

The North Bay

where the quality of life for both people and wildlife is high...

The North Bay Watershed Association represents more than 20 diverse entities concerned with managing water, watersheds, and shorelines surrounding the northern part of San Francisco Bay. The North Bay's watersheds encompass eastern Marin County, southern Sonoma County, Napa County, and portions of Solano County. The North Bay is the most rural part of the San Francisco Bay Area, with expansive open spaces and a relaxed pace of life. The region hosts large public parks, vineyards and ranches, and small towns rich in history. Some of the region's creeks and rivers sustain steelhead trout, now rare throughout California,

while wetlands and floodplains harbor migrating waterfowl, shorebirds, and a number of endangered plants, birds and mammals. Their survival continues to depend on the safekeeping of natural places.

A recent census shows more than 1.3 million people live in the four North Bay counties. About half of these people live in NBWA watersheds, many in rural areas but more than 160,000 in the larger towns Vallejo and Benicia. Their water supply includes local reservoirs, private wells, and imports from outside the North Bay. Most water source areas and lands around streams are privately owned. The North Bay relies on local water supply more than any other sub-region of the Bay Area.

More than 2,000 miles of streams flow through North Bay watersheds include Marin County's small, urbanized creeks, the Petaluma River, Sonoma

Creek, and the Napa River. Small Solano County creeks, between Vallejo and Benicia, and the Suisun Bay drainage just upstream in the larger San Francisco Estuary watershed, also influence the North Bay.

Water quality in most North Bay streams is adequate to support steelhead, but erosion and turbidity due to land uses such as farming, ranching and urbanization have compromised riparian habitats. The North Bay Watershed Association works



Photo: Sonoma County Water Agency

with partners to improve watershed health through interagency coordination, community education, and voluntary buy-in for collaborative projects from private landowners. With the Association's leadership, the North Bay offers great opportunities for collaboration among water entities, environmental restoration and more sustainable water management.

Recent extreme flood and fire events in the North Bay have increased attention to water management at every level. The intensity and magnitude of these events challenge land use and water planners to improve the resilience of North Bay landscapes. During fire season, increased water use efficiency, greater conservation, and more localized use of grey and recycled water sources will be important components of building resilience. During the wet season, increasing the acreage of pervious buffer zones, floodplains, marshes, and building more multi-benefit infrastructure, can all help reduce high water impacts on the North Bay. Collaboration among Association members and partners to address these critical challenges will help increase resilience.



Association members have helped local, state and federal partners protect nearly 50,000 acres of wetlands on the North Bay shore, and restore or enhance 30,000 more. These natural landscapes buffer local communities, farmlands and wildlife from the effects of coastal flooding and sea level rise. Photo: Bird's Eye View



IMPROVING WATERSHED MANAGEMENT

Since 2000, Association members have discussed issues of common interest, explored ways to collaborate on regional water priorities, and shared information on projects, regulations, and technical issues.

NBWA ACTIVITIES RESEARCH

- Creating a consistent approach to measuring watershed health across the diverse North Bay.

RESTORATION

- Enhancing instream, riparian, and upland habitats in all watersheds.
- Reducing runoff from developed areas.
- Achieving regulatory water quality targets.

POLICY

- Helping water agencies design projects that achieve multiple benefits, such as water supply and habitat, or groundwater recharge and stormwater management.

COORDINATION

- Coordinating multi-agency water planning in the North Bay and in the Bay Area.
- Forging agreements among agencies on priorities for watershed management.
- Mobilizing for regional approaches to water conservation, recycling and drought management.

EDUCATION

- Hosting regular conferences to promote collaboration and information sharing.
- Involving youth in restoration and monitoring of local creeks.
- Supporting climate adaptation programs.

JOIN THE NORTH BAY WATERSHED ASSOCIATION

BENEFITS TO NBWA MEMBERS

- Respond to new policy and regulation
- Share information and resources
- Reach a broader audience
- Access to decision-makers
- Financial support for projects
- Network and partner with like-minded organizations

BENEFITS TO THE NORTH BAY

- Better water quality
- More reliable water supply
- Better educated citizens
- Improved habitat in streams and watersheds

JOIN US!
MEETINGS ARE OPEN
TO ALL INTERESTED PARTIES

FOR MORE INFORMATION:

www.nbwatershed.org



Cover photo: Bird's Eye View
Editor: Ariel Rubissow-Okamoto
Design: Darren Campeau
Print run 500, Version 4, July 2019

THE NORTH BAY WATERSHED ASSOCIATION

FOSTERING STEWARDSHIP
OF WATER RESOURCES

WORKING ACROSS CITY, COUNTY
AND AGENCY BOUNDARIES

INFLUENCING PUBLIC POLICY
AND REGULATION

INCREASING LOCAL FUNDING
FOR WATERSHED PROJECTS

PROMOTING INTEGRATED
WATER MANAGEMENT
AND CLIMATE CHANGE ADAPTATION



WATERSHEDS OF THE NORTH BAY



Corte Madera Creek, one of myriad small urbanized creeks on the Marin shore.
Photo: Charles Kennard



Petaluma River, meandering gateway to upland migration space for North Bay wetlands.
Photo: Bird's Eye View



Napa River, state of the art floodplain restoration in Northern California.
Photo courtesy: Napa County Flood Control District



Carquinez Strait at Benicia, where 40% of the state drains into the North Bay and the San Francisco Estuary.
Photo: Wikimedia Commons

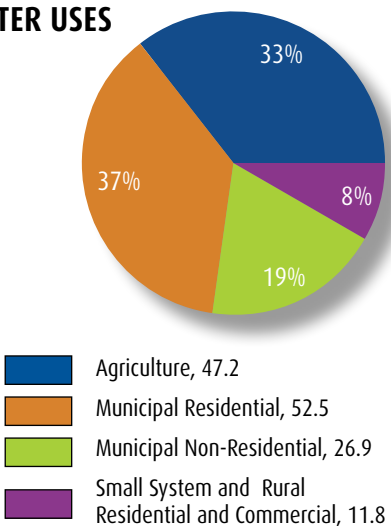


TAKE HOMES

- The North Bay's cities, towns and three public water districts (the "municipal" providers) supply the water needs of over 90% of the 660,000 NBWA residents, including Vallejo and Benicia. Around 40,000 residents, nearly all in the Sonoma and Napa County watersheds, are self-supplied or use small private (mutual) water systems, primarily tapping groundwater.
- About 75% of the potable water supplied to the municipal users is imported from watersheds outside of those draining directly into the North Bay. Imports come from both the Russian River and Tomales Bay watersheds, as well as from Sierra watersheds. Most of Benicia and Vallejo supply comes from the Delta via the North Bay Aqueduct, with smaller amounts from the Putah Creek watershed.
- Surface runoff in the Napa River watershed is an important supply for both agricultural and municipal users. Novato Creek is also used for a municipal supply.
- Groundwater supplies nearly all of the small system commercial users such as wineries, golf courses, and parks in the Sonoma and Napa County watersheds. Groundwater supplies most of the agricultural uses (around 80%) in the NBWA region. Groundwater supplies 2% of the municipal demand.
- Around 5% of the surface and groundwater supply is replaced or offset with recycled water, which is used for municipal landscapes and vineyard irrigation. Additional recycled water is also used for wetland restoration and for pasture irrigation but is not a replacement for potable supplies.
- About 2/3 of the municipal demand is for residential uses in the North Bay. A little more than half of the total municipal demand is used outdoors.
- Per capita (gallons per person per day) single and multi-family residential use in NBWA towns and cities, including Vallejo and Benicia, averaged about 91 gallons per day in 2013. Residential water use dropped 23% in 2015, to about 70 gallons per person per day, and the region collectively exceeded the state-imposed water conservation targets. Although there have been increases in per-capita use since the state lifted mandatory reductions, North Bay residents are generally still keeping their water use much lower than pre-drought levels.

Note: Municipal water supply and use based upon calendar year 2013-2017 data from reports filed with SWRCB Drinking Water Program. Agricultural use based upon 2010 data reported by DWR. Recycled water use data from 2013 reports filed with the RWQCB and from wastewater plant operators. Other sources: SCWA, City and County of Napa.

WATER USES



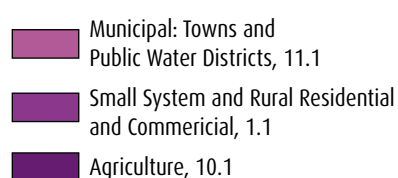
In thousands of acre-feet per year (taf/yr).
Total use = 142 taf/yr.

WATER SUPPLY

IMPORTED



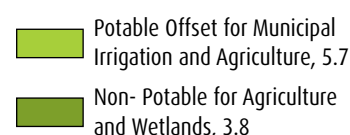
LOCAL SURFACE



In thousands of acre-feet per year (taf/yr).
Total supply = 142 taf/yr.

Note: Water supply and use pie charts are based upon 2013 and 2010 data (take home points above based on more recent data).

RECYCLED



GROUNDWATER

