

Plumas County Environmental Health 2018 Annual Report



Smoke from the Camp Fire settles over the American Valley, November 2018

OVERVIEW

Environmental Health can best be described as those aspects of human health and disease that are influenced by conditions in the environment. Chemical, physical and biological conditions are all important variables in determining human health. Promoting an environment that enhances human health and well-being is the foundation of environmental health.

Environmental Health's mission is to preserve the environment and enhance public health through outreach, education, planning and sensible application of environmental health principles, laws and statutes. We implement and carry out a variety of programs that protect human health and the environment.

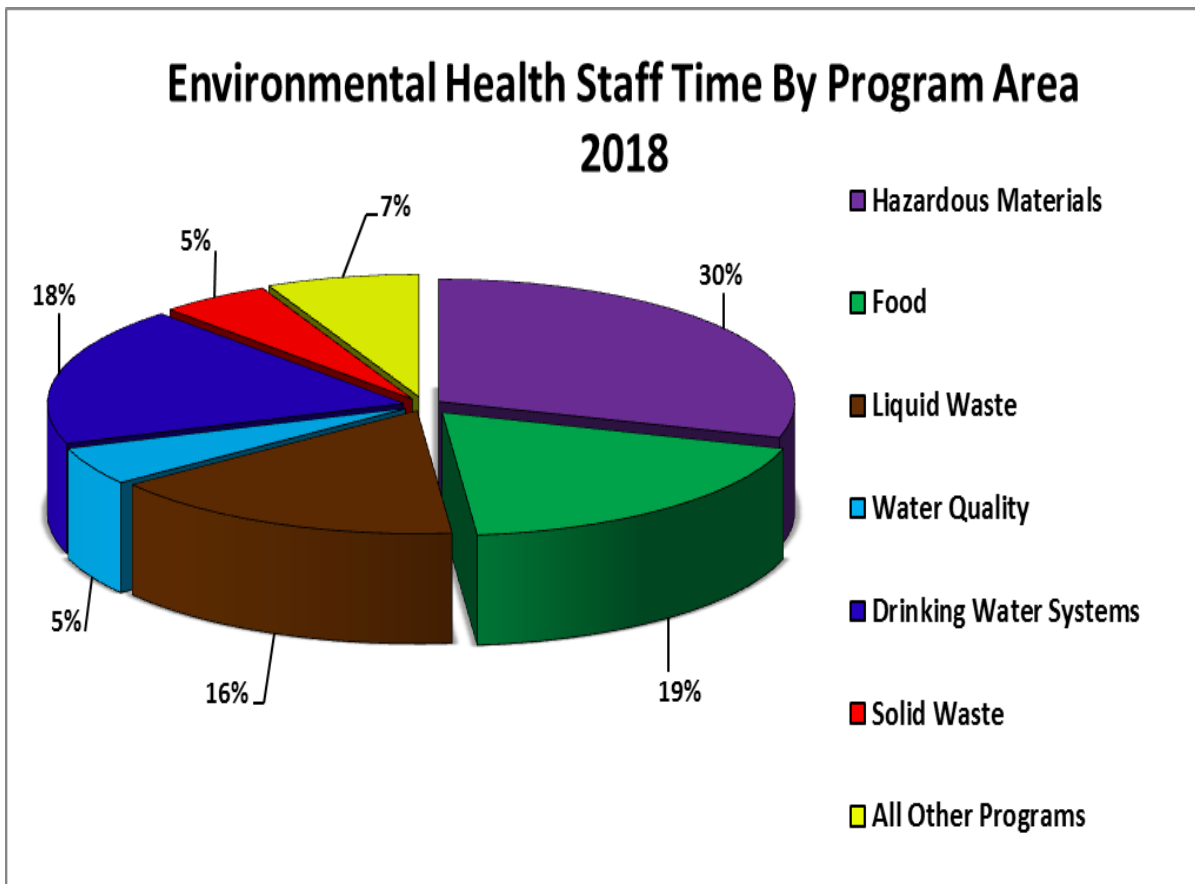
As the calendar year comes to a close, this annual report is a look back at some of Environmental Health's notable activities and accomplishments in 2018.

PROGRAMS

In Plumas County, Environmental Health services are generally grouped into one of ten core program areas. The amount of time spent in each program area depends on a variety of risk factors, state mandates, and the service needs of the community. In Plumas County these ten essential environmental health programs include:

- Hazardous Materials Management
- Drinking Water Protection
- Food Safety
- Liquid Waste Management
- Solid Waste Management
- Water Quality Protection
- Land Use and Development
- Rabies and Vector Control
- Recreational Health
- Housing and Institution Safety

In 2018, staff time was allocated as shown in the following chart and some notable programs and activities are summarized below.



HAZARDOUS MATERIALS MANAGEMENT

The hazardous materials management program helps ensure the safe and proper handling of hazardous materials. Environmental Health staff permit and inspect hazardous materials at fixed facilities, provide technical assistance, planning and support for hazardous materials emergencies, and oversee cleanup of releases. In 2018, Environmental Health responded to 16 reportable releases, including the 4,000 gallon diesel and gasoline spill from an overturned semi-truck at the Spanish Creek Bridge on Highway 70.



Spanish Creek Bridge Incident, September 2018



Contaminated Soil Removal at Spanish Creek Bridge, September 2018

In such emergencies, life safety is always the first priority. After the scene is safe and the immediate hazards are mitigated, Environmental Health has an ongoing role to minimize the impacts to the environment. We work with the responsible party, land owners, state agencies, and others to ensure cleanup is timely and effective.

Environmental Health is also the Certified Unified Program Agency (CUPA) for Plumas County. We are responsible to permit, inspect and enforce a variety of hazardous materials and hazardous waste regulations under certification by the California Environmental Protection Agency (CalEPA). CalEPA evaluates Environmental Health's program to ensure it complies with state program standards and performance. The five main elements of the program include the following:

Hazardous Materials Business Plan Program (HMBP)

- Assuring that businesses electronically report hazardous material handling, use and storage (volumes greater 55 liquid gallons, 500 solid pounds, or 200 cubic feet of gases) and develop release response plans.
- Coordinating with local fire departments and other emergency responders on preparedness and response to chemical emergencies.

Above Ground Storage Tank (AST) Program

- Tracking, permitting and inspecting AST facilities, operations and equipment.
- Reviewing and verifying Spill Prevention Control and Countermeasure Plans (SPCC) are in place
- Ensuring tanks are properly managed to minimize the chances of a spill.



Aboveground Tank at Hamilton Branch, Lake Almanor

Underground Storage Tank (UST) Program



Underground Piping repair at One Stop Gas Station, Quincy

- Tracking, permitting, and inspecting UST facilities and equipment.
- Ensuring underground tanks and piping are properly operated, monitored and maintained to avoid risks of spills, leaks, or releases.
- Inspecting the construction, repair, upgrade and removal of underground tanks.
- Verifying that closed and removed tanks have not leaked and do not pose a risk to the environment.

California Accidental Release Program (Cal ARP)

- Tracking, permitting and inspecting facilities that handle certain quantities of acutely hazards material (such as chlorine gas or anhydrous ammonia).
- Reviewing Risk Management Plans (RMP) intended to reduce the risk and consequences of accidental releases.

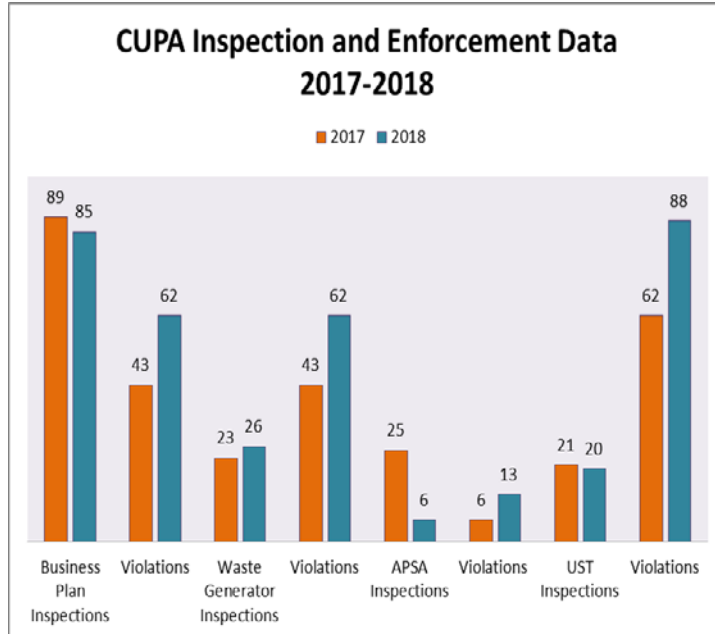


Chemical injection system, wastewater treatment plant Chester Public Utilities District

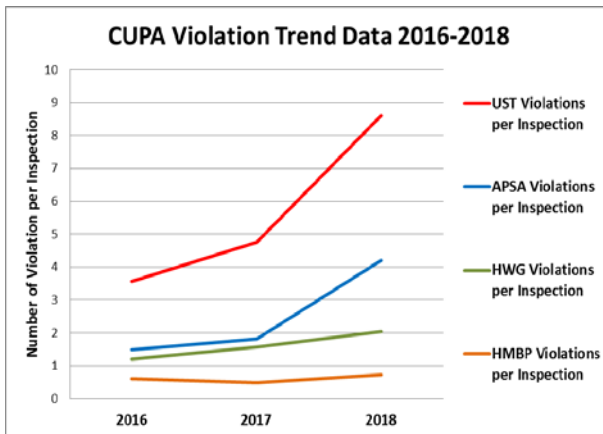
Hazardous Waste Generator Program

- Tracking, permitting, and inspecting facilities that generate hazardous wastes such as waste oil, solvents, and used chemicals.
- Ensuring the proper storage, management, handling and disposal of these wastes.

Since Cal EPA implemented the California Electronic Data Reporting System (CERS), Environmental Health tracks the number of inspections conducted and violations cited in each of the CUPA program elements. General inspection and enforcement data for the past two years are shown in the chart to the right. In 2018, Environmental Health completed 138 CUPA inspections and followed up on over 200 resulting violations.



Unfortunately the number of violations has increased in each of the CUPA elements from 2017 to 2018. A closer look at this trend is provided in the chart below which tracks the number of violations per inspection over the past 3 years.



The increasing trends seen in underground tanks and aboveground hazmat storage are due in large part to the increasing complexity of state regulations. Especially for underground tanks, sophisticated electronic monitoring and detection systems are now required, and these often require annual calibration and certification from third party vendors. Maintaining full compliance can be

challenging, especially for ‘mom and pop’ businesses like we have in Plumas County. Environmental Health’s goal is compliance, so we are committed to finding ways to reverse these trends through outreach, education, consultation, and possibly increased inspection frequencies in future years.

Because of special certification required in the UST program, Plumas County provides UST services to Sierra County but this is likely the last year for that contract service.

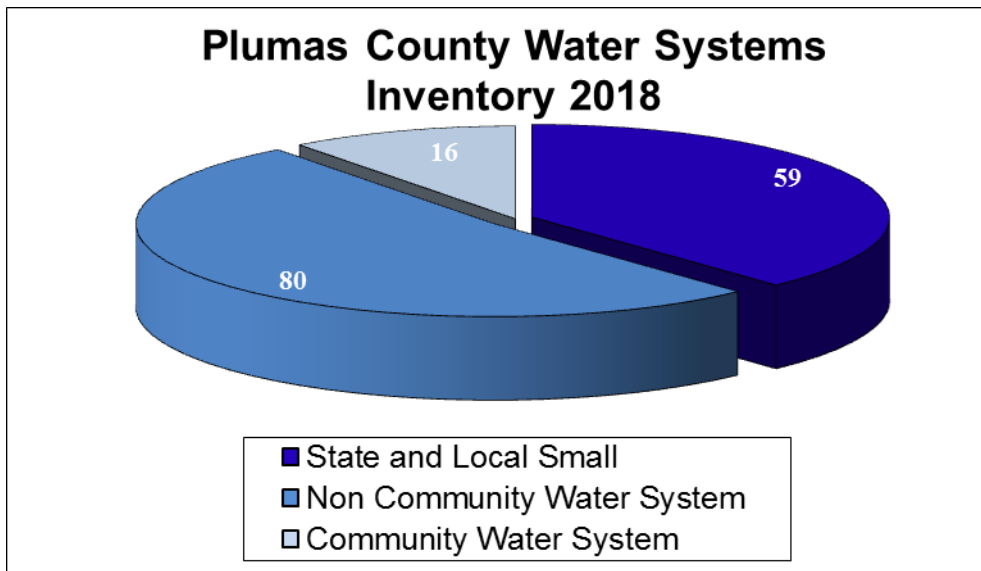
DRINKING WATER PROTECTION

Ensuring safe and potable drinking water supplies is a vital function of Environmental Health. During 2018, almost 20% of EH staff time was spent in this program. Environmental Health maintains state certification as the Local Primacy Agency (LPA) for drinking water systems. Annual program evaluations by State Water Resources Control Board (SWRCB) ensure this program meets state and federal oversight requirements. EH staff serve as a local resource for water system operators, helping ensure that our drinking water remains the highest quality possible.



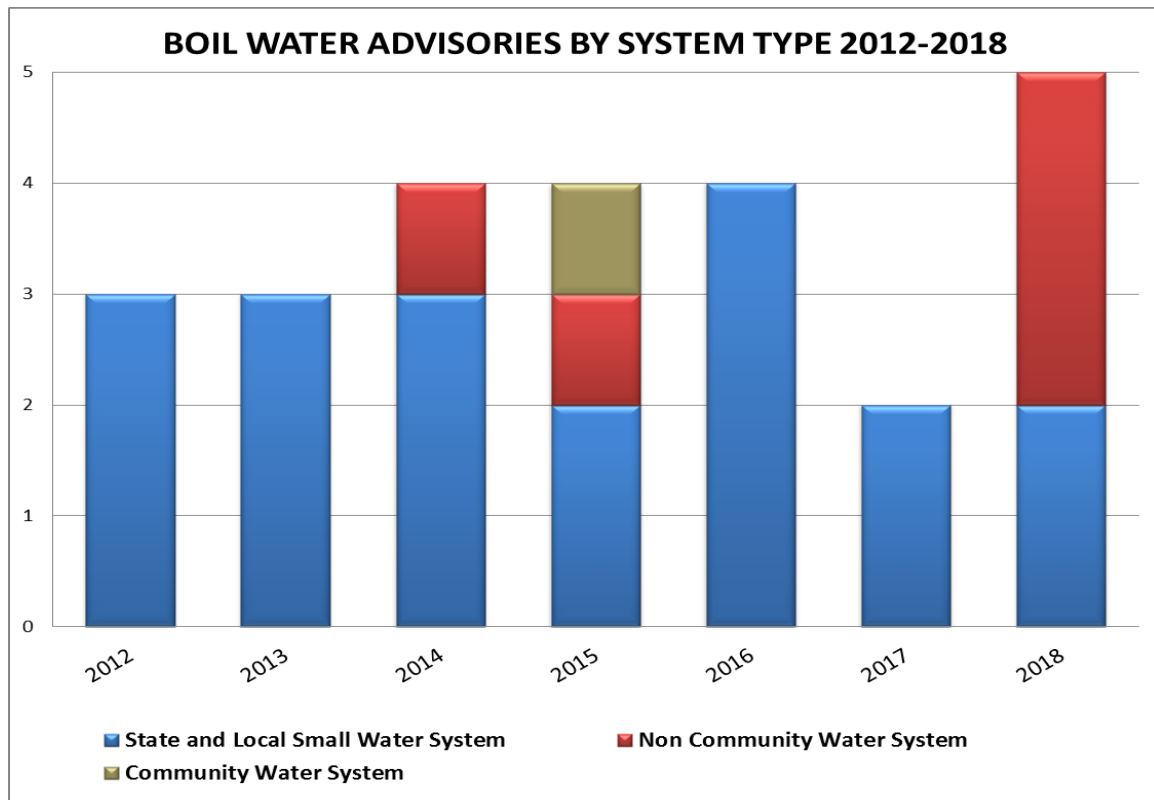
Turbine Well Pump, Feather River College

Drinking water systems are categorized based on the size of the system and the nature of the population served. Community systems typically serve year-round residents, with state and local small systems serving up to 15 connections, and small community systems serving up to 200 connections. These systems make up almost half of the regulated inventory. Non-community systems provide water to areas without residential populations such as parks, resorts, campgrounds, or workplaces. These account for the other half of our system inventory.



To ensure the water provided by these systems is safe to drink, we review and track nearly two thousand (2,000) bacteriological reports each year. In addition, we also track numerous chemical data for each of these systems.

If there is an immediate risk to human health, the system operator is required to issue a Boil Water Advisory. The few number of Boil Water Advisories issued as compared to the number of samples taken is a strong indicator of the safety of Plumas County's drinking water quality.



As shown on the Boil Water Advisories chart, the last time a residential community had an immediate drinking water health risk was in 2015. In recent years, boil water notices have only been issued for the smallest drinking water systems or those serving transient populations such as resorts or campgrounds. While the numbers are very low, the chart seems to show a slight upward trend in total advisories issued. This may be an early indicator of aging infrastructure or other problems which are making systems more vulnerable to contamination. This trend is something to watch in future years.

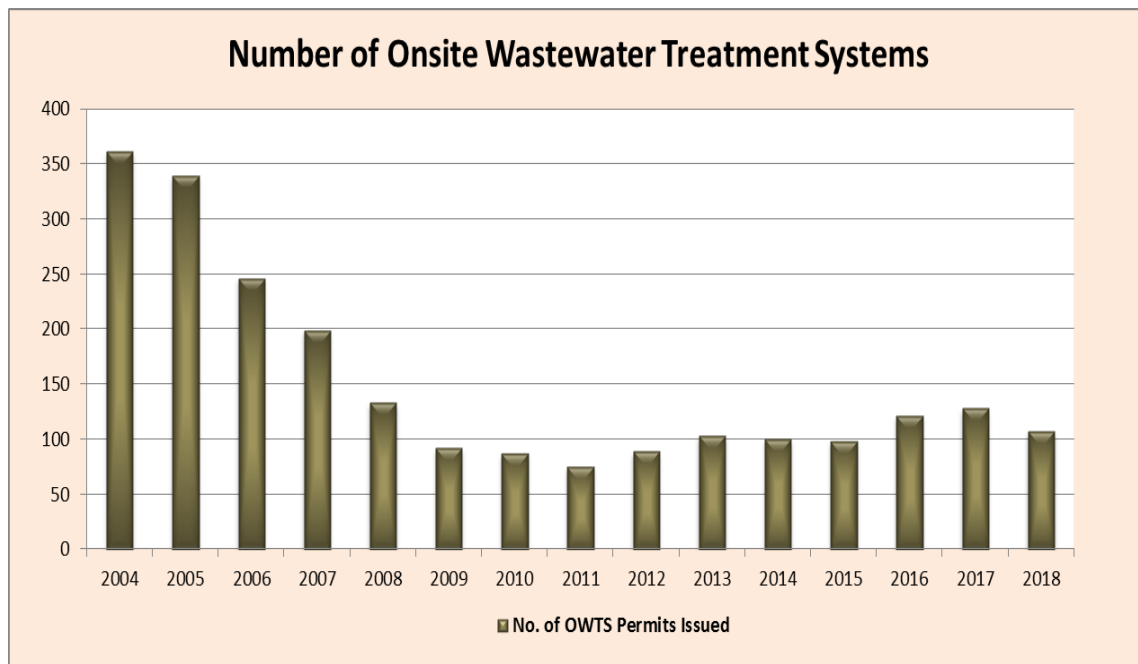
LIQUID WASTE MANAGEMENT

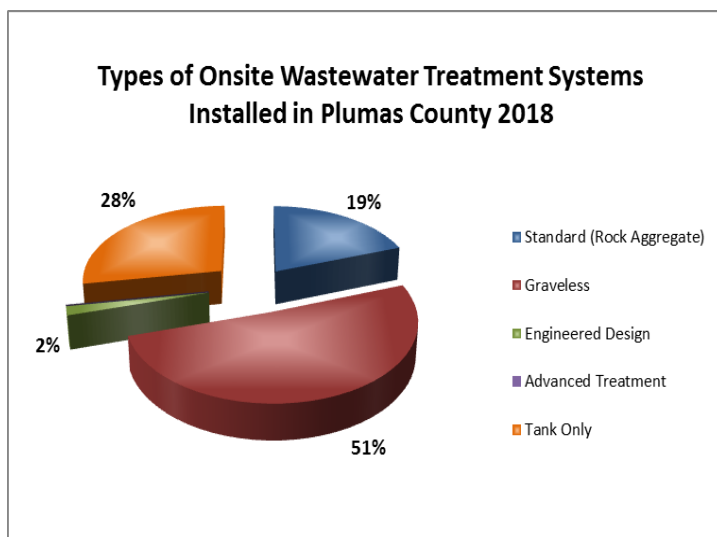


Gravel-less Onsite Wastewater Treatment System off Grizzly Road near Beckwourth

Environmental Health ensures that sewage and liquid wastes are properly handled, treated and disposed. This includes preventing human exposure to contaminated wastewater as well as preventing contamination of surface and groundwater. We specify the location, design, construction, installation and repair criteria of all septic or on-site wastewater treatment systems (OWTS) through a permit and inspection program.

The following chart tracks the number of OWTS permits Environmental Health has issued since 2004. After three consecutive years of growth in permits issued, the number dipped somewhat in 2018, down from 128 permits issued in 2017 to only 107 in 2018.

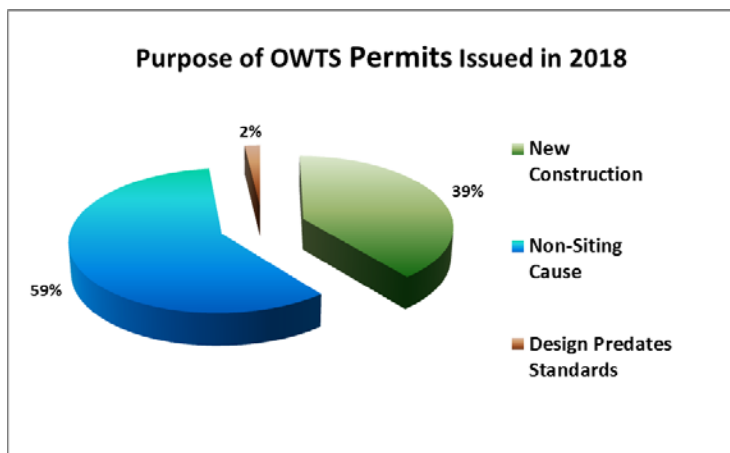




Over half of the OWTS systems installed in the county are chamber or gravel-less design leach fields. Conventional rock disposal fields make up less than one fifth of leachfield installations, while gravel-less (or chambered) disposal fields make up more than half. The number of tank only permits continues to rise, which shows a trend toward community treatment and disposal, such as found in

Grizzly Ranch, Bailey Creek, and other development communities. Only a handful of Engineered and advanced treatment OWTS were permitted last year.

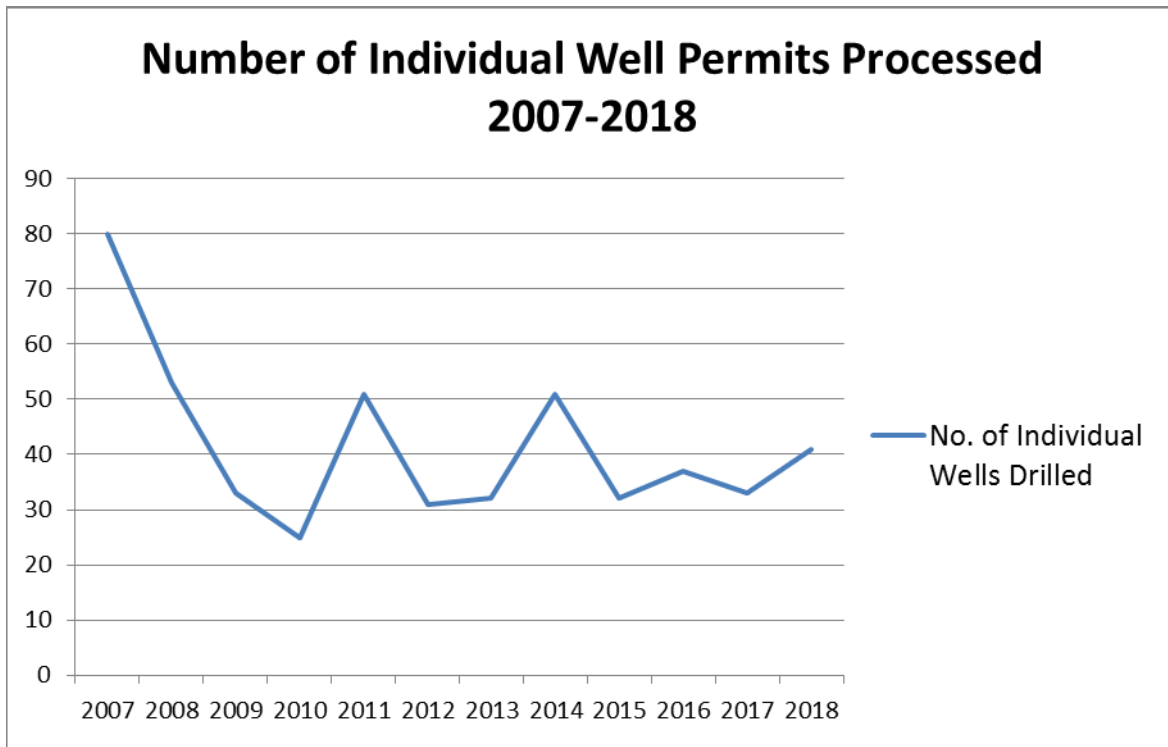
Plumas County conducts the liquid waste program under authority granted by the Central Valley Regional Water Quality Control Board. 2018 represents the first year of comprehensive reporting to the Regional Board on various performance measures including OWTS failures, complaints, design deficiencies, and water quality monitoring. Of the 107 permits issued last year, 42 were for new construction. 63 permits were issued for repairs for failing systems, and the vast majority of these failed due to root intrusion or other 'non-siting' causes. No replacement permits were issued because of failures due to groundwater intrusion, pollution or other health-based problems. Only 2 permits required a waiver from current installation standards. These waivers were granted for replacement of existing, noncompliant systems where an installation setback was increased but did not fully meet current standards.



Our OWTS program now includes a groundwater monitoring component to ensure wastewater pathogens like E. coli or nutrients like nitrates are not contaminating drinking water supplies. At the end of five years, a comprehensive analysis of water quality data will need to be performed, but currently all data strongly indicate that the Plumas County OWTS program is effective and protecting public health and the environment.

WATER QUALITY ASSURANCE

Protecting the quality of Plumas County's lakes, streams and groundwater supplies is a core function of Environmental Health. An important part of this program is the well permit process since improperly located or constructed wells can affect groundwater quality. The annual number of permits issued is shown below.



As discussed above, the number of OWTS permits issued declined in 2018, but the number of well permits issued increased from 33 to 41. Since the economic downturn that started in 2007, the number of well permits issued has generally fluctuated between 30 and 50 each year. The graph above represents all of the water well permits issued, whether for new residential construction, agricultural use, public water supply, or replacement of an old or failing well.

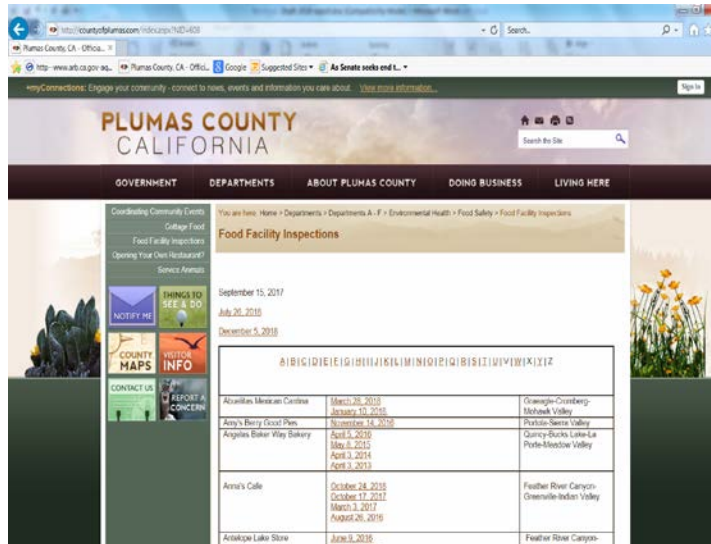
Environmental Health also issues permits for other drilling activities such as wells and soil borings used to assess groundwater pollution, geothermal heat pump borings and geotechnical investigations. An additional 16 permits were also issued for these purposes.



Ag well construction, Sierra Valley

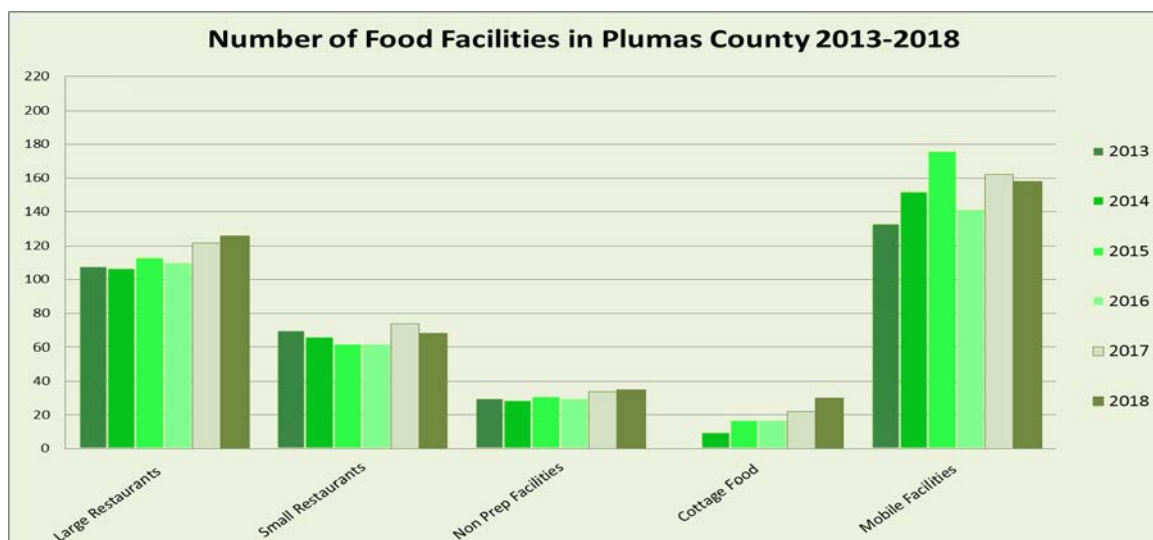
FOOD SAFETY

Our food safety program helps protect the public from food-borne illness. Food safety is achieved through education, outreach, and inspection of retail food facilities countywide. Facilities are evaluated for compliance with the California Retail Food Code. Registered Environmental Health Specialists are authorized to inspect, record and correct violations of safe food handling practices, and even close the facility if necessary to protect public health.



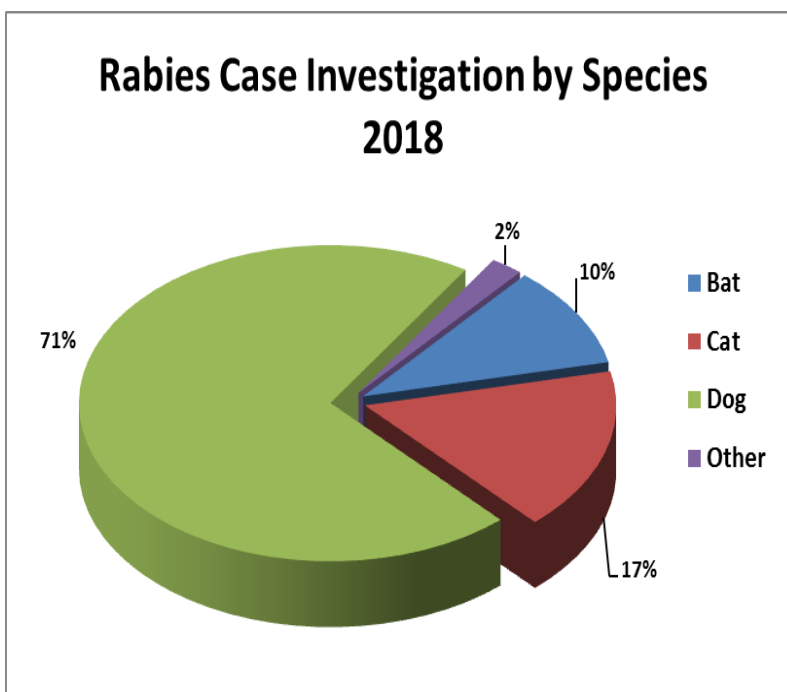
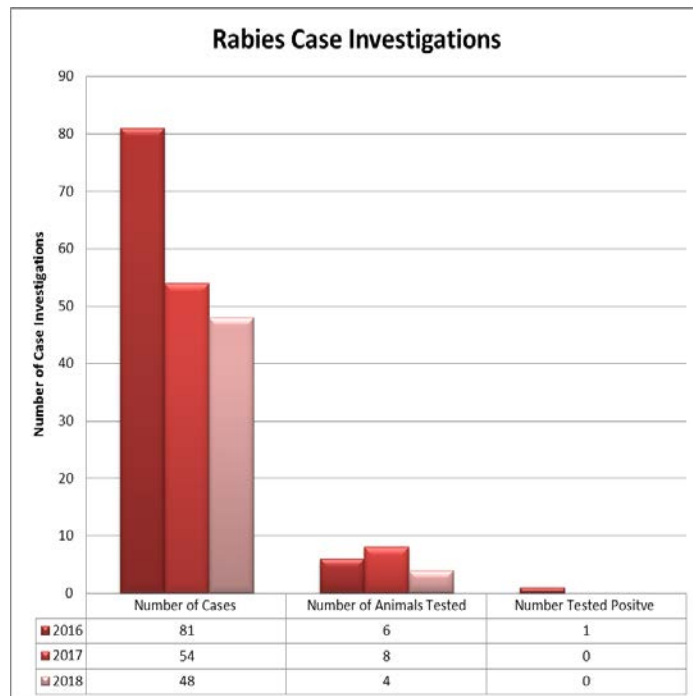
Another part of our food safety program includes public education and outreach. As part of that effort, all fixed food facility inspection reports are available to the public through Environmental Health's Food Facility Inspection page on the county's website at <http://countyofplumas.com/>

In Plumas County, the inventory of retail food facilities includes large restaurants (with a seating capacity of more than 25 or food preparation area in excess of 500 square feet), small restaurants, non-prep facilities such as convenience markets, cottage foods (limited foods prepared in home kitchens), and mobile or temporary facilities serving community events like music festivals and the county fair. The inventory of facilities operating in Plumas County since 2013 is shown below. The number of fixed facilities shows a steady increase over the past 6 years. The fluctuating number of mobile facilities reflects the number of vendors participating in various fairs, festivals and other community events.



RABIES AND VECTOR CONTROL

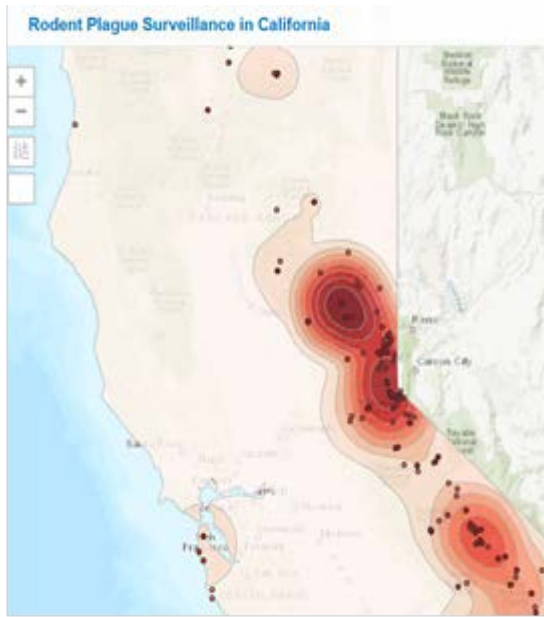
Our rabies and vector control program protects the public from exposure to vector-borne diseases such as Hantavirus, plague and West Nile Virus, but the majority of our time in this program is spent on rabies case investigations. We closely coordinate with state, federal and local partners while performing exposure investigations, environmental surveillance, consultation and other activities. Rabies case investigations have steadily decreased since 2016, the last year that an animal tested positive for rabies in Plumas County.



In 2018, Environmental Health tracked and investigated 48 animal contact cases for potential rabies exposure. The majority of case investigations involve domestic animals, but bats are also commonly encountered. The last animal that tested positive for rabies was a bat found in Graeagle in 2016.

Plumas County is considered endemic for the rabies, meaning that the virus is constantly

present in wild animal populations like bats, skunks and foxes. Rabies is a significant public health hazard, and the Director of the California Department of Public Health (CDPH) has declared all 58 counties in California as rabies areas every year since 1987.



Environmental Health also assisted the California Department of Public Health in plague surveillance last year. Plague is a serious disease that is transmitted through the bite of an infected flea. When rodent populations become concentrated, such as near campgrounds and outdoor recreation areas, people and their pets are at risk of exposure. We helped live-trap rodents at Upper Jamison Creek Campground near Johnsville, the location of human plague cases several years ago. In 2018, flea collection and rodent blood testing did not detect the presence of plague in this area. Like rabies, Plumas County and much of the Sierra Nevada is considered at high risk for this disease.

RECREATIONAL HEALTH

Our recreational health program helps protect bather health and safety by ensuring the safe and sanitary operation of public swimming pools and spas. Environmental Health provides routine design review, permitting, inspection, and technical assistance for the 29 existing pools and spas countywide. We also plan check and inspect repair or upgrade work to pools and spas to ensure the proposed construction meets the minimum standards required by the California pool code.



Spa Remodel, River Pines Resort, Graeagle

SOLID WASTE



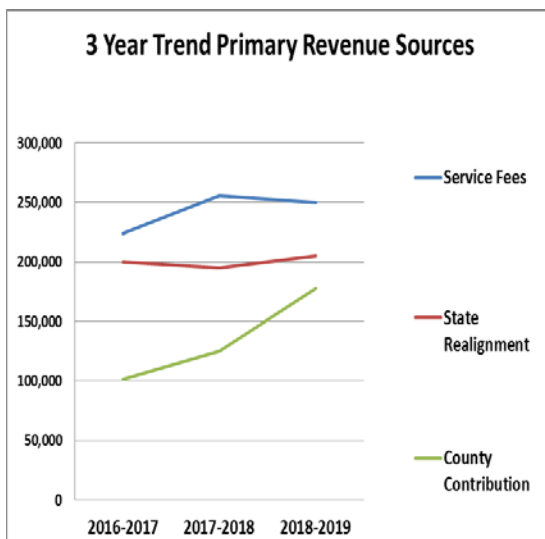
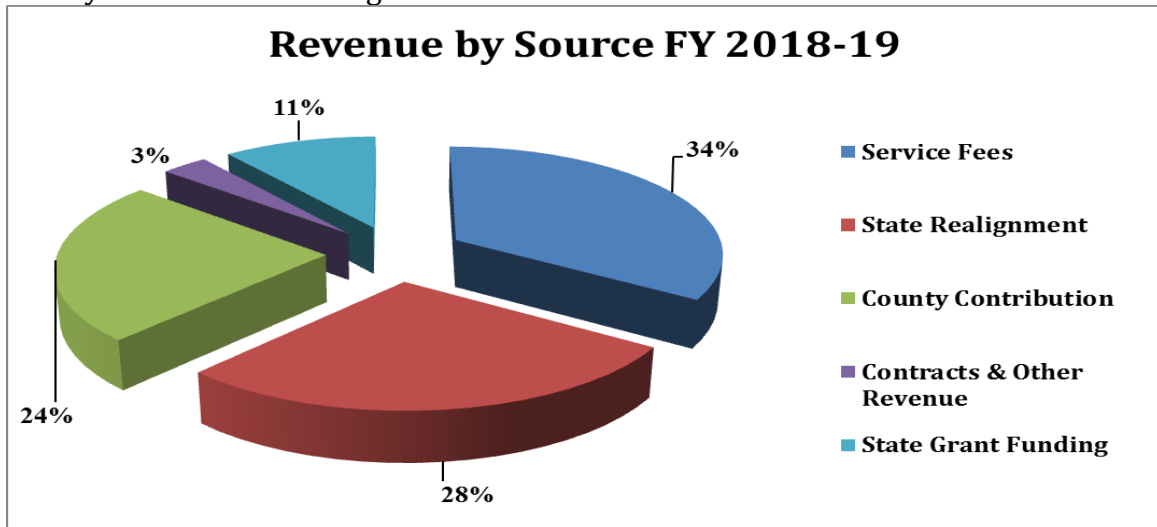
Designated as the Local Enforcement Agency or LEA by CalRecycle, Environmental Health is responsible for ensuring the proper, safe, and sanitary handling of the county's solid waste. We inspect and permit county landfills, transfer sites, and investigate old or abandoned sites for hazards. Environmental Health staff

also investigates complaints about litter, debris, and illegal dumping.

In 2018, Environmental Health staff completed 39 inspections of county transfer sites, 20 inspections of landfills, and 29 inspections of closed facilities. Results of these inspections are available at the CalRecycle website at <https://www2.calrecycle.ca.gov/SWFacilities/Directory/>. In 2018 we also successfully completed CalRecycle's program evaluation which confirms the local inspection and enforcement program complies with state standards.

BUDGET AND REVENUE

Environmental Health revenue sources include Fees for Service, State Realignment, State Program Grants (most notably CUPA, Solid Waste and Drinking Water Protection), and Contracts for Services (Sierra County CUPA and LEA services). The fiscal year 2018-19 funding sources are summarized below.

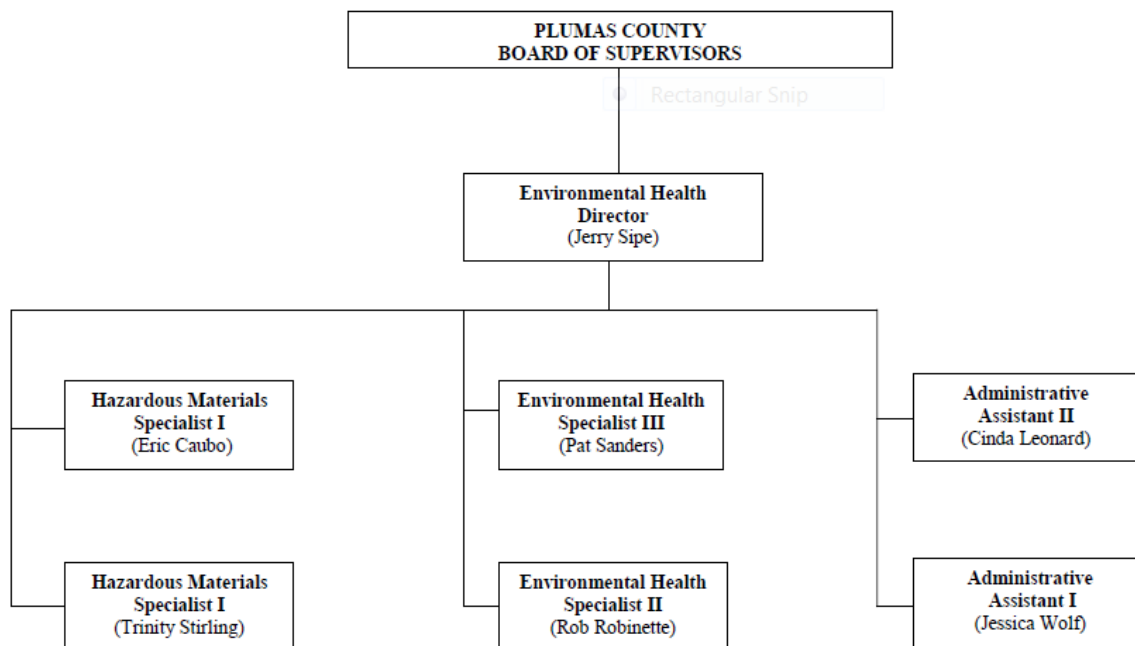


Service fees, Realignment, and County contribution have long been the primary funding sources for Environmental Health. As Realignment and service fees provide a mostly constant revenue source, County contribution is usually tapped to keep up with inflation and to fund one-time expenses, such as the new field vehicle approved in the FY 2018-19 budget. Since the last fee increase was approved by the Board of Supervisors in April 2017, regular, small increases to keep pace with normal operating expenses should be considered in the near future.

STAFFING

After a ten year stretch with hardly any change in staffing, all of the administrative staff, and half of the field staff has turned over within the last 2 years. Field staff turnover has been due to retirements, and replacing veteran staff with deep program knowledge is challenging. However, Environmental Health has been fortunate to hire highly qualified replacements. Once again fully staffed, our focus now is to provide high quality training to ensure new staff are successful. The organization chart below reflects our current staffing level.

ENVIRONMENTAL HEALTH Organization Chart FY 18-19



Work in the hazardous materials program requires program specific certification, while work in most other environmental health disciplines requires state registration. Both Hazardous Materials Specialists are cross training for eventual California Registration as Environmental Health Specialists.

LOOKING FORWARD

2019 offers great opportunities for growth and development of Environmental Health services.

In the aftermath of the Camp Fire in Butte County, development of a statewide Environmental Health mutual aid system is underway. Environmental Health provides critical emergency response and recovery services after a wildfire,

including assisting with human shelter operations, ensuring water and food supplies remain safe and secure, and assuring toxic debris is appropriately managed so communities can more quickly recover and rebuild after a disaster. History has shown that these local services can be quickly overwhelmed in an emergency, especially in small rural counties. As the threat of wildfire and other disasters continues to grow, Environmental Health is participating in this statewide effort to provide assistance to neighboring counties when appropriate as well as to receive support from our neighbors and the region should we need it.

In another statewide effort, Plumas County is actively working with the California Conference of Directors of Environmental Health (CCDEH) and the Rural Counties of California (RCRC) to secure stable funding for the small public drinking water oversight program. Across the state, small water systems are facing aging infrastructure, increasing regulation, and other significant challenges to providing safe, clean, affordable and accessible water to their customers. To help fund Environmental Health's oversight of small water systems, the Division of Drinking Water provided one-time funds that help offset these costs. As this one-time money will be exhausted next fiscal year, it is critical to establish a long-term, sustainable funding source that keeps the drinking water program under local authority and allow small water systems to spend limited funds on system improvement rather than on paying increasing oversight fees.

Another emerging issue is Environmental Health's role in sustainable groundwater management. Environmental Health provides staff support to the Sierra Valley Groundwater Management District as they develop a sustainable groundwater management plan. But this is only the tip of the iceberg for groundwater management. Currently three counties in California are facing litigation over well permit, construction or extraction issues, and at least one of these cases will be heard by the California Supreme Court. It is too early to know what future groundwater management policies or regulations will emerge from this, but it is clear that Environmental Health will be on the front lines of this very important issue.

Finally as mentioned above, cross training and succession planning are critically important to the level and quality of service provided by Environmental Health. An investment in staff is arguably the most sound investment an organization can make. During 2019 we are committed to continuing the profession growth and development of staff so we can better serve the residents and guests of Plumas County.

Thanks to the Board of Supervisors, department staff, partner agencies and the public for a successful and productive 2018.



Jerry Sipe, Director
Plumas County Environmental Health