

October 17, 2008

Elin Miller  
Regional Administrator  
USEPA, Region 10  
1200 6<sup>th</sup> Avenue  
Mail Code RA-140  
Seattle, WA 98101

RE: State of Idaho Comment on Docket ID No. EPA-HQ-OAR-2007-0562

Dear Administrator Miller:

In response to your August 18, 2008 letter regarding your proposed final actions in response to Idaho's recommendations on air quality designations for the 2006 24-hour PM<sub>2.5</sub> standards and the above-referenced docket, the State of Idaho requests that the Environmental Protection Agency (EPA) consider some additional information prior to taking final action.

Since December 14, 2007, the Idaho Department of Environmental Quality (DEQ) has conducted further discussion with land managers and additional modeling analysis in order to better understand smoke behavior in the vicinity of Pinehurst, Shoshone County, Idaho. As a result of these discussions and refined modeling, DEQ recommends that the nonattainment area boundary be modified as explained in Comment 1 attached to this letter. The second comment corrects a minor error in the December submittal.

If EPA has any questions regarding these recommendations, please contact Martin Bauer, Air Quality Administrator, DEQ, at (208) 373-0440 or [martin.bauer@deq.idaho.gov](mailto:martin.bauer@deq.idaho.gov).

We look forward to working with the affected communities, the state of Utah, and EPA to solve the air quality issues in Idaho's PM<sub>2.5</sub> nonattainment areas.

Sincerely,

Toni Hardesty  
Director

cc: Martin Bauer, DEQ, Air Quality Division

## Comment 1

During the development of the December 2007 submission of Idaho's recommendations regarding attainment of the National Ambient Air Quality Standards for fine particulate ( $PM_{2.5}$ ), Idaho Department of Environmental Quality (DEQ) reached out to public land managers requesting comments on the recommended boundary for the Pinehurst nonattainment area (NAA). DEQ feels that it will be advantageous in the implementation process to include input from the land managers. These land managers have significant experience with prescribed fire and slash burning in Shoshone County, Idaho and the Pinehurst area. Their input will ultimately result in a stronger implementation plan. However, due to the compressed time frame available to develop Idaho's attainment recommendations, there was insufficient time to fully assess input from the land managers.

After the December submittal, DEQ staff and state land managers were able to discuss at length smoke behavior in the area surrounding the Silver Valley. Based on input from the land managers, DEQ decided to reconsider the recommended NAA boundary. The boundary included in DEQ's December submittal was drawn along ridgelines so as to include the two main drainages into the Pinehurst valley (Pine Creek/Amy Gulch and Deer Lick Gulch), the French Gulch drainage into Kingston, and the South Fork Ridge north of the entrance to the Pine Creek drainage. The concept was to include areas where the possible occurrence of slash burning could impact Pinehurst within the NAA areas. However, land managers familiar with the area have indicated that for any fires west of Pinehurst, when there is sufficient loft for smoke to clear the ridge between French Gulch and Pinehurst, the smoke stays aloft.

This information prompted DEQ to reassess potential air impacts on Pinehurst. In this analysis, DEQ remodeled theoretical slash burn sources using actual terrain and meteorological data. The predicted impacts on Pinehurst were categorized to show the impact relative to a source located immediately next to the monitor. The "10% line" from this analysis depicts the location of all sources that could produce an impact in Pinehurst equivalent to 10% of a centrally located source. Another way to think of this contour is that any source outside of the line will contribute less than 10%, and any source inside will contribute more than 10%. DEQ staff believes this is a good tool to delineate the shape of an appropriate particulate matter impact boundary or area.

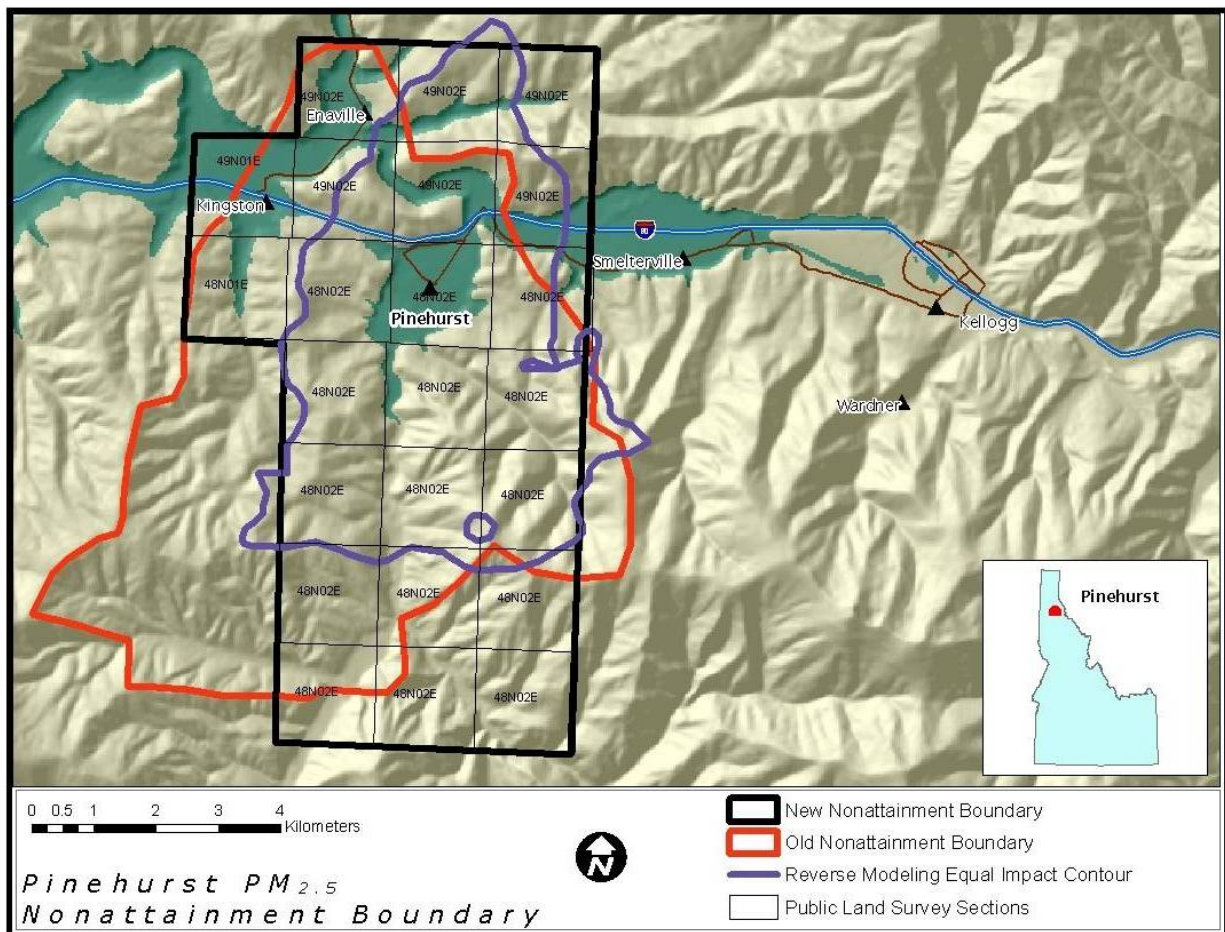
Since this boundary included slash-burning sources north of Pinehurst known to cause problems in Pinehurst and excluded other potential source locations which DEQ determined have very little impact in Pinehurst, for example, at Smeltonville and other Silver Valley locations, DEQ concluded this contour (shown in purple on Figure 1) was consistent with all available information.

When compared with the original NAA boundary proposal (shown in red on Figure 1) the 10% equal impact contour suggests that the areas of concern for impact on Pinehurst are shifted to the north and east. The 10% contour line also generally agreed with the boundary proposed by the land managers. In addition, overlaying the annual and seasonal windroses on the monitor

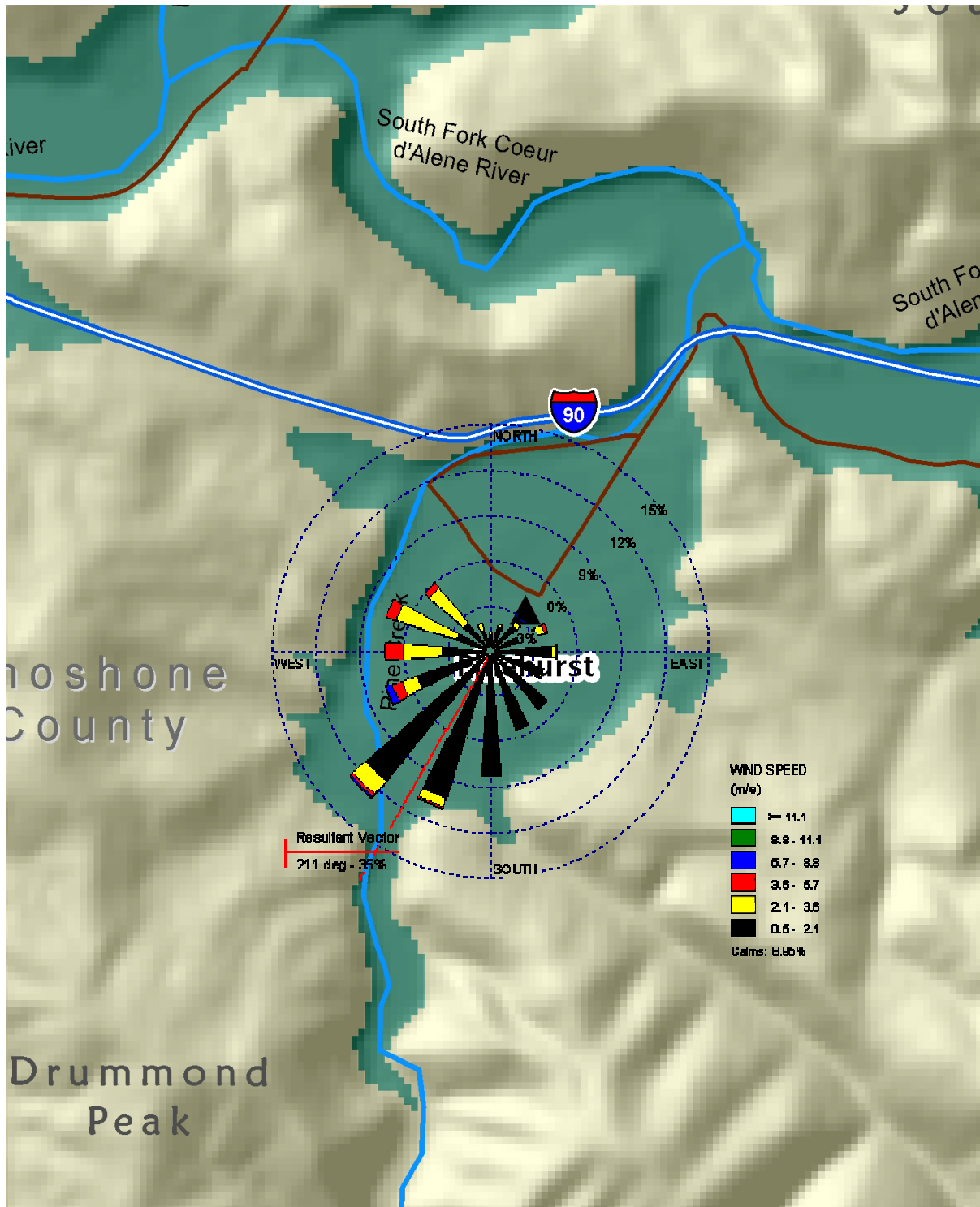
location in Pinehurst (See Figures 2 and 3.) confirms that the two drainages south of Pinehurst are of greatest concern for smoke impacts on Pinehurst.

Therefore, DEQ recommends the nonattainment boundary be changed to that shown in black in Figure 1. The basis of this boundary has been changed from ridge tops to township, range and section; this basis will be easier for all future reference to precise boundary location. This modification increases the area encompassed and the number of dwellings included in the nonattainment boundary. Further, this modification is completely in accord with the nine-factor analysis of the December 14, 2007 submittal and does not modify but rather enhances that analysis. A revised Table 13 is attached.

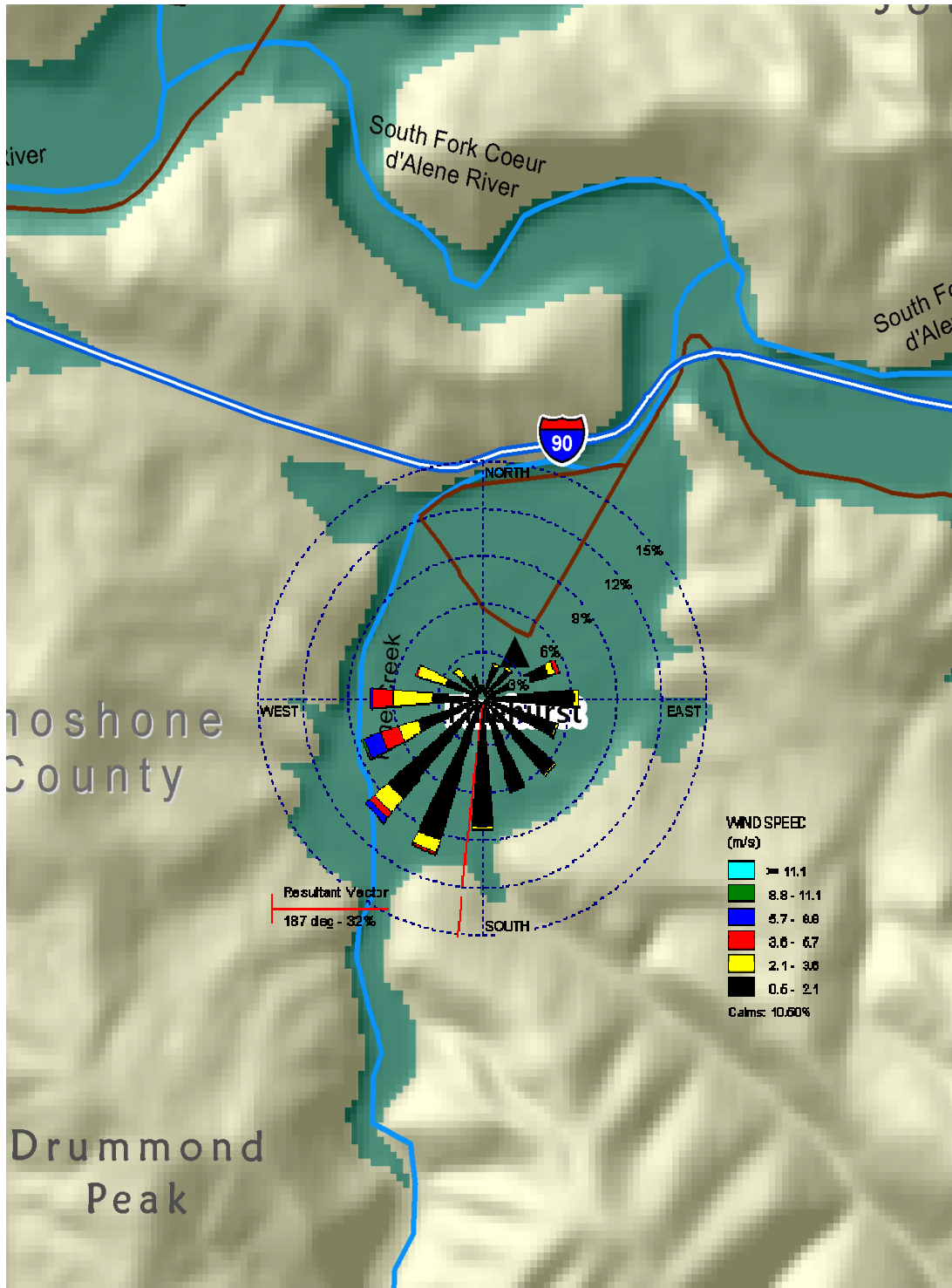
**Figure 1. Map showing revised (October 17, 2008) nonattainment boundary recommendation, previously proposed (December 14, 2007) nonattainment boundary, and 10% equal impact contour.**



**Figure 2. 2006 annual windrose overlaid on monitor site in Pinehurst demonstrating dominance of southern drainages on valley air flow.**



**Figure 3. 2006 winter months (January, February, November, and December) windrose overlaid on monitor site in Pinehurst demonstrating dominance of southern drainages on valley air flow.**



**Table 13 (10/1/08). Descriptions of all areas of the state and the designations**

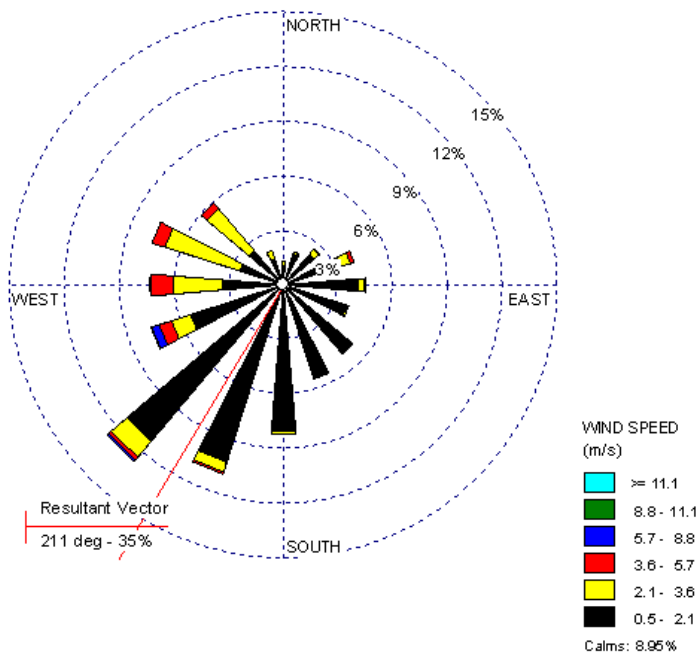
County	Attainment	Unclassifiable	Nonattainment	Nonattainment Area Name																																																																																																
Shoshone		All portions of Shoshone County not otherwise designated nonattainment	All portions of Shoshone County located in the following township/range/sections: <table border="1" data-bbox="743 506 1206 1325"> <thead> <tr> <th>T</th> <th>R</th> <th>S</th> <th>QQ</th> </tr> </thead> <tbody> <tr><td>48N</td><td>01E</td><td>1</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>4</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>5</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>6</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>7</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>8</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>9</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>16</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>17</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>18</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>19</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>20</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>21</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>28</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>29</td><td></td></tr> <tr><td>48N</td><td>02E</td><td>30</td><td></td></tr> <tr><td>49N</td><td>01E</td><td>36</td><td></td></tr> <tr><td>49N</td><td>02E</td><td>28</td><td></td></tr> <tr><td>49N</td><td>02E</td><td>29</td><td></td></tr> <tr><td>49N</td><td>02E</td><td>30</td><td></td></tr> <tr><td>49N</td><td>02E</td><td>31</td><td></td></tr> <tr><td>49N</td><td>02E</td><td>32</td><td></td></tr> <tr><td>49N</td><td>02E</td><td>33</td><td></td></tr> </tbody> </table>	T	R	S	QQ	48N	01E	1		48N	02E	4		48N	02E	5		48N	02E	6		48N	02E	7		48N	02E	8		48N	02E	9		48N	02E	16		48N	02E	17		48N	02E	18		48N	02E	19		48N	02E	20		48N	02E	21		48N	02E	28		48N	02E	29		48N	02E	30		49N	01E	36		49N	02E	28		49N	02E	29		49N	02E	30		49N	02E	31		49N	02E	32		49N	02E	33		Pinehurst
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County	Attainment	Unclassifiable	Nonattainment	Nonattainment Area Name
Ada Canyon Bannock Benewah	All portions of the respective county except for Tribal Lands			
Bear Lake Bingham Blaine Boise Bonner Bonneville Boundary Butte Camas Caribou Cassia Clark Clearwater Custer Elmore Fremont Gem Gooding Idaho Jefferson Jerome Kootenai Latah Lemhi Lewis Lincoln Madison Minidoka Nez Perce Oneida Owyhee Payette Power Teton Twin Falls Valley Washington		All portions of the respective County except for Tribal Lands		

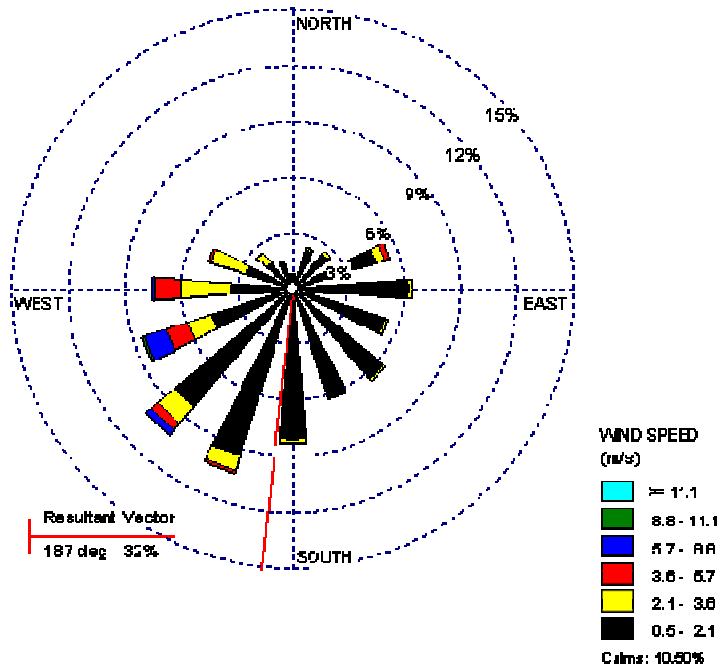
## **Comment 2**

Figure 9 on page 19 of the December 2007 submittal has an incorrect image. Please substitute the corrected page 19 attached to this document.





**Figure 1. Annual windrose for 2006, Pinehurst, Idaho.**  
**This shows that the wind speed in Pinehurst is generally low throughout the entire year.**  
**Winds rarely reach Pinehurst from the Silver Valley to the north and northeast.**



**Figure 2. Windrose for Pinehurst, Idaho in the wintertime. Data from January, February, November, and December 2006.**