

Appendix U. Overriding Considerations

Adverse environmental impacts may result from implementation of the Provisions. The majority of these effects can be mitigated to less than significant levels, but mitigation measures lie within the jurisdiction of agencies implementing site-specific projects. Still, the environmental benefits of the Provisions outweigh the potentially unavoidable adverse environmental effects, and such adverse environmental effects are acceptable under the circumstances in order to protect the health of wildlife and humans who consume locally caught fish.

Over the long term, the implementation of the Provisions will result in overall improvement in water quality in California and will have significant positive impacts to the environment by enabling humans and wildlife to safely consume fish. Beneficial uses that are impaired due to elevated methylmercury levels in fish are consumption of fish and aquatic organisms by humans and wildlife species. Fully achieving these beneficial uses will have positive health benefits and social and economic effects by decreasing the exposure of methylmercury to humans and wildlife. In addition, wildlife habitat carries a significant non-market economic value. Enhancement of wildlife habitat beneficial uses will not only be beneficial to wildlife species that consume fish, but it also will have positive indirect economic and social benefits. Implementation of the Provisions is both necessary and beneficial. If the Provision are not adopted, the elevated levels of mercury in fish tissue would continue to remain and likely worsen.

Mercury-contaminated fish is an environmental justice and tribal concern. There are people in California who consume local fish because of need or custom, or to supplement their diet. Mercury is a toxin that can have lasting effects on the neurological development and abilities of persons exposed *in utero* and as children. Studies of people exposed to methylmercury through consumption of fish by their mothers and/or themselves showed deficits in memory, attention, language, fine motor control and visual-spatial perception that can be translated to decrements in intelligence quotient (IQ) (National Research Council 2000; Trasande *et al.* 2005). Under existing conditions, consumption of some fish species more than one or two times per month may cause adverse health effects, which affects peoples' livelihoods and standard of living.

California's fisheries are a valuable resource worth tens of millions of dollars (see Section 6.3, Option C). Although it is difficult to estimate the economic value of all California inland fisheries, the Delta Protection Commission produced an economic report for the Sacramento-San Joaquin Delta, in which expenditure estimates were calculated for recreational activities, including fishing, for the local economy in 1994. According to the report, anglers on average spent an estimated 186 million dollars inside the Delta and an estimated 206 million dollars outside of the Delta associated with sport-fishing activities in the Delta (Goldman *et al.*, 1998).

To reduce the environmental impact of the Provisions, the State Water Board does not have legal authority to specify the manner of compliance with its orders (Wat. Code §13360), and

thus cannot specify particular implementation projects nor dictate that specific mitigation measures be implemented by any particular project. The selection of compliance projects and mitigation measures are all within the jurisdiction and authority of the entities that will be responsible for implementing the Basin Plan amendments, and those entities can and should employ mitigation measures as necessary to reduce any impacts as much as feasible (14 Cal. Code Regs., tit.14 §15091(a)(2)). These mitigation measures in most cases are routine measures to ease the expected and routine impacts attendant with ordinary construction and earthmoving projects.

Still, the Provisions includes aspects to reduce unnecessary environmental impact and alternatives to the Provisions were considered to reduce the environmental impact, in Section 9. For some aspects of the Provisions, environmental impact should be reduced since the required controls have multiple benefits. One multi-benefit control in the Provisions is sediment controls (used to control mercury). Sediments can also carry other pollutants including pesticides, nutrients, fertilizer, oil and grease, and litter. In addition, the sediment can be a pollutant itself. Using one action to control several pollutants will reduce the environmental impact. This requirement also instructs that mercury monitoring is likely unnecessary as a baseline level of control. Omitting unnecessary mercury monitoring will reduce the impacts associated with consuming lab supplies, waste generation, and vehicle use.

A primary source of environmental impact is the effluent limitations for wastewater and industrial dischargers for the Sport Fish Water Quality Objective, the Prey Fish Water Quality Objective, and the California Least Tern Prey Fish Water Quality Objective, since these effluent limitations would apply to roughly 308 dischargers throughout the state. The environmental impact would be from the associated construction and earth moving activities of potential upgrades to wastewater and industrial facilities. The effluent limitations in the Provisions were designed to achieve the water quality objectives by water body type; flowing waters in rivers and streams, slow moving waters, like some estuaries and sloughs, and reservoirs and lakes. Specifying effluent limits by receiving water body type would result in effluent limitations that are less stringent for most dischargers than if the one effluent limitation was used statewide (for lakes and rivers combined). This was done recognizing that most dischargers in California flow into rivers, where requirements do not need to be as stringent as those designed to protect lakes. This approach was also chosen recognizing that most of the mercury in California is the result of the historic mining legacy and atmospheric deposition, not wastewater and industrial dischargers. Basing the effluent limitations on rivers will reduce the number of needed upgrades for wastewater and industrial facilities to meet effluent requirements. Otherwise, as described in Alternative 3 in Section 9, roughly one third of facilities statewide may need to upgrade to meet the effluent limitation. This approach reduces the impact of the construction and earth moving activities required to install facility upgrades. While many of the impacts can be mitigated, these activities could potentially impact biological resources, utilities, public resources, and create noise.

Additionally, recognizing the economic and environmental impact of the mercury monitoring requirements, two exceptions were included to reduce unnecessary impacts (including environmental impacts). These are the exceptions for small disadvantaged communities and insignificant dischargers (see Section 6.13). These exceptions can relieve the monitoring requirements for low volume discharges that should not cause an exceedance of the objectives. These exceptions can decrease the use of laboratory supplies, laboratory waste generation and vehicle use, and the resulting air emissions, greenhouse gas emissions, and increased traffic.

Wastewater treatment plant upgrades may be necessary in certain cases to comply with the Provisions. However, such upgrades offer multi-benefit controls since the upgrades will also reduce a number of pollutants in addition to mercury, such as bacteria and other pathogens, nitrogen, phosphate, suspended organic material, and other nutrients, and synthetic pollutants, like medications and pesticides. Also, as the water quality of the wastewater is improved through better treatment, the ability to reuse the wastewater will increase. Some areas of California suffer from water shortage, and water reuse will decrease the demand on the water supply. Many communities suffer because the water demand is growing with increasing population, but the water supply has recently been shrinking from drought. Water use in California has led to the collapse of California's salmon fishing industry, and perhaps the entire Bay-Delta ecosystem. For California, the ability to reuse water is a significant environmental benefit.

References

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