

# Appendix J. Comments and Response to Comments

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## Public Comments and Ecology's Response to Comments

Ecology received two comments on the proposed Exceptional Events Demonstrations. The comments and Ecology's response are below.

*A.T. Jensen, September 4, 2015*

**From:** [c180tom@skynetbb.com](mailto:c180tom@skynetbb.com) <mailto:c180tom@skynetbb.com>  
**Sent:** Friday, September 04, 2015 8:40 PM  
**To:** Stephenson, Cullen (ECY) <[cste461@ECY.WA.GOV](mailto:cste461@ECY.WA.GOV)>  
**Subject:** Ecology\_AQ\_Main\_Page -comment on dust storms

I live in \_King\_\_\_\_\_ County. (But I was in Spokane at Felts Field when last Saturday's unusual and awful dust storm hit town. I was driving a golf cart, transporting folks from a parking area to "Neighbor Day" at Felts, (where the EAA B-17 was selling rides) and some folks from Coeur D'Alene commented that on driving west, "...it looked like a Steven Spielberg movie." (Your .002.jpg photo captured this eloquently.) It was gritty on the ground and a shower felt wonderful later that evening.

All of E. Washington received a small amount of rain Saturday/Saturday night. (This initially turned the dust on our airplanes to "mud", mostly washed off by morning...) Flying back to the west side against a 20 knot head wind, it was interesting to see dust devils on the lee and downward-sloping side of recently tilled farm fields.

I wish I'd had a camera. The dust devils only occurred where the ground had dried out; this was an irregular pattern, but always seemed to be in blotches on the east (lee) and downward sloping side of the fields. I could not figure why the drying seemed to occur only in these patches (with the drying obviously setting the conditions for the dust devils.) It was a shame to see the loss of topsoil, and I thought back to the Ice Ages where great dust storms deposited those wonderful Palouse soils. But I digress.

I hope Ecology is successful in getting the EPA to recognize the "exceptional/uncontrollable" nature of the recent dust storm (such as to not impose some silly, irrelevant penalty) on you/us. Meanwhile, I ponder what might be used to effectively reduce soil loss in these conditions. I hope our farmers are getting good help and advice (on erosion prevention), but wonder if there is a mechanical or chemical solution, e.g. dust control chemicals applied on local (lee, downsloping) areas.

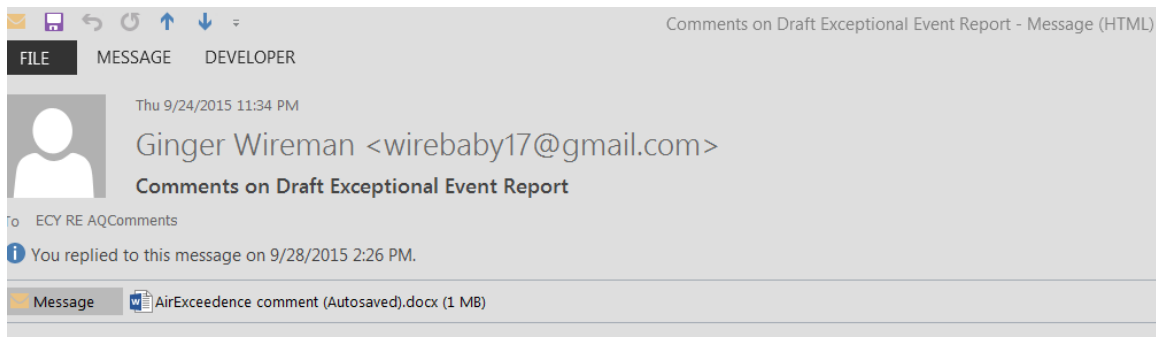
Keep up the good work.

A. T. Jensen PE  
retired old engineer, still flying

Ecology's response to A.T. Jensen, PE

**Ecology Response:** Thank you for your comment. Our growers have access to Conservation District and USDA programs to apply for funding to implement conservation measures that prevent erosion. You'll find details of participation in these conservation measures in Section 6.2.1 of the Demonstration. Also, USDA has provided additional funding to Washington State producers under their [Air Quality Initiative](#).

*Ginger Wireman, September 24, 2015*



Please see attached.

Thank you for your consideration.

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Ginger Baird Wireman  
2435 Michael Ave.  
Richland, WA 99352  
txt 509-528-9377

Ginger Wireman

2435 Michael Ave.

Richland, WA 99352

Sept. 25, 2015

RE: Public Comment on Draft Exception Event Report

Dear Ms. Hulse-Moyer,

As a resident of Benton County, and recipient of dust coming off the Horse Heaven Hills I was compelled to comment on this Exceptional Event Report for several reasons.

First, there is a data gap. The 2006 NEAP status report lists only 462,000 acres of Benton County farm land, while the USDA Ag census for Benton County says we have 703,500 acres. That is a significant difference, particularly considering that with current development and population growth that increase in acreage must be to the south (upwind) of population centers.

Second, I do not believe the farms on the horse heavens are taking every reasonable step to control windblown dust. Depending on which table one looks at, the report shows that of the counties in the Columbia Plateau, Benton County has only about 15-17% of lands in CRP. While not at the bottom of the list, compared to the other Plateau counties, that calculates out to less than one acre in CRP per resident of Benton County. There are no windbreaks or shelterbelts, nor do they use ridge till or strip cropping (commonly seen in Columbia and Whitman counties).

The majority of farmed land in Benton County is upwind of the population center. So humans are disproportionately affected by wind-blown dust off the Horse Heaven Hills. Knowing that dust doesn't stop at the Metaline air monitoring station or county border, the total population affected reaches more than 250,000 residents of Benton and Franklin Counties. Assuming the dust doesn't settle in Franklin County, (and more has been added), another 90 thousand may be affected in Grant County.

I can agree that the dates in question produced what may have been once considered unusual storms. However thunderstorms like those that produced the 2013 exceedances are becoming increasingly frequent in the Columbia Basin. Whether caused by local climate change (most locals will tell you the climate has changed dramatically with the influx of irrigated agriculture), or global climate change, with increasing storms, will come increasing "exceptional" events.

Just as farmers on the Rathdrum Prairie had to stop burning turf grass because the population of the Spokane Valley continued to grow, farmers on the Horse Heavens must start to do a better job at controlling dust. The county should have to set a goal of raising participation in CRP and trying different methods.

Indeed, if the current measures don't keep soil in place during normal wind conditions, how can they possibly be protective when we have bigger storm events?

While the 'typical' dust storms may not cause PM10 exceedances, they damage locks, scour windshields, wear paint off homes, and generally damage our quality of life. Below are photos of a 'normal' dust event last weekend. It would have been a lovely fall day, but for the dust.



Looking south from my back porch. Horse Heaven hills not visible. Badger Mt. obscured, this is actually early in the condition.



View of what should be Kennewick looking south from off ramp at Road 68 I-12 in Pasco.

Sunday Sept. 20 2015 ~ 4 p.m.



*Compare to center right on previous page - this is my view on a clear day*



*Sept 15, 2013, 5:06 pm looking south east toward Thompson Hill, from 2435 Michael Ave. 99352*



*View of Clodfelter neighborhood gone*



*5:10 p.m*



*5:12, rain has started.*

## Ecology's response to Ginger Wireman

**Ecology Response:** Thank you for your comment. Ecology recognizes that dust generation by high winds in Eastern Washington can overwhelm existing controls and contribute to exceedances of the PM<sub>10</sub> standard. You are right when you say that windblown dust affects more than the areas around the Kennewick monitor. The effects of these exceptional wind storms affect everyone along the storm's path. You brought up two concerns: a data gap and adequate controls.

Thank you for bringing the data gap to our attention. The 2006 Natural Events Action Plan (NEAP) Update's values for Total Farmable Acres are from a data source that is no longer available. (Attachment 1, page 1). These values were based on the latest available information — 2004 values from Conservation Technology Information Center's Core 4 program.

Steve Anderson from the United States Department of Agriculture's (USDA) National Agricultural Statistics Service clarified that the definition of Land in Farms is not the same as Total Farmable Acres.

- Land In Farms includes crops, pasture, or grazing land. It also includes "woodland and wasteland not actually under cultivation or used for pasture or grazing, provided it was part of the farm operator's total operation".
- Total Cropland Acres includes cropland harvested, other pasture and grazing land that could have been used for crops without additional improvements, cropland on which all crops failed or were abandoned, cropland in cultivated summer fallow, and cropland idle or used for cover crops or soil improvement but not harvested and not pastured or grazed.

The Ag Census reports that Total Cropland Acres for Benton County in 2012 is 519,123 acres. When compared to the 2004 Total Cropland Acres value of 462,473, there was a change of 56,650 acres over eight years, from 2004 to 2012. We have made a clarifying correction to the EE Demonstration document, replacing Land in Farms with Total Cropland Acres.

Your comment included a statement that growers were not taking 'every reasonable step' to prevent soil erosion and should be required to implement more soil erosion measures, such as signing up more lands under the Conservation Reserve Program (CRP).

After reviewing the existing data, Ecology believes that the land on the Columbia Plateau, including the HHH, is reasonably well controlled. Unfortunately, conservation measures in place were overwhelmed during the three high wind events in 2013. The Kennewick area has been in compliance with the PM<sub>10</sub> NAAQS since 2001. The only times the Kennewick area exceeded the standard is during exceptional high wind events.

Even adequate controls can be overwhelmed at wind speeds over 25 mph. This threshold can be different in different areas. In fact, on the Columbia Plateau, extensive research by Washington State University and partners identified that soil can be entrained if the average hourly wind



speed is more than 18 mph for two or more hours. And, when lands are vulnerable, soil can be entrained at wind speeds as low as 13 mph (See 2003 NEAP, page 5).

USDA programs are voluntary and growers choose conservation practices based on many factors, such as soils, goals, topography, economics, and type of crop. Measures that may be appropriate for one area, may not be appropriate in other areas. When growers consider adoption of specific conservation practices, such as windbreaks, shelter breaks, direct seeding, ridge till or strip cropping, factors such as type of currently owned farm machinery, rainfall and impacts to wildlife are among those considered.

USDA agencies are aware of the particular characteristics of land and soils in Benton County and understand the importance of soil erosion and focus on these areas. Benton County has about half of its land classified as a State Resource Area Priority Treatment area (Appendix F, Figure 9) by NRCS. Benton county also about half of its area classified as Highly Erodible Land (see the Kennewick 2013 Demo, Soil Classifications, Section 2.3.1) and is identified as an Air Quality Zone Priority Area. (Appendix F, Figure 10 ) Farmers in these areas receive extra consideration when USDA is deciding who should be awarded funds for soil conservation practices.

The USDA's Conservation Reserve Program (CRP) offers growers incentive to take areas with highly erodible soil out of production. The amount of land in CRP in Benton County depends on a number of factors. Based on the 2014 Farm Bill, USDA cannot designate more than 25% of the state's land as eligible for CRP for land identified in a state Conservation Priority Area (CPA). Land within the CPA as well as Highly Erodible Land are eligible to be offered for CRP enrollment. The amount of land in CRP varies due by various factors, such as the amount of land that qualifies, commodity prices, the number of application periods held, the cost of enrolling land and seed prices. USDA (FSA) reports CRP enrollment for 2015 for Benton County is a little over 99,000 acres or about 21% of the county's cropland.

However, CRP is only one program that USDA offers to minimize soil erosion and does not represent all the controls available to farmers or that are in place to prevent soil erosion on the Columbia Plateau or Benton County. USDA's Natural Resource Conservation Service (NRCS) provides incentive funds for many other conservation measures for land that is in use. [\*USDA's Conservation Effects Assessment Project \(Summary of Findings\)\*](#)<sup>1</sup> found that the Pacific Northwest Basin participation in practices that reduce soil erosion is consistent with that in other regions across the nation (page 9).

You noted you had seen ridge-till and strip cropping in Columbia and Whitman counties and not in the Horse Heaven Hills. According to Mark Neilson of the Franklin Conservation District, ridge-till is basically a mid-western practice, often used for corn and geared towards spring-planted row crops with wider rows. Narrow rows such as seen in wheat production do not lend themselves to ridge-till (i.e., there is no real row to create a ridge to plant into). Also,

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<sup>1</sup> < [http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb1256683.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1256683.pdf)>

strip cropping is a practice that is generally used to address water quality issues. In order for strip cropping to be effective for wind erosion, the strip widths have to be much narrower and it becomes very difficult to farm with the narrow strips.

You also suggested that trees should be planted as windbreaks. Trees would not survive on the Horse Heaven Hills. There is not enough precipitation to support tree growth. Most of the HHH receives seven inches or less annual precipitation. Only a few shrubs and a number of grasses are able to survive with this limited naturally available moisture.

Direct Seeding practices are on the rise in the HHH. Direct Seeding is seeding through the residue from the previous year without tilling the land to prepare the land for planting. However, it is a substantial investment to convert to a direct seeding operation.

USDA continues to offer and develop new incentive plans. USDA's nationwide Air Quality Initiative has provided assistance to farmers in Benton County. In 2013-14 – the first year of the program – Benton County growers applied for and received most of the allotment of \$1.5 million dollars; Douglas county was allocated \$2.5 million dollars in 2014-15 - all used for residue management. NRCS hopes to be granted \$3 million for 2015-16.

Also, Conservation Districts can pay for or cost share additional projects, as funding allows. For example, in 2013, the Benton Conservation District funded 160 acres of field borders and cost shared on 1,700 linear feet of windbreaks. Ecology maintains partnerships with USDA, Benton/Franklin Conservation District and encourages NRCS their local work groups to encourage more conservation measures that prevent soil erosion.

You also mentioned that with climate change, storms that once were considered exceptional would become more frequent. USDA is planning for climate changes by establishing “[climate hubs](#)”<sup>2</sup> and providing information to farmers on their website — identifying changes and practices needed in the future. With climate change impacts, dryer soils and these types of storms may become more frequent as you mentioned. For more information, visit USDA's [Climate Change Science Plan](#).<sup>3</sup>

The EPA developed the Exceptional Event Rule (EER) in 2007 so that adequately controlled areas would not be unfairly penalized for events beyond their control. The Environmental Protection Agency (EPA) evaluates whether the event qualifies for exclusion based on a case-by-case, weight-of-evidence basis. For high wind events, EPA evaluates whether an event fulfills the requirements of the EER by taking into account the wind speed; the controls in place; the controls required in the State Implementation Plan (SIP), which depends on an area's attainment status, the frequency and severity of exceedances, contributing sources, benefits of the controls, costs of controls and other factors. Ecology believes that this demonstration complies with the regulatory requirements for demonstrating an exceptional event.

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<sup>2</sup> <<http://climatehubs.oce.usda.gov/northwest>>

<sup>3</sup> <[http://www.usda.gov/oce/climate\\_change/science\\_plan2010/USDA\\_CCSPan\\_120810.pdf](http://www.usda.gov/oce/climate_change/science_plan2010/USDA_CCSPan_120810.pdf)>

