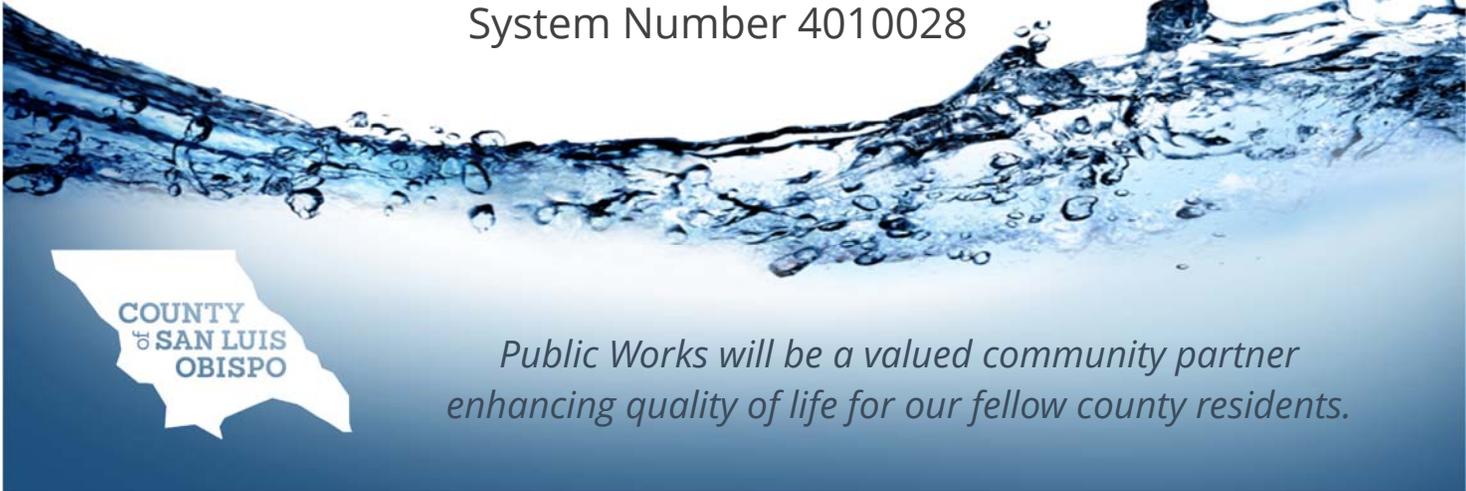


# WATER QUALITY REPORT 2016

## County Service Area 16 - SHANDON System Number 4010028



### YOUR 2016 WATER QUALITY REPORT

The County of San Luis Obispo is pleased to present this annual report describing the quality of your drinking water. Included are details about where your water comes from, what it contains, and how it compares to State standards. We sincerely hope this report gives you the information you seek and have a right to know. ***Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.***

### Your Water Supply

Your water comes from two groundwater wells, located in Shandon, which tap into the Paso Robles Groundwater Basin. Your water is normally very clean and is simply disinfected with chlorine to help minimize the potential for viral and bacterial contamination.

Source water assessments were completed for both wells in 2002. The wells were most vulnerable to the following activities: animal grazing, utility stations, septic systems, parks, fire station, historic gas station, fertilizer/pesticide/herbicide application, underground storage tank, and above ground storage tank. Other than low levels of nitrate, no contaminants associated with these activities have been detected in the water. A copy of the assessment is available from the **State Water Resources Control Board at (805) 566-1326** or from the **County of San Luis Obispo Department of Public Works at (805) 781-5111**.

### A COMPARISON OF SHANDON'S WATER USAGE FROM 2013 THROUGH 2016

CSA16 - SHANDON Water Statistics (January - December)					
Year	Total Annual Production (million gallons)	Total Annual Production (acre-feet)	Average Daily Demand (gallons)	Estimated gallons per day per person	Percent Change from Previous Year
2013	49.0	150	134,000	103	5.1% Increase
2014	41.9	129	115,000	89	14% Decrease
2015	34.3	105	94,000	73	18% Decrease
2016	36.0	110	98,300	78	4.6% Increase

### Additional General Information on Drinking Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The SWRCB regulations also establish limits for contaminants in bottled water that provide the same protection for public health. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

### Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

### Drinking Water and Health Risks

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS (Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome) or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

### CONTACTS FOR ADDITIONAL INFORMATION

USEPA Office of Ground Water and Drinking Water: <http://water.epa.gov/drink/index.cfm>

California State Water Resources Control Board (SWRCB):

[http://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/publicwatersystems.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/publicwatersystems.shtml)

County of San Luis Obispo Water Quality Laboratory: <http://slocountywater.org/WOL/wql.html> [PW.WQL@co.slo.ca.us](mailto:PW.WQL@co.slo.ca.us)

### COMMUNITY PARTICIPATION

The County of **San Luis Obispo Board of Supervisors** meets every Tuesday (except the 5th Tuesday in a month) in the board chambers located in the County Government Center at 1055 Monterey Street, San Luis Obispo. The Board holds budget hearings during the month of June. Interested persons should check the Board's agendas for specific dates. Agendas for all Board of Supervisors meetings are posted in some County libraries, the County Government Center, and on the Board of Supervisors internet web site at [www.slocounty.ca.gov](http://www.slocounty.ca.gov).

The **Shandon Community Advisory Council** meets the first Wednesday of every month at 7:00 pm in the Clubhouse in the Crawford W. Clarke Park. You can contact the advisory council by **email at [shandoncouncil@yahoo.com](mailto:shandoncouncil@yahoo.com)**, or at **P.O. Box 92, Shandon, 93461**. Advisory council recommendations are considered by the Board of Supervisors when they make decisions that affect Shandon, including the water system.

The management of the Paso Robles Groundwater Basin, which has been the main source for Shandon's drinking water, is now subject to a new State law called the **Sustainable Groundwater Management Act** (SGMA). To stay apprised of activities associated with implementation of SGMA, please join our mailing list at: <http://www.slocountywater.org/site/Water%20Resources/SGMA/>.

## LEAD Health Risks in Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water typically comes from materials and components associated with service lines and home plumbing. The County of San Luis Obispo is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

## Operations

Shandon is assigned three operators who, like all operators who work for the County, are certified by the California State Water Resources Control Board (SWRCB). Our operators are knowledgeable professionals who have many years of experience. They are dedicated to maintaining an excellent water system and providing you with the best quality water possible.

Operators conduct weekly inspections of the intake pump station, tanks and distribution system. In addition, the SWRCB routinely inspects the facilities, operating procedures, and water quality monitoring records to verify compliance with state and federal regulatory requirements.

## Water Quality Laboratory

The Department of Public Works Water Quality Laboratory provides laboratory services for most County operated water and wastewater systems. The lab is certified by the State of California's Environmental Laboratory Accreditation Program (ELAP). To remain certified by the State, the lab is required to annually demonstrate capability by analyzing unknowns for each constituent. In addition to analytical work, the laboratory also provides sampling, compliance reporting, watershed monitoring, and technical support services for Public Works systems. Water Quality for CSA16 – Shandon Wells, CCWA State Water, and Shandon Distribution System.

## TERMS AND ABBREVIATIONS

<b>Acre-foot</b> – 325,851 gallons	the use of disinfectants to control microbial contaminants.	monitoring and reporting requirements, and water treatment requirements. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.
<b>CaCO<sub>3</sub></b> – Calcium carbonate	<b>NA</b> – Not Applicable	<b>RAL</b> – Regulatory Action Level. The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
<b>CCWA</b> – Central Coast Water Authority	<b>ND</b> – Not Detected. Contaminant is not detectable at testing limit.	<b>SCADA</b> - (supervisory control and data acquisition)
<b>DLR</b> – Detection Level for purposes of Reporting	<b>NS</b> – No Standard	<b>Secondary MCLs</b> – Maximum contaminant level for contaminants to protect the taste, odor, or appearance of the drinking water. Contaminants with secondary MCLs do not affect health at the MCL levels.
<b>ELAP</b> Environmental Laboratory Accreditation Program	<b>NTU</b> – Nephelometric Turbidity Unit. A measure of water clarity.	<b>SMGA</b> – Sustainable Groundwater Management Act
<b>LRAA</b> – Locational Running Annual Average. Compliance based on the running quarterly annual average of distribution system samples.	<b>pCi/L</b> – picocuries per liter (a measure of radioactivity).	<b>SWRCB</b> – State Water Resources Control Board
<b>MCL</b> – Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible.	<b>PDWS</b> – Primary Drinking Water Standards. MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements. PDWS pertain to the following: Filtration Performance, Microbiological Contaminants, Inorganic Contaminants, Radioactive Contaminants and Disinfection Byproducts, Disinfection Residuals, and Disinfection Byproduct Precursors.	<b>TON</b> – Threshold Odor Number.
<b>MCLG</b> – Maximum Contaminant Level Goal. The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.	<b>PHG</b> – Public Health Goal. The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.	<b>TT</b> – Treatment Technique. A required process intended to reduce the level of a contaminant in drinking water. For microbiological and turbidity contaminants, the raw water will be treated at a water treatment facility or used for groundwater recharge prior to use.
<b>mg/L</b> – Milligrams per Liter.	<b>ppb</b> – parts per billion, or micrograms per liter (µg/L).	<b>µS/cm</b> – microsiemens per centimeter (unit of specific conductance of water).
<b>MPN/100 mL</b> – Most Probable Number per 100 milliliters	<b>ppm</b> – parts per million, or milligrams per liter (mg/L).	<b>µg/L</b> – Micrograms per Liter.
<b>MRDL</b> – Maximum Residual Disinfectant Level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.	<b>Primary MCL</b> – Maximum contaminant level for contaminants that affect health along with their	<b>USEPA</b> – United States Environmental Protection Agency
<b>MRDLG</b> – Maximum Residual Disinfectant Level Goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of		<b>WTP</b> – Water Treatment Plant



The following tables are a snapshot of drinking water constituents that were detected in your water in 2016, unless otherwise noted. The State allows us to monitor for some substances less than once per year because the concentrations do not change frequently. Some of our data, although representative, may be more than one year old. The presence of these substances detected in water does not necessarily indicate that the water poses a health risk. For questions about this data, please contact the Water Quality Laboratory at (805) 781-5111.

Regulated Contaminants with Primary Drinking Water Standards						
Constituent (units)	MCL,TT, or [MRDL]	PHG, (MCLG), or [MRDLG]	Range and Average Detected	CSA16 Wells (Treated)	CCWA State Project (Treated)	Potential Sources of Contamination
<b>Plant Filter Performance</b>						
Combined Filter Effluent Turbidity (NTU)	TT=<1 NTU every 4 hours		Range	NA	0.03 - 0.11	Soil runoff
	TT=95% of samples <0.3 NTU		%	NA	100%	
<b>Microbiological Monitoring</b>						
Total Coliform Bacteria (Present or Absent)	>1 positive per month	MCLG = (0)	Range	ND	NA	Naturally present in the environment
	5.0% of monthly samples	MCLG = (0)	Average	ND	NA	
Heterotrophic Bacteria (CFU/mL)	TT = <500	NA	Range	NA	0 - 2	Naturally present in the environment
			Average	NA	0.4	
Constituent (units)	MCL,TT, or [MRDL]	PHG, (MCLG), or [MRDLG]	Range and Average Detected	CSA16 Distribution	CCWA State Project (Treated)	Potential Sources of Contamination
<b>Distribution System Monitoring</b>						
Total Chlorine Residual (ppm)	MRDL = [4.0]	MRDLG = [4.0]	Range	0.56 - 1.96	1.9 - 2.7	Drinking Water Disinfectant added for treatment
			Average	1.41	2.3	
Chloramines (ppm)	MRDL = [4.0]	MRDLG = [4.0]	Range	0.80 - 1.89	---	Drinking Water Disinfectant added for treatment
			Average	1.4	---	
Total Trihalomethanes (ppb)	80	80	Range	ND	31 - 60	By-product of drinking water chlorination
			Average	ND	48	
			Highest LRAA	ND	61.0	
Haloacetic Acids (ppb)	60	60	Range	ND	4.1 - 14	By-product of drinking water chlorination
			Average	ND	8.1	
			Highest LRAA	ND	11.8	
Regulated Contaminants with Primary Drinking Water Standards continued						
Constituent (units)	MCL,TT, or [MRDL]	PHG, (MCLG), or [MRDLG]	Range and Average Detected	CSA16 Wells (Raw)	CCWA State Project (Treated)	Potential Sources of Contamination
<b>Inorganic Chemicals</b>						
Aluminum (ppm)	1	0.6	Range	ND	ND - 0.082	Residue from water treatment process; erosion of natural deposits
			Average	ND	0.060	
Arsenic, Total (ppb)	10	0.004	Range	All 1.9	ND	Erosion of natural deposits; runoff from orchards
			Average	1.9	ND	
Barium (ppm)	10	0.004	Range	0.120 - 0.130	ND	Erosion of natural deposits; discharge of oil drilling wastes
			Average	0.125	ND	
Fluoride (ppm)	2.0	1	Range	0.122 - 0.123	ND	Erosion of natural deposits; water additive that promotes strong teeth
			Average	0.122	ND	
Nitrate as Nitrogen (ppm)	10	10	Range	2.4 - 4.7	0.41	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
			Average	3.6	0.41	
<b>Radionuclides</b>						
Gross Alpha Particle (pCi/L)	15	MCLG = (0)	Range	1.69 - 2.07	---	Decay of natural and man-made deposits
			Average	1.9	---	
Gross Beta Particle (pCi/L)	50	MCLG = (0)	Range	---	ND	Decay of natural and man-made deposits
			Average	---	ND	
<b>Lead and Copper Monitoring at the Consumers' Tap (Sampled in 2014)</b>						
Constituent (Unit)	Number of Samples	90th percentile	Action Level	PHG	# of sites exceeding AL	Potential Source of Contamination
Lead (ppb)	10	ND	15	0.2	None	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	10	0.17	1.3	0.3	None	

CSA-16 Shandon's 2016 Consumer Confidence Report

<b>SECONDARY STANDARDS - Aesthetic Standards</b>						
<b>Constituent (units)</b>	<b>Secondary MCL</b>	<b>Range and Average Detected</b>	<b>CSA16 Wells (Raw)</b>	<b>CSA16 (Distribution)</b>	<b>CCWA State Project (Treated)</b>	<b>Potential Sources of Contamination</b>
Chloride (ppm)	500	Range	12.3 - 62.7	---	41 - 138	Runoff/leaching from natural deposits; seawater influence
		Average	37.5	---	97	
Color (ACU)	15	Range	ND - 5	ND - 2	ND	Naturally occurring organic materials
		Average	ND	ND	ND	
Odor Threshold (TON)	3	Range	ND - 2.4	1.0 - 2.4	ND	Naturally occurring organic materials
		Average	1.2	1.3	ND	
Specific Conductance (µS/cm)	1600	Range	590 - 872	---	374 - 757	Substances that form ions when in water;seawater influence
		Average	726	---	609	
Sulfate (ppm)	500	Range	70 - 127	---	100	Runoff/leaching from natural deposits; industrial wastes
		Average	98	---	100	
Total Dissolved Solids (ppm)	1000	Range	340 - 620	---	194 - 442	Runoff/leaching from natural deposits;
		Average	484	---	346	
Turbidity (NTU)	5	Range	0.04 - 0.61	0.04 - 0.24	0.03 - 0.13	Soil runoff
		Average	0.15	0.10	0.06	
<b>ADDITIONAL PARAMETERS (Unregulated)</b>						
Alkalinity, Total as CaCO3 (ppm)	NA	Range	90 - 104	---	42 - 84	Runoff/leaching from natural deposits; seawater influence
		Average	97	---	66	
Calcium (ppm)	NA	Range	73 - 106	---	30 - 82	Runoff/leaching from natural deposits; seawater influence
		Average	90	---	53	
Corrosivity (Aggressive Index)	NA	Range	non-corrosive	---	non-corrosive	Balance of hydrogen, carbon, & oxygen in water, affected by temperature, other factors
		Average	non-corrosive	---	non-corrosive	
Hardness (Total) as CaCO3 (ppm)	NA	Range	208-290	---	64 - 162	Leaching from natural deposits
		Average	249	---	115	
Heterotrophic Plate Count (CFU/mL)	TT ≤ 500	Range	ND - 49	ND - 47	ND - 2	Naturally present in the environment
		Average	7	13	0.4	
Magnesium (ppm)	NA	Range	6.0	---	17	Runoff/leaching from natural deposits; seawater influence
		Average	6.0	---	17	
Manganese, Total (ppb)	NA	Range	ND	---	ND	Runoff/leaching from natural deposits; seawater influence
		Average	ND	---	ND	
pH	NA	Range	7.58 - 7.64	---	8.0 - 8.5	Runoff/leaching from natural deposits; seawater influence
		Average	7.61	---	8.3	
Potassium (ppm)	NA	Range	---	---	4.0	Runoff/leaching from natural deposits; seawater influence
		Average	---	---	4.0	
Sodium (ppm)	NA	Range	44 - 60	---	87	Runoff/leaching from natural deposits; seawater influence
		Average	52	---	87	
Total Organic Carbon, TOC (ppm)	TT	Range	---	---	1.5 - 3.5	Various natural and man made sources
		Average	---	---	2.3	
Geosmin (ng/L)	NA	Range	---	---	ND - 2	Naturally occurring compounds produced by decaying Actinomycetes (spore forming bacteria) and/or Cyanobacteria (blue-green algae)
		Average	---	---	1	
2-Methylisoborneol (ng/L)	NA	Range	---	---	ND - 9	
		Average	---	---	4	



*The Utilities Division Water Quality Laboratory provides laboratory and technical services to support the beneficial management of water and wastewater for the present and future residents of the County of San Luis Obispo.*



## SYSTEM PROJECT NEWS

### A New Water Source and Change of Disinfectant

**Starting early this summer** the tap water you receive will be primarily water from the State Water Project and will be supplemented with groundwater from Shandon's wells. The State Water Project is operated by the Central Coast Water Authority (CCWA) Polonio Pass Water Treatment Plant. The CCWA was formed to treat and deliver water from the State Water Project to San Luis Obispo and Santa Barbara counties. Source water for the Polonio Pass plant comes from the California State Water Project operated by the California Department of Water Resources. The State Water Project consists of 21 different reservoirs throughout the State. Water is conveyed to the Polonio Pass WTP by the Coastal Branch Aqueduct completed in 1997.

### **The addition of State water as a primary water source will improve water supply reliability for the community and benefit the groundwater basin overall.**

The County has completed the inter-tie with the State Water Project. Your well water is currently being supplemented by a small amount of State water. At present we are unable to measure the exact amount of State water being delivered but the CCWA has reported this amount to be less than 1 acre-foot/month. We are transitioning into accepting our full entitlement of 100 acre-feet per year of State water. The remaining water used by the community will be supplemented with groundwater from Shandon's Well 04 and 05. Delivery of our entire allotment of State water will begin after the installation of a SCADA system. The SCADA system will allow the District to remotely monitor and control various delivery system parameters and better manage your water supply. This work will be completed early this summer.

In anticipation of receiving full delivery of State water, Shandon has been disinfecting your well water with chloramine, a combination of chlorine and ammonia. This change is necessary in order to safely blend State water with Shandon's well water, chloramination is used by the CCWA to disinfect State water and is currently considered to be the best technology for controlling the formation of certain regulated organic disinfection byproducts. Chloraminated water is safe for people and animals to drink, and for all other general uses. However, as with chlorine, chloramine will need to be removed for fish and amphibian use and for people or businesses requiring highly treated water.

#### **ATENCIÓN:**

**El Nuevo desinfectante va afectar a pasientes que estan recibiendo tratamientos de Dyalises, o si usted tienen pescados, spa o alberca. Por favor llame a Antonio at 788-2954 por mas information en Espanol.**

**Renal Dialysis Patients** must be sure that chloramines (and chlorine) are removed from the water that is used in their dialysis machines. Since all known dialysis patients in the county are monitored through DaVita Dialysis Centers, which will not be affected by the conversion, this should not be a problem. **If you are a renal dialysis patient**, you should contact your own doctor or your dialysis facility for further information.

**If you own fish**, consult their local pet store for recommended products that will remove chloramine prior to use. Both chlorine and chloramine are toxic to aquatic life in very low levels and must be removed from the water used in fish tanks and ponds. Most pet stores sell disinfectant removal products that can be added to the tap water prior to introducing it to the fish tank or pond. Consult your local pet store for recommended products that remove chloramine prior to use.

**If you own a pool or spa**, you will probably need to add more chlorine to your water to obtain a free chlorine residual. Contact your pool or spa supply dealer for information.

Water that is disinfected with chloramines **is perfectly safe for people** (including dialysis patients) **and their pets to drink and to use for all normal everyday activities** - cooking, bathing, cleaning, etc. There are no risks associated with using water properly disinfected with chloramines. For further information, please contact the County Water Quality Lab at 805-781-5111.