



SOUTHERN NEVADA WATER AUTHORITY

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March 23, 2017

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Dear Mr. King and Spring Valley Stipulation Executive Committee:

**SUBJECT: SPRING VALLEY BIOLOGICAL MONITORING PLAN 2016 STATUS
AND DATA SUMMARY**

Southern Nevada Water Authority (SNWA) hereby submits a summary of 2016 biological data collection efforts and the status of the *Biological Monitoring Plan for the Spring Valley Stipulation* (Plan) (BWG 2009). This summary satisfies the biological data reporting requirements of Nevada State Engineer (NSE) Ruling 6164, which granted SNWA groundwater rights in the Spring Valley Hydrographic Area 184 (Spring Valley) upon compliance with the Plan and any amendments to the Plan that the NSE requires pursuant to his authority under Nevada water law (NSE 2012). This summary also satisfies the biological data reporting requirements of the 2006 Spring Valley Stipulation for Withdrawal of Protests (Stipulation) between SNWA and the U.S. Department of the Interior regarding SNWA groundwater applications 54003-54021 in Spring Valley (Stipulation 2006 at Exhibit B).

The Plan identifies that a minimum of seven years of baseline biological data will be collected prior to SNWA groundwater withdrawal from Spring Valley (under permitted applications #54003-54021, excluding pump tests) (BWG 2009 at page 2-2). Two years of baseline biological data collection were completed in 2009 and 2010 in accordance with the Plan, and additional surveys, studies and data analyses were conducted in 2011-2016 to support the Plan. To meet Plan objectives, SNWA will resume full biological monitoring at least five years prior to projected SNWA groundwater withdrawal from Spring Valley. The Stipulation Biological Work Group (BWG) and Executive Committee (EC) identified the time until five years prior to groundwater

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withdrawal from Spring Valley as an "interim period", which if feasible can be used to examine data, test field protocols, make Plan adjustments, and conduct targeted monitoring and studies in support of the Plan and Stipulation goals.

SNWA conducted the following interim-period surveys and data management efforts in 2016:

- Northern leopard frog (*Lithobates pipiens*; formerly *Rana pipiens*) egg mass surveys. The surveys were conducted March - May at four monitoring sites (Keegan Spring Complex, Minerva Spring Complex, Unnamed 5 Spring, and West Spring Valley Complex) (SNWA 2016).
- Assistance with Nevada Department of Wildlife (NDOW) Shoshone Ponds Pahrump poolfish (*Empetrichthys latos*) surveys. The Plan integrates NDOW's regular and on-going monitoring of Shoshone Ponds fish populations, a program activity of the Nevada State's Native Aquatic Species Program (BWG 2009 at page 5-12). To support Plan activities, and as a participant of the Pahrump Poolfish Recovery Implementation Team, SNWA assisted with the survey effort. Pahrump poolfish mark-recapture data were collected at the North, Middle and South refuge ponds, the Stock Pond, and the Well #2 outflow. The forthcoming 2016 field trip report is being prepared by NDOW.
- Continued data management, including use of standardized data sheets, archival storage of original data, creation of geographic information system files, completion of rigorous multistep Quality Assurance/Quality Control of digital data, storage of final data in a secure network location, back-up of files on a regularly scheduled basis, and upload of data into a secure Relational Database Management System.
- Continued maintenance of the SNWA data-exchange web site accessible by the NSE, EC, BWG, and hydrologic Technical Review Panel (TRP). SNWA used the web site to distribute the data and reports described herein.

The BWG continued to conduct a Plan evaluation with the goal of revising components, methods and approaches as needed to continue to meet the needs of the Stipulation (Stipulation 2006). In 2014-2015, BWG completed reports evaluating and recommending changes to fish, springsnails, macroinvertebrates, and associated habitat and hydrologic monitoring efforts (BWG 2014 and 2015; BWG and TRP 2015). In 2016, BWG continued the Plan evaluation involving all Stipulation Parties [SNWA, Bureau of Indian Affairs, Bureau of Land Management, National Park Service, and U.S. Fish and Wildlife Service] and invited participants [Office of the NSE, NDOW, and Utah Division of Wildlife Resources]. In accordance with the Stipulation, BWG consulted with TRP regarding hydrologic data and monitoring relevant to BWG monitoring efforts. The 2016 efforts included:

- Evaluation of frog, vegetation, fixed station photography, site assessment, and associated habitat sampling designs.

Mr. Jason King
and Spring Valley Stipulation Executive Committee Members
March 23, 2017
Page 3 of 4

- Completion of final reports evaluating frog, fixed station photography, site assessment, and associated habitat monitoring efforts (BWG 2016a and 2016b).

SNWA anticipates the following activities will be conducted in 2017:

- Continued SNWA northern leopard frog egg mass surveys.
- BWG prioritization of potential interim-period activities.

If you have any questions regarding this summary, please contact Nancy Beecher at (702) 822-3351.

Sincerely,



Zane L. Marshall
Director, Resources & Facilities

ZLM:NB:dg

cc: Adam Sullivan, Nevada Division of Water Resources

References

- BWG [Biological Work Group]. 2009. Biological monitoring plan for the Spring Valley Stipulation. February.
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