

Chairman and members of the Commission, my name is Connely Baldwin. I work for PacifiCorp Energy, the generation business unit of PacifiCorp. The more familiar Rocky Mountain Power name is the transmission business unit of PacifiCorp. My primary daily responsibilities include water management and power scheduling of the Bear River hydro electric plants including the Cutler plant in Box Elder County. I attended Utah State University and completed a Bachelor and a Masters degree in Civil and Environmental Engineering with an emphasis in Water Resources and Hydrology.

I appreciate the opportunity to comment on the proposed Bear Hollow project. My colleague Jack Kolkman, who is the Director of Hydro Resources Operations for Utah and Idaho, sent you a letter and I would like to emphasize some of the points he made and provide some additional information to highlight the potential for natural high flows and point out that the land proposed for this development has been inundated in recent high flow events and naturally occurring high flow events may result in inundation in the future.

Cutler reservoir is operated under the auspices of the Federal Energy Regulatory Commission. The original purpose for Cutler Dam was to replace the original irrigation diversion dam. The water storage of the reservoir is very small relative to the high inflows observed during floods, so the reservoir is unable to provide any significant degree of flood control. In any significant flood event, the available water storage is quickly filled and the high inflow can no longer be restrained, so the full inflow must be passed downstream. The proposed Bear Hollow project is located in an area that was inundated by one such naturally occurring high flow event at the end of April 2005 and extended into early May. The first two pages of your handout have provided are pictures of the area of the proposed development that were taken during that event. The high flow resulted from a day-long rain storm in Cache Valley that resulted in over 3 inches of rain in at Cutler Plant.

The next two graphs show the impact of this event and the limited ability of the reservoir to store high inflow. The first graph compares the inflow to Cutler Reservoir to the outflow from dam beginning a few days before the rain storm and ends when the water released from the reservoir equaled the water coming into the reservoir on April 30.

The flow rate is in cubic feet of water per second. To provide a visual reference a standard basketball takes up about one cubic foot of volume, so you can picture it in terms of basketballs per second.

Note that on the 27th when the inflow began to rise a portion of the water was stored. However, as the inflow continued to rise and then stayed high on the 29th and 30th, the excess reservoir storage was filled. The next graph shows the water level of the reservoir at Benson Marina. The elevation of the water surface is shown with beginning on April 23^d and extending through May 3^d. The maximum elevation during normal conditions is 4408. The water level went well above that until the inflow could no longer be contained.

The April 2005 high flow event was not unusual from a historical perspective. The next page of your handout shows the maximum daily average flow at the streamflow gage just below Cutler Dam for every year back to 1890 when the gage was first established. The highest recorded daily average flow of 12,700 was recorded in 1986. Nearly the same flow occurred in 1909. For context, the maximum flow through the hydro electric plant, without using the spillgates on the dam, is 3,900 cubic feet per second. In some years, the maximum daily average flow is even less than that due to drought conditions. Spring is the most typical time for high flow events, but in 1986 and several other years, the maximum flow for the year occurs in February. The typical cause for these events is when a warm, extensive rain storm rapidly melts snow amplifying the inflow to the reservoir.

PacifiCorp Energy is required to regularly review its emergency action plan for Cutler reservoir in light of any significant changes that (to quote the requirement) "might affect the extent of persons or property that might be harmed in a project emergency" (end quote). Project emergencies cover many possible causes of the emergency and includes an "emergency" that is caused by naturally occurring high flows that are unable to contained in the reservoir.

In conclusion, you should be aware that the land proposed for this development has been inundated in recent high flow events and naturally occurring high flow events may result in inundation. Thank you for the opportunity to speak to you this evening.