

Allocation of Costs on GANTT Chart for In Lieu and ASR Elements (September 8, 2015)

Based on additional evaluation and feedback, the Technical Team has allocated the cost elements represented on the gantt chart timeline to better represent the capital costs between the City's initial investment for in lieu recharge and subsequent investment to convert the in lieu-capable system to enable ASR. The points below provide additional summary details. Based on this allocation the approximate capital cost attributable to in lieu is \$155 million, and the cost attributable to adding/converting to ASR is \$42 million, for a total cost of \$197 million. All of these estimates are preliminary and subject to wide uncertainty bounds.

1. Initial cost allocation for in lieu and ASR activities.
 - a. Element 1 represented the cost for doing in lieu with the initial 100 MGY of North Coast water that could be available with existing infrastructure and water rights.
 - b. Element 2 represented the additional cost for adding wells and infrastructure to allow in lieu and ASR to be done at full-scale.
2. Costs have now been broken out to better capture the cost of in lieu alone, and to separate out the costs for converting the in lieu system to ASR.
 - a. In this scenario, it is envisioned that you would size the system to do both in lieu and ASR options (i.e., be able to run at a maximum flow rate of 2.5 mgd each to Scotts Valley Water District and to Soquel Creek Water District for the ASR scenario, as opposed to sizing the infrastructure for the much smaller in lieu option alone).
 - b. All infrastructure necessary to do in lieu is included in Element 1.
 - c. Were Element 2 not pursued (i.e., were there no future conversion to ASR), the costs in Element 2 would not be incurred.
 - d. In a combined scenario (in lieu and ASR), the costs for the infrastructure to do in lieu will be higher than for in lieu by itself owing to the need to upsize the transfer infrastructure (pumps and pipelines). Pipeline and pump station costs have been updated to the correct (upsized) total cost values (lines 63-67). I.e., you have to build larger infrastructure than you would to just do in lieu alone with lower flow rates. We have distributed the costs between in lieu and ASR to reflect this difference.
3. Revised cost breakout is as follows:
 - a. In lieu costs include:
 - i. 100% of Element 1 as described in Gantt chart distributed 9/4/15
 - ii. Portions of Element 2 as described in Gantt chart distributed 9/4/15 as follows:
 1. 8 wells (4 wells each for SVWD and SqCWD, total 8 wells)
 2. 100% of Felton replacement pipeline, GHWTP and Tait St. upgrades
 3. 100% of pipeline to SqCWD
 4. 100% of pump station to SqCWD
 5. 75% of pipeline to SVWD (pipe diameter increased from 12" to 16" to accommodate higher flow rate)
 6. 90% of pump station to SVWD
 - b. ASR costs include:

- i. Element 2 (previous version) cost portion:
 - 1. 8 wells (2 wells each for SVWD and SqCWD wells + 4 Santa Cruz wells, total 8 wells)
 - 2. 100% of upsized pipeline to Beltz wellfield
 - 3. 25% of pipeline to SVWD (pipe diameter increased from 12" to 16" to accommodate higher flow rate)
 - 4. 10% of pump station to SVWD