

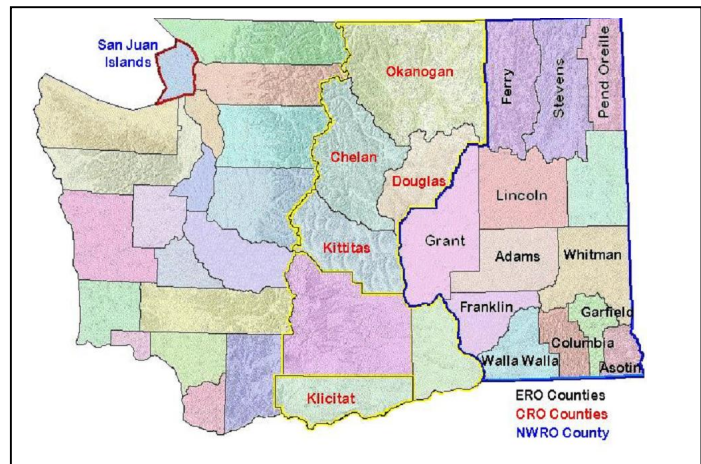


A Look at Agricultural and Outdoor Burning - 2006

Smoke from agricultural and outdoor burning can cause bronchial problems, asthma flare-ups, and increase the risk of dying from heart and lung disease. It also affects the environment by harming soil, water, crops, forest, wildlife, and visibility. Ecology's Air Quality Agricultural and Outdoor Burn Program dedicates itself to reducing the toxic effects of smoke on Washington residents. We do this through permitting programs (both Agricultural and Special Burn Permits), building strong working relationships with our city and county counterparts, and working closely with the citizens and industries. This report summarizes the amount of agricultural burning allowed during 2006.

The goal of the Agricultural and Outdoor Burn Teams, part of Ecology's Air Quality Program, is voluntary compliance -- persuading people and businesses to follow the law without imposing enforcement. We do this by talking with citizens, attending county meetings, and distributing Technical Assistance publications. The burn teams strive for compliance with the law through education and technical assistance; however, when these programs don't work, the Air Quality Program has the authority to issue penalties of up to \$10,000 per day for each violation.

The Agricultural and Outdoor Burn Teams regulate air quality throughout Washington. In counties with designated Air Authorities, the air authority performs the same function as Ecology. On the west side of the Cascades, the Northwest Regional Office (NWRO) regulates the San Juan Islands. Local air agencies regulate the other 22 counties in Western Washington. In Ecology's Central Region (CRO), two of the seven counties have local air authorities; the Air Quality Program is responsible for the other five. Twelve of the 13 counties making up Ecology's Eastern Region (ERO) are regulated by Ecology. Spokane County has its own designated air agency.



The Air Quality Program's Central and Eastern Regional Office burn teams work with conservation districts, fire departments, growers, and the public throughout the year. During the two main agricultural burn seasons, the burn teams are responsible for helping growers get their permitted acres burned while preserving air quality.

Acres Burned in 2006

Ecology permitted more than 200,000 acres of agricultural burning in 2006. This includes field burning, conservation reserve program (CRP) burning, spot burns, and orchard tear-out burning.

Four types of agricultural burning are exempt from permitting requirements under Washington law and, therefore, are not included in the permitted acreage totals in this report. The four exemptions include annual orchard prunings, fence lines, ditch banks, and windblown vegetation (tumbleweeds). In addition, Ecology also issued permits for over 4,000 acres of non-agricultural burning in 2006.



2006 Burn Acreage Summary

215,217 = total agricultural acres permitted

4,408 = total special permit (including land clearing) acres permitted

Agricultural Burning

Agricultural burning in Washington in 2006 was greatly impacted and limited by wildfire smoke. Lightning storms on July 3 and 24, 2006 ignited the Spur and Tripod Fires, respectively. These two fires burned into each other, becoming the Tripod Complex Fire which burned a total of 175,184 acres in Northcentral Washington.

The Columbia Complex Fire in August 2006 burned nearly 110,000 acres in Columbia and Garfield Counties. The smoke from these and other smaller fires limited the number of days favorable for agricultural burning. As shown in the table below, over 200,000 agricultural acres were permitted to burn in 2006, yet resulted in few complaints (see page 8).

Agricultural Acres Permitted to Burn in 2006

County	Spot Burns	Bale Burns	Cereal Grains	Other Crops	Orchard Tear Out	CRP	TOTAL
Adams	80	15	6,816	522	23	2099	9,555
Asotin	51	0	462	127	6	0	646
Benton	0	0	0	0	0	0	0
Chelan	0	0	0	0	264	0	264
Columbia	230	0	24,516	98	0	1189	26,033
Douglas	10	0	0	0	483	320	813
Franklin	3	0	6,158	997	250	8341	15,749
Garfield	170	0	14,982	0	0	1056	16,208
Grant	29	35	4,895	1645	1082	0	7,686
Kittitas	0	0	0	13	38	0	51
Klickitat	0	0	36	0	0	0	36
Lincoln	222	4	3,791	38	0	0	4,055
NWAPA	64	0	60	1118	43	0	1285
Okanogan	0	0	0	0	56	0	56
Pend Oreille	0	0	0	0	0	0	0
PSCAA	90	0	0	195	0	0	285
Spokane	30	0	1728	0	0	135	1893
Stevens	10	5	30	14	0	0	59
Walla Walla	245	4	36,810	6,303	87	1,153	44,602
Whitman	1767	10	82,259	350	0	1555	85,941
TOTAL ACRES	3,001	73	182,543	11,420	2,332	15,848	215,217

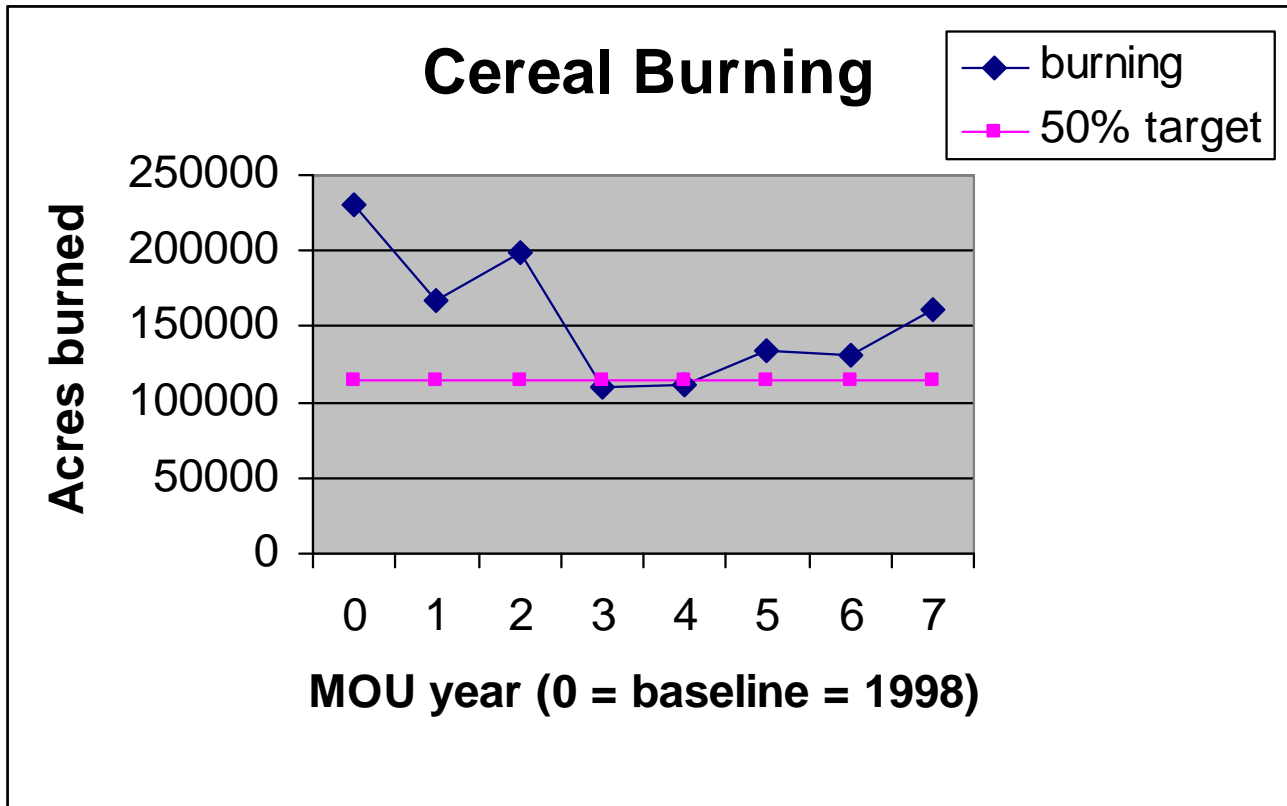
Agreement to Reduce Emissions from Cereal Grain Burning

Ecology, the Washington State Department of Agriculture, and the Washington Association of Wheat Growers signed a Memorandum of Understanding (MOU) in early 1999. This voluntary agreement outlined a plan to reduce field burning by seven percent per year. The goal was to reduce emissions from cereal grain field burning by 50 percent by 2006.

The starting point for emissions was based on the total acres of cereal grain permitted for burning during 1998. The actual reductions, however, are based on crop year totals (fall to spring), since residue from the previous fall is burned in the spring.

The graph below shows the annual reductions from the 1998 starting point of 229,000 acres burned. The 50 percent reduction goal was achieved by year three of the agreement, although the numbers have increased in the past few years.

In June 2006, the MOU was extended until September 1, 2006 to correspond with the newly-revised agricultural burning rules (see page 6).



Monitoring the Daily Air Quality and Sending Out the Daily Burn Decision

Ecology's air monitoring system is one of the important tools we use every day to help evaluate air quality. Staff ensure the air monitors are working correctly, providing data about air quality in locations throughout central and eastern Washington. In addition to the permanent monitors, we have two mobile monitors. These monitors are transported to areas where we think problems exist. The monitors gather data used to evaluate air quality. The information helps Ecology figure out ways to ease air quality problems in that area.

In 2006, two new monitors – in Wellpinit and Usk -- were added to the network. Ecology also operated mobile monitors in Okanogan, Republic, and Dayton during parts of 2006. These new locations increase our ability to track smoke in Northeastern Washington. This also offers residents in these regions a better opportunity to understand the quality of the air they breathe.

Every morning, a member of the burn team prints out the data from each monitoring site and uses this to make the daily burn decision. The monitors tell us where air quality is good as well as show us areas impacted by wildfire smoke so we don't add more smoke to the area. This information is available to the public on the Ecology website at <https://fortress.wa.gov/ecy/aqp/AgBurn/burncall.shtml>, and can help people plan their daily activities.

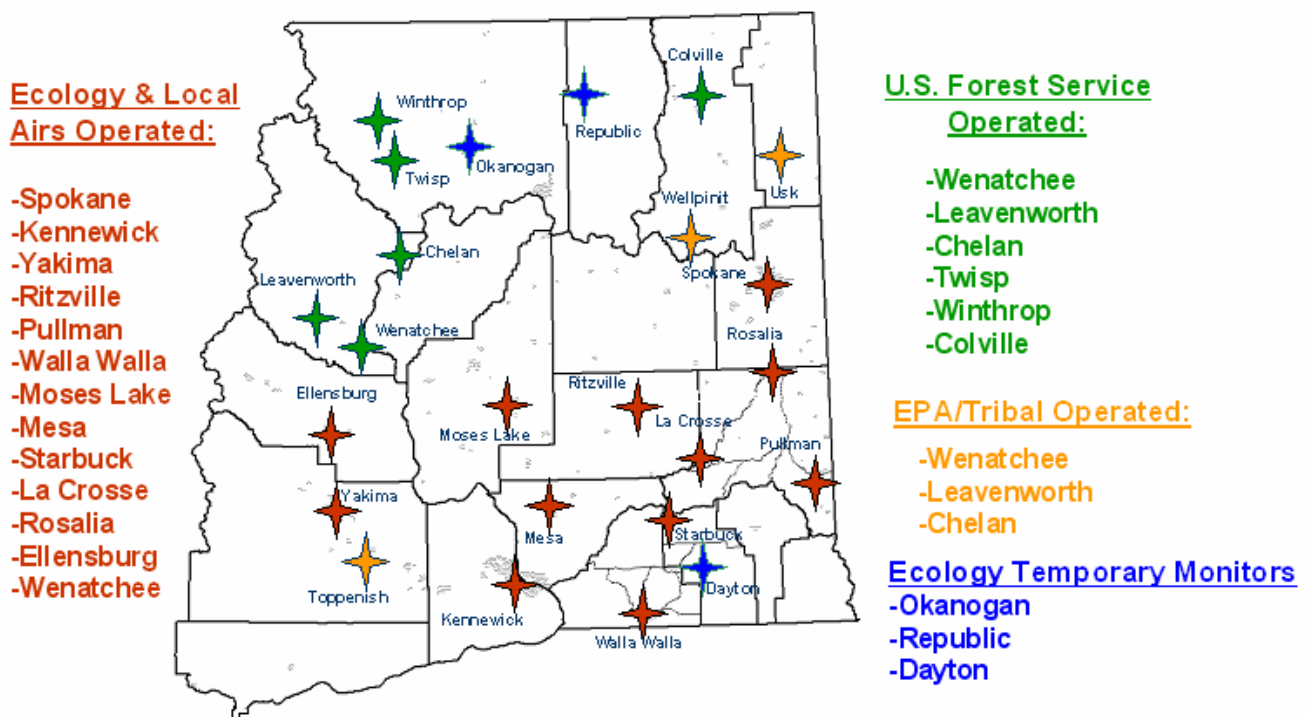
Burn Team members also use *BlueSkyRains* and *ClearSky* computer models. *BlueSkyRains*, created by the U.S. Forest Service, identifies the locations of current wildfires and predicts wildfire smoke movement. *ClearSky* helps predict where smoke from

agricultural burns will go the next day. Through a set of calculations, *ClearSky* uses the best available data, allowing Burn Team members to create scenarios the afternoon before they are needed.

A New Air Quality Standard

The National Ambient Air Quality Standard was lowered, in 2006, from 65 to 35 micrograms per cubic meter per 24-hour average. All the sites shown in the map below are expected to meet this new, more protective standard except for Yaki ma, where it may be more of a challenge. Using three years of monitoring data, EPA will start, in 2009, to assign locations that do not meet the new standard with the title of “non -attainment.” With this designation, EPA and Ecology or the local air authority will work on meeting the standard for that area.

Smoke-Monitoring Locations in Washington



Non-Agricultural Burning Permits

The amount of acreage and piles permitted with special burn permits continues to increase. It has almost doubled every year since 2004, from 1210 acres in 2004 to 4408 in 2006. The amount of burning has remained roughly constant, but compliance with permitting requirements has increased. For a table displaying this data, see the following page.

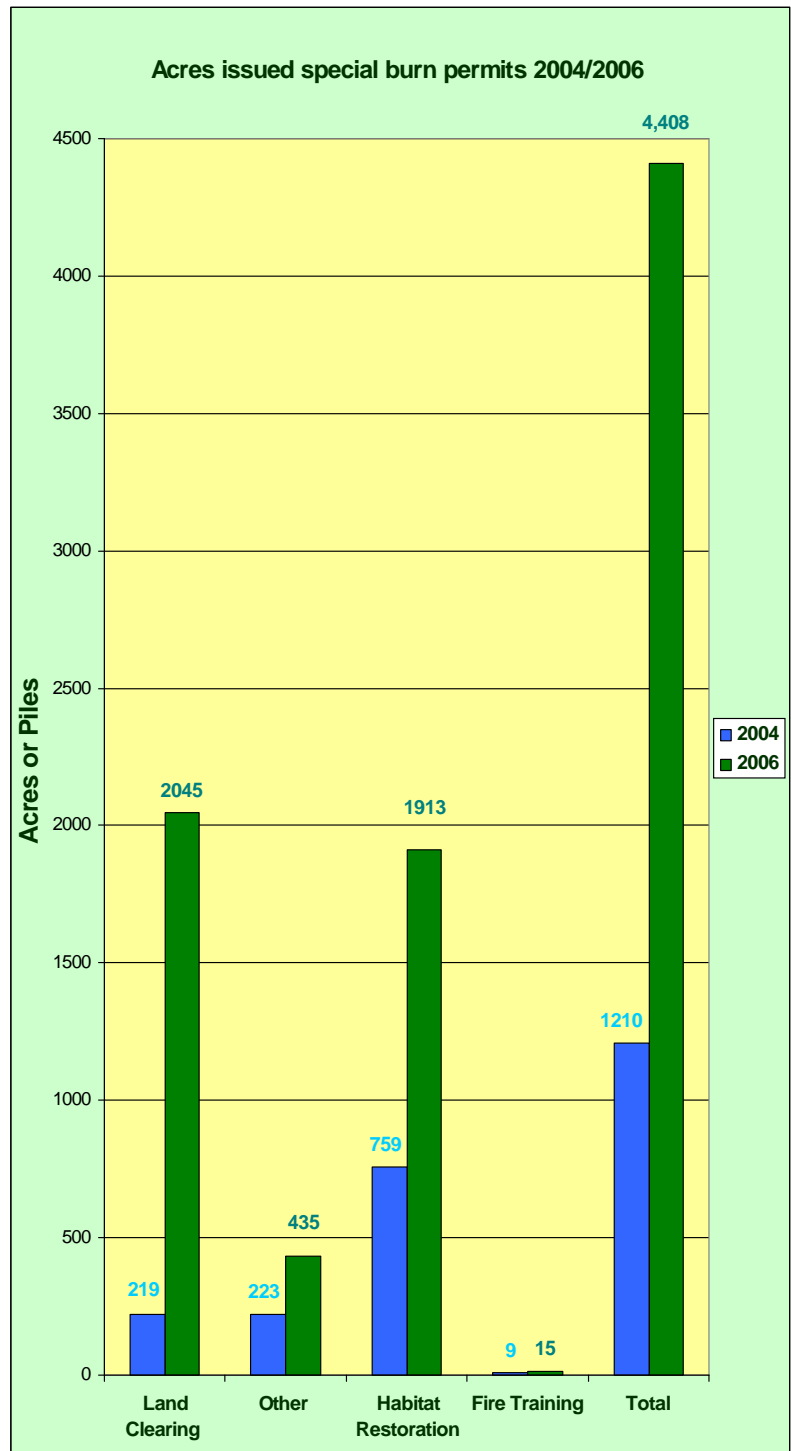
Knowing where burning is permitted allows Ecology to control other kinds of burning and the amount of smoke put into the air. This helps us meet the burner’s needs while still protecting people from the detrimental effects of smoke. Special burn permits are issued for land clearing, habitat improvement, fire training, weed control, and fire safety. There are currently no fees for special burn permits.

Revision of the Agricultural Burning Rules

The regulation for agricultural burning is Washington Administrative Code (WAC) 173-430. It was last updated in 1998 and was opened for revision in 2005. A committee to help revise the rule included the Agricultural Burning Task Force as well as a representative of Save Our Summers (a citizen group) and the American Lung Association. The committee met through 2005 and the first part of 2006. Ecology held five public hearings about the proposed rule in May 2006. The hearings were lightly attended and public comment was mostly in favor of the rule change. The rule became effective on July 26, 2006.

Some of the more important changes in the rule are:

- Agricultural burning, agricultural operation, and farmer are defined. Exempt categories of agricultural burning which do not require a permit (including orchard prunings, fence lines, irrigation ditches, and windblown vegetation) are also defined.
- Fees for agricultural burn permits are increased. Orchard tear-out burn permits will increase from a minimum of \$25 to a minimum of \$50. Field burn permits will increase from \$2 per acre to \$2.25 per acre in 2008, the first increase since the program started.
- Burning allowed on days with elevated air monitor readings will require a justification of why burning is not expected to further degrade air quality. If air quality gets worse after burning is allowed, the decision-making agency must evaluate the decision to find out why air quality got worse and make recommendations about how to prevent a similar event.



In the fall of 2006, Save Our Summers, a citizens group concerned about clean air, reviewed the agricultural burn decision-making process followed by Ecology's Eastern Regional Office. The conclusions of the review were positive. SOS stated, "The findings of this review should be encouraging to anyone with a stake in the field burning program... The review supports a finding that Ecology's burn decisions are well in synch with the intent of the statute to err on the side of protecting air quality while accommodating agricultural burning where it is deemed necessary." The report is available on the Ecology web site at www.ecy.wa.gov/programs/air

2007 Urban Growth Area Burn Ban

As of January 1, 2007, residential (and land clearing) outdoor burning is no longer allowed in any Urban Growth Area (UGA) in Washington. This change affects over 50 communities in Eastern Washington. Ecology continued efforts, begun in 2005, to educate local communities about the changes by meeting with city and town councils as well as county boards.

Ecology considers alternatives to burning to be a key to the success of the ban on burning. Ecology distributed contact information for their local county solid waste coordinator and Ecology's regional solid waste coordinator.

Many communities have already initiated alternatives to burning, such as community chipping days and composting facilities.



Kary Peterson of Ecology speaks to a local city council.

Responding to Smoke Complaints

Another important function of the burn team is to respond to smoke complaints. Smoke complaints are received by e-mail, postal mail, phone calls directly to the burn team and to the complaint line, and in person. The toll-free smoke complaint phone number is 1-800 406-5322. The table on the next page summarizes the complaints Ecology received in 2006.

2006 Complaints Received by Ecology

Type of Complaint	Central Region	Eastern Region	Ecology Total
Agricultural	19	7	26
Indoor/woodstove	4	7	11
Outdoor Burning	79	50	129
Other	3	0	3
Total	105	64	169

The trend over the past several years has been a decrease in agricultural burning complaints and an increase in other complaints, primarily outdoor burning. This trend continued in 2006, with complaints about general outdoor burning outnumbering complaints about agricultural burning by more than 4 to 1 (129 to 26).

Ecology continues to reduce the number of complaints by educating the public and working with local fire districts. Many times, a complaint is an opportunity to inform the public, while at the same time educating the burner about burning legally. For those who burn illegally, documentation of complaints and Ecology's responses including technical assistance, provide supporting information for enforcement.

The ban of residential outdoor burning in Urban Growth Areas (UGAs) will continue in 2007. Ecology hopes that this ban will result in less burning over the next several years. However, we may see an increase in complaints in 2007 about outdoor burning while education efforts continue and alternatives to burning become more routine.

Enforcing Outdoor Burning Rules

Ensuring that citizens and businesses follow the law is one of Ecology's most important missions. Some of the tools Ecology uses to implement the state's outdoor burning rules include permitting, technical assistance, collaborating with local agencies, and enforcement.

Types of enforcement actions that Ecology uses include:

- Notice of Correction (NOC): Written warning including information about what the violator must do to comply with the law (no fine)
- Notice of Violation (NOV): Written notice that a specific violation has occurred and the violator must respond with any additional information within 30 days
- Civil Penalty (NOP): Written notice issued after NOV when 30 days are over. Penalties of up to \$10,000 per day for each violation may be issued. These penalties may be appealed to the Pollution Control Hearings Board (<http://www.eho.wa.gov/>).

2006 Outdoor Burning Enforcement

	Notices of Correction	Notices of Violation	Civil Penalties (amount)
Central and Eastern Regions	39	8	3 (\$6300)

Agricultural Burning Practices and Research Task Force

The Washington State Clean Air Act established the Agricultural Burning Practices and Research Task Force (aka Agricultural Task Force) in RCW 70.94.650. The goal of the task force is to reduce air pollution from agricultural burning. Agricultural Task Force meetings are open to the public. Anyone interested in agricultural burning is welcome to present their concern during a meeting. Task Force members are the decision -makers. Members include:

2006 Agricultural Task Force Membership

Name	Representing
Karen Wood - Chair	WA State Department of Ecology
Michael Bush	Universities/Colleges (Tree Fruit)
Larry Cochran	Conservation Districts
John Cornwall	Agricultural Community (Grass Seed Industry)
Bob Gore	WA State Department of Agriculture
Michael Ingham	Agricultural Community (Alfalfa Seed Growers)
Bill Johnston	Universities/Colleges (Soil and Crop)
Dave Lauer	Eastern Washington Air Authorities
Jay Penner	Agricultural Community (Wheat Growers)
Sverre Vedal	Public Health

The Agricultural Task Force meets four times a year to:

- review and establish permit fees,
- identify and provide grant money for research about alternatives to burning,
- review, develop, and adopt Best Management Practices (BMPs) for growers.

Four BMPs have been adopted by the Task Force:

- Cereal Grains
- Non-Cereal Grains
- Orchard Tear-Outs
- Bale and Spot Burning

All Task Force-related documents can be found on the Agricultural Task Force web site:
http://www.ecy.wa.gov/programs/air/aginfo/Task_force.htm

If you need this document in another format, please contact Tami Dahlgren at (360) 407-6800. If you are a person with a speech or hearing impairment, call 711, Or 1-800-833-6388.