

## FAQ: PLAN FOR WATER OVERVIEW

What is NID's mission?

What are the sources of NID water?

What is the Plan for Water?

Why is the Plan for Water important?

What are the Plan for Water objectives?

What is the role of the public in the Plan for Water process?

How will the Plan for Water process work?

What are the 11 stages of the Plan for Water?

How long will the Plan for Water process take?

Will the Plan for Water address specific NID programs and projects?

Will the Plan for Water create an actual plan?

What is the difference between the Plan for Water and other NID plans?

What are Water Planning Projections?

Is the Plan for Water required by law?

What is hydrologic analysis?

What is water supply analysis?

What is demand analysis?

---

### What is NID's mission?

The District will provide a dependable, quality water supply; continue to be good stewards of watersheds, while conserving the available resources in our care.

### What are the sources of NID water?

NID's four main sources of water are: natural snowmelt and resulting runoff, reservoir storage carryover (unused from prior year), contract water purchases, and recycled water released by treatment plants and later diverted to NID irrigation canals.

### What is the Plan for Water?

The Plan for Water is a public collaboration process to determine the best ways to meet the community's demand for water over the coming decades.

The District is updating the plan to reflect changes in water demand, supply and the potential effects of climate change. The plan is an organizational tool that seeks to align resource decision making with community values and District operational needs, including technical and cost criteria requirements. When complete the plan will show how a variety of future water supply and demand scenarios could be integrated to ensure our community enjoys the same high-quality, reliable water system we have now.

The public is invited to participate in a number of workshops covering [11 stages](#) where questions and concerns can be addressed.

This planning process will benefit from public outreach that increases understanding of water resource challenges, and considers the community's long-term plans and priorities.

## **Why is the Plan for Water important?**

Water resource management is a complex and urgent issue. There is nothing more vital to our community than a secure water resource. The Plan for Water is an important tool for NID water management on a long-term basis. This planning ultimately involves forecasting and projecting future conditions based on realistic, valid and supportive assumptions. The community's water resources are limited, and careful planning is necessary to ensure supply is able to meet the different demands of local water users.

## **What are the Plan for Water objectives?**

Working together as a community is based on the following six objectives for the Plan for Water:

- Assess our water situation together
- Develop a deeper understanding of subsequent impacts to community interests and the community's future
- Provide a forum for community members to offer their input
- Focus on overarching policies and not on specific projects
- Understand what is really important to the community and why
- Create a 50-year plan using the best information available at this time.

## **How will the Plan for Water process work?**

The process will take a step-by-step approach through 11 stages. During each stage, there will be opportunities for creative problem solving, brainstorming, and developing strategic options.

The public will be invited to participate in public workshops covering the stages and where questions and concerns can be addressed.

The Plan will project ranges of possible water demand and supply scenarios. It also will include potential limitations of available water resources and the impacts of climate change, new regulations, and changes in land use.

The Plan for Water process includes 11 stages. Overall, the efforts include:

- Comprehensive Evaluation
- Multi-stage process
- Public Input
- Data Driven
- Science Driven
- Integrated Approach

Specifically the 10 stages are:

- System overview
- Water Rights Overview
- Watersheds
- Strategic Planning
- Basis for Plan for Water
- Hydrology and Hydrography
- Demand
- Supply Needs
- Strategy Options
- Evaluate Strategies

## What are the 10 stages of the Plan for Water?

### STAGE 1: System Overview

- The water system: top to bottom
- Watershed
- Reservoirs
- Hydropower facilities
- Transport systems
- End user delivery
- Common understanding of how the system works

### STAGE 2: Water Rights Overview

- Review of water rights currently held
- Locations
- Year of seniority
- Current usage

### STAGE 3: Watersheds

- Review of watershed management
- Cultural awareness and sensitivity

### STAGE 4: Risk

- Review of Risk analysis and mitigation efforts presentation relating to three organizational considerations: (i) Operational; (ii) Regulatory; (iii) Environmental

### STAGE 5: Strategic Planning

- Leverage work previously completed
- Can be revisited during process
- Mission
- Vision
- Strategic priorities
- Used as framework for plan for water process
- Used to guide policy decisions
- Used to guide annual budget

### STAGE 6: Basis for Plan for Water

- Planning horizon
- Intended outcome refinement
- Frequency of Plan update
- How Plan is used
- Responsibility for Plan

### STAGE 7: Hydrology and Hydrography

- Leverage existing work
- Drought scenarios
- Consider climate change
- Consider impacts of watershed health
- Science- and data driven

### STAGE 8: Demand

- Model future demand for planning horizon
- Requires new model
- Considers land use
- Considers end user use changes
- Considers regulatory flows
- FERC

### STAGE 9: Supply Needs

- Supply needs
- Short-term
- Long-term
- Consistent with planning horizon

### STAGE 10: Strategy Options

- Operations
- System
- End Users
- Restoration
- System
- Watershed
- Management
- Ongoing Adaptive Management of Watershed
- Programs
- Capital

### STAGE 11: Evaluate Strategies

- Develop evaluation criteria
- Consistent with Board-determined mission, vision, and strategic priorities
- Possible considerations to include: environmental, cost, technical Feasibility, constructability; risk; political

### **How long with the process take?**

It is estimated the 11-stage process will take about 18 months.

### **What is the role of the public in the Plan for Water process?**

The Plan for Water process depends on community collaboration to develop a vital tool for NID's water management in the future.

The public will be invited to participate in a number of public workshops covering the 10 stages where questions and concerns can be addressed. The District's plan will benefit from a public outreach process that increases public understanding of water resource challenges, considers the community's long-term plans and priorities, and listens to and learns from the public.

### **Will the Plan for Water create an actual plan?**

The Plan for Water is not a specific plan. The strategies developed through the process will be used to develop different NID plans, such as the Agricultural Water Management Plan (AWMP), the Urban Water Management Plan (UWMP) and the Raw Water Master Plan (RWMP).

### **What is the difference between the Plan for Water and other NID plans?**

The Plan for Water will help guide decisions associated with other NID plans in the future.

#### Raw Water Master Plan

The Raw Water Master Plan helps guide decisions related to the water system in the future. Updates reflect changes in water demand, supply and the potential effects of climate change. The plan is an organizational tool that seeks to align resource decision making with community values and District operational needs, including technical and cost criteria requirements.

#### Urban Water Management Plan (UWMP)

NID's Board of Directors approved its 2020 Urban Water Management Plan (UWMP) on July 14, 2021, and it has been submitted to the State's Department of Water Resources.

The UWMP includes information such as a description of reliability of supplies, projected supplies, and the strategy for meeting water needs, a description of the existing and planned supply sources, estimates of past, present and projected water use, a 5-year Drought Risk Assessment, and a description of the Water Shortage Contingency Plan/Conservation Program.

#### Agricultural Water Management Plan (AWMP)

The NID Board of Directors approved its 2020 Agricultural Water Management Plan (AWMP) on April 14, 2021, and it has been submitted to the State's Department of Water Resources.

The report includes information about NID's roughly 5,600 agricultural customers such as past water usage, conservation efforts, and other management elements.

About 90 percent of all the water delivered by NID is for agricultural use giving life to approximately 32,000 acres of irrigated land in Nevada and Placer Counties. Most agricultural water customers purchase water seasonally, from mid-April through mid-October. NID's raw water is conveyed to customers through a unique network of over 500 miles of canal. The ag water is used to grow multiple crops including wine grapes, nursery stock, apples, rice, plums, citrus, grass, alfalfa hay, as well as to irrigate pasture.

## **What are NID's Water Planning Projections?**

The Water Planning Projections consist of three studies that analyze the hydrology, water supply and water demand that help NID determine if its water storage and delivery system will provide sufficient water to meet customer demands over time and under variable conditions.

The Water Planning Projections are used to prepare a number of planning reports such as the Urban Water Management Plan and the Agricultural Management Plan.

The Water Planning Projections will be used to prepare the District's Plan for Water, and are considered when making decisions about capital improvements to the District's water storage and delivery system. The need to update NID's Water Planning Projections is driven by a series of requirements and assumptions, including the new Yuba-Bear System Federal Energy Regulatory Commission (FERC) regulatory requirements, state-derived climate change data, municipal master planning documents, and the state-mandated planning requirements. Together, these requirements and assumptions constitute significantly new planning assumptions and drive the need to update and revise NID's Water Planning Projections when necessary.

Updated Water Planning Projections were presented to NID's Board of Directors on August 26, 2020.

## **Is the Plan for Water required by law?**

No. The Plan for Water is born of the FERC relicensing effort, climate change impacts, financial requirements, and new regulatory requirements.

The Plan does not re-analyze or revisit any new requirements set by FERC or the State. Instead, it sets these requirements as the new normal, and looks ahead 50 years to anticipate potential supply/demand scenarios and identify alternative solutions.

## **Will the Plan for Water address specific NID programs and projects?**

No. Instead the NID Board of Directors will use this Plan as a guide during consideration of specific programs and capital projects in the future

## **What is hydrologic analysis?**

The goal of the District's hydrologic analysis is to understand a range of outcomes based on various greenhouse gas emissions reduction scenarios and to determine the unimpaired flow, which is the amount of water available in the natural watershed without influence (i.e., regulation of stream flow by man-made structures such as dams or diversions).

The State of California anticipates conditions under climate change to include warmer temperatures, rising sea levels, declining snowpack, more intense precipitation events, more droughts, and more area burned by wildfire. These factors, among others, will ultimately impact the amount of water available in a watershed in any given year.

The result of this analysis is the unimpaired runoff in NID's watersheds under various climate change scenarios.

### **What is hydrologic analysis?**

The goal of the District's hydrologic analysis is to understand a range of outcomes based on various greenhouse gas emissions reduction scenarios and to determine the unimpaired flow, which is the amount of water available in the natural watershed without influence (i.e., regulation of stream flow by man-made structures such as dams or diversions).

The State of California anticipates conditions under climate change to include warmer temperatures, rising sea levels, declining snowpack, more intense precipitation events, more droughts, and more area burned by wildfire. These factors, among others, will ultimately impact the amount of water available in a watershed in any given year.

The result of this analysis is the unimpaired runoff in NID's watersheds under various climate change scenarios.

### **What is water supply analysis?**

NID's water supply analysis uses the unimpaired runoff results from the hydrologic analysis to determine available water supply.

The result of this analysis is the amount of water available to NID during average and wet years, as well as during a 5-year drought scenario. It is the amount available to meet regulatory required environmental flows, customer demand for raw or irrigation water, customer demand for treated or drinking water, municipal purchases and to cover system losses.

NID's four main sources of water are: natural snowmelt and resulting runoff, reservoir storage carryover (unused from prior year), contract water purchases, and recycled water released by treatment plants and later diverted to NID irrigation canals.

The water supply analysis has been updated to consider the impact of drought, climate change, contract purchases, and new FERC license conditions for environmental flows on its water supply system. An additional carryover storage model is also used to determine what NID reservoir storage carryover will be from year to year.

### **What is water demand analysis?**

Water demand analysis looks at future water demands on NID's water storage and delivery system. The five components of total water demand are: the demand for raw or irrigation water, the demand for treated or drinking water, required environmental flows, system losses, and municipal purchases. It is important to note that 85 percent of NID's water deliveries are raw water used for irrigation purposes.

Calculating demand is a very simple process of multiplying the projected water demand factor by the number of customers or parcel size. While the multiplication is easy, numerous assumptions are made including economic and demographic assumptions, regulatory and legal impacts, operational assumptions, and others that effectively assume a state of the NID community in 50 years.

The result of this projection is a range of future customer demands for treated and raw water.