



WELCOME!

Easton Community Event
October 12, 2021

A decorative graphic on the left side of the slide consisting of white lines and circles on a blue gradient background, resembling a circuit board or a stylized tree structure.

EASTON COMMUNITY AND NEIGHBORS DOMESTIC WELL WORKSHOP

WHAT TO KNOW ABOUT YOUR DOMESTIC WELL



PURPOSE OF THIS WORKSHOP TO INFORM

- Ground Water Levels and Common Contaminants
 - How to NOT get caught with a dry well
 - What to do if you are
 - How to test for nitrate and other contaminants
- 
- 

PRESENTERS

- Easton Community Services District (ECDS)
 - Information specific to Easton
- North Kings Groundwater Sustainability Agency (NK GSA)
 - Monitor, with goal to maintain GW levels. Monitor impacts on contaminants.
- Kings Water Alliance Services (KWA)
 - Nitrate education and testing
- Fresno County, Department of Public Health
 - New wells, lowering pumps, limited testing for contaminants
- Self Help Enterprises (SHE)
 - Interim and long term solutions for drinking and household water use
- YOU !!! The Well Owner or User

MY WELL.....MY RESPONSIBILITY

- Privately Owned
- Maintain
- Monitor
- Test
- Repair/replace pump or well
- Do not pay for public water services

GROUND WATER CONTAMINANTS

- Easton has.....Nitrate, DBCP, Uranium, 1 2 3 TCP, coliform bacteria
- Over 80% of all wells tested had one or more contaminants above the MCL in 2013-2014
- Number of wells with Nitrates above the MCL doubled from 1990's to 2014
- Septic tanks are a major contributor to nitrates in Easton
- KWA and County can test for contaminants

GROUND WATER LEVELS

- Droughts happen- 1928-1934 drought was the longest and worst. Since 2000, the longest duration was 2021- 2019, with 2014 the worst year.
- Dropped 8 feet per year in 2013-2014
- Easton GW level has declined an average 1 foot per year since 1960's
- June 2021 = 100 feet below surface. Gleim Crown estimate = 105-110 feet below October 2021.
- The further south and west wells.....120 to 320 feet below ground near Riverdale.
- Ground Water level is declining. Intent of SGMA is to slow it down.
- How to monitor- NK GSA, FID monitoring wells, call a pump company or well driller to check, sometimes SHE
 - FID <https://www.fresnoirrigation.com> Click on Groundwater

BE PREPARED

- Know your well depth- Well Log with County or State DWR. Call pump or drilling company to measure.
 - <https://water.ca.gov/Programs/Groundwater-Management/Wells/Well-Completion-Reports>
- Know where your pump is set
- Monitor GW levels
- If close, call driller to get on the list. During a drought, the wait time has been/is approximately 6 months +/-
- If 50 feet left, start planning
 - Drill during wet year
 - Save money to pay for it (Went from \$10K n past to \$30K in 2014. Now.....????)
- Home Equity loan.....not option when well is dry?
- If 100+ feet left.....?????

IF WELL IS DRY, OR ALMOST DRY

- Share with your neighbor
 - Use hose from neighbor
 - Do not drink water from a garden hose
 - Use water sparingly
 - Get on a driller's list ASAP
 - Find funding (SHE sometimes)
- Self Help Enterprises
 - www.selfhelpenterprises.org/programs/emergency-services/
 - 559-802-1645
 - EMERGENCYSERVICES@SELFHELPENTERPRISES.ORG

ECSD CONCLUSION

- Think
- Be informed
- Plan and Prepare
- Future..... Harder and harder to drill new wells due to septic tanks and small lots
- Good news.....
 - There is water beneath Easton
 - It is possible to find “clean” water in Easton.....go deep enough and seal upper layers
- Work Together

THANK YOU FOR COMING !!!



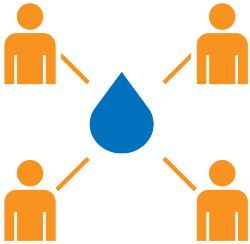
Domestic Well Owners and SGMA: What You Need To Know

Easton Community Event
October 12, 2021

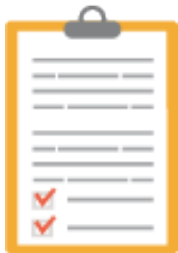
Key Terminology



SGMA = Sustainable Groundwater Management Act



GSA = Groundwater Sustainability Agency



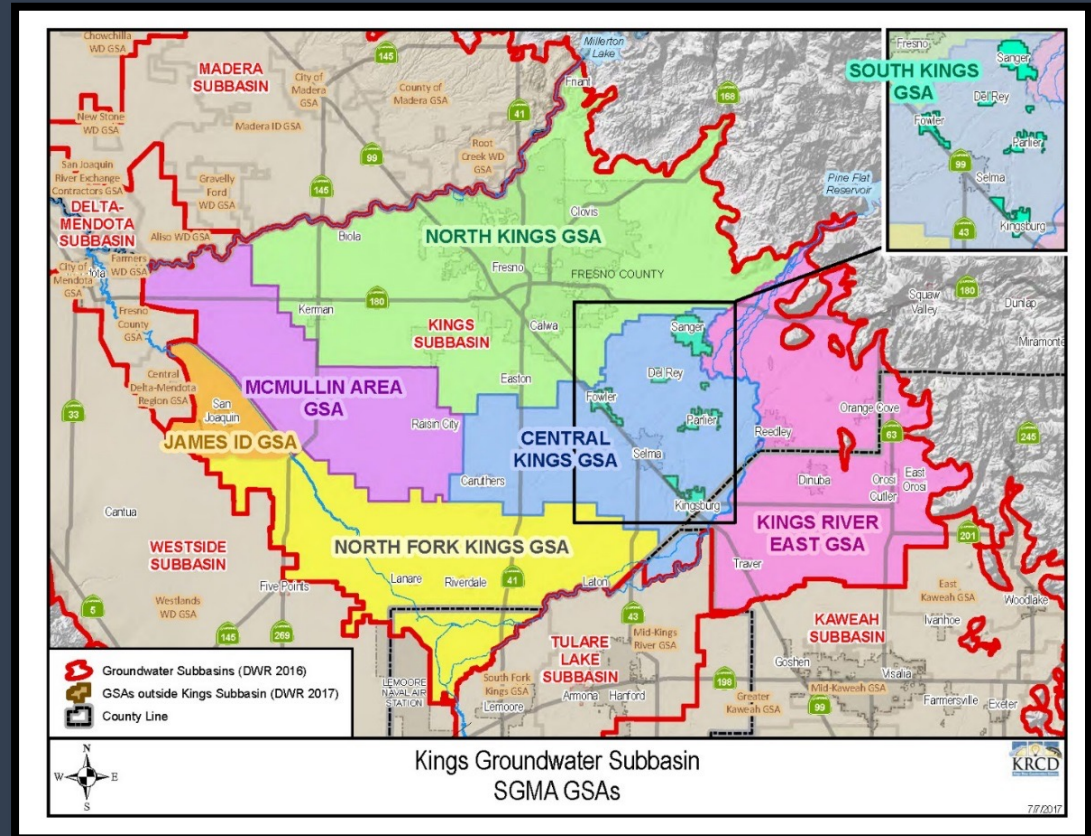
GSP = Groundwater Sustainability Plan

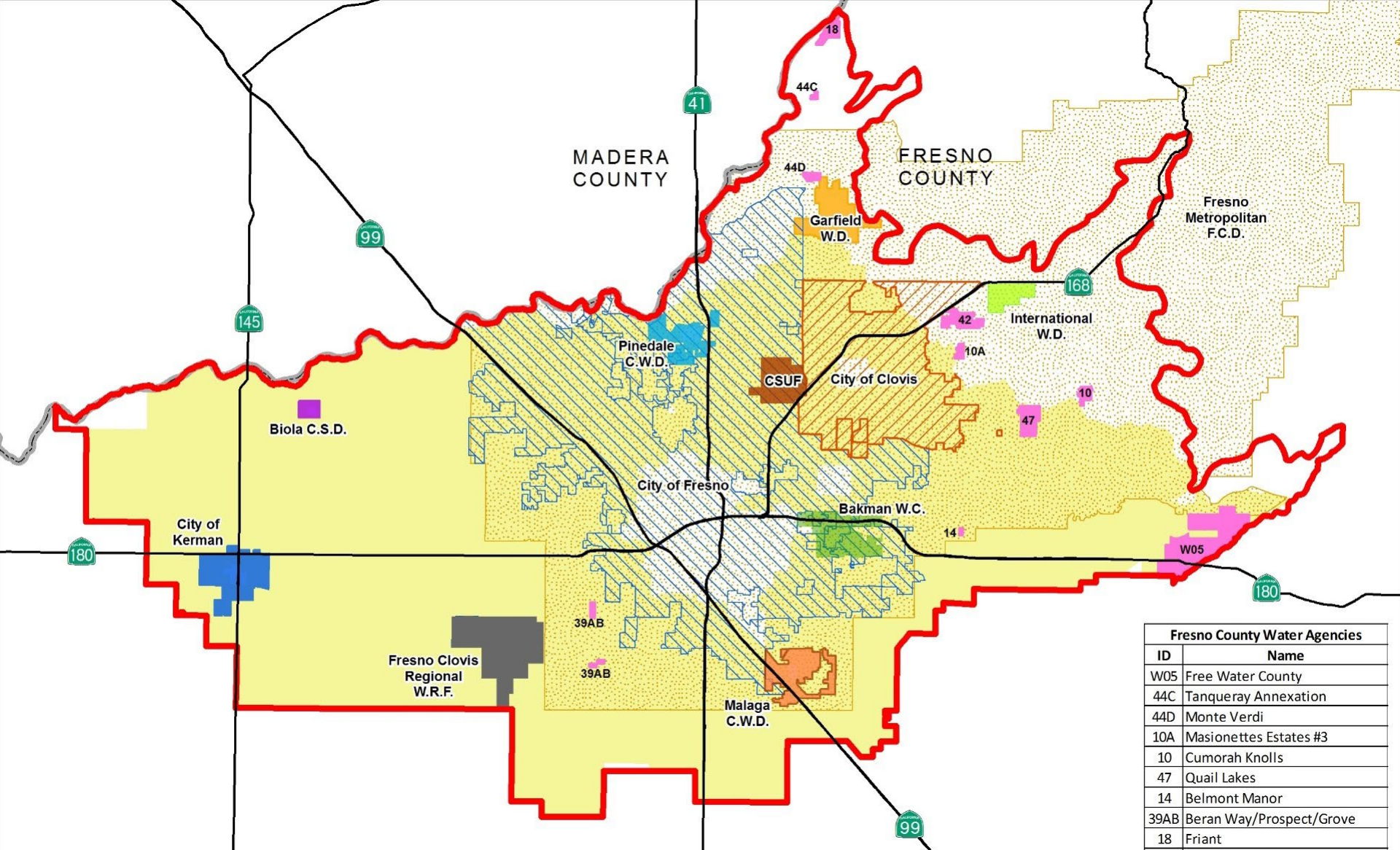


DWR = California Department of Water Resources

● ● ● Sustainable Groundwater Management Act (SGMA)

- Legislation Passed in 2014
- Provided for Local Control
- Designed to Establish Sustainable Groundwater Supplies

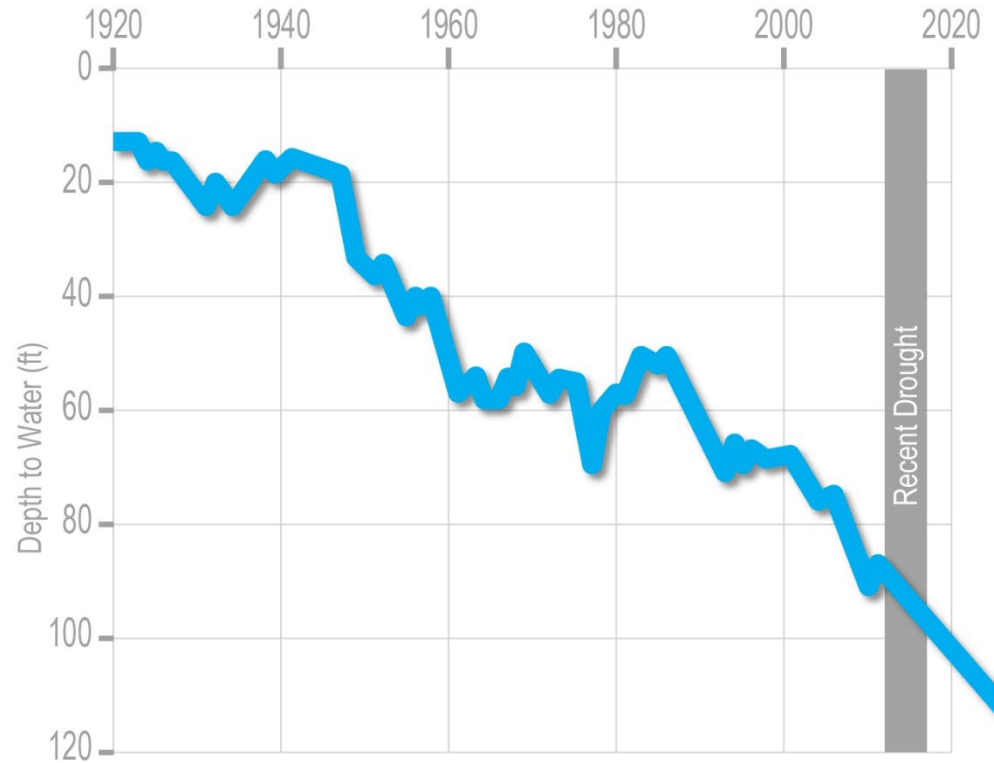




About NKGSA

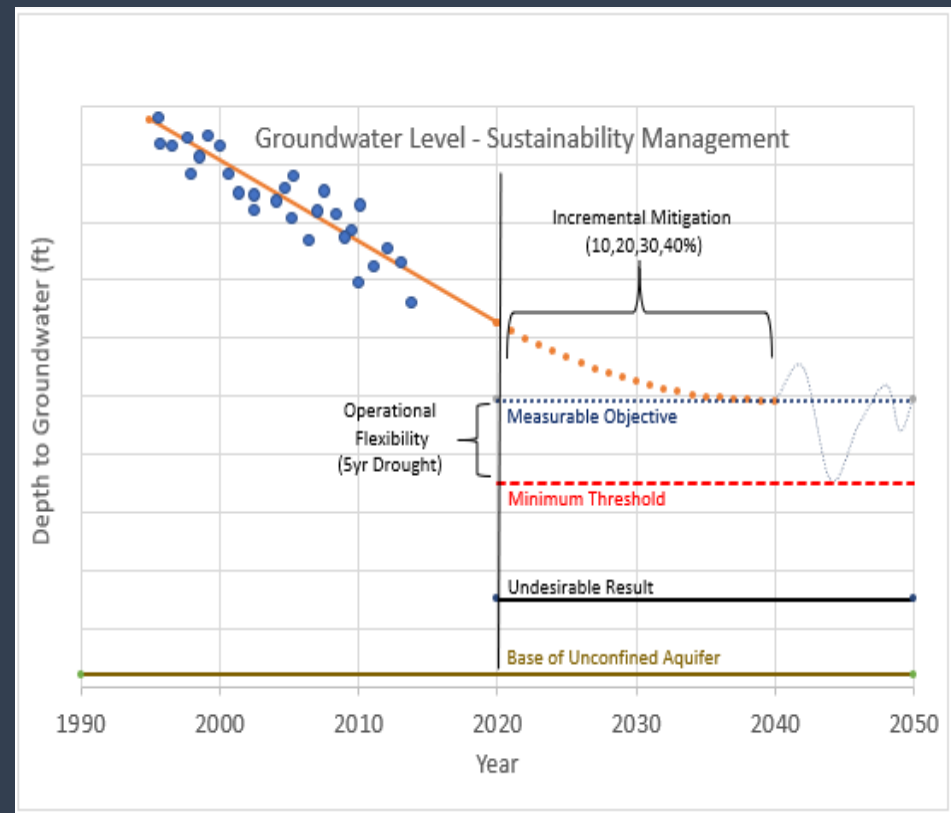
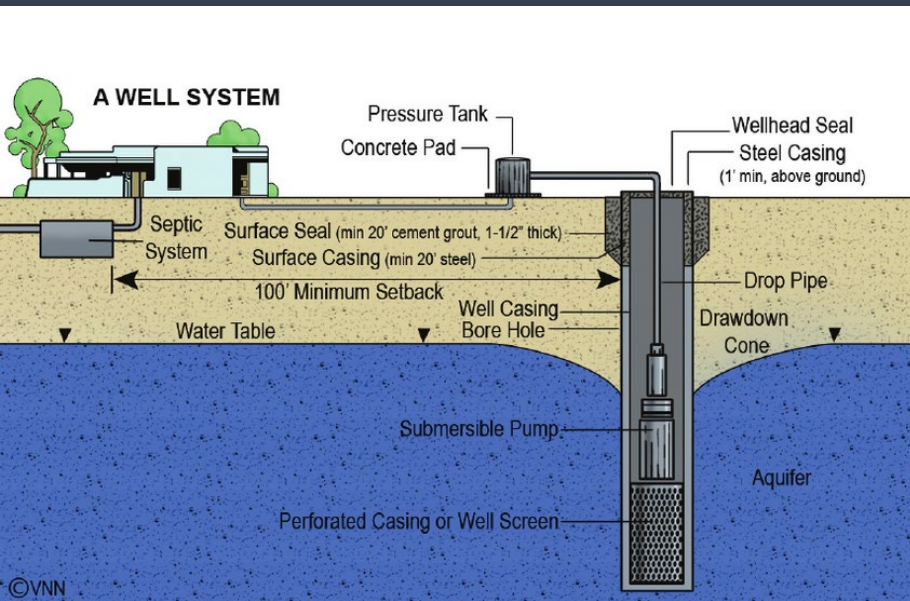
Chronic Overdraft

Challenges

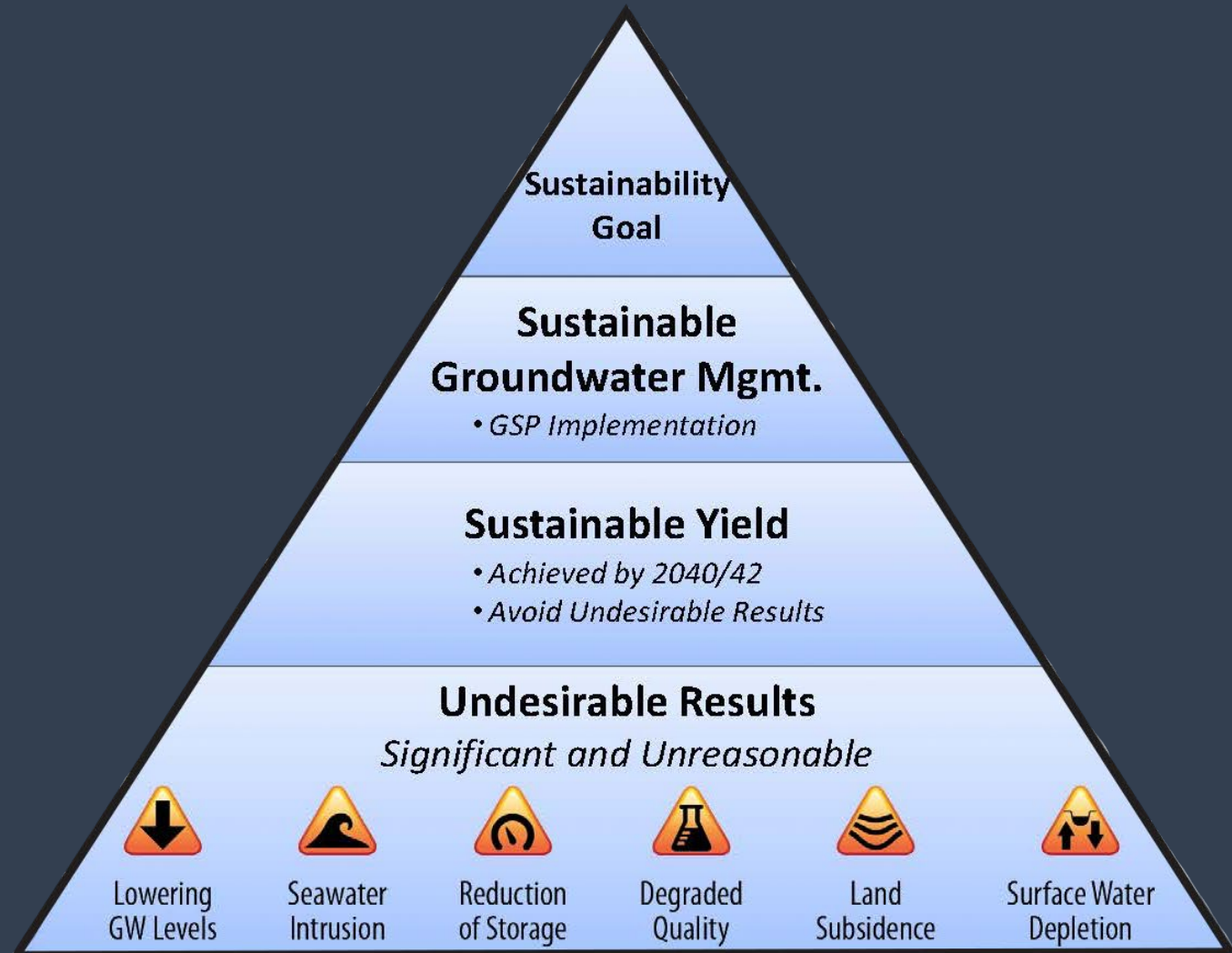


Average Depth to Groundwater - Fresno Irrigation District

The Path To Sustainability



●●● Groundwater Levels and So Much More.



Source: California Department of Water Resources

Welcome to the
North Kings
Groundwater Sustainability Agency

Web Portal

Public
Involvement |

Stay Engaged – Key Takeaway



Talk to your water
provider or GSA
representative.



Sign-up for the
NKGSA email list



Learn more
about your
regional water
supplies



Attend public
meetings and
workshops



Provide input on the GSA
Policies and Rules/Regulations



Help Spread The
Word!



Questions?

Kassy Chauhan

559.233.7161

kchauhan@fresnoirrigation.com



**KINGS WATER
ALLIANCE**

KINGS WATER ALLIANCE ALIANZA KINGS WATER

**October 12, 2021
Easton**

**12 de octubre del 2021
Easton**

AGENDA

- 1. Background/Who is the KWA?**
- 2. Nitrates in Groundwater: The Basics**
- 3. Next Steps for Residents**

- 1. Antecedentes/¿Quien es el KWA?**
- 2. Nitratos en las Aguas Subterráneas: Lo Básico**
- 3. Próximos pasos para los residentes**

BACKGROUND/WHO IS THE KWA?

ANTECEDENTES/¿QUIÉN ES EL KWA?

WHO IS THE KINGS WATER ALLIANCE?

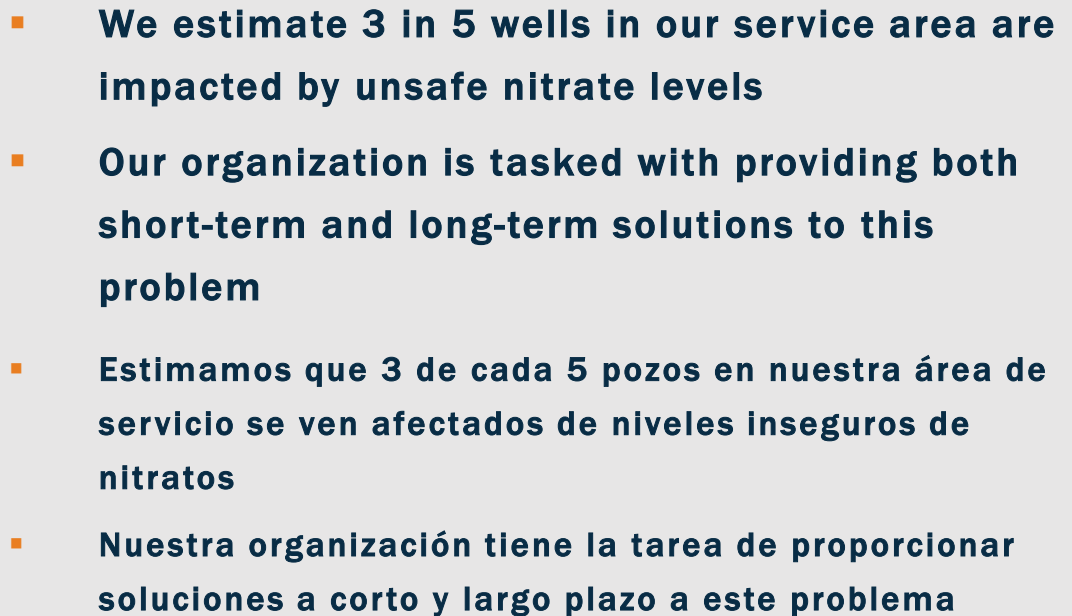
¿QUIÉN ES LA ALIANZA DE KINGS WATER?



- The Kings Water Alliance is a non-profit organization implementing programs that provide safe drinking water to domestic well owners with unsafe levels of nitrates
- La Alianza de Kings Water es una organización sin fines de lucro que implementa programas que proporcionan agua potable segura a los propietarios de pozos domésticos con niveles inseguros de nitratos



¿QUIÉN ES LA ALIANZA DE KINGS WATER?



NITRATES IN GROUNDWATER: THE BASICS

NITRATOS EN LAS AGUAS SUBTERRÁNEOS: LO BÁSICO

NITRATE: A VERY COMMON CHEMICAL

NITRATO: UN QUÍMICO MUY COMÚN

What is Nitrate?

- Contaminant that can make drinking water unsafe for drinking when above a certain level; the government has standards for safety
- You cannot see, smell, or taste Nitrate in water
- You can not boil Nitrate out of water
- Nitrate is a chemical found in most fertilizers, manure, and septic tanks
- Rain or irrigation water can carry Nitrate down through the soil and into groundwater

¿Qué es el Nitrato?

- Es un contaminante que puede hacer que la agua potable no sea segura para tomar cuando está por encima de un cierto nivel; el gobierno tiene estándares de seguridad
- No puede ver, oler, o saborear el nitrato en la agua
- No se puede hervir el nitrato para extraerlo del agua
- El nitrato es un químico que se encuentra en la mayoría de los fertilizantes, el estiércol, y los tanques sépticos
- La lluvia o el agua de riego puede transportar el nitrato a través del suelo y hacia la agua subterránea

WHY DO WE CARE ABOUT NITRATE?

- When is Nitrate Unsafe?
- Drinking water limit is 10 milligrams per liter Nitrate as nitrogen (US EPA and California state regulatory requirement)



¿POR QUÉ NOS IMPORTA EL NITRATO?

- ¿Cuándo es inseguro el nitrato?
- El límite de nitrato en el agua potable es de 10 miligramos por litro (requisito regulatorio de la US EPA y del estado de California)

NEXT STEPS FOR RESIDENTS

**PRÓXIMOS PASOS PARA LOS
RESIDENTES**

ACCESSING SAFE DRINKING WATER

Explanation

Upper Zone Well with Average Post-2000 Nitrate

(mg/L as N)

- ≤2.5
- >2.5 - 5.0
- >5.0 - 7.5
- >7.5 - 10.0
- >10.0

△ Upper Zone Control Point Outside MZ

▭ MZ Area Delineation (for reporting and displaying purposes)

Ambient Nitrate in the Upper Zone (Post-2000)

(mg/L as N)

- ≤2.5
- >2.5 - 5.0
- >5.0 - 7.5
- >7.5 - 10.0
- >10.0

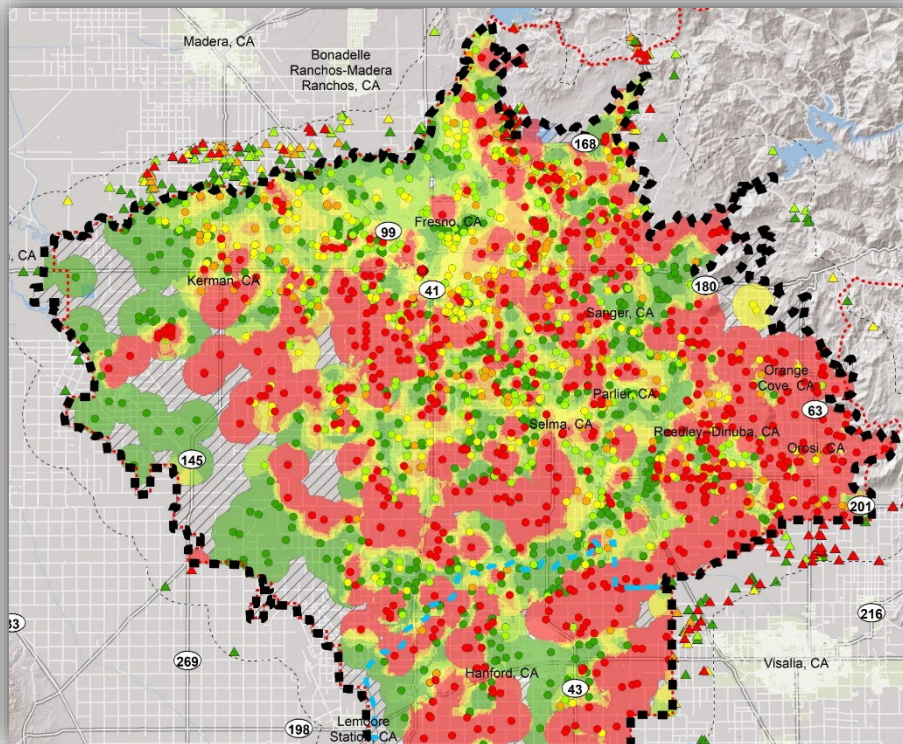
▨ Unknown

▭ Kings & Tulare Lake Management Zone Boundary

▭ 3-mile Buffer for Nitrate Data Collection

▭ CA Bulletin 118 Groundwater Basins (2003)

▭ De Designation Boundary



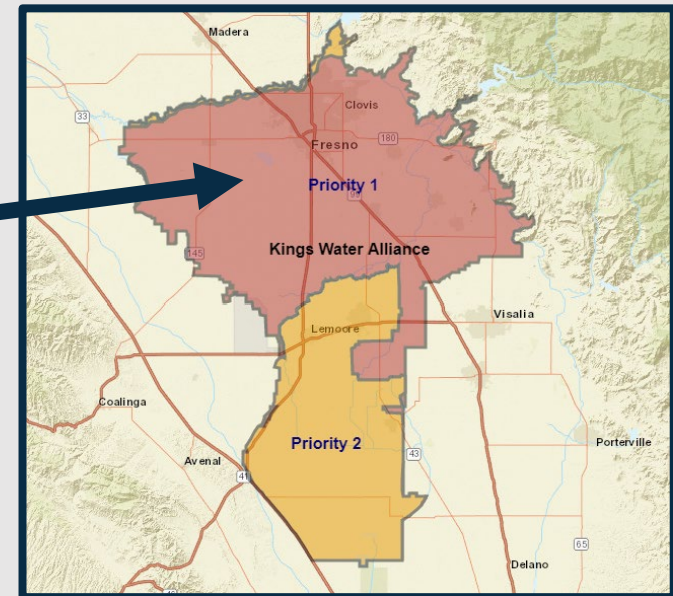
We want to help YOU understand if your drinking water has unsafe levels of nitrate.

Queremos ayudarlos a comprender si su agua potable tiene niveles inseguros de nitratos.

REQUEST FREE WELL TESTING

SOLICITE SU PRUEBA GRATUITA PARA SU POZO

- ✓ Verify you are a resident in the Kings Water Alliance (Priority 1) by using our interactive map at www.kingswateralliance.org/map. *Easton is within the Kings Water Alliance!*
- ☐ Fill out our well testing form available at our booth or online at www.kingswateralliance.org/welltest.
- ✓ Verifique si es residente de la zona Alianza de Kings Water (Prioridad 1), utilizando nuestro mapa interactivo en www.kingswateralliance.org/map.
¡Easton está dentro de la zona de Alianza de Kings Water!
- ☐ Complete nuestro formulario de prueba de pozos, disponible en nuestro puesto o en línea www.kingswateralliance.org/welltest.



(559) 549-6747

info@kingswateralliance.org

WE HAVE SOLUTIONS

TENEMOS SOLUCIONES

- **FREE Bottled Water Delivery to your home**
// Entrega GRATUITA de agua embotellada a su hogar
- **Fill Stations // Estaciones de Llenado**
 - Hanford
 - Kerman
 - Dinuba
 - (www.kingswateralliance.org/fillstations)



ADDITIONAL RESOURCES

**Additional resources on nitrates
available at:**

www.kingswateralliance.org/safeddrinkingwater

- Nitrate and health effects fact sheets
- Nitrate FAQs
- Resource webpages
- Informational guides

RECURSOS ADICIONALES

**Recursos adicionales de nitratos
disponibles en:**

www.kingswateralliance.org/safeddrinkingwater

- Hojas informativas sobre nitratos y efectos sobre su salud
- Preguntas frecuentes sobre nitratos
- Páginas web de recursos
- Guías informativas

STAY CONNECTED

MANTÉNGASE CONECTADOS



Join our email list!

- Event notices and program updates
- Sign up at www.kingswaeralliance.org

Attend an upcoming event or watch an old one!



- www.kingswateralliance.org/events
- Search “Kings Water Alliance” on YouTube

Follow us on social media! Latest updates and webinar livestreaming



- Facebook:
www.facebook.com/kingswateralliance
- Instagram: @kingswateralliance

¡Únete a nuestra lista de correo electrónico!

- Avisos de eventos y actualizaciones del programa
- Regístrate en www.kingswaeralliance.org

¡Asiste a uno de los próximos eventos o ve uno anterior!

- www.kingswateralliance.org/events
- Busca a “Kings Water Alliance” en YouTube

¡Síguenos en las redes sociales! Últimas actualizaciones y transmisión en vivo de seminarios virtuales:

- Facebook:
www.facebook.com/kingswateralliance
- Instagram: @kingswateralliance



**KINGS WATER
ALLIANCE**

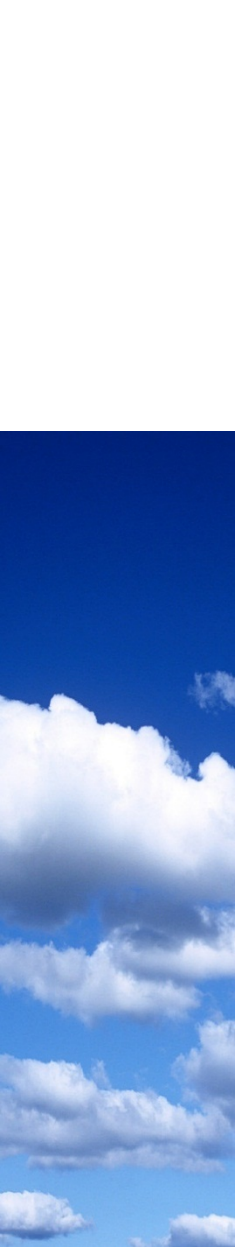
THANK YOU!

¡GRACIAS!

www.kingswateralliance.org/welltest

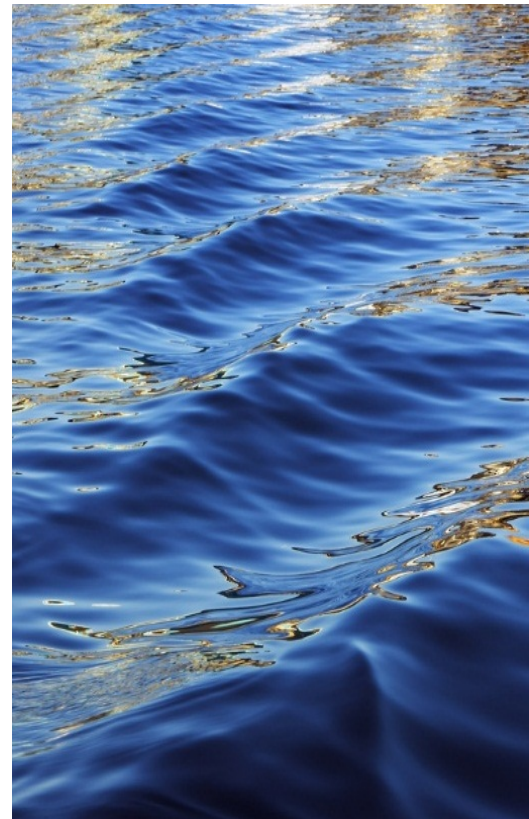
(559) 549-6747

info@kingswateralliance.org



Fresno County Water Surveillance Program

Erica Armstrong & Tom Fuller
Registered Environmental Health Specialists
County of Fresno, Department of Public Health



Well Permits

- Our office reviews all well permit applications and issues permits for:
 - New Well Constructions
 - Deepening of Existing Wells
 - Well Destructions
- All work must be completed by a well driller with a C- 57 license
- Fresno County staff may meet your driller onsite to verify well locations and ensure your new well is far enough away from potential contaminants
- Fresno County staff also witness the annular seal of all new wells and deepening and that old wells are properly destroyed

Free Water Sampling



- If you have drilled or deepened a new domestic well that has been permitted from Fresno County and have never had your water sampled FREE water sampling is available
- Our staff will schedule a time to sample the well and we test for
 - Nitrates
 - Total Coliform including E-coli
 - DBCP

If There Are Contaminants In Your Water

- If your water exceeds acceptable levels, our office will provide disinfection procedures, fact sheets, and possible treatments
- Our office will also resample your water if you choose to disinfect your well, all for FREE
- Private wells are not required to meet any water quality standards, but as a well owner it is important to know the quality of your drinking water

Understanding Your Well Water Report
Total Coliform & E. coli

What is total coliform and E. coli?

Total coliform bacteria are bacteria found in the environment and feces (poop) from humans and animals. Most types of coliform bacteria will not make you sick. But if you have total coliform bacteria in your well, you might have bacteria like *E. coli*.

E. coli is a type of coliform bacteria. Some types of *E. coli* can make you sick.

If your water report says...	Then your water is...
Satisfactory, absent, non-detect (ND), or 0 CFU/100 mL for total coliform or E. coli	SAFE to drink
Unsatisfactory, present, or more than 0 CFU/100 mL for total coliform or E. coli	NOT SAFE to drink

How can I use my water if it has total coliform or E. coli?

Instead of well water you can drink

Activity	Status
Drinking	Not Safe (Red X)
Cooking	Not Safe (Red X)
Brushing teeth	Not Safe (Red X)
Bathing	Safe (Green Checkmark)
Boiling water for 1 minute	Safe (Green Checkmark)
Bottled water	Safe (Green Checkmark)

Well Completion Reports

- If your well was drilled in the late 1970s or later our office may have a well completion report on file
- They are important to have because they provide:
 - Well Location
 - Well Construction
 - Well Yield
 - Well Depth
 - Geology
- These reports are also available through the original driller and the State of CA Department of Water Resources

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

File-Original with DWR 2 4650

State of California
Well Completion Report
Refer to Instruction Pamphlet

Page 1 of 2
Owner's Well Number No. 00000000
Date Work Began 08/05/2019 Date Work Ended 08/12/2019
Local Permit Agency Department of Health-Environmental Health Division
Permit Number WEP0040030 Permit Date 8/1/19

DWR Use Only - Do Not Fill In
State Well Number/Plate Number
Latitude N Longitude W
APN/Tract/Other

Geologic Log
Orientation ☒ Vertical ☐ Horizontal ☐ Angle Specify
Drilling Method ☐ Driven ☐ Casing ☐ Air

Depth from Surface Feet, to Feet	Description
0	25 Clay, Decomposed Granite, Sand
25	45 Decomposed Granite, Clay, Calcium Sand
45	65 Decomposed Granite, Clay, Sand
65	85 Decomposed Granite, Clay, Sand
85	105 Brown Decomposed Granite, Clay, Sand
105	125 Black and White Granite
125	145 Black and White Granite
145	165 Black and White Granite
165	185 Black and White Granite
185	205 Black and White Granite
205	225 Black and White Granite
225	245 Black and White Granite
245	265 Black and White Granite
265	285 Black and White Granite
285	305 Black and White Granite
305	325 Black and White Granite
325	345 Black and White Granite
345	365 Black and White Granite
365	385 Black and White Granite
385	405 Black and White Granite
405	425 Black and White Granite
425	445 Black and White Granite
445	465 Black and White Granite
465	485 Black and White Granite
485	505 Black and White Granite
505	525 Black and White Granite
525	545 Black and White Granite
545	565 Black and White Granite
565	585 Black and White Granite
585	605 Black and White Granite

Total Depth of Boring _____ Feet
Total Depth of Completed Well 925 Feet

Casings
Depth from Surface
Feet, to Feet

Borehole Diameter (inches)	Type	Material	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size if Any (inches)	Depth from Surface Feet to Feet	Fill	Description	
1	115	12 5/8"	Blank	Low Carbon Steel	188	8 5/8"	0	20	Bariteite	Medium-Chips

Water Level and Yield of Completed Well
Depth to first water 778 (Feet below surface)
Depth to Static _____ (Feet)
Water Level 57 (Feet) Date Measured _____
Estimated Yield 40 (GPM) Test Type Air Lift
Test Length _____ (Hours) Total Drawdown _____ (Feet)
*May not be representative of a well's long term yield.

Annular Material
Depth from Surface Feet to Feet

Fill	Description
0	20 Bariteite Medium-Chips

Attachments
☐ Geologic Log
☐ Well Construction Diagram
☐ Geophysical Log
☐ Soil/Water Chemical Analyses
☐ Other

Certification Statement
I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.
Name: NAFFCO PUMP & WELL, INC.
Address: 800 S. DICKENS AVE. FRESNO, CA 93706
Signed: Mike S. Barry Date Signed: 10/15/2019 License Number: 991985
C-57 License Number

2021 Drought Information

Information on Available Resources



Central Kern County to the San Joaquin Valley

Has your well gone dry?

If you are concerned about your water well or if you are out of domestic water please call or visit the website to learn more about the resources available to you in the San Joaquin Valley.

Available resources:

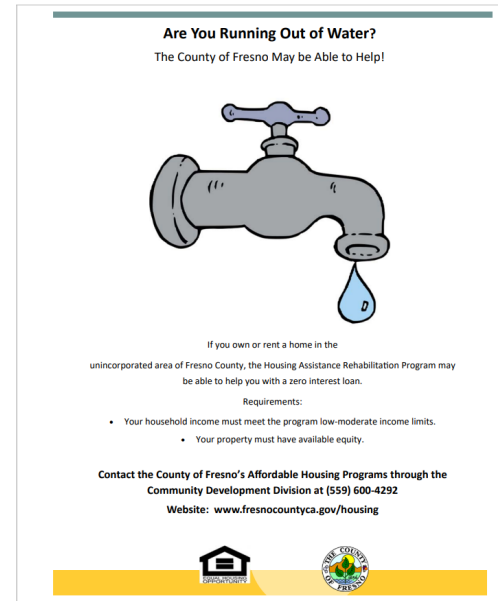
- Bottled Water
- Well Assessment
- Water Tank
- Water Quality Testing

Water is Essential

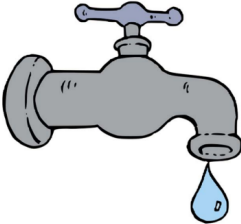
Visit for a list of resources by county
www.mywellwentdry.org

Call Self-Help Enterprises
559.802.1685

Low/Zero Interest Loans



Are You Running Out of Water?
The County of Fresno May be Able to Help!



If you own or rent a home in the unincorporated area of Fresno County, the Housing Assistance Rehabilitation Program may be able to help you with a zero interest loan.

Requirements:

- Your household income must meet the program low-moderate income limits.
- Your property must have available equity.

Contact the County of Fresno's Affordable Housing Programs through the Community Development Division at (559) 600-4292
Website: www.fresnocountyca.gov/housing



Contact Our Office

Fresno County Environmental Health Division

Water Specialist of the Day

559-600-3357

or

by email at

environmentalhealth@fresnocountyca.gov

Fresno County Department of Public Health

1221 Fulton Street, Third Floor

Fresno, CA 93721



**Self-Help
Enterprises**

DRINKING WATER RESOURCES // RECURSOS DE AGUA POTABLE

October 12, 2021

Easton

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Easton

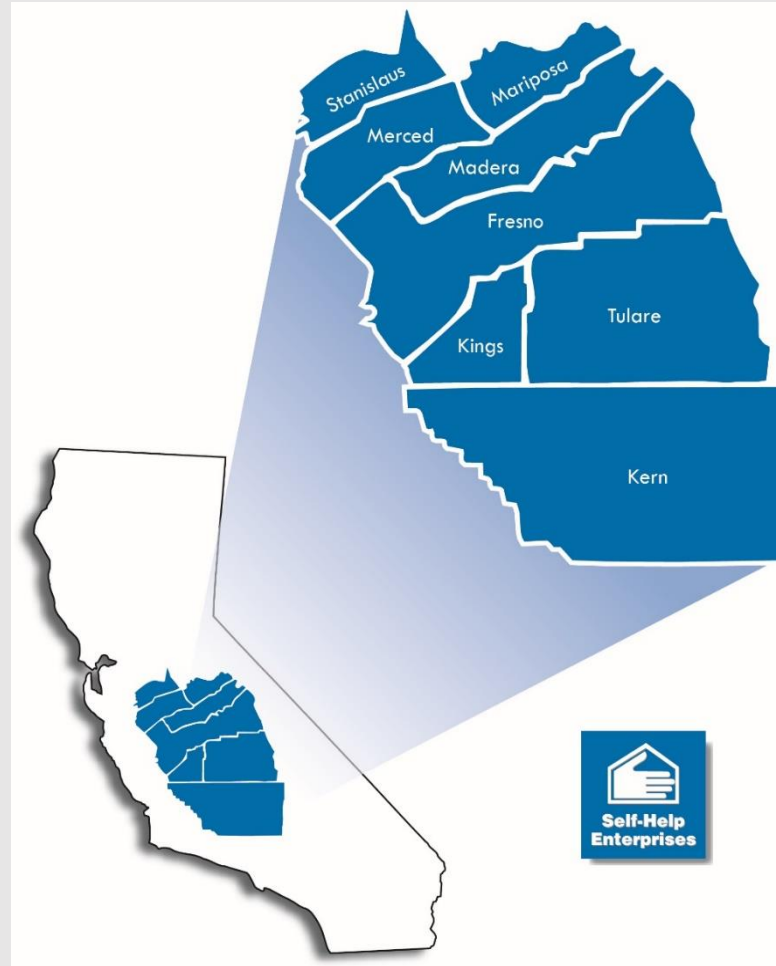
BACKGROUND/WHO IS SHE?

ANTECEDENTES/¿QUIÉN ES SHE?

WHO IS SHE?

SHE is a nationally-recognized non-profit housing and community development organization whose mission is to work together with low-income families to build and sustain healthy homes and communities.

- **Drinking Water Resources Programs**
 - **Community Development**
 - **Partner Services**
 - **Emergency Services**



¿QUIÉN ES SHE?

SHE es una organización nacional de vivienda sin fines de lucro y desarrollo comunitario cuya misión es trabajar junto con familias de bajos ingresos para construir y mantener hogares y comunidades saludables.

- **Programas de Recursos de Agua Potable**
 - **Programa de Desarrollo Comunitario**
 - **Servicios para Socios**
 - **Servicios de Emergencia**



**EMERGENCY SERVICES
PROGRAMS**

**PROGRAMAS DE SERVICIOS DE
EMERGENCIA**

WATER SUSTAINABILITY

SOSTENIBILIDAD DEL AGUA

- Provides domestic well owners emergency, interim, and permanent access to sustainable water resources
 - Tanks and Hauled Water
 - Domestic Water Well Repair, Replacement, Abandonment and Connections
 - Bottled Water Delivery
- Drought Support
 - Drought Line - (559) 802-1685
 - Email - droughtsupport@selfhelpenterprises.org
- Proporciona a los propietarios de pozos domésticos acceso de emergencia, provisional y permanente a recursos hídricos sostenibles.
 - Tanques y Agua Transportada
 - Reparación, reemplazo, abandono y conexiones de pozos de agua domésticos
 - Entrega de agua embotellada
- Apoyo a la sequía
 - Línea de sequía - (559) 802-1685
 - Correo electrónico: droughtsupport@selfhelpenterprises.org



WATER QUALITY

CALIDAD DEL AGUA

- Provides accurate information on the condition of your private well and quality of water, with short- and long-term solutions if contamination is found
 - Domestic Well Assessment
 - Water Testing
 - Water Filtration Program
- Well Assessment
 - Call - (559) 802-1285
 - Email: waterquality@selfhelpenterprises.org
- Proporciona información precisa sobre el estado de su pozo privado y la calidad del agua, con soluciones a corto y largo plazo si se encuentra contaminación.
 - Evaluación de pozos domésticos
 - Prueba de agua
 - Programa de filtración de agua
- Evaluación de pozo
 - Llame al (559) 802-1285
 - Correo electrónico: waterquality@selfhelpenterprises.org



NEED BOTTLED WATER?

NECESITA AGUA EMBOTELLADA?

- Anyone impacted by the drought,
please call:
 - Bottled Water Line – (559) 802-1284
- Or Email:
 - bottledwater@selfhelpenterprises.org
- Cualquier persona afectada por la
sequía, llame al:
 - Línea de agua embotellada - (559) 802-1284
- O correo electrónico:
 - bottledwater@selfhelpenterprises.org





THANK YOU!

¡GRACIAS!

<https://www.selfhelpenterprises.org/programs/emergency-services/>

(559) 651-1000

info@selfhelpenterprises.org