**Watercourse and Lake Protection Zone Fuel Reduction Necessity**

Many scientific studies have identified that fire suppression activities have resulted in significant changes from historical stand conditions in many of California’s forests, particularly in the inland Sierra Nevada. As a result of site conditions and current regulations, riparian buffer areas in forests are often carrying high fuel loads. High severity wildfire in riparian forests has deleterious effects on sediment loads in streams, overall water quality, bank and channel stability, wildlife habitat, and the survival of rare species. In fact, fire severity is a much stronger determinate for soil and watershed responses to fire than the presence of fire itself, and wildfire in these area is more severe than it was historically. With the impacts of climate change resulting in additional changes in fire regimes and watershed function, work to protect riparian corridors from catastrophic wildfire is particularly relevant.

Timber harvesting and fuel reduction activities are fundamentally disturbances on the landscape and in sensitive areas such as riparian corridors, environmental considerations and impact assessments are especially important. Several environmental concerns arise with regard to soil and water quality, light and energy dynamics, and wildlife habitat and conservation**.** As a result, in sites with high risk for high severity fire which would severely impact watershed processes, the potential impacts from fuel reduction efforts may represent lower long-term impacts.

Harvest in watercourse and lake protection zones is possible under the current California Forest Practice Rules as an in lieu practice. However, this in-lieu practice has had difficulties in implementation due to a lack of clear guidelines for review team staff. Rather than an established top-down regulatory program that represents a consistent interpretation of the scientific literature on this subject, the review team staff are responsible for independently reviewing the scientific literature and making a determination on harvests in WLPZs. While the Board produced a white paper in 2019 to assist in this decision making which identified best management practices in then-current scientific literature, in lieu practices have been used very rarely in the intervening years. There is a need for a scientifically-supported regulatory framework for wider implementation of fuel reduction in Watercourse and Lake Protection zones.