

# Northern Nevada Water Planning Commission

## STAFF REPORT

DATE: September 28, 2017

TO: Chairman and Members, Northern Nevada Water Planning Commission

FROM: Chris Wessel, Water Management Planner  
Frank McDonough, Desert Research Institute

SUBJECT: Report on the Desert Research Institute (“DRI”) Cloud Seeding Precipitation Gauge Monitoring Project.

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### **SUMMARY**

On November 6, 2013, the Northern Nevada Water Planning Commission (“NNWPC”), during discussion on the DRI Cloud Seeding Program (the “Program”), expressed a desire for DRI to better quantify the benefits of the Program. In the motion to recommend approval for funding for the 2013-2014 cloud seeding operations, the NNWPC included a request for a proposal from DRI to further delineate and improve DRI’s ability to measure increased snowpack resulting from the Program. DRI developed a proposal for the installation of six precipitation gauges over a three year period (the “Monitoring Project”) which the WRWC approved on May 15, 2014.

The installation of all six gauges has been completed and Mr. Frank McDonough of DRI will present a status report on the ongoing Monitoring Project.

### **BACKGROUND**

On April 7, 2014, the NNWPC received a proposal from DRI to better quantify the benefits of the Program by using additional precipitation gauges. The NNWPC directed staff to include \$25,000 for that purpose in the fiscal year 2014-2015 budget, which the WRWC approved on May 15, 2014. The budget amount was the first phase of a three year installation project not to exceed a total of \$75,000. At that time, the NNWPC requested that DRI evaluate the condition of four Washoe County precipitation gauges, which were made available to DRI, and determine if they could be refurbished for use as part of the Monitoring Project.

DRI completed their evaluation of the rain gauges provided by Washoe County and concluded that they could be retrofitted for use in the Monitoring Project. Based on their assessment, DRI provided a revised scope of work at the NNWPC’s November 4, 2015 meeting to complete the installation of the precipitation-gauge monitoring network, including six precipitation gauges, over a two year period at a cost of \$50,000.

Beginning in 2009, the WRWC has helped pay for the Program conducted by DRI and may anticipate continuing to partially fund the Program for the foreseeable future. Wintertime cloud seeding is focused on enhancing snowfall in mountainous regions to increase the

snowpack, resulting in more spring runoff and water supplies in the surrounding areas. The Program has been in operation for more than 25 years. DRI estimates that, for the Truckee River Basin, cloud-seeding has boosted water in the snowpack by an average of 18,000 acre-feet a year over the last 10 years.