COASTAL PELAGIC SPECIES ADVISORY SUBPANEL REPORT ON THE CALIFORNIA CURRENT ECOSYSTEM ANNUAL REPORT

The Coastal Pelagic Species Advisory Subpanel (CPSAS) attended the Briefing on the 2022-2023 California Current Ecosystem Status Report (ESR) presented by the National Oceanic and Atmospheric Administration's (NOAA) California Current Integrated Ecosystem Assessment (CCIEA) Team. We appreciated the depth and quality of the report and the CCIEA Team's commitment to continued improvement of the ESR for the Council family.

We value the expanded information on coastwide CPS in Appendix I, which summarizes coastwide findings from National Marine Fisheries Service Southwest Fisheries Science Center's acoustic trawl surveys of CPS. This information will support species distribution models for CPS across geographic scales as a baseline for ocean climate or other hydrological changes. We appreciate the expanded analyses of the overlap of offshore wind call areas with fishing activity, effort and revenue, and survey activity. This information supports the ability of the Council's Marine Planning Committee to respond to proposals, as well as other risk analyses of such proposals.

For future ESR's, we have two suggestions for the CCIEA Team regarding CPS. First, we encourage new analyses of the impact of offshore wind on CPS habitat for spawning, ocean transport, and nutrition. Our <u>March 2022 report</u> on marine planning cites research from Europe and the West Coast showing that concentrations of wind turbines change currents, wind strength, temperature, salinity, stratification, and other habitat in the lee of turbines. This has the potential to fundamentally alter marine ecosystem processes. Wake vortices from wind farms redirect existing currents, which results in a shift in the mean temperature and salinity distribution, and natural ocean transport systems for larvae both near and some distance from the wind farms. Offshore wind could impact successful recruitment and healthy population levels of both sardines, anchovies, and possibly other larval fish.

In sum, many ecological changes to CPS and other species could occur due to lack of comprehensive knowledge of ecosystem and environmental impacts of wind energy projects, and the CPSAS believes that any additional information that can be provided by the CCIEA team would be beneficial.

Second, we encourage new social and economic analyses of the cumulative value of fisheries as the contribution of delivered harvest works through coastal and national food supply networks and its effects are distributed through local and nationwide economies. This will allow a more accurate assessment of the trade-offs from potential offshore wind and other economic activity.

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