



# STAFF REPORT

---

**Meeting Type:** Board of Directors  
**Title:** Update on the Water Supply Roadmap – Conveyance Alternatives  
**From:** Paul Sellier, Water Resources Director  
**Through:** Ben Horenstein, General Manager  
**Meeting Date:** April 2, 2024

*BS* *B*

---

**TYPE OF ACTION:**                      Action                      X                      Information                      Review and Refer

**RECOMMENDATION:** Receive an update on Water Supply Roadmap Conveyance alternatives

**SUMMARY:** On February 28, 2023, the Board selected the Integrated Roadmap for improved water supply resiliency (Roadmap); and since that time, staff has been implementing the early action projects, while in parallel working to advance the longer term, more complex projects. The project team has refined and added to the alternatives described in the Strategic Water Supply Assessment and will describe the screening process leading to a proposed shortlist of projects. The team intends to analyze the shortlisted projects in more detail to allow the Board to select a preferred project. Staff will provide a presentation illustrating the process leading to the proposed shortlist.

**DISCUSSION:** The team is developing the Sonoma-Marin conveyance alternatives to allow a screening process to occur that narrows the options from 13 to a proposed shortlist of three or four. These remaining shortlist projects can then be considered in greater detail before a preferred project alternative is identified and designed to a level that can support any necessary environmental review. The project team has completed the screening process and developed a proposed shortlist.

The process of screening from 13 alternatives to a shortlist of three involves weighing each alternative against a project goal which is supported by a set of criteria. Each criterion may be measured via a set of metrics that taken together can indicate how well, or not, a particular project supports a given criterion. The overarching goal of the project is to enhance the reliability, flexibility and resiliency of the water system to improve service to Marin Water customers. The detailed preliminary scoring of criteria may be found in Attachment 1. While typically review of the detailed criteria and each supporting metrics is important, in this process the selection of a proposed shortlist is relatively straightforward because the proposed shortlist includes the simpler options that were considered as standalone projects.

Broadly speaking, the Sonoma-Marine Conveyance Alternatives fall into four distinct groups including the South Transmission System (STS) alternatives, the Stafford (STAF) alternatives, the Petaluma (PETA) alternatives and the Cotati alternatives. Each grouping consists of three to four different pipeline alignments or routes. Notable among the groups is the STS group that by itself offers no water supply benefit and as such does not meet the main project goal, thus allowing this group to be ruled out as a standalone project. In reviewing the alignment of the STAF alternatives that run from the vicinity of Stafford Lake to one or both of Nicasio or Soulajule reservoirs, it is clear that the PETA alternatives 1-3 include the same pipe alignments and additional pipe sections that permit greater yield. As such the STAF alternatives could be dropped as standalone projects and included in the PETA 1-3 for further analysis. All of the PETA 1-3 alternatives could be constructed in Phases with phase 1 equivalent to one of the STAF alternatives. PETA 4 is unique in that it can provide, at full build out, the greatest volume of water of all the PETA options and while PETA 4 can be constructed in phases the phases do not include the STAF alternatives but do include the STS alternatives. The Cotati alternatives are entirely new construction and provide the greatest water supply benefit achieving all of the project goals. The selection of a proposed shortlist then seems to be a contest between the PETA 1-4 alternatives and the Cotati alternatives. Since the Cotati 3 alternative essentially includes the alignments for Cotati 1 and Cotati 2 it seems logical that Cotati 3 would be considered superior and make the shortlist. Similarly in comparing PETA 1-3 the PETA 3 alternative includes the alignments in PETA 1 and PETA 2, leaving PETA 4 as the final project for the proposed shortlist. The table below summarizes key characteristics of the proposed shortlist.

**Table 1 - Proposed Short List**

Proposed Project	Water Supply Benefit [MGD]	Estimated Capital Cost <sup>1</sup> [\$Million]
PETA – 3	10-14	\$129 - \$176
PETA – 4	12-30	\$148 - \$378
COTATI - 3	30	\$380

1. Capital cost will be refined as design progresses.

Given that the proposed shortlist projects include the other alternatives that were dropped (STS and STAF) and they also scored best against the evaluation criteria there is no downside to the proposed shortlist. For example PETA-3 and 4 both include an STS alternative and PETA-3 includes the STAF-3 alternative. The next steps will be for the project team to advance our understanding of the proposed shortlist to allow selection of a preferred alternative to carry forward in design.

**ENVIRONMENTAL REVIEW:** Not Applicable.

**FISCAL IMPACT:** None.

**ATTACHMENT(S):**

1. Evaluation Criteria Draft Scoring of Alternatives