

**IRVINE RANCH WATER DISTRICT
SYPHON RESERVOIR IMPROVEMENT PROJECT
INDEPENDENT DESIGN AND SAFETY REVIEW PANEL
CLOSURE OF DESIGN REVIEW**

February 10, 2025

Mr. Jacob J. Moeder, PE
Engineering Manager – Dams & Storage
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92618

Subject: Syphon Reservoir Improvement Project
Closure of Design Review

Dear Mr. Moeder:

In accordance with the scope of the Independent Design and Safety Review Panel (IDSRP) established for review of the design of the Syphon Reservoir Improvement Project (SRIP), the IDSRP is pleased to submit this closing letter summarizing the outcome and conclusions from the IDSRP's review. The Irvine Ranch Water District (IRWD) established the IDSRP in June of 2021 to provide third-party peer review of the engineering, design, and safety of the SRIP. The IDSRP members are Mr. Dan Hertel, Drs. Faiz Makdisi and Lelio Mejia, Professor Brett Sanders, and Mr. John Trojanowski.

The IDSRP met four times during the design phase of the SRIP. An initial kickoff meeting was held by IRWD to a) introduce the project team members, b) brief the IDSRP on the project objectives, available documents, and IRWD's commitment to public safety, and c) review the IDSRP's scope. Three workshops were subsequently held during the design process at completion of the 30%, 60%, and 90% levels of design. The first workshop, at the 30% level of design, included a visit to the project site by the IDSRP and representatives of IRWD and the project team.

Before each workshop, IRWD provided relevant materials including analyses, reports, design drawings, and technical specifications for review by the IDSRP. The workshops involved presentations and updates by the project team on the status and key features of the design, questions and discussion among the IDSRP and project team members, and deliberations and draft report preparation by the IDSRP.

After each workshop, the IDSRP submitted a final report containing answers to questions posed by the project team and additional comments and findings based on the materials, presentations, and discussion from the workshops. Subsequently, the project team responded to the IDSRP's comments and provided a log of the comments and project team responses for review by the IDSRP.

This closing letter follows the last in-person meeting of the IDSRP during the 90%-level workshop, held in July of 2024, and review of the project team's responses to the IDSRP's comments from that workshop.

Based on review of the materials provided to the IDSRP, the presentations and discussions during the workshops, and the project team's responses, the IDSRP believes that its comments on the design of the SRIP have been satisfactorily addressed. Furthermore, the IDSRP is of the opinion that the reviewed design has been performed in accordance with current standards of practice for dam safety.

The IDSRP commends IRWD and the project team for their work in delivering the SRIP design. We have greatly enjoyed working with IRWD and the project team and are thankful to IRWD for the opportunity to have been of assistance on this important project.

Respectfully submitted,



Dan Hertel



Faiz Makdisi



Lelio Mejia



Brett Sanders



John Trojanowski