

EXHIBIT A: Executive Summary

Executive Summary

Our proposal seeks to add three elements, genetics, physiology, and modeling, to an existing research effort on splittail. The study addresses the hypothesis that there is no difference in population dynamics between the two distinct splittail populations. To address this hypothesis we are conducting a collaborative, interdisciplinary study that includes an intensive field effort combined with state-of-the-art laboratory tools that can determine the natal origins, historical habitat use, feeding, and general health of adult splittail. With this proposal we seek to leverage additional funds that were not previously available to add the three new elements. The genetic component will provide a precise means to assign individuals to their respective population and to estimate the effective size of the populations. The physiology component will determine if the newly discovered Petaluma/Napa population of splittail exhibits different requirements and tolerances than the Central Valley population. The modeling component will apply the cumulative information gained by the overall study to evaluate the sensitivity of splittail persistence to demographic variability in population dynamics. This work will directly address the Priority Research Topics presented in the PSP.