

Weather Modification Working Group Meeting

Meeting Summary February 9, 2010 1:00 p.m. – 3:00 p.m. Teleconference

## **UPDATE ON CLOUD SEEDING IN 2009/10**

This winter has not provided a great deal of opportunity for cloud seeding. IPC reports that there have been limited operations with the 9 generators (3 original and 6 additions). They have seeded for a total of 315 hours. They also have provided forecasting and meteorological support, and assessed storms for the conduciveness of aircraft seeding. The counties, collectively, have 25 manual generators. They budgeted 6000 hours for cloud seeding through January, yet only seeded 2443 hours. There have been a total of eight systems that have been effective for seeding. Other smaller storms have occurred, but they were not appropriate for seeding and were unlikely to produce the desired results.

Snowpack is low this season, at approximately 53%. The issues for this pilot-program will be factoring the 2009/10 cloud seeding efforts into the overall success of the program. It does not appear that the remainder of the winter season will drive these numbers much higher.

Both IPC and the counties/municipalities are committed to continuing cloud seeding efforts in the Upper Snake.

The WG would like to see firm data on the seeding efforts and the benefits produced this winter and the capital costs associated with the program (i.e. was there a price difference between what was spent and what was budgeted, given the low number of seedable storms?).

# WATER AND AIR QUALITY

Barry Burnell reviewed a Power Point presentation on the impacts of cloud seeding on drinking, ground and surface water and air. He referenced a study on Mokelumne and Lake Almanor, indicating that "the amount of silver iodide released to the atmosphere in cloud seeding is small, and even after many years of cloud seeding operations the resulting environmental concentrations are very small to non-detectable." Additionally, "silver concentrations were below regulatory standards. Therefore, continued operations should not result in any significant chronic effect to sensitive aquatic organisms. There is little to suggest the silver from cloud seeding gets into the system and bio-accumulates in organisms."

According to the Power Point presentation, cloud seeding has little to no impact on water and/or air quality.

### UPCOMING TOPICS FOR DISCUSSION

The WG identified a number of topics that need to be discussed on upcoming teleconferences. They include:

- An implementation plan outlining the program (i.e. who does what when, the steps for assessing the need for an increase in the number of generators, guidelines for effectiveness, etc)
- A formal agreement between IPC and IWRB for cloud seeding and how it fits into the ESPA Plan
- The possibility of allocating ESPA funds for county cloud seeding efforts •
- The benefits of cloud seeding in the Upper Snake (reviewing this year's numbers) •

#### **NEXT MEETING** TBD

### LIST OF PARTICIPANTS

#### Weather Modification Working Group

NAME	AFFILIATION
Barry Burnell	IDEQ
Rebecca Casper	Land Developers
Steve England	Cities/Municipalities
Rich Rigby	BOR

### **Ex Officio Members & Other Attendees**

NAME	AFFILIATION
Jon Bowling	IPC
Joan Sabott	CDR Associates
Shaun Parkinson	IPC
Brian Patton	IDWR
Various Representatives	Counties/Municipalities