

Monitoring Recommendations

The biological and water quality Monitoring programs are designed to provide data to weigh whether the HCP is meeting its goals of protecting the covered species. Following *Report 1*, the HCP established working groups to assess these monitoring programs, and *Report 2* notes that many of the *Report 1* recommendations have been addressed.

Report 2 contains 10 recommendations related to the Monitoring programs. Appendix E provides detailed recommendations on each of the 10 *Report 2* recommendations. These recommendations may be summarized broadly as: methodological considerations for the water quality monitoring program; administrative improvements to the program; and integration of monitoring efforts with other HCP efforts. More specifically, *Report 2* notes that the main goal for the monitoring programs should be “to develop a single, integrated program” to provide information for assessing HCP compliance. The Conclusions and Recommendations section of *Report 2* Chapter 4 highlights certain recommendations related to the Monitoring program. These highlighted recommendations, and the NASWG2 recommendation related to implementation, are contained in the following table.

Report 2 recommendation	NASWG2 recommendation for implementation ⁴
36. Include measurements to monitor performance of a broad suite of minimization and mitigation measures, rather than relying on Applied Research projects.	To be determined. Logistics and timing likely present an obstacle to fully realizing this; more work than one contractor can likely do, however, coordination possible.
34. Include long-term data needed to continuously assess and refine the ecological model.	To be determined.
30. Perform more extensive sampling of PAHs to establish frequency and extent of high concentrations.	Implementation not recommended. The water quality monitoring work group discussed PAHs; based on local knowledge, they were not included for increased sampling. Bioavailability being assessed through tissue sampling. Sources are being addressed by EAA, COSM, and potentially CONB.
35. Incorporate monitoring of DO concentrations using miniDOTs in selected areas of Landa Lake & Upper Spring Run into an integrated water quality and bio	To be determined through CONB DO Mgmt. Plan; will be deployed to collect data for DO Mgmt. Plan; may establish a certain threshold at which deployment occurs. If done, will be through Work Plan, not monitoring program per se.

⁴ The matrix approved by the NASWG2 notes the following for all items in this table: Any changes to the monitoring programs will be considered in 2018/2019. The WQ and Bio-Monitoring contracts are up at the end of 2018 and will be rebid and renegotiated for implementation in 2019, creating a natural time to incorporate changes. Additionally, the two monitoring programs were just modified as a result of *Report 1*. These changes were effective for 2017 and 2018. It would be premature to modify these programs again, before realizing the new and additional data that will be generated, and having the opportunity to evaluate the programs after actual implementation

