



## OUTDOOR BURNING 2004

The Department of Ecology (Ecology) has jurisdiction over outdoor burning (agricultural, residential, land clearing, and special burning) in areas of Washington State not covered by a local air quality agency. This includes San Juan County in western Washington, and all counties east of the Cascade Crest with the exception of Benton, Spokane and Yakima counties.

Although past annual reports focused primarily on agricultural burning, the 2004 report will broaden its focus to include other types of burning.

In 2004, Ecology permitted burning of more than 150,000 acres under agricultural burning permits. This included field, orchard, Conservation Reserve Program (CRP), and spot burn permits. Agricultural burning along fence lines, ditch banks, wind blown vegetation (tumbleweeds), and annual orchard prunings are not included in this report, as they are exempted from permitting by the Clean Air Act.

Ecology issued special outdoor burn permits for 1,146 acres in 2004. Special outdoor burn permits are used for habitat improvement, fire training, land clearing, weed control, and fire safety burns on non-agricultural land. Land clearing burn permits have increased as developers and builders become aware a permit is required to legally burn debris when clearing land for development.



### 2004 Quick Facts:

**152,640 total Ag. Acres permitted**  
**1,310 burn permits issued**

**1,146 acres permitted as special**  
**(including land clearing) permits**

## Smoke Management

All Ecology-issued permits require burning to occur only on a designated burn day. Ecology's burn team makes a burn day decision 365 days a year. This decision takes into consideration:

1. Existing air quality. Ecology gets this information from air quality monitors located throughout eastern Washington (see page 7), as well from individuals notifying us about the air quality at their homes.
2. Meteorological conditions. Ecology uses many tools to forecast what the smoke from permitted burning will do if it is allowed. We consider ventilation (the ability of the smoke to rise and disperse above ground level), wind speed, and wind direction. If winds are too strong, the smoke plumes will lie over and not disperse for some distance. We are also always concerned about wind direction and which communities or sensitive areas might be downwind. The Ecology website includes links to many of the internet weather forecasting sites we use.
3. Location and type of burn. Ecology maps all burn locations using a Geographic Information System (GIS) depiction of the agricultural burn permitting database. This enables the burn team to evaluate any special requirements of a particular burn, such as: Is it close to a highway or a school? Is the burn likely to create smoke for some time, as with an orchard tear out burn, or is the smoke production likely to be of shorter duration, as with most field burns?

People can find the daily burn decision in several ways:

- Call the Agricultural Burn Hotline (1-800-406-5322) to find out if it is a burn day for a certain area. This popular line logged over 20,000 calls in 2004.
- Check Ecology's web page after 9:00 a.m. at <http://www.ecy.wa.gov/programs/air/aginfo/dailyburncallpage.htm> .
- Subscribe to an e-mail list and have the burn decision delivered to an e-mail address. To subscribe, please go to: <http://www.ecy.wa.gov/maillist.html> .

In 2004, staff of Washington's agricultural burn program worked closely with the states of Idaho and Oregon, and with the Coeur d'Alene and Nez Perce Tribes, on regional smoke issues. Since smoke knows no political boundaries, it is crucial that agencies that regulate outdoor burning consider everyone downwind of smoke. In 2004, Idaho joined Washington in televising agricultural burn forecasts. KXLY television in Spokane and KVEW television in Tri-Cities used information provided by both states to provide burn forecast information for eastern Washington and northern Idaho as part of weather forecasts during burn seasons.

## 2004 Agricultural Acres Permitted by County

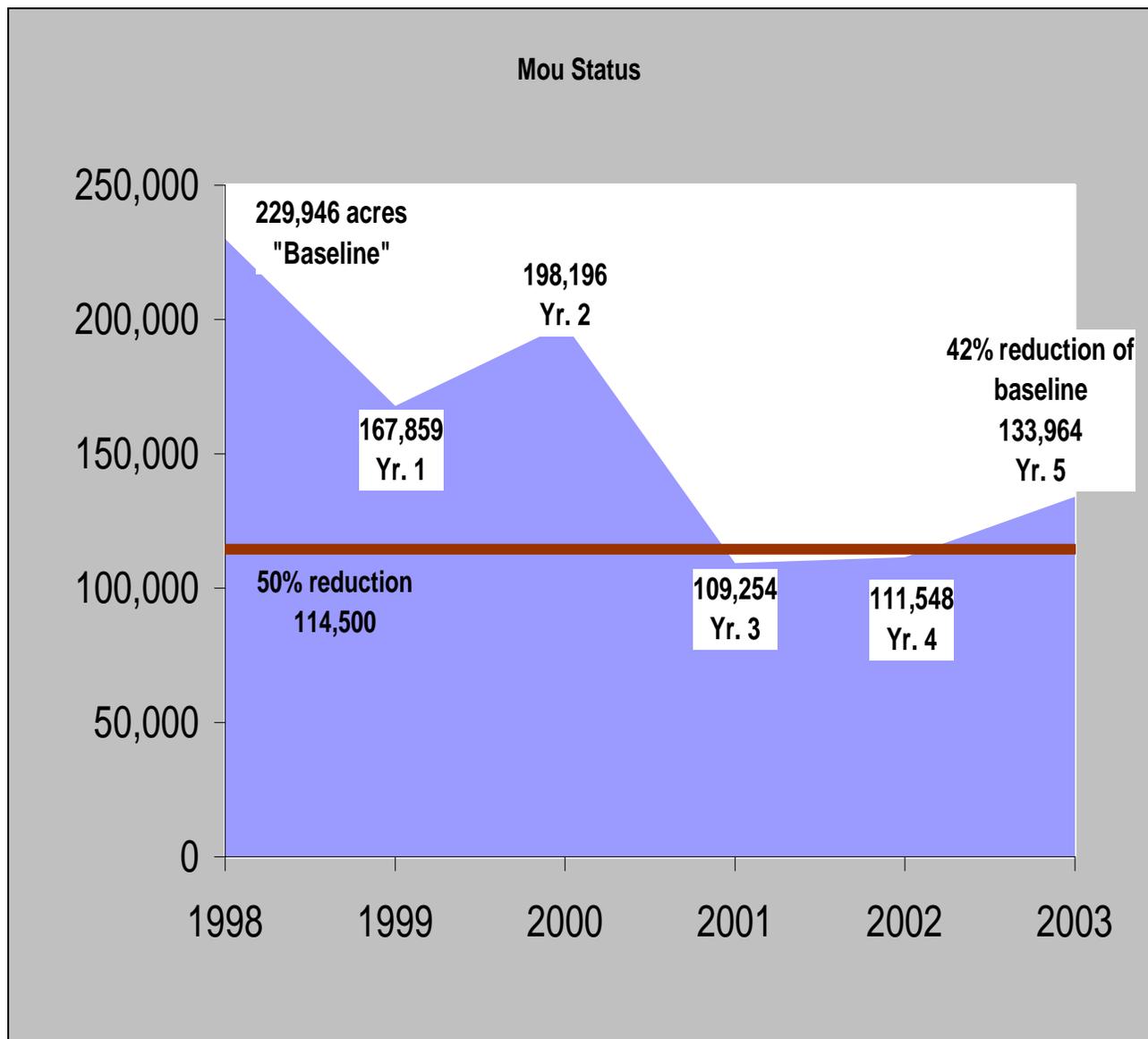
County	Spot Burns	Bale Burns	Cereal Grains	Other Crops	Orchard Tear Out	CRP	TOTAL
<b>Adams</b>	51	10	2,886	206	31	542	<b>3,726</b>
<b>Asotin</b>	70	0	0	0	0	0	<b>70</b>
<b>Benton</b>	0	0	0	359	325	0	<b>684</b>
<b>Chelan</b>	0	0	0	0	153	0	<b>153</b>
<b>Columbia</b>	250	0	38,569	58	0	305	<b>39,182</b>
<b>Douglas</b>	37	0	179	0	191	0	<b>407</b>
<b>Franklin</b>	27	19	8,031	85	107	1335	<b>9,604</b>
<b>Garfield</b>	200	0	8,623	157	0	805	<b>9,785</b>
<b>Grant</b>	29	63	5,043	759	654	0	<b>6,548</b>
<b>Kittitas</b>	0	0	51	118	37	0	<b>206</b>
<b>Klickitat</b>	0	0	0	0	0	0	<b>0</b>
<b>Lincoln</b>	206	0	1,500	25	0	0	<b>1,731</b>
<b>NWAPA</b>	13	0	0	631	48	0	<b>692</b>
<b>Okanogan</b>	0	0	0	17	22	0	<b>39</b>
<b>Pend Oreille</b>	0	0	0	0	0	0	<b>0</b>
<b>PSCA</b>	0	0	0	240	25	0	<b>265</b>
<b>Stevens</b>	0	0	50	0	0	0	<b>50</b>
<b>Walla Walla</b>	467	0	32,869	1,673	45	1,044	<b>36,098</b>
<b>Whitman</b>	1523	12	40,489	628	0	746	<b>43,398</b>
<b>TOTAL ACRES</b>	<b>2,873</b>	<b>104</b>	<b>138,290</b>	<b>4,957</b>	<b>1,638</b>	<b>4,778</b>	<b>152,640</b>

## Cereal Grain Burning Emissions Reduction Agreement

Ecology, the Department of Agriculture, and the Washington Association of Wheat Growers (WAWG) 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 is to reduce emissions from cereal grain field burning by 50 percent by 2006.

The MOU baseline of emission reduction was based on total acres permitted for burning of cereal grain during the calendar year 1998. The actual reductions, however, are based on crop year total (fall/spring). This is due to the fact that burns occurring in the spring season are actually burning residue from the previous fall.

The graph below shows the annual reductions from the established baseline of 229,000 burned acres. The 50 percent reduction goal was achieved by year three of the agreement, although the numbers have increased recently.



## Agricultural Burning Practices and Research Task Force

**Task Force Members:**

Grant Pfeifer, Chair	Department of Ecology
John Cornwall	Agricultural Community
Jay Penner	Agricultural Community
Mike Ingham	Agricultural Community
Sally Liu	Public Health
Bob Gore	Department of Agriculture
Michael Bush	Universities or Colleges
William Johnston	Universities or Colleges
Larry Cochran	Conservation Districts
Dave Lauer	Local Air Authorities



The Washington State Clean Air Act, Section (RCW) 70.94.650, establishes the Agricultural Burning Practices and Research Task Force (Ag. Task Force). The goal of the task force is to work toward reducing air pollution emissions from agricultural burning. Many different interests are represented on the Ag. Task Force, which is chaired by the Department of Ecology. The representatives include eastern Washington local air quality agencies, the agricultural community, the Department of Agriculture, local universities or colleges, public health, and conservation districts.

This diverse group is empowered by the Clean Air Act to develop Best Management Practices (BMP's) to reduce air emissions from agricultural activities, determine the level of permit fees, and identify research for funding.

In 2004, the Ag. Task Force received research updates from each grant recipient awarded research funds over the previous year, and reviewed the new Alternatives to Burning Manual completed for Ecology. The Ag. Task Force also adopted a revised Orchard Crop BMP in June.

Complete research proposals and update reports, as well as BMPs and Ag. Task Force meeting summaries, are online at [http://www.ecy.wa.gov/programs/air/aginfo/Task\\_force.htm](http://www.ecy.wa.gov/programs/air/aginfo/Task_force.htm).

For information about task force membership, ongoing and completed research, or meeting schedules, log on to:

[http://www.ecy.wa.gov/programs/air/aginfo/Task\\_force.htm](http://www.ecy.wa.gov/programs/air/aginfo/Task_force.htm)

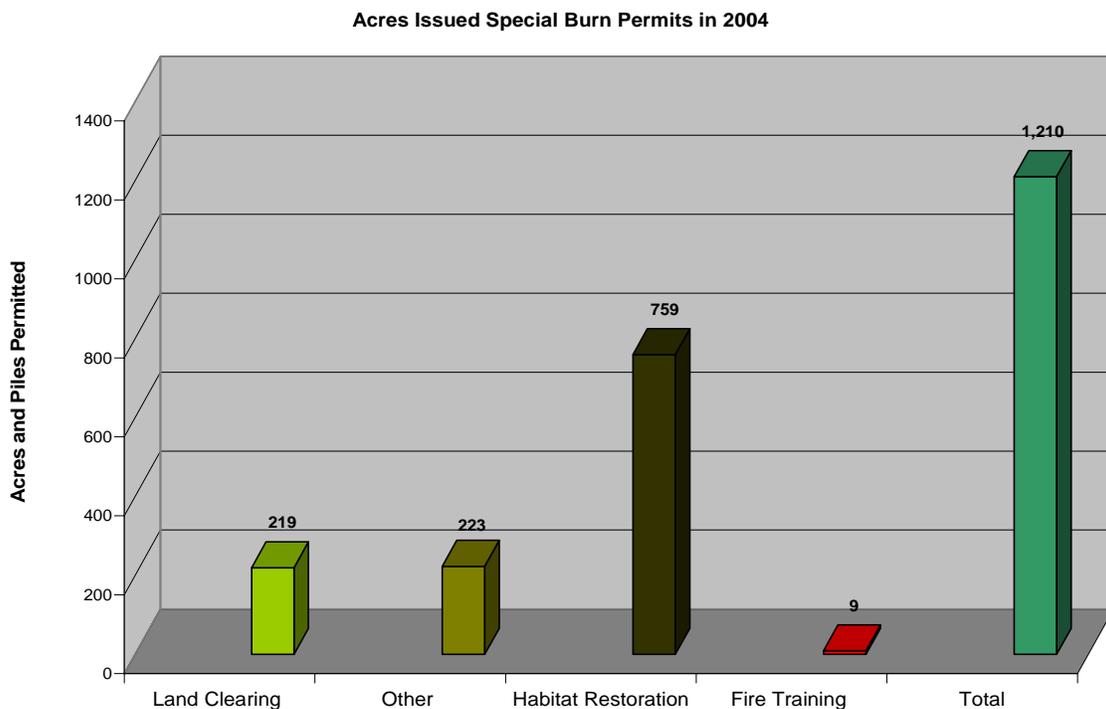
or contact Ecology at 509-329-3400.

## Special Permits

With heightened awareness of outdoor burning, the number of people applying for and receiving special burn permits has increased from a handful just a few years ago to 80 in 2004. Knowing where burning is permitted enables Ecology to better control burning and the amount of smoke put into the air on a given day. This helps us meet the burner's needs while also protecting safety and ensuring good air quality and public health.

Special burn permits are issued for land clearing, habitat improvement, fire training, weed control, and fire safety.

There are currently no fees for a special permit.



# Smoke Impact Monitors

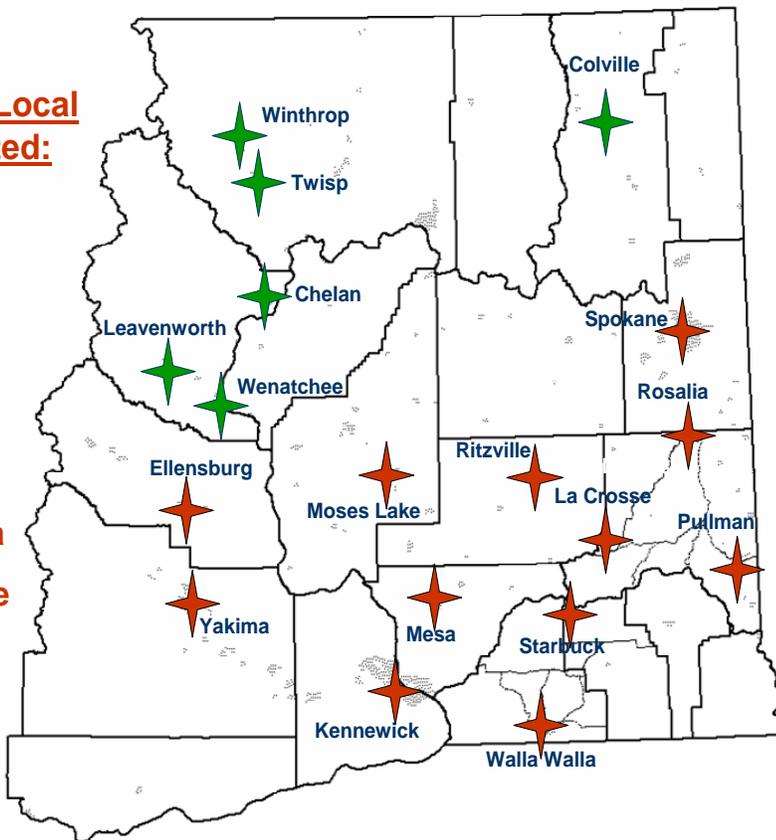
These air quality monitors measure particulate matter 2.5 microns or less in size.

Our eastern Washington monitoring network is used to inform the public about our air quality, protect public health, understand air pollution impacts, and track federal air quality standards in Washington state.

To view online: <https://fortress.wa.gov/ecy/aqp/Public/aqn.shtml>

**Ecology & Local  
Airs Operated:**

- Spokane
- Kennewick
- Yakima
- Ritzville
- Pullman
- Walla Walla
- Moses Lake
- Mesa
- Starbuck
- La Crosse
- Rosalia
- Ellensburg
- Wenatchee



**U.S. Forest Service  
Operated:**

- Wenatchee
- Leavenworth
- Chelan
- Twisp
- Winthrop
- Colville



Figure 5.6. Relative sizes of beach sand, flour, and a PM2.5 particle in smoke.

## Complaints

Ecology receives air pollution complaints about commercial, agricultural, residential, and other indoor and outdoor burning sources on its statewide toll free complaint line, **1-866-211-6284**.

Ecology responds to each complaint within its jurisdiction. Depending on the type and severity of the complaint, the response may be as simple as a phone call, a technical assistance site visit, or an informative educational letter. If Ecology finds that a violation is flagrant, it could be the beginning of an official enforcement action.

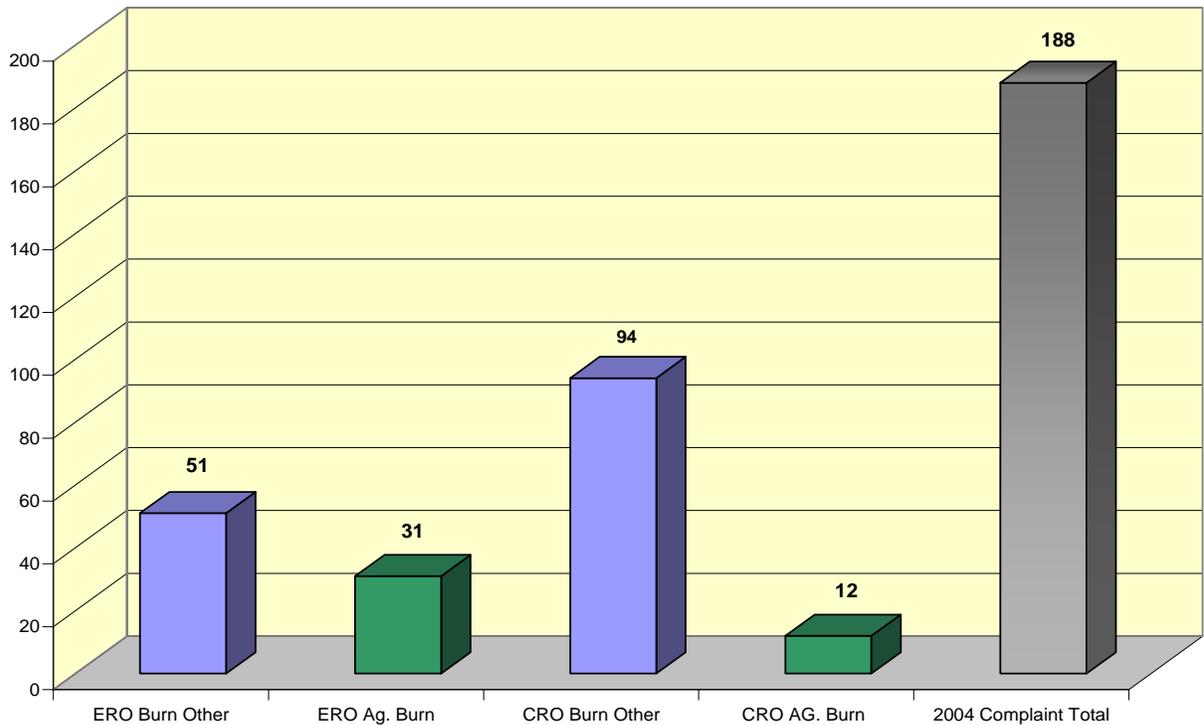
In 2004, Ecology's Central and Eastern Regional Offices documented a total of 188 complaints about smoke impacts or illegal burning. The Central Regional Office documented and responded to 106 complaints. The Eastern Regional Office responded to 82 complaints. In addition, Ecology's Eastern Regional Office maintains the statewide toll free complaint line and forwards calls to the appropriate agencies.

The focus of the complaints received by Ecology has changed dramatically over the past few years. At one time, complaints about agricultural burning outnumbered all other types of complaints combined. In 2004, there were more complaints about illegal outdoor burning (non-agricultural) than agricultural burning complaints: 145 outdoor burning complaints, compared to 43 agricultural burning complaints. Most complaints are from people being affected by smells and smoke emitted from truck and automobile exhaust, smoke from slash piles, and the stench of burning garbage in a fireplace or burn barrel.

Ecology strives to create and maintain an environment where people can use fire as a tool, enjoy the warmth of a recreational fire, and breathe clean air that does not negatively affect even the most sensitive of us. In working toward this goal, Ecology uses the daily burn decision, education and outreach, field work, working with local fire departments, one-on-one contact with citizens, and enforcement actions when necessary.



## 2004 Agriculture and Open Burning Complaints



## Reducing burning

Ecology's efforts to reduce outdoor burning took many different forms this past year, from a town's special burn barrel turn-in event to a community chipping day. Activities to reduce burning are multi-agency endeavors. Local fire districts, the Department of Natural Resources (DNR) and a local community group have all been involved during 2004.

### A couple of examples of people working together for clean air:

- In the town of Bridgeport, in Douglas County, the county solid waste department, the city of Bridgeport and Ecology combined efforts and money to have a city wide burn barrel turn-in and disposal day. Over 50 barrels were turned in and disposed of in a legal manner. According to EPA, burning in a burn barrel releases some of the most toxic emissions known to man. It is illegal to use a burn barrel in Washington State.



- In eastern Washington’s southern Stevens County, the community of Suncrest has hosted at least five free chipper days. The local fire district organizes the events, at which DNR crews chip residential yard and garden debris. Stevens County Solid Waste contributes staff, equipment, and disposal of the chipped yard waste. Ecology participates with funding and labor. The Suncrest chipper days have resulted in less illegal burning, fewer smoke complaints, and cleaner air for one of the fastest growing residential areas in the state.



*If you need this publication in another format, please call Tami Dahlgren at (360) 407-6800. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.*