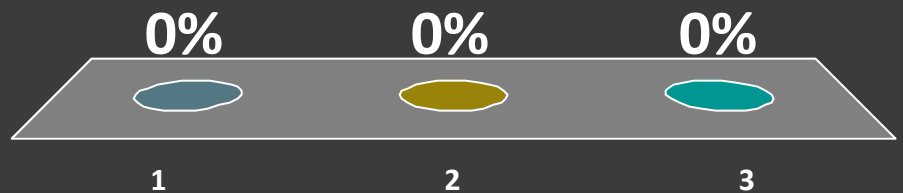




WASTEWATER TREATMENT & WATER RECLAMATION PROJECT

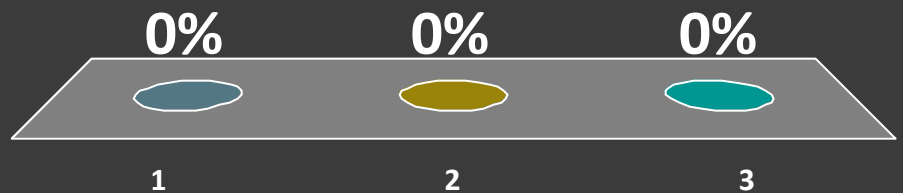
DO YOU BELIEVE WE NEED A SEWER SYSTEM?

1. Yes
2. No
3. Undecided



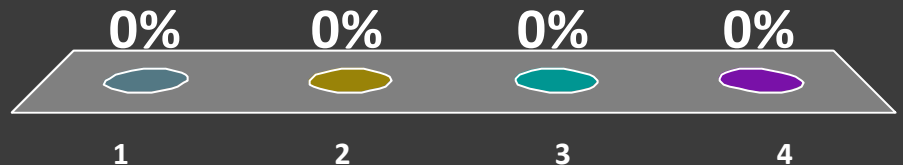
DO YOU BELIEVE HDWD IS DOING A GOOD JOB COMMUNICATING THE FACTS ABOUT THE PROJECT AND ENCOURAGING PUBLIC INPUT?

1. Yes
2. No
3. No opinion



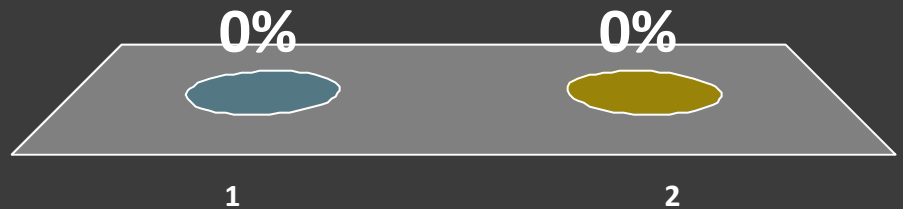
DOES THE DISTRICT APPEAR TO BEING DOING EVERYTHING IT CAN TO COMMUNICATE WITH THE PUBLIC?

1. Yes
2. Somewhat
3. No
4. No opinion



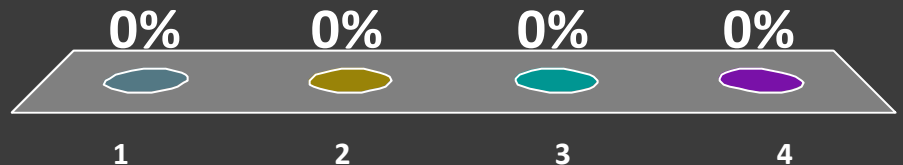
DO YOU LIVE IN YUCCA VALLEY?

1. Yes
2. No



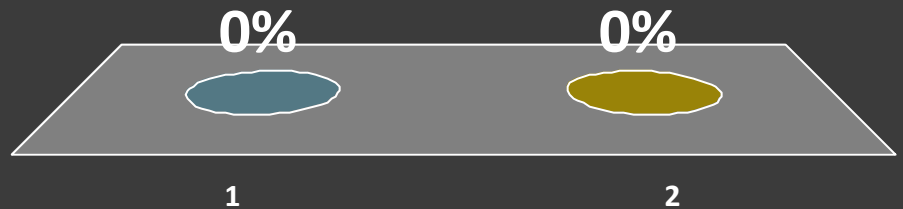
PLEASE SELECT ONE?

1. Property Owner
(Phase 1)
2. Property Owner
(Phase 2)
3. Property Owner
(Phase 3)
4. Other



ARE YOU ...

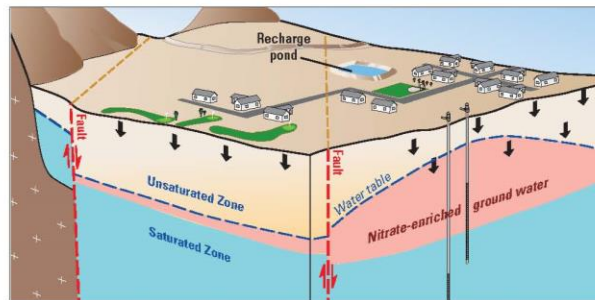
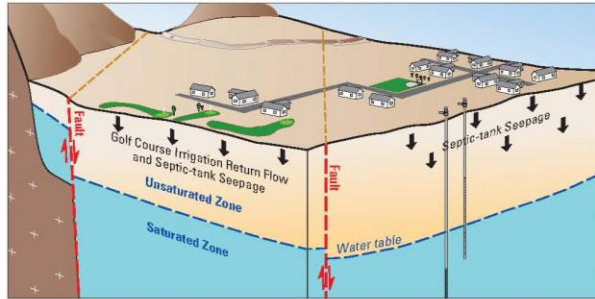
1. Yes, registered to vote
2. Not registered to vote



WHY DO WE NEED IT?

- Nitrates show up in wells after recharging basin (recharge began 1995).
- United States Geological Survey Report 2003.
 - *Nitrates from septic systems at 150 feet below surface.*
- Septic systems are the number one groundwater quality concern in the country.

U.S. Department of the Interior
U.S. Geological Survey



EVALUATION OF THE SOURCE AND TRANSPORT OF HIGH NITRATE CONCENTRATIONS IN GROUND WATER, WARREN SUBBASIN, CALIFORNIA

*Prepared in cooperation with
HI-DESERT WATER DISTRICT*

Water-Resources Investigations Report 03-4009

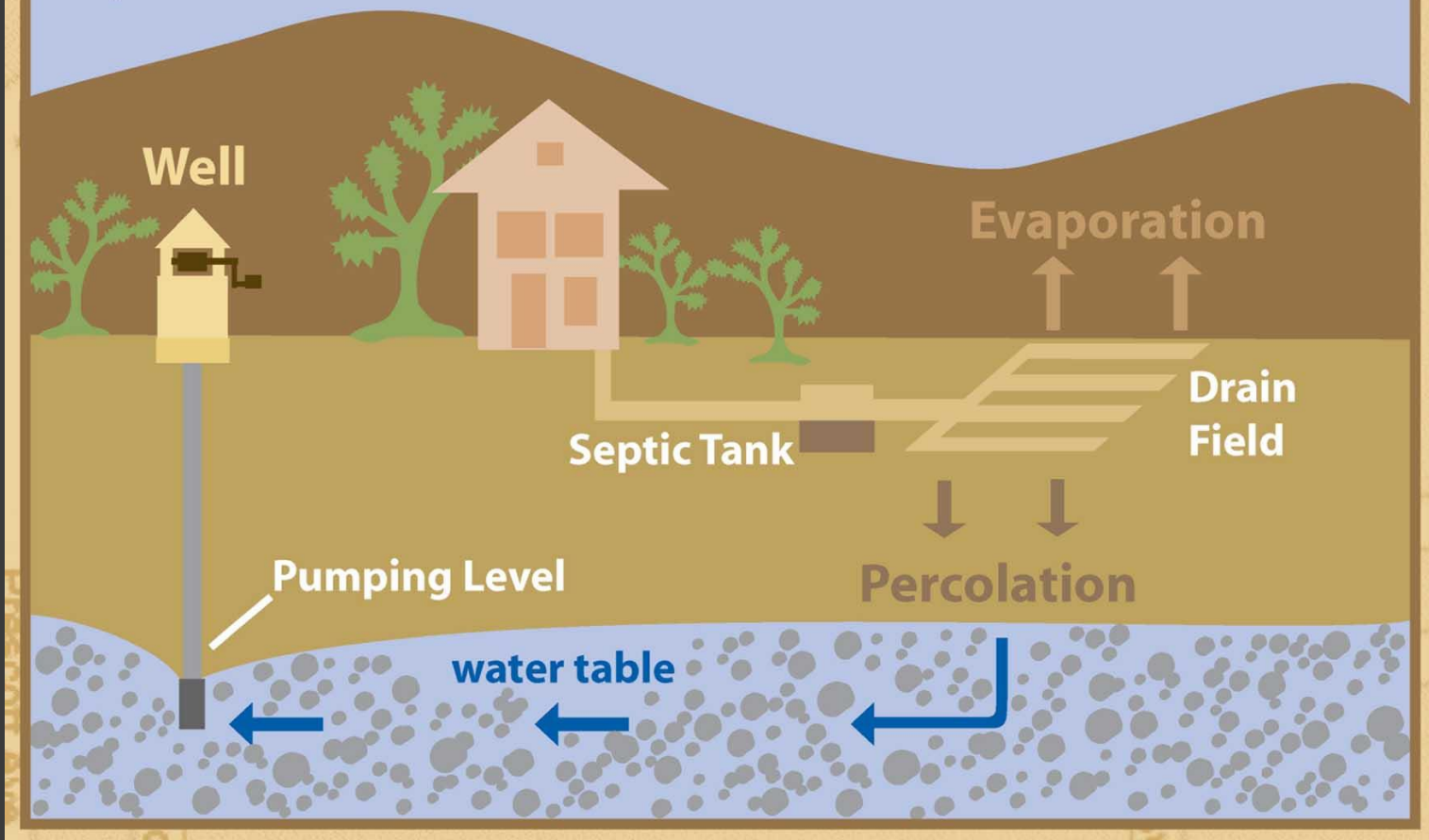


2003 Report by USGS - United States Geological Survey on the Warren Basin

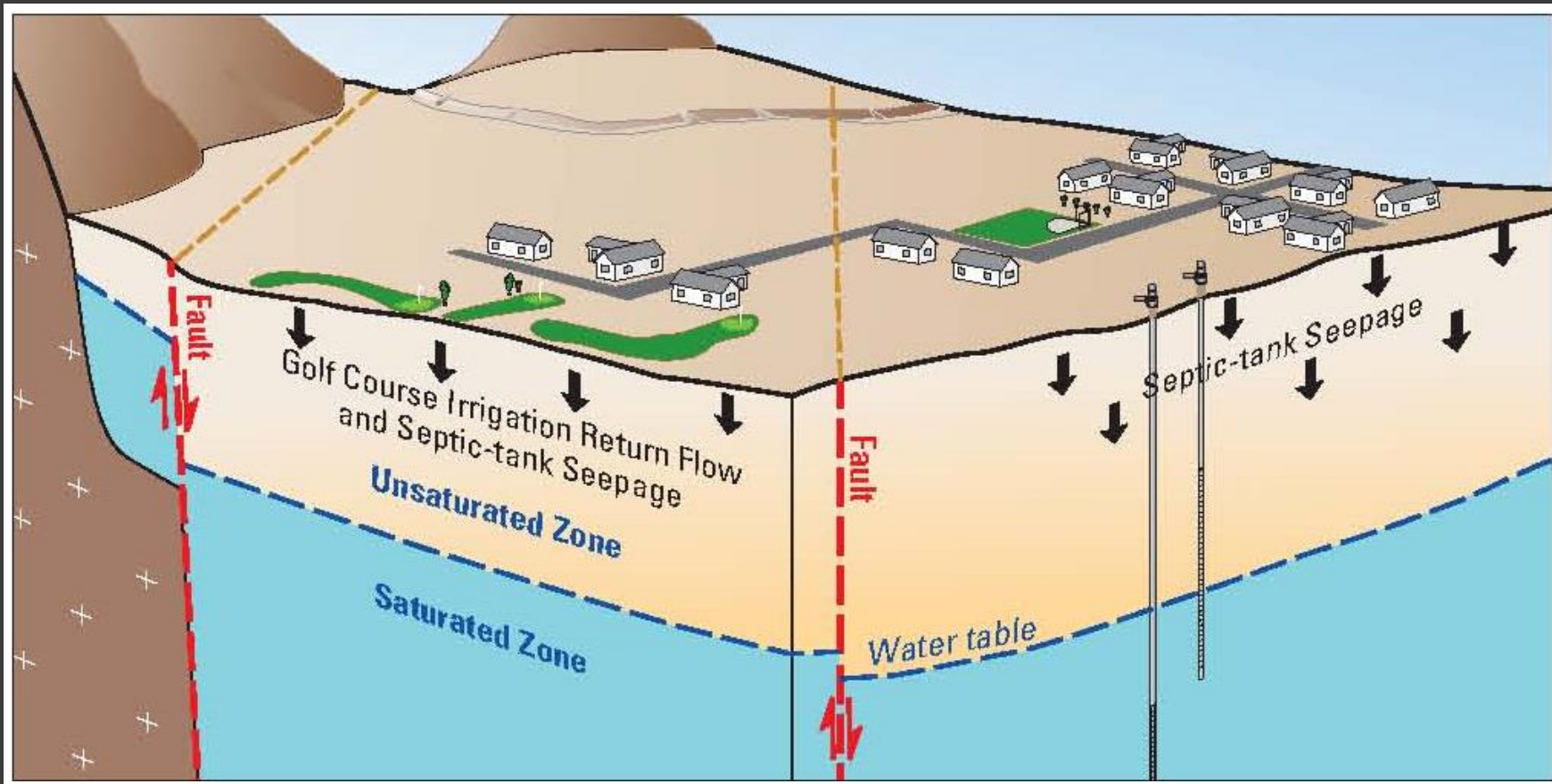
midwest hydrogeologic units.

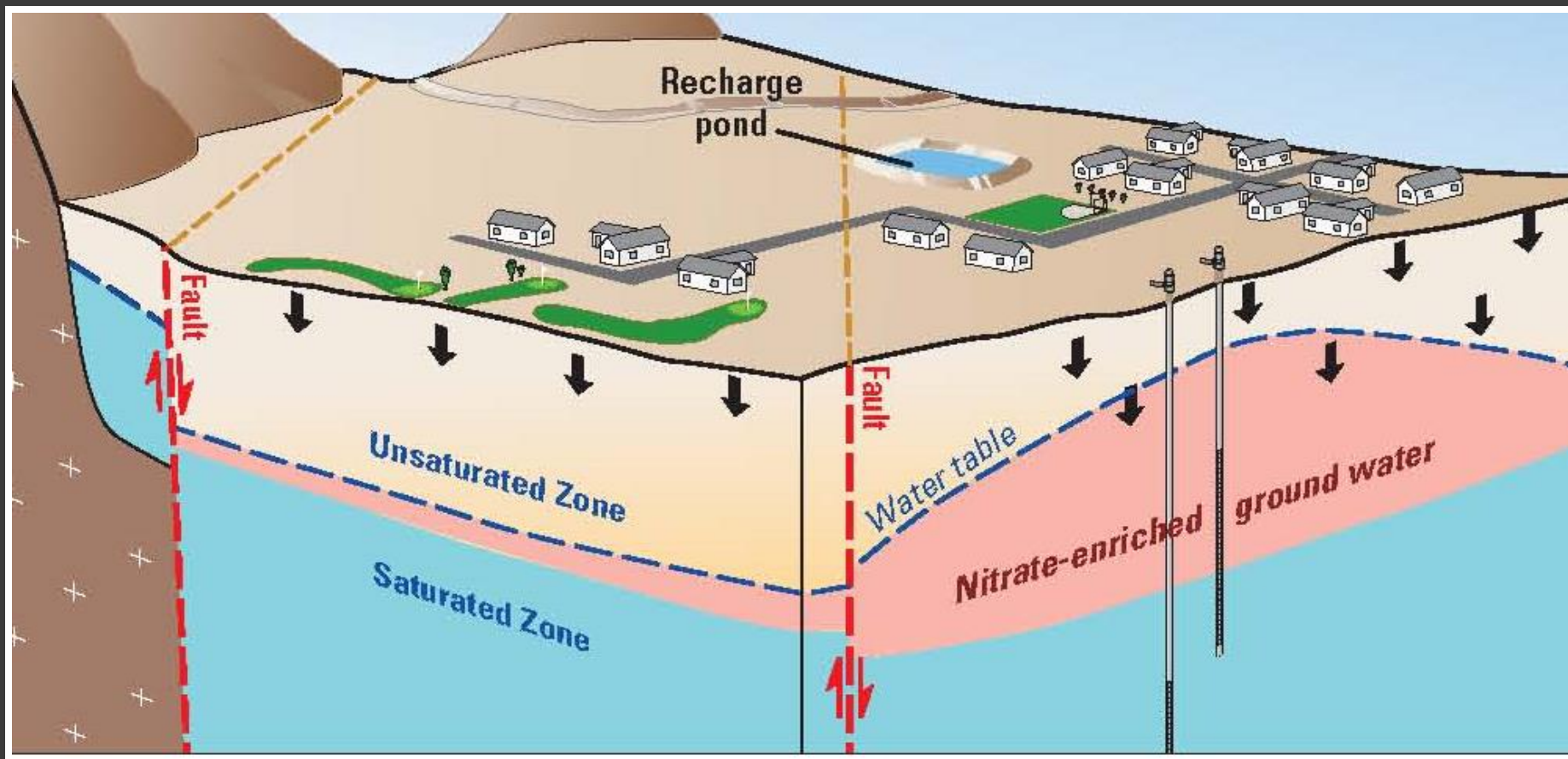
Water-quality analyses indicate that septage from septic tanks is the primary source of the high-nitrate concentrations measured in the Warren ground-water basin. Water-quality and stable-isotope data, collected after the start of the artificial recharge program, indicate that mixing occurs between imported water and native ground water, with the highest recorded nitrate concentrations in the midwest and the mideast hydrogeologic units. In general, the timing of the increase in measured nitrate concentrations in the midwest hydrogeologic unit is directly related to the distance of the monitoring well from a recharge site, indicating that the increase in nitrate concentrations is related to the artificial recharge program. Nitrate-to-chloride and nitrogen-isotope data indicate that septage is the source of the measured increase in nitrate concentrations in the midwest and the mideast hydrogeologic units. Samples from four wells in the Warren ground-water basin were analyzed for caffeine and selected human pharmaceutical products; these analyses suggest that septage is reaching the water table.

Septic Effluent Percolates to Water Table



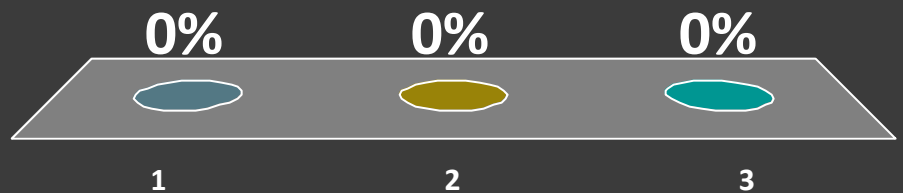
FACT: Septic systems, even if maintained properly, will not protect our groundwater.





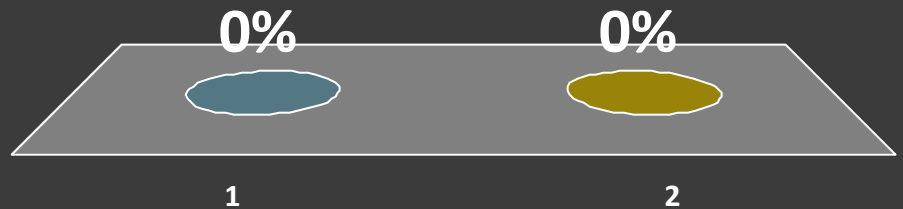
DO YOU KNOW WHERE YOUR SEPTIC IS LOCATED?

1. Yes
2. No
3. Not sure



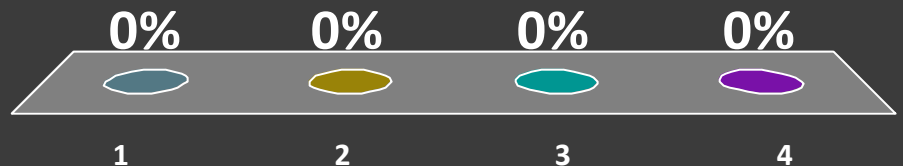
DO YOU KNOW WHERE YOUR LEACH FIELD OR LEACH PIT IS LOCATED?

1. Yes
2. No



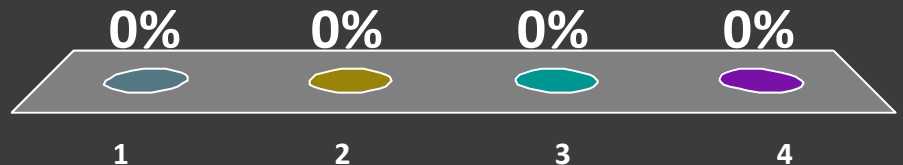
WHICH OF THE FOLLOWING BEST DESCRIBES YOUR SEPTIC SYSTEM?

1. Leach field
2. Sepage pit
3. Cesspool
4. Do not know



WHEN IS THE LAST TIME YOU HAD YOUR SEPTIC SYSTEM INSPECTED OR PUMPED?

1. 0 – 4 years
2. 5 – 10 years
3. 10+ years
4. No septic



Nitrate Treatment



The District has a Treatment Plant in operation to treat some wells. Through this effort and groundwater management and the use of a treatment facility the District is providing safe drinking water for our customers.

However, treatment is not the answer.

REGIONAL BOARD ROLE IN YUCCA VALLEY

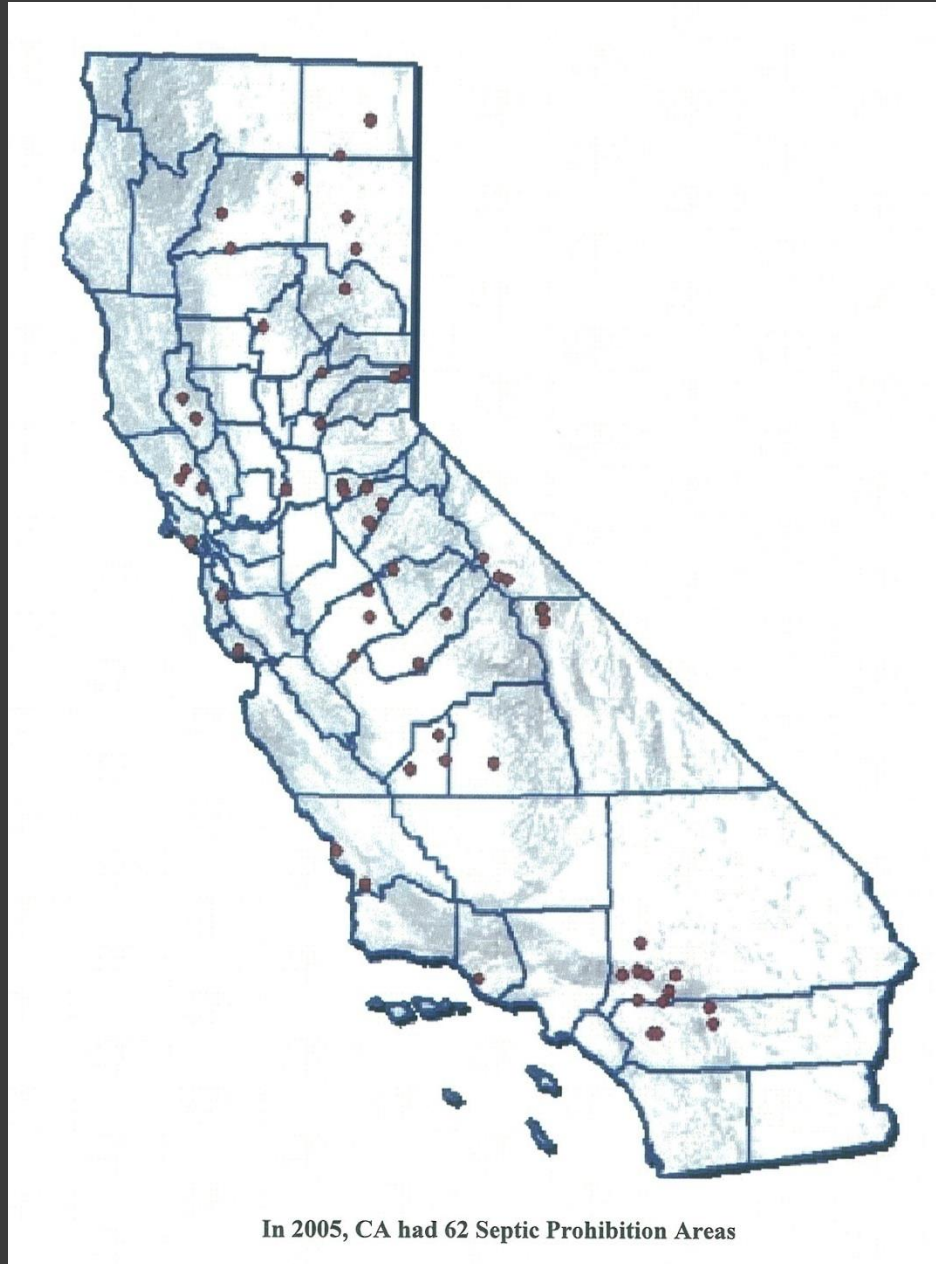
- Regulatory guidance to Town, Water District
 - MOA with Town and Water District
 - Interim permitting septic systems
 - Guidance on existing septic system
- Grant assistance
- Basin Plan Amendment – Septic Prohibitions

SEPTIC PROHIBITIONS

The discharges from septic systems will be prohibited.

- Phase 1 2016
- Phase 2 2019
- Phase 3 2022

SEPTIC PROHIBITIONS IN 2005



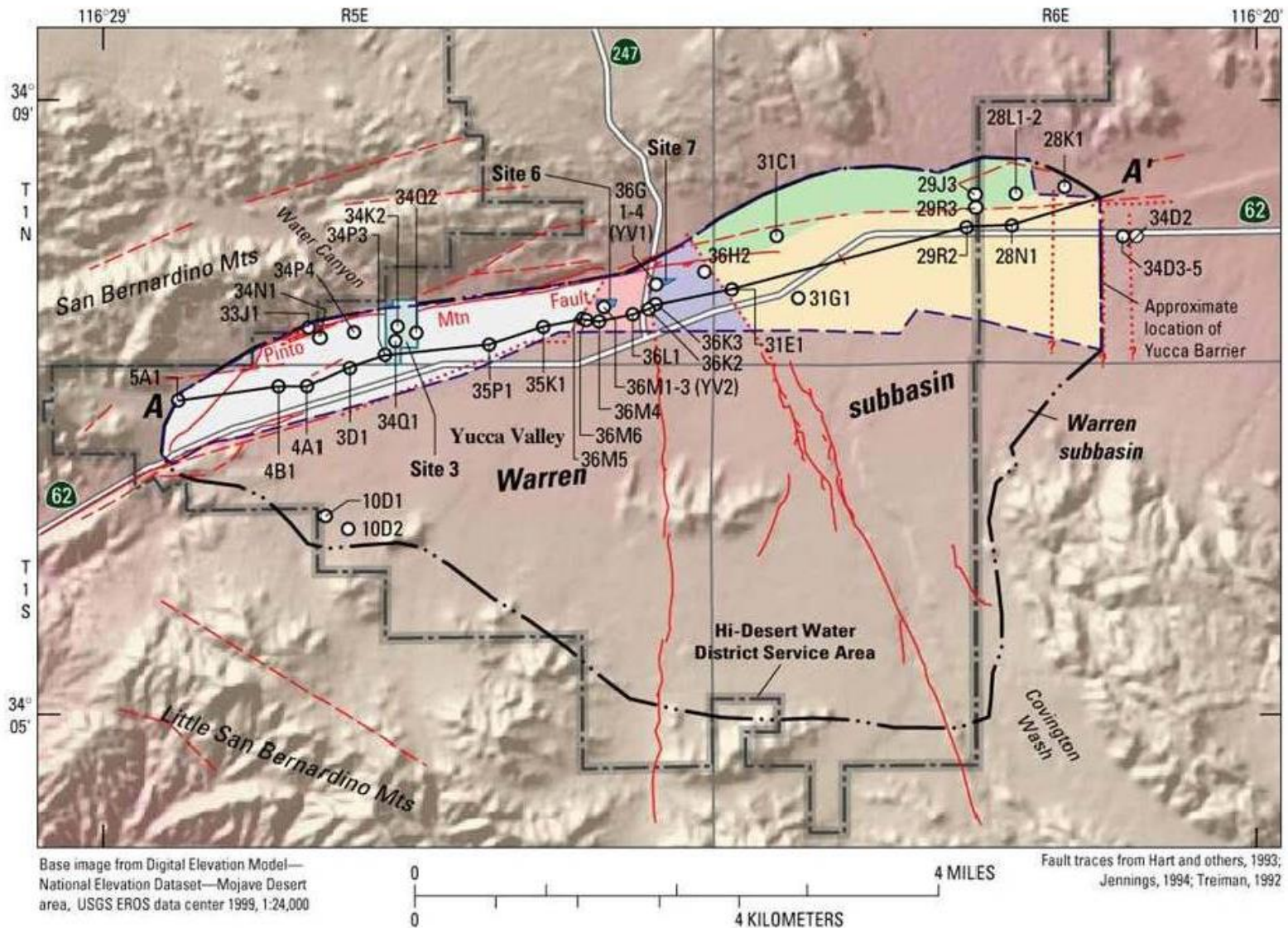


Phase One

will includes the downtown Yucca Valley along the Highway 62 corridor from the west to the east side of town.

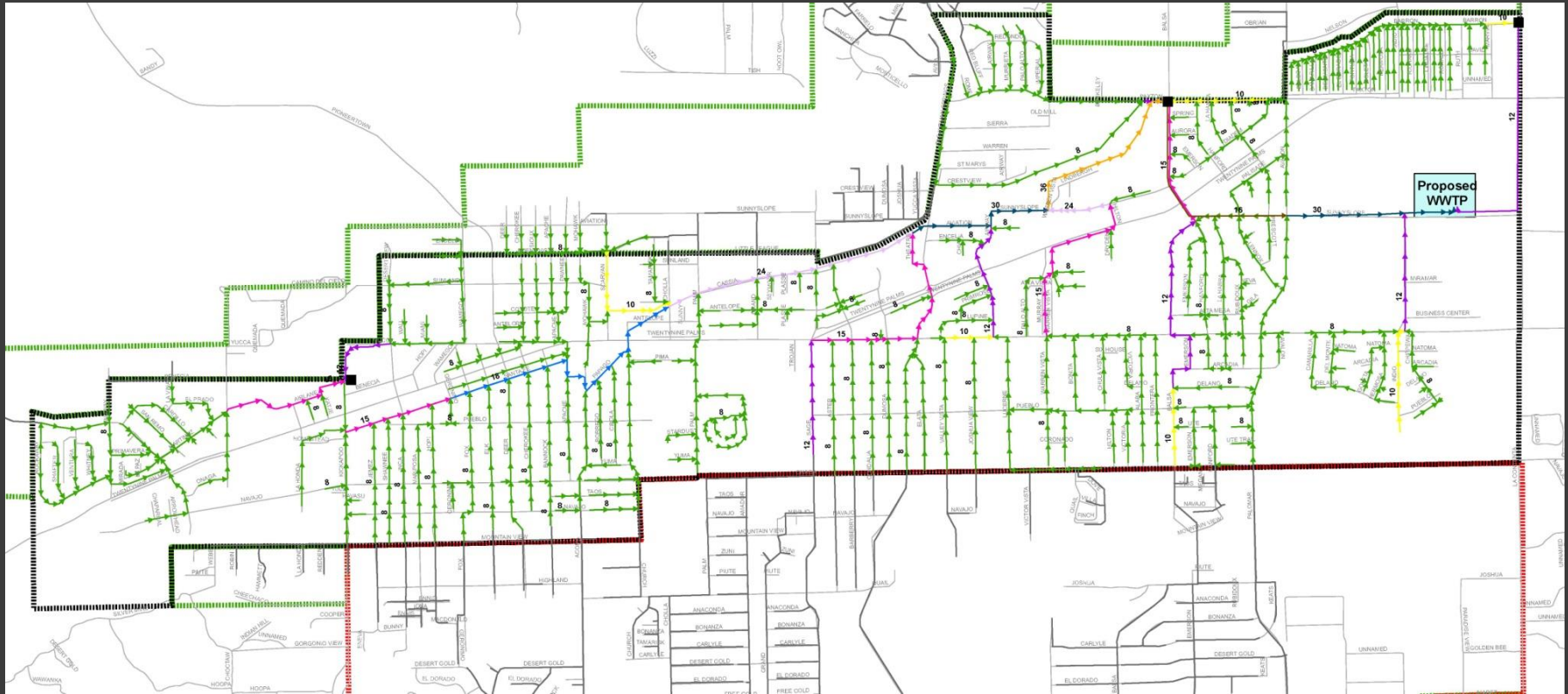
Reason:

Our groundwater aquifer is located in the base of the valley, under what is downtown Yucca Valley. This is where the greatest density and threat to the groundwater exists. In addition, some of the oldest septic systems also exist in this area.



United State Geological Survey map of Warren Subbasin.

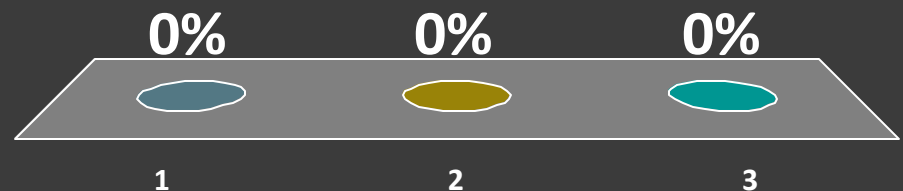
PHASE ONE

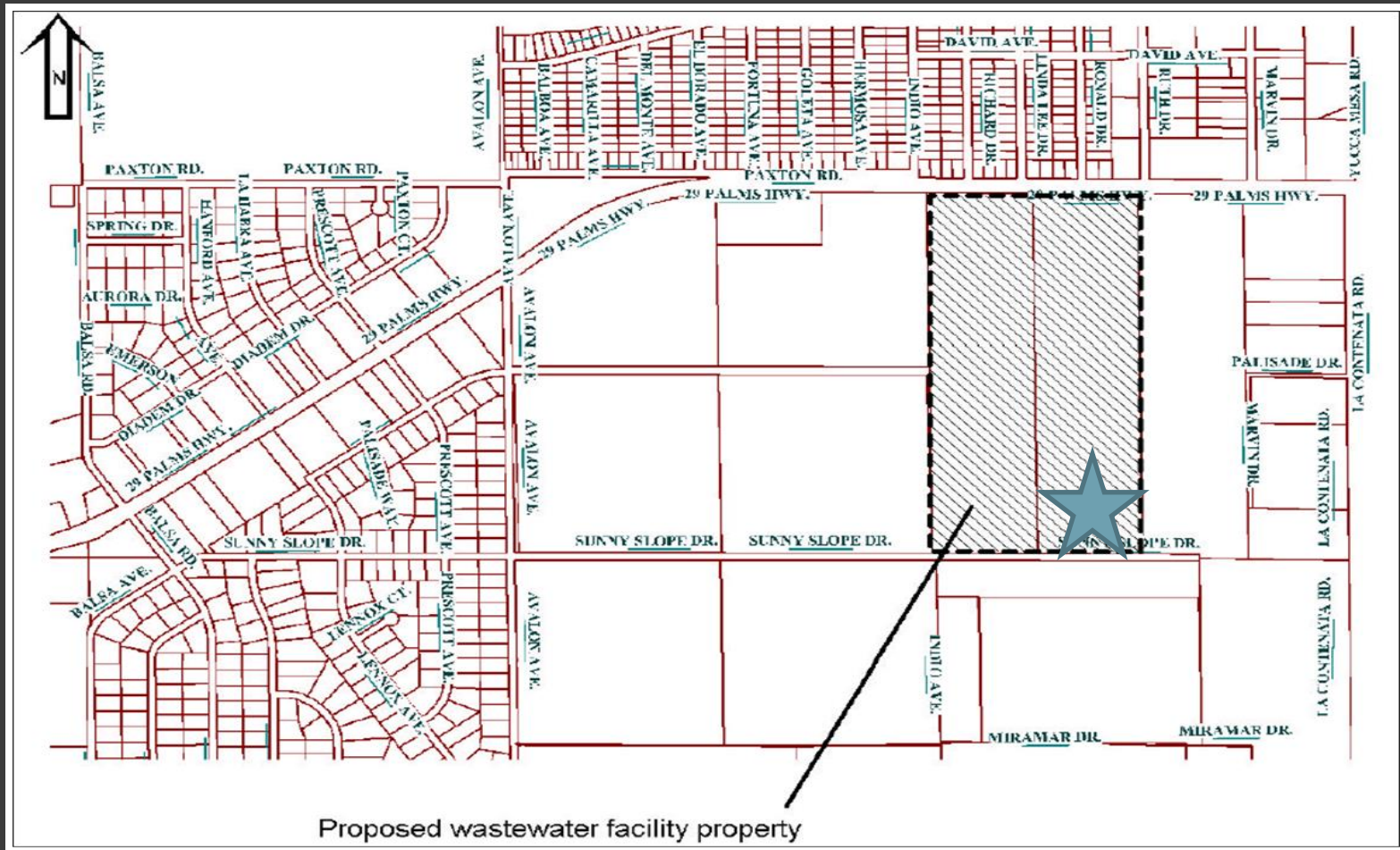


Preliminary Map – subject to change.

DO YOU AGREE WITH THE USGS FINDINGS THAT SEPTIC SYSTEMS POSE A THREAT TO OUR GROUNDWATER?

1. Yes
2. No
3. Undecided

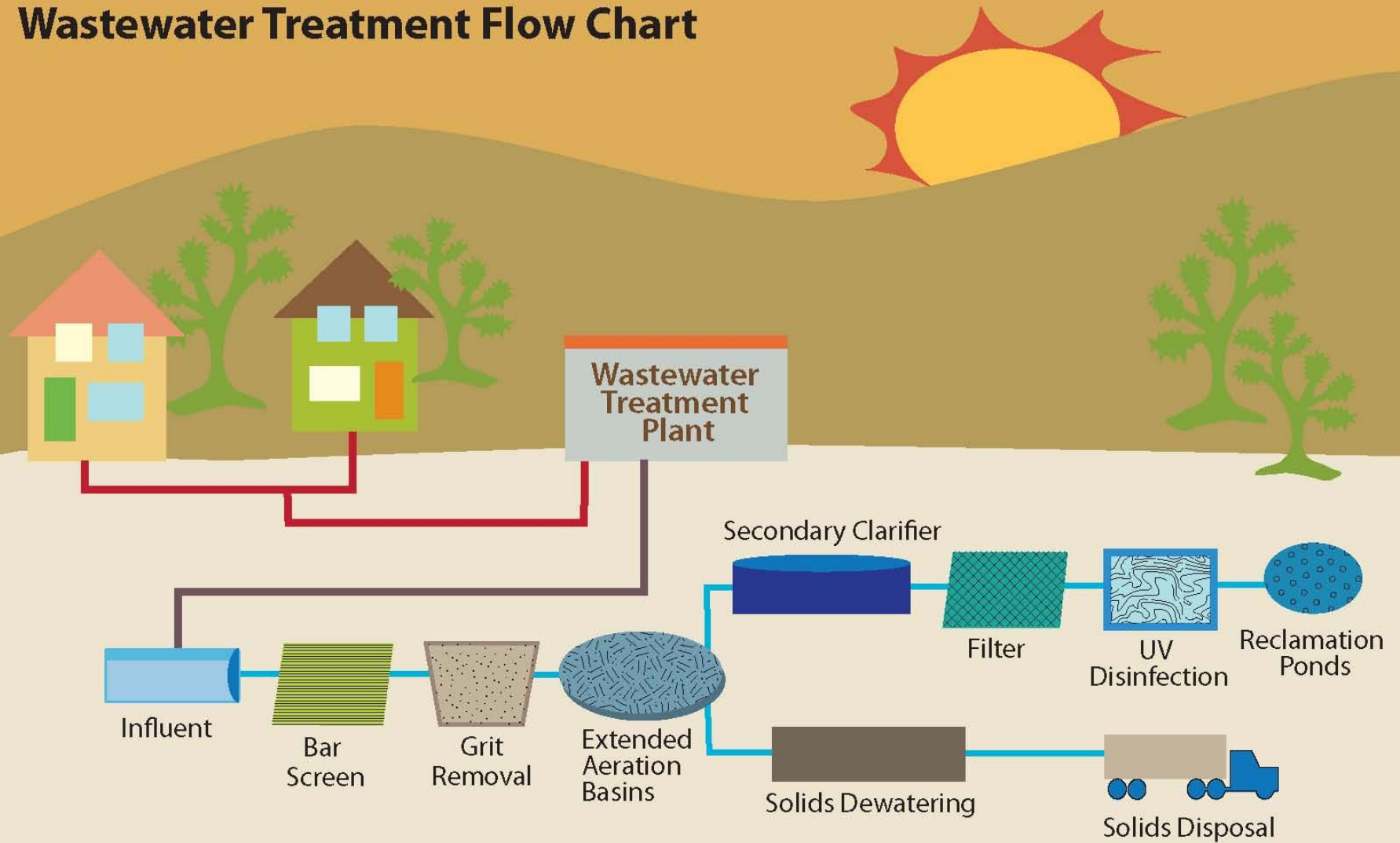




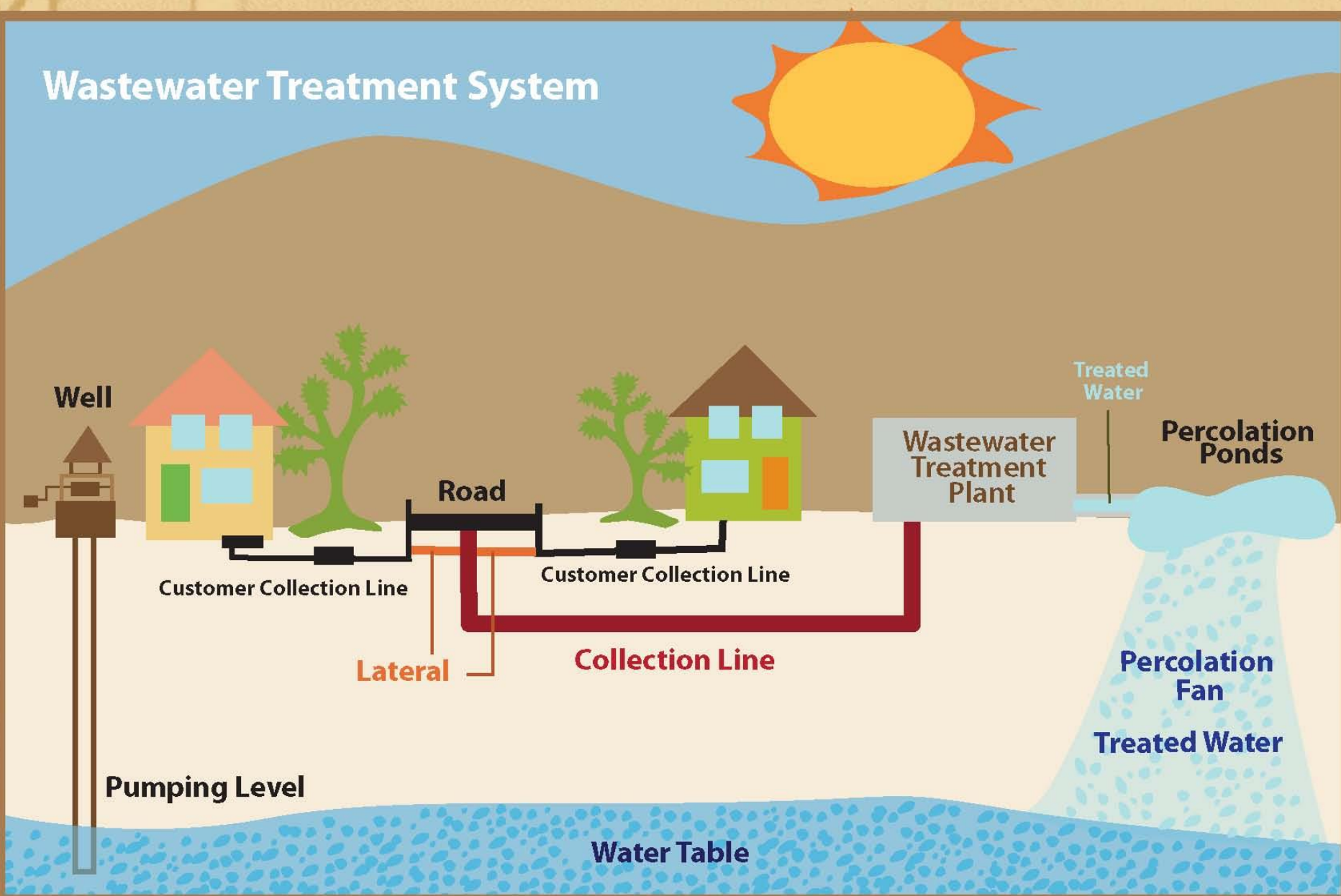
Wastewater Treatment Plant

An 80 acre site has already been purchased near La Contenta and Hwy 62 / east of Home Depot.

Wastewater Treatment Flow Chart



Wastewater Treatment System



MISSION SPRINGS WATER DISTRICT

**HORTON
TREATMENT PLANT**

619-329-6448



Head works.



Houses right next door.



Extended aeration ponds



Stage two



Clarifiers





Elsinore UV treatment





Drying beds



Mechanical drying facility (belt press)



Dry sludge is dumped into a semi-truck and hauled away.



Preliminary phase 1 project cost

Engineer's Estimate \$125 million.

SO HOW ARE WE GOING TO PAY FOR IT?

- Grants (goal 30-50%)
- Loans
 - Require an Assessment District
 - Low interest public financing SRF
 - 0-3% interest for 30 years
 - Bonds only if necessary
 - Town of Yucca Valley (sales tax)

GRANTS

- Bureau of Reclamation
- Environmental Protection Agency
- Prop 84 (California State Bond – voter approved)
- State Revolving Fund (low interest loan/debt forgiveness)
- Town of Yucca Valley

LOW INCOME ASSISTANCE PROGRAM

- Low Income Assistance Program need is evident.
 - Funded by grants
 - Based on need
 - Details to be determined
 - Depends on amount of funding

LOANS

- Require a repayment source and collateral to secure the financing.
 - Assessment District

Why an Assessment District?

Assessment District Definition – property lien to secure financing for public infrastructure improvements, approved a vote of the property owners.

- Very specific regarding what can/will be financed
- Common means of financing public infrastructure
- Voting is based on financial obligation (benefit)
- Requires a simple majority 50% plus 1.
- Voting is by the Property Owners only.
- Mailed ballot
- Of ballots returned

Basis of Assessment is an Equivalent Dwelling Unit (EDU)

One EDU = 210 gallons wastewater/day

- Developed SFR parcel = 1 EDU
- Multi-family unit/parcel = 3/4 EDU (75%)
- Mobile home unit = 3/5 EDU (60%)
- Commercial = 80% of avg. daily water use
- Industrial = 80% of avg. daily water use
- Public/churches = 80% of avg. daily water use
- Schools = per student

- **Common Items for All Phases**

Collection System

- Kickapoo & Paradise Pump Station
- Paxton Pump Station
- Trunk Sewer

Water Treatment Facility

- Operations Building
- Power Supply
- SCADA System
- Site Development
- Headworks
- Sludge Dewatering
- Design & Soft Costs

Design & Soft Costs

- Survey & Mapping
- Geotechnical
- Sewer System Design
- Treatment Plant Design
- CM & Inspection

- **Phase 1 Facilities Only**

Collection System

- Local Sewer

Water Reclamation Facility

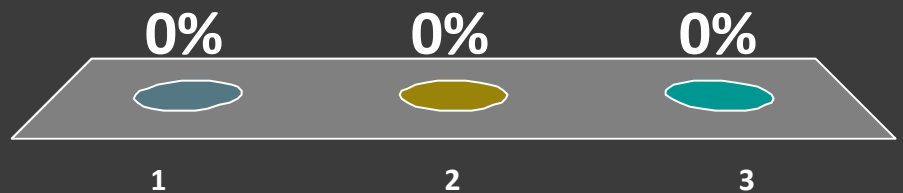
- Bioreactors
- Clarifiers
- RAS Pumping
- Filters
- UV Disinfection
- Utility Water P.S.
- Percolation Ponds
- Plant Drain P.S.
- Odor Control

Cost Estimates (Updated June 2011)

- **Capital Costs (Phase 1)**
 - Single Family Home/1 EDU
\$15,000 maximum (\$26 - \$61 month)
or
 - Vacant and All Phases 2 & 3
\$4,100 maximum (\$7 - \$15 month)
- **Private Property (can be financed)**
 - Average \$2,000 (more or less depending on property characteristics)
- **Operating Bill**
 - 1 EDU ~ \$36 mo. (once hooked up)

CAN YOU AFFORD THE ASSESSMENT?

1. Yes
2. Yes, but I will have to make cuts
3. No

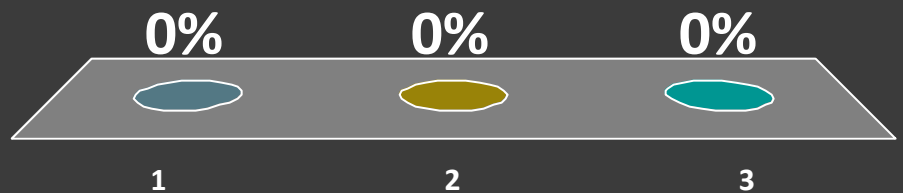


TOWN'S PROPOSAL

- Town of Yucca Valley loans
 - Potential sales tax 1% for 30 yrs
 - \$95 million (\$70 for Wastewater)
 - Payback \$35 million
 - .5% interest over 50 years
 - » beginning 2023 ~\$6 month
 - RDA – Redevelopment Agency Loan
 - \$4.5 million loan for design now.

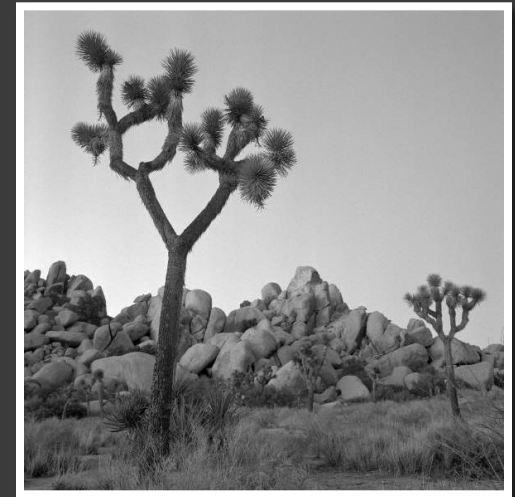
DOES THE SALES TAX SEEM FAVORABLE?

1. Yes
2. No
3. Undecided



ESTIMATED TIMELINE

Finalize Costs & Communicate	2011
Assessment District Vote	Spring 2012
Surveying, Mapping & Design	2011– 2012
Construction Bidding	2013
Construction	
– plant	2014 – 2015
– collection system phase 1	2014 – 2016
Phase 2	2016 – 2019
Phase 3	2019 – 2022

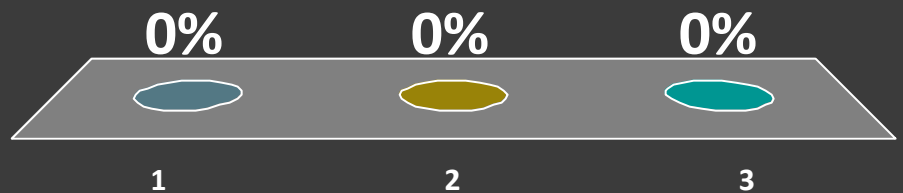


PROTECT OUR GROUNDWATER

...the continued use of septic systems will cause irreversible damage to our groundwater. - Regional Water Quality Control Board

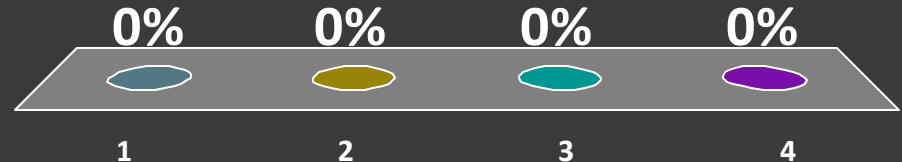
DO YOU BELIEVE WE NEED A SEWER SYSTEM IN YUCCA VALLEY?

1. Yes
2. No
3. Undecided



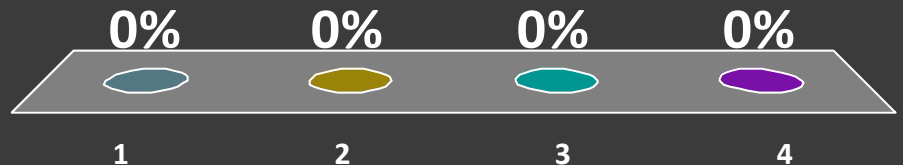
BASED ON WHAT YOU KNOW TODAY
HOW LIKELY IS IT THAT YOU WOULD
SUPPORT A THE ASSESSMENT DISTRICT?

1. Definitely
2. Maybe
3. Probably Not
4. No



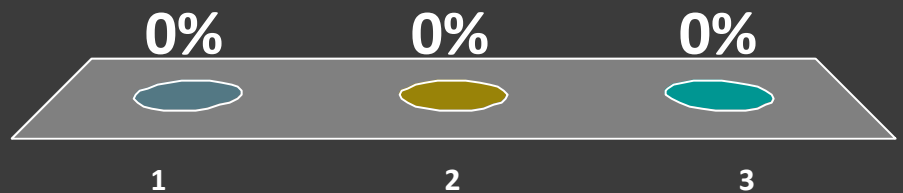
WHAT IS YOUR GREATEST CONCERN?

1. Cost
2. Water safety
3. Infrastructure
4. Property value



DO YOU BELIEVE YOUR CONCERNS ARE BEING HEARD?

1. Yes
2. Somewhat
3. No





Project Information

Phone: (760) 861-8031

Email: wastewater@hdwd.com

Website: www.yuccavalleywastewater.org