** Continue improving automation of warnings, alerts, and pending water use regulatory actions.

### Goal 4-5.

Continue the refined delineation of the state's ground water resources.

**Tactic 4-5-a.** Utilize Airborne Electromagnetic Survey technology.

**Tactic 4-5-b.** Support/conduct ground water modeling and research, including opportunities for ground water recharge.

### Goal 4-6.

Broaden assessments of cloud seeding efficacy by working with local stakeholders.

**Tactic 4-6-a.** Utilize new scientific methods.

**Tactic 4-6-b.** Improve radar technology.

**Goal 4-7.** Improve user accessibility of LIDAR through the website.

**Goal 4-8.** Improve user accessibility to GIS mapping services.

**Goal 4-9.** Support research into irrigation technologies and promote more efficient irrigation practices.

**Goal 4-10.** Continue to digitize historical documents and make them available through an online digital storage library within the requirements of existing retention schedules.

**Goal 4-11.** Continue to support research and identify opportunities for water storage, aquifer recharge, and water reuse.

**Goal 4-12.** Work with the North Dakota Information Technology Department to develop and enhance DWR technology capabilities and initiatives.

## Objective 5

Improve the department's internal resilience and promote a positive culture.

### Goal 5-1.

Attract and retain highly qualified team members.

**Tactic 5-1-a.** Evaluate and support recruitment and retention opportunities.

**Tactic 5-1-b.** Continue ability for team members to work remotely while fostering opportunities for team building.

**Tactic 5-1-c.** Communicate value of health insurance and other benefits to team members.

**Tactic 5-1-d.** Develop a transparent and needs-based case for increased state funding for salaries and benefits, and seek authorization for robust retention compensation, moving stipends, and performance rewards in the Governor's budget and legislative appropriations.

**Tactic 5-1-e.** Regularly brief the Governor's Office and key legislators on current challenges associated with salaries and benefits for team members.

**Tactic 5-1-f.** Examine vacation and compensatory time policies.

**Tactic 5-1-g.** Consider means of identifying challenges with hard-to-fill positions.

**Tactic 5-1-h.** Secure legislative flexibility for salary adjustments for hard-to-fill positions.

**Tactic 5-1-i.** Support a mentoring program for new team members.

**Tactic 5-1-j.** Develop a new employee on-boarding and off-boarding process.

### Goal 5-2.

Improve agency-wide communication, increase awareness of department-wide activities, and foster interaction of top DWR leadership with team members.

**Tactic 5-2-a.** Continue to foster an "open door" policy for team members to engage with DWR leadership on issues and concerns.

**Tactic 5-2-b.** Develop regular department-wide briefings on department operations, priorities, projects, programs, and data resources.

### Goal 5-3.

Empower team members to improve and grow through educational opportunities and professional development.

**Tactic 5-3-a.** Support both remote and in-person participation in continuing education, conferences, and seminars that enhance team member well-being, knowledge, and skills.

**Tactic 5-3-b.** Implement and encourage cross-training and succession planning.

**Tactic 5-3-c.** Delegate duties with intent to grow and develop capabilities and responsibilities of team members.

**Tactic 5-3-d.** Provide constructive feedback on performance of team members.

**Goal 5-4.** Modernize software, implement best practices for cyber security, and create redundancy of knowledge necessary to utilize unique DWR business applications.

### Goal 5-5.

Build an organizational culture that is fair, objective, accountable, responsive, engaged, and credible.

**Tactic 5-5-a.** Communicate realistic and transparent timetables for processing of permits and applications when submitted.

**Tactic 5-5-b.** Improve agency automation of financial reporting and other operational functions.

# MEASURING SUCCESS

## Quarterly Internal Scoring

- Conduct internal self-scoring of progress on objectives, goals, and tactics as an agenda item at quarterly DWR Strategic Plan Leadership meetings

## Surveys

- External
  - Use surveys and interviews conducted from January 2022 – April 2022 as baseline
  - Conduct a simplified annual survey of stakeholders
- Internal
  - Develop and implement an annual DWR in-house morale and culture survey

## Staffing

- Evaluate and compare staff turnover rates on at least an annual basis
- Track number of hours worked in excess of a standard work week

## Water Resources

- Quantify water use in the state and track over time
- “Heat map” for areas without quality water access

## Projects

- Amount of funding committed to water infrastructure and development
- Percent of project financial needs addressed that are included in the Water Development Plan
- Amount of water put to beneficial use
- Number of overall projects funded
- Number of counties affected by new state investments in rural and municipal water systems
- Number of successful irrigation projects or irrigation acres
- Miles of pipeline funded
- Population protected from 100-year flood events
- Cost/benefit ratios for projects
- Model value of protected property/economic impact
- Changes in flood insurance policies and rates
- “Heat map” of area flood risks and changes over time

## Missouri River

- Population served by Missouri River water
- Amount of water withdrawn from Missouri River

## Cash Management

- Reduction in carry-over funds

## Responsiveness

- Turnaround time for public inquires
- Number of applications approved/permits issued
- Track time from application to issuance

## Signing of MOUs with Tribal Nations

# IMPLEMENTATION AND TIMELINE

## Month of August 2022

- Hold first DWR Strategic Plan leadership meeting
- Assign implementation and monitoring of goals and tactics to specific individuals or teams with an appointed team leader
- Determine frequency of reporting for each goal and tactic
- Make full strategic plan available to all staff electronically
- Set tentative dates for quarterly reviews of Strategic Plan from 4Q 2022 through 2Q of 2027 at DWR Strategic Plan leadership meetings
- Develop plan for DWR leadership to communicate key components of the Strategic Plan regularly

## Ongoing

- Daily
  - Keep goals a focus of daily operations
- Quarterly
  - Conduct review of Strategic Plan at DWR Strategic Plan leadership meetings
  - Conduct evaluation and scoring at DWR Strategic Plan leadership meetings to determine what is working or not working
  - Modify goals and tactics as warranted
- Annually
  - Conduct surveys
  - Collect and compare metrics





# 5 Year Strategic Plan

July 1, 2022 Through June 30, 2027

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[www.dwr.nd.gov](http://www.dwr.nd.gov)

Prepared by Odney, Inc.

Bismarck, North Dakota | June 2022