

ADDENDUM TO B.1.a JOINT CDFW-TRIBAL REPORT

The recommended two-pronged harvest control rule (HCR) summarized in the January 2022 Briefing Book's [Joint Tribal-CDFW Report](#) emphasizes the important role that freshwater actions play in the future recovery of Coho Salmon in the Trinity River Basin. This report identified a suite of actions that will benefit SONCC Coho Salmon but offered little detail on the chronology of project completion, and the associated population benefits, for projects that are already done, are in progress currently, or are slated for the near-term future. These details are important for understanding the degree of certainty surrounding anticipated benefits and to understand the degree to which restoration benefits may already be reflected in the spawner-recruit data used to quantify risk to the population aggregate under different HCRs. Here, the California Co-managers provide further insight into these two matters.

- (1) Of the 47 restoration sites identified in the Co-managers' report, 13 are noted as having not yet been completed. What is the anticipated timeline for this work to commence?

The remaining sites are expected to be restored within the next 10-15 years. The Trinity River Restoration Program currently has 6 sites in various states of design, from conceptual to 90%, and these are slated for construction within the next 8-10 years. Parallel efforts are also underway to determine project priorities for the next decade, beyond these active projects. It should also be noted that the 'sites' that are currently at the design stage are much larger in scale than any sites that were completed prior to 2017, meaning that going forward a single 'site', as implemented, may encompass multiple (1-3) of the sites identified for restoration in the 2000 Record of Decision (ROD) for the Trinity River Restoration Program.

- (2) To what degree are the 34 projects identified as having been completed captured in the population data that were used to parameterize the risk assessment model?

Given the timing of project completion, only a small fraction of the restoration work completed to date is captured in the workgroup's population data, which ended with the 2016 brood year (2018 outmigration). For the projects noted above, six occurred between 2005-2008, 26 occurred between 2009-2016, and 5 occurred from 2017-2021, which is beyond the data series. Spawner-recruit information should ultimately be re-calculated and used over several brood cycles to reflect these restored conditions, when realized. There have been less than 5 brood cycles since modern construction began and less than 2 since large scale sites have been put on the ground.

Given the lag between project completion and the realization of population benefits, little of this work reached maturity before the outmigration of the final Coho Salmon brood considered by the workgroup. For example, while there are limited immediate habitat benefits to fish when restoration equipment leaves a site, it may take 3+ years for the vegetation to establish and start providing in-water and overhanging cover. Approximately 75% of restored channel length may initially realize its potential, but the remaining 25% will continue to see improvements for several years, or even decades. Site construction with contemporary restoration strategies using in-stream construction and large wood began in earnest 14 years ago. Sites have increased in size and in the amount of habitat constructed over time, with the largest and most effective sites being constructed since 2017. Drawn-out construction efforts make it difficult to determine if habitat creation from site construction has influenced

productivity. In addition, these projects have coincided with large-scale regional drought, which means that many of restoration sites (e.g., off-channel projects) have not yet had a chance to interact with the wetted channel, further delaying the onset of benefits. In addition to these ROD sites, which are only now coming online for benefits, additional tributary work came online 12 years ago, and the Trinity River Restoration Program has funded approx. \$500,000 for these projects each year since. This work continues and funds will be dispersed going forward through National Wildlife Federation under a 5-year agreement. This work has no set end date and because of the relatively short timeframe of previous work, it can be assumed that the bulk of these benefits are not accounted for in the workgroup's productivity and capacity model parameters.

Given that substantial components of our restoration actions rely on natural processes, much more time will be needed to assess the impacts of construction on productivity and will likely not be able to be separated from other efforts, including those that are ongoing at Trinity River Hatchery to reduce the negative impacts to productivity.