



**List of Study Chemicals
Mt. Tamalpais Watershed
Vegetation Management Plan Update
March 13, 2008**

The update of the MMWD Watershed Vegetation Management Plan includes a thorough review of all available weed control tools, including both conventional and “alternative” herbicides. The District is committed to ensuring all weed control tools used on watershed lands do not compromise water quality or public safety; as such, a risk assessment of considered herbicides has been included as part of the planning process.

Lead consultant Leonard Charles and Associates has finalized the list of chemical weed control products that will be considered for use and undergo the risk assessment (see **Table 1** below). The list includes three conventional herbicides, three additives used to improve performance, and three organic products. The list was developed by Pest Control Advisor Robert Brenton in consultation with toxicologist Dr. Susan Kegley. Most of these products are commonly used in combination with mowing and prescribed burning for wildland weed control. These products are considered to be at the less toxic end of the chemical spectrum. Each product is designed to be effective for a different suite of plants.

In the coming months, Mr. Brenton will develop species-specific and site-specific weed control recommendations that employ these nine products to varying degrees. Dr. Kegley and her associates will complete a thorough analysis of the likely risks associated with these recommendations. The risk assessment will consider the following:

- Effectiveness;
- Air pollution potential;
- Water pollution potential (including aquatic half-life);
- Toxicity (including whether the products have known links to cancer, acute toxicity, endocrine disruption, reproductive or developmental problems, or neurotoxicity); and
- Ecotoxicity with regard to birds, fish, aquatic invertebrates, and insects.

The assessment will look at both likely use and worst-case scenarios. It will also address inert ingredients, researcher biases and conflicts of interest, and data gaps.

The use recommendations and the results of Dr. Kegley’s assessment will be released in a report due out the first week of June and discussed at a public meeting to be held on June 11, 2008.

**Table 1: Weed Control Products to be Reviewed in the
MMWD Watershed Vegetation Management Plan**

Formulated Product	Active Ingredients	Class
Transline	40.9% Clopyralid, monoethanolamine salt	Conventional Herbicide
Aquamaster	53.8% Glyphosate, isopropylamine salt	Conventional Herbicide
Garlon 4 Ultra	60.5% Triclopyr, butoxy ethyl ester	Conventional Herbicide
Matran	50% clove oil, 50% emulsifiers	Organic Herbicide
Scythe	57% pelargonic acid	Organic Herbicide
N/A	15 % vinegar	Organic Herbicide
Competitor	ethyl oleate, sorbitan alkylpolyethoxlate ester, dialkyl polyoxyethylene glycol	Surfactant
Sylgard	polysiloxane	Surfactant
Blazon	proprietary information	Dye