

Peer Review Plan

Snow Monitoring Emerging Technologies

Date: September 29, 2021

Originating office: Bureau of Reclamation, Research and Development Office, P.O. Box 25007
Denver Federal Center, Denver, Colorado 80225-0007

Reclamation roles:

Director or delegated manager: Levi Brekke, Senior Advisor for Research and Development, Bureau of Reclamation

Peer Review Lead: Kenneth Nowak, Water Availability Research Coordinator, Research and Development Office, Bureau of Reclamation

Subject and Purpose: Public Law 116-260 Section 1111(Snow Water Supply Forecasting Program Authorization Act [Act]), authorizes a new program (Snow Water Supply Forecasting Program [Program]) at the Bureau of Reclamation with the aim of improving water supply forecasting via the facilitated adoption of emerging snow monitoring technologies. Per the Act, Reclamation has prepared a report to Congress on emerging snow measurement technologies. Specifically, the report summarizes emerging technologies, describes benefits derived from the use of emerging technologies related to the environment and increased water supply reliability, and describes how Federal agencies will coordinate to implement emerging technologies. This report is likely to influence Program structure and emphasis. The purpose of this peer review plan is to seek expert review of the report's content and conclusions.

Impact of Dissemination: The report is expected to lay the foundation on Program structure and emphasis. Furthermore, the scientific information contained in the report is expected to meet the definition of highly influential scientific assessment, requiring peer review, as defined by Office of Management and Budget Final Information Quality Bulletin for Peer Review (70 FR 2664-2677) and Reclamation Manual Peer Review of Scientific Information and Assessments Policy (CMP P14).

Peer Review Scope:

This purpose of this peer review is to ensure:

- (1) the completeness and correctness of the technologies summarized and
- (2) the integrity of the conclusions offered in the report.

To that end, reviewers are asked to address the below listed questions in completing their review:

- (1) Do the snow measurement technologies described in chapters 2, 3, and 4 effectively capture the full range of snow measurement technologies that can inform water supply forecasts?
- (2) The technologies described in chapters 2, 3, and 4 are of a relatively high-level nature in each technology summary. Are the characterizations complete and consistent with your experience and knowledge of relevant literature?
- (3) Within the lens of "emerging technology" being defined as technology that is not widely used in water supply forecasting, but is sufficiently mature that it could be operationally

used in the next 5 years:

- a. Are there technologies that you believe meet this criterion, but are not included in the list identified in chapter 5?
- b. Are there technologies included in the list that do not meet the “emerging technology” definition?
- c. Is the additional characterization and key information of the emerging technologies in chapter 5 adequate and consistent with your experience and knowledge of relevant literature?

(4) Are conclusions, in particular those highlighted in the executive summary, scientifically sound?

Timing of Review: The peer review period is expected to be October 5 – October 19, 2021. The final Peer Review Report is expected to be available on the U.S. Bureau of Reclamation Peer Review public website (<http://www.usbr.gov/main/qoi/peeragenda.html>) by November 30, 2021. No time deferrals are involved.

Methodology of Review: Review will be conducted by individuals. The identities of the reviewers will be disclosed in the final Peer Review Report. Review findings/comments will be attributed to the individual reviewer. The peer review process will not provide opportunities for public participation.

Number of Peer Reviewers: It is anticipated that 2-3 peer reviewers will be utilized.

Reviewer Selection Process: Peer reviewers will have expertise in snow monitoring, snow science, use of snow data in water supply forecasts. Peer reviewers will have education, professional experience, and peer recognition in their field, and will have contributed to their field. Reclamation staff will identify peer reviewers based on familiarity with relevant fields. The public will not be asked to nominate reviewers.

Delivery of findings: Peer reviewers will each submit their findings to the Peer Review Lead by the end of the review period. At a minimum, their report will include a brief description of their findings and address the questions specified in the scope of review section of this document. A comment matrix will also be provided to peer reviewers to document specific comments on the report. Review findings will be provided digitally to the Peer Review Lead.

Response to Peer Review: < At the conclusion of receiving peer review comments, the Peer Review Lead will submit a final Peer Review Report to Reclamation’s peer review website (<http://www.usbr.gov/main/qoi/peeragenda.html>), which will summarize the findings of the peer review and list the comments provided by the reviewers, as well as Reclamation’s response to the comment, actions the agency will undertake regarding the comment, and reasons the agency believes those actions will satisfy any key concerns or recommendations.

Federal Register Notice: Federal Register notices will not be provided announcing the formation of a peer review team and completion of the final report.

Applicability of the Federal Advisory Committee Act (FACA): This peer review is not subject to the Federal Advisory Committee Act (FACA) because the review does not involve open meetings or committee chartering and reviewers are being asked to provide individual reviews on the subject matter. Reclamation is not seeking consensus advice from the reviewers as a group.

Agency contact:

Kenneth Nowak

Water Availability Research Coordinator

Bureau of Reclamation

knowak@usbr.gov

303-445-2197