## **Vegetation Management on Mount Tamalpais**

by Ann Thomas (2020)

Marin Municipal Water District (MMWD) this past fall adopted a vegetation management plan for its watershed lands which continues its prohibition on herbicide use. This was done despite urging by Friends and other environmental groups that limited herbicide use was sometimes necessary for situations where other controls do not work.

The plan applies to about 22,000 acres of wildlands owned by the district, including most of the Mount Tamalpais watershed along with the shorelines of Nicasio and Soulajule reservoirs. Almost 20,000 acres are on Mount Tamalpais, the source of approximately 75% the county's drinking water. Some areas drain to tributaries of Corte Madera Creek through Larkspur, Tamalpais, Ross, and Fairfax creeks, but these supply almost none of the domestic water.

The plan is described in a comprehensive report, the *Biodiversity*, *Fire*, and *Fuels Integrated Plan* (BFFIP), which was several years in preparation. The approved plan contains many good measures to confront the growing threats of fire risk, harmful invasive species that overrun natural habitat and threaten public health and safety, forest disease, and climate change. Actions include fuel break design and construction, tree thinning, burning, pile burning, grinding; and mulching, mowing, mechanical or hand removal of invasive weeds. A wildland strategy which excludes an herbicide option, however, will not only cost more but could fall short of its habitat protection and fire risk reduction goals.

Friends supports a fully-fledged integrated pest management (IPM) program for invasive plant control because it mixes a variety of control techniques—mechanical, chemical, biological, and others—to achieve the specificity required by different situations. For example, herbicides are the only realistic control for Japanese knotweed, recently found downstream of district lands in the San Geronimo Valley, a virulent plant which not only damages waterways but can grow into, and crack, roadways and building foundations.

The most pernicious invader on Mount Tamalpais is broom, which left untreated produces thousands of seeds annually that disperse into adjacent neighborhoods, destroys native habitat, and, when growing in dense untreated stands, provides copious flammable fuels that carry fire into the tree canopy. It can be hand-pulled, but will regrow from scattered seeds for years, and is spreading on MMWD lands at the rate of about 50 acres annually. A stand, which will be left untreated, looms over Ross and San Anselmo.

Neither the BFFIP nor its EIR explain the cost difference between prohibiting all herbicide use as compared with a complete IPM approach. A 2012 draft plan, however, which the district discarded, reported that the difference in total annualized cost of a no-conventional herbicide approach over one that would allow conventional herbicides, would be about an additional \$4 million a year. This number could be higher now.

MMWD's rejection of all herbicide use was not based on science. The EIR concluded that prudent use of herbicides "would meet all the goals of the program." The adopted plan has a requirement for ongoing evaluation of the measures prescribed, with annual reports and updates. The first review is due in May 2020 and we look forward to what it will reveal.

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