North Fork Kings
Groundwater Sustainability Agency

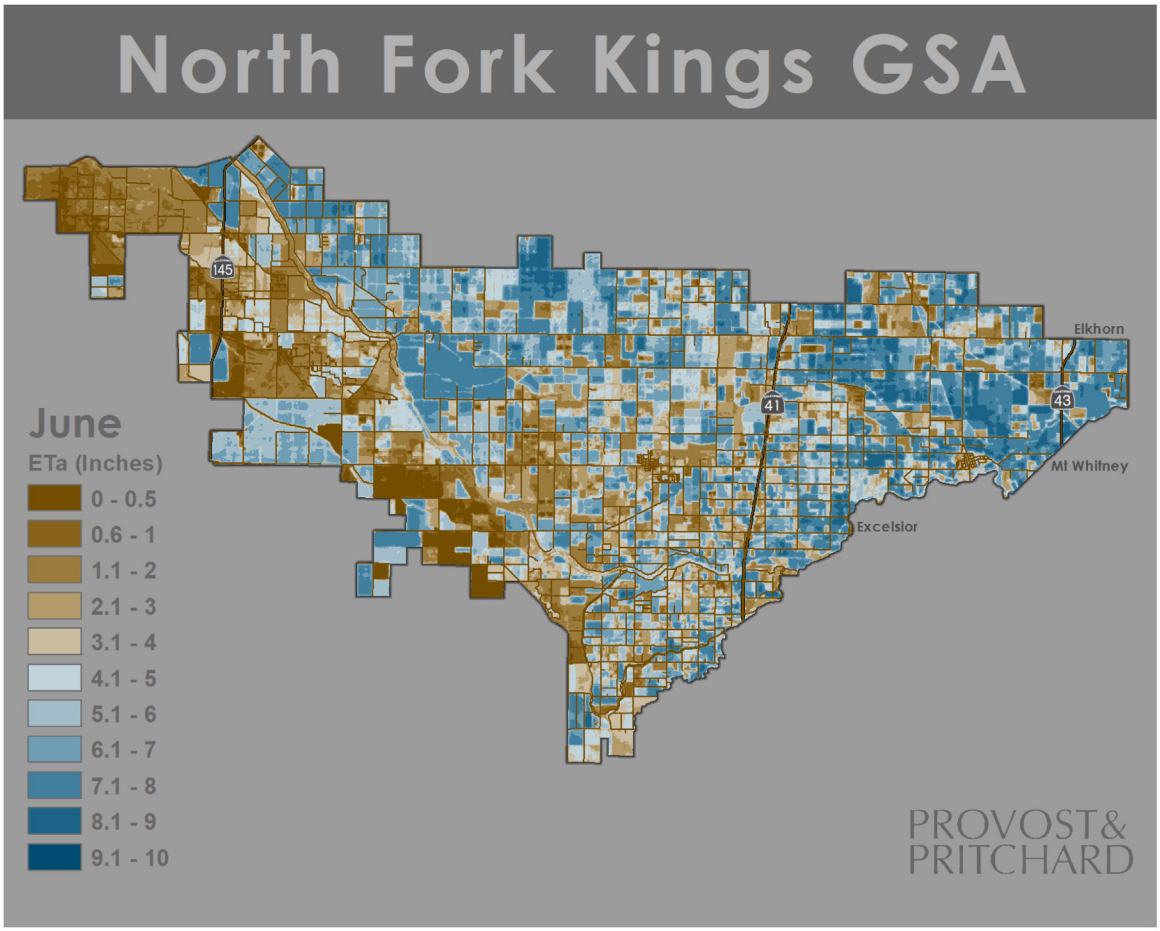
FALL 2021 UPDATES

Determining Groundwater Use

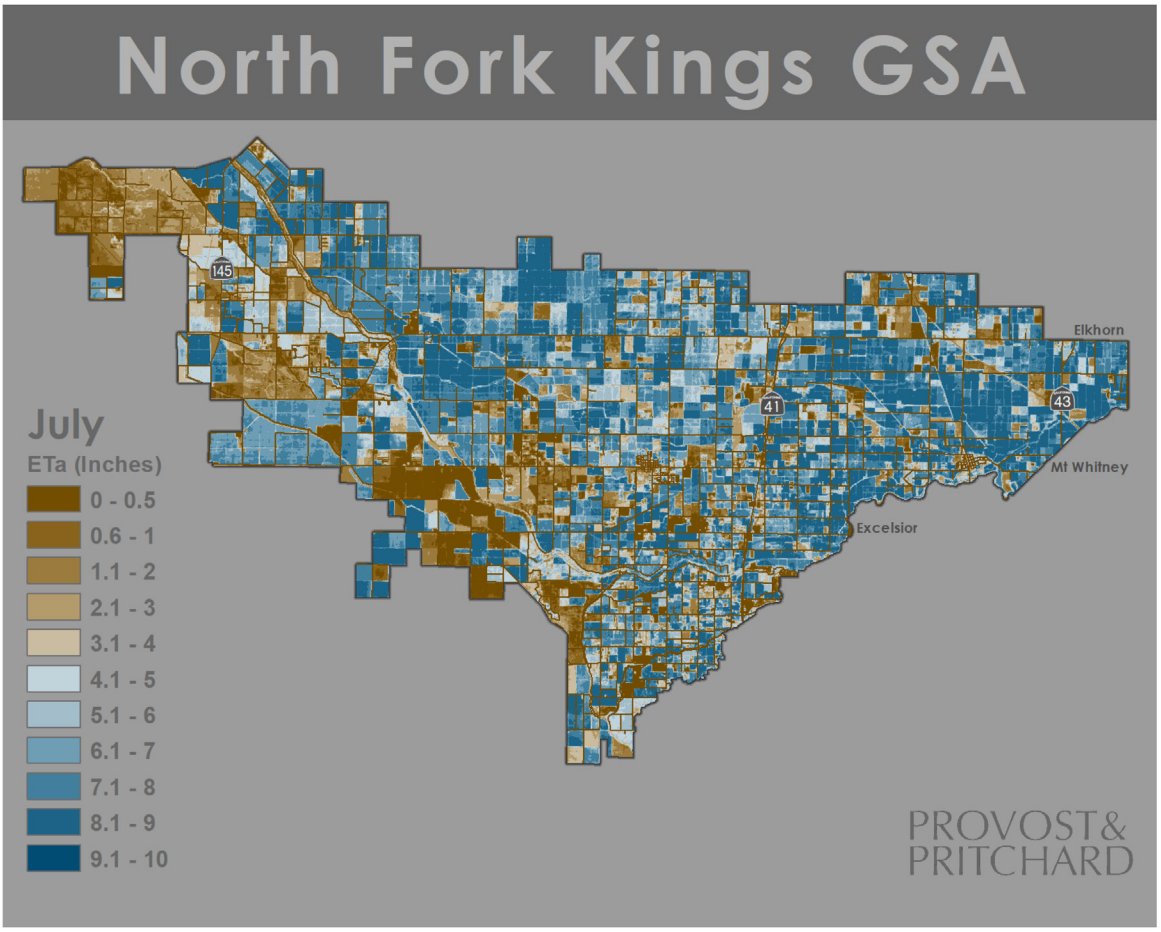
There are two basic ways to determine the amount of groundwater used by each landowner: (1) measuring the volume of groundwater pumped by using a flowmeter on the well, or (2) through crop evapotranspiration information obtained via satellite technology. A flowmeter installed on a well measures the gross or total amount of groundwater pumped, whereas the net amount of consumed groundwater can be determined through calculations using crop water use data. The gross amount of water pumped will exceed the net consumptive use because of inefficiencies in the irrigation system.

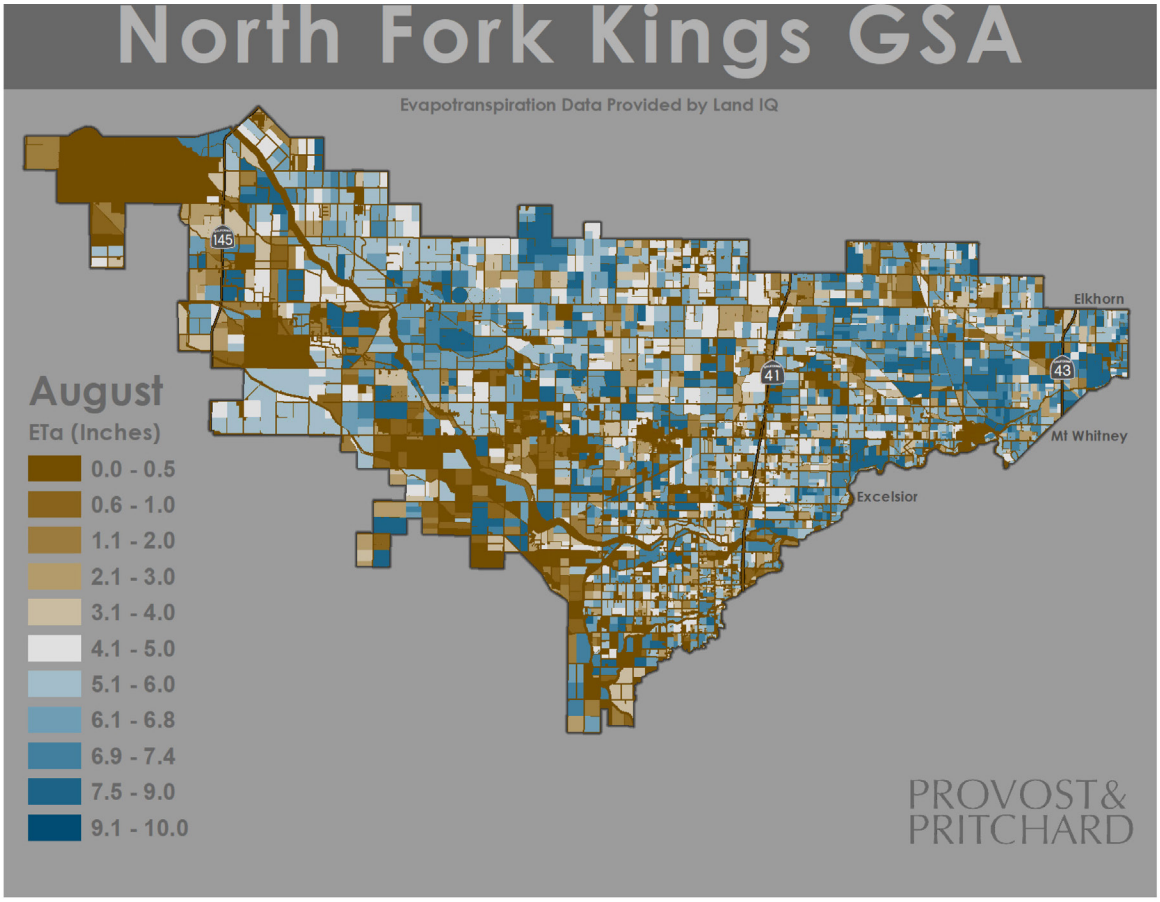
The North Fork Kings Groundwater Sustainability Agency (NFKGSA) has recently hired a consultant that utilizes satellite data, cropping data, and local weather stations within the NFKGSA to calculate, by field and by parcel, the amount of water consumed by the crop each month. The actual cropped acreage of a field is identified along with the crop itself. This data is available approximately 30 days after the end of each month. After accounting for surface water deliveries to the field and the amount of precipitation used by the crop, the amount of consumed groundwater can be obtained. At this time, the NFKGSA is using the crop consumptive use information to calculate groundwater use and is only requiring flowmeters to be installed on new wells, but all groundwater wells within the GSA may be required to measure groundwater extraction by flowmeters at some point in the future.

The maps below represent the amount of water consumed by fields in the GSA for the months June, July, and August 2021. Measuring water consumption and calculating groundwater use allows the NFKGSA Board to effectively track progress and make management decisions to achieve groundwater sustainability as required by State law. These maps that allow you to view your measured water use are located at www.northforkkings.org/maps. Additional information on how the crop consumptive use information will be used will be provided to all landowners in the near future.



Maps continued on the back


North Fork Kings GSA
July
ETa (Inches)
0 - 0.5
0.6 - 1
1.1 - 2
2.1 - 3
3.1 - 4
4.1 - 5
5.1 - 6
6.1 - 7
7.1 - 8
8.1 - 9
9.1 - 10
145
41
43
Elkhorn
Mt Whitney
Excelsior
PROVOST&
PRITCHARD


North Fork Kings GSA
Evapotranspiration Data Provided by Land IQ
August
ETa (Inches)
0.0 - 0.5
0.6 - 1.0
1.1 - 2.0
2.1 - 3.0
3.1 - 4.0
4.1 - 5.0
5.1 - 6.0
6.1 - 6.8
6.9 - 7.4
7.5 - 9.0
9.1 - 10.0
145
41
43
Elkhorn
Mt Whitney
Excelsior
PROVOST&
PRITCHARD

North Fork Kings GSA Frequently Asked Questions

What is the North Fork Kings Groundwater Sustainability Agency (NFKGSA)?

The NFKGSA is a local public agency that was formed in 2016 to help landowners manage the groundwater in a sustainable manner and avoid long-term groundwater overdraft.

What is the Sustainable Groundwater Management Act (SGMA)?

SGMA is a state law that requires high-priority groundwater basins to eliminate groundwater overdraft and prevent undesirable results by the year 2040.

What are the consequences if the groundwater is not managed sustainably on the local level and the State intervenes?

SGMA was developed with the intent for local regional agencies to be responsible for managing groundwater in a sustainable manner, but if the local GSAs are unable or unwilling to sustainably manage their groundwater basin, then the State Board can step in (or intervene) and take over control of the groundwater.

Who are neighboring GSAs?

Neighboring GSAs in the Kings Subbasin include Central Kings GSA, McMullin Area GSA and James ID GSA. Neighboring GSAs in other subbasins include the Mid-Kings River GSA and the South Fork Kings GSA in the Tulare Lake Subbasin and the Westlands Water District GSA in the Westside Subbasin.

What is the groundwater condition in the NFKGSA and in the Kings Subbasin as a whole?

The Kings Subbasin is considered to be a high priority, critically overdrafted subbasin and the NFKGSA is one of the most overdrafted GSAs in the Kings Subbasin.

What authority does the NFKGSA have to impose the groundwater sustainability rules and regulations upon my land?

As the exclusive local public agency approved by the State with powers to comply with SGMA, the NFKGSA has the authority under California State Law to implement the requirements of SGMA on all land within the GSA.

Does SGMA apply to all landowners, and what are the repercussions if a landowner does not participate in the NFKGSA?

SGMA applies to all landowners within the NFKGSA boundary since all landowners within the GSA boundary are users of groundwater, whether you pump the groundwater yourself or receive your water supply from a water system. If a landowner does not participate, primarily by not paying assessments or fees, the NFKGSA can put a lien on the property, similar to non-payment of a property tax.

I have no irrigated agriculture on my property, why am I required to participate in the NFKGSA?

It is important for all landowners to be engaged and participate, but if your property does not use groundwater, or very little, the impacts to you as a landowner will be very minimal.

How will the NFKGSA reduce overdraft and achieve groundwater sustainability?

There are basically only two ways to achieve sustainable groundwater levels and avoid undesirable results – either increase the water supply or reduce the demand for water. The NFKGSA and local agencies in the region have plans to increase the water supply by developing projects to capture floodwater, but if sufficient quantities of additional water cannot be obtained to achieve sustainability, then reducing the water demand will be required.

Are state or federal grant funds available to help pay for implementing the Groundwater Sustainability Plan?

The NFKGSA and other local agencies do look for available grant funding opportunities that could help pay for some Groundwater Sustainability Plan implementation costs, but grant applications are generally very competitive.

Will there be limitations imposed on how much groundwater a landowner can pump?

It is likely that some reduction in water demand will be required in the NFKGSA because it is expected there will not be enough additional surface water supply available to overcome the current groundwater overdraft, meaning there may be a need to limit the amount of groundwater that can be pumped, at least in some portions of the NFKGSA.

How does the NFKGSA measure the amount of groundwater consumed on my property?

The NFKGSA has hired a company that utilizes a technique called remote sensing to calculate, by field and by parcel, the amount of water consumed each month. Once the amount of water use is known, the amount of groundwater utilized can be determined after accounting for surface water deliveries and the amount of precipitation used by the crop.

How does the surface water I receive from my irrigation district or mutual water company affect my water accounting?

Surface water deliveries are in addition to the allowable amount of groundwater that can be pumped (which is still to be determined).

Am I required to register my well with the NFKGSA?

To effectively manage the groundwater supply within the NFKGSA boundary, it is necessary to have accurate information about groundwater wells (both agricultural and

FAQ continued on the back

North Fork Kings GSA Frequently Asked Questions, continued

domestic), which requires identification and registration of all groundwater wells located within the NFKGSA.

Will groundwater meters be required?

Any new wells must install a flowmeter at the time of construction that meets the meter standards established by the NFKGSA. All groundwater wells within the GSA may be required to measure groundwater extraction by flowmeters at some point in the future.

Will a groundwater credit system be established?

The NFKGSA is in the process of establishing a groundwater credit program where landowners who use their own land or facilities to recharge the groundwater within the NFKGSA boundaries can generate groundwater credits for future use if/when a groundwater allocation program is established.

How can I participate?

Landowners are encouraged to become engaged and participate by signing up for the Interested Persons email distribution list at the GSA website (northforkkings.org) and to read the periodic NFKGSA newsletter and attend the monthly meetings of the NFKGSA Board of Directors.

To learn more about the Board's rules and regulations go to http://northforkkings.org/policies.

To view an expanded version of the Frequently Asked Questions (FAQ) go to https://northforkkings.org/resources. The FAQ document is located in the MATERIALS section.

Kings Subbasin Builds for Drought Resilience at Record Pace

In the short span of two years, the Kings Subbasin Groundwater Sustainability Agencies, which includes the NFKGSA, have invested in 600 acres of prime groundwater recharge land. This land represents 15 dedicated basins that are constructed or in development. Local water managers have taken the long view as they invest in infrastructure now with the goal of bringing sustainability to the groundwater resources shared by all within the Kings Subbasin region.

Since the Kings Subbasin submitted seven Groundwater Sustainability Plans in January 2020, there has been a driven effort to successfully build groundwater recharge capacity to support Kings Subbasin sustainability goals. This additional water infrastructure is anticipated to provide over 15,000 acre feet of recharge per year on average, directly benefitting groundwater levels for communities and ag lands in the Kings Subbasin region. (An acre foot equals 325,900 gallons, or enough water to cover a football field to a depth of one foot.)