



MARIN MUNICIPAL WATER DISTRICT

July 18, 2001

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www.marinwater.org

John W. Jaeger, President
Board of Directors
Marin Municipal Water District
220 Nellen Ave.
Corte Madera, CA 94925

Dear Mr. Jaeger:

The Watershed Citizens' Advisory Committee (WCAC) respectfully submits its Policy Recommendations to guide the Marin Municipal Water District's management of the watershed for the next 50 years.

As you are aware, the District Board of Directors appointed 12 Marin citizens to an ad hoc advisory committee for the purpose of identifying future watershed issues and developing recommendations for addressing these issues. Following a comprehensive review of numerous current and emerging challenges needing attention, the WCAC selected these four general areas to focus on:

1. Erosion
2. Biological Diversity
3. Safety and Disaster Preparedness
4. Public Use

The Committee, with the excellent support of MMWD staff and outside experts, then conducted a more in-depth review of each area, identifying key areas that are either problematic today, or might be sometime in the future. Our discussions were lively, informed by science and practical experience, and punctuated with common sense. These recommendations reflect not only the Committee's best thinking, but also each member's personal attachment to the watershed and the desire to preserve it as one of Marin's natural wonders for future generations to experience.

In closing, we want to thank the MMWD Board of Directors for this special opportunity and look forward to your favorable review of our Policy Recommendations.

Sincerely,

Michael Groza, Chairman
Watershed Citizens' Advisory Committee

Final Draft: June 18, 2001

Mt. Tamalpais Watershed Citizen Advisory Committee Recommendations

The following are actions or implementation items for proposed policies as recommended by the Committee:

General Recommendations

The District should develop a partnership with the greater community of Marin County in order to foster public participation in the protection and management of the watershed. The ultimate goal of this participation should be the rise of public stewardship for the watershed. This partnership should include programs for public information, links with schools, and opportunities for volunteerism.

Biodiversity

1. Review lists of drought tolerant plants in District water conservation materials, deleting any "invasive species" as recommended plants.
2. Develop and distribute an information flier for homeowners living on the boundaries of the watershed, local nurseries and the general public addressing garden plants threatening to become wildland pests.
3. Promote scientific research addressing resource management issues impacting the watershed.
4. Develop a Resource Management Plan for the watershed that includes:
 - Broad goals for vegetation and habitat management focusing on specific areas of the watershed;
 - Integration of vegetation management actions with wildlife population and habitat management especially with regard to special status species;
 - Management of rare plant species and habitats; and
 - Inventory old growth forest conditions and other special habitats with recommendations for their long-term management.

Erosion

1. Develop science-based analytical tools and begin the collection of data necessary to measure erosion on the watershed.
2. Identify impacts of activities causing erosion on the watershed and establish maintenance standards that minimize erosion.

3. Enter into agreements with neighboring jurisdictions that encourage compliance with consistent erosion standards.
4. Educate stakeholders about District erosion prevention and control policies and promote public cooperation with these policies.
5. Develop a Road and Trail Plan that identifies all existing roads and trails, inventories conditions, and makes recommendations for water quality improvement that consider:
 - Decommissioning;
 - rerouting;
 - re-grading or repairing;
 - level of use;
 - use restrictions;
 - seasonal closure for specific or all uses; and
 - new roads and trails.
6. Review and revise on a regular basis existing access points to the watershed to ensure consistency with District Erosion Control Standards.

Fire Management

Review and update the District's Vegetation Management Plan every two years to include new information and revise land management activities. The updates should include

- Evaluation of the District's fuel break system using GIS, and implementation of District recommendations for long-term management of a fuel break system.
- Analysis of the natural range of variation of the watershed's vegetation as a result of fire and other disturbances.
- Assessment of the likely changes to watershed vegetation from a range of fire management regimes including no fire.
- Analysis of the use of prescribed fire and other means to accomplish the District's broad-based biodiversity management goals.
- Public education emphasizing the importance of neighborhood "defensible space" adjacent to houses as the most effective tool to protect life and property.

Final Draft June 18, 2001

MT. TAMALPAIS WATERSHED MANAGEMENT POLICY

Overview

The Mt. Tamalpais Watershed is one of Marin's most valuable natural resources, providing and protecting the major source of domestic water for Marin Municipal Water District ("District") residents. Besides this primary purpose, the watershed is held in trust as a natural wildland of great biological diversity, as scenic open space and as an area for passive outdoor recreation for Marin and much of the Bay Area. Passive outdoor recreation is defined as those activities that are based on nature and that require little or no development or facilities.

Protection of water quality is the overriding goal for the management of the Mt. Tamalpais Watershed. Protecting the integrity of the watershed's water quality and reservoir capacity is best achieved by maintaining natural conditions on watershed lands to the greatest extent possible. The District is committed to sustaining and restoring, where needed, native biological diversity on District lands through active management and careful coordination with other resource management agencies and the research community. We realize that achieving an ideal situation is not always possible. However, it is the District's policy that control over land uses focuses on retaining the lands in their natural condition, allowing them to return to a natural condition, or actively restoring them. No activities will be allowed that jeopardizes this resource.

The purpose of this policy is to maintain and improve the character of the watershed and water supply, and to discourage commercialization and misuse of the natural resources of Mt. Tamalpais watershed. Of specific concern are the quality and supply of potable water and the storage capacity of the reservoirs.

Of the 18,570 acres of Mt. Tamalpais Watershed properties owned by the District, 13,870 are in the Lagunitas Watershed, 1,350 in the Phoenix/Ross Creek Watershed; and 3,350 are adjacent watershed and buffer properties which serve both as protection to the watershed lands used for water supply and for their value as important scenic open space and recreational lands.

Water storage and distribution facilities on the Mt. Tamalpais Watershed properties include five storage reservoirs (Alpine, Bon Tempe, Kent, Lagunitas and Phoenix), miles of service roads and transmission pipelines, the Bon Tempe Treatment Plant and other related facilities. Recreation facilities include several picnic areas and miles of equestrian, bicycling and hiking routes.

PART 1 - General Use and Management of the Mount Tamalpais Watershed

1.1 Goals

The watershed lands shall be retained in perpetuity for water supply, natural wildland, scenic open space and limited passive recreational purposes, and managed in a manner that will maintain and protect their:

- A. Ability to serve as water-producing lands;
- B. Integrity as natural wildlands and as scenic open space; and,
- C. Capacity to provide passive daytime recreation activities in keeping with potable water production and preservation as natural wildlands.

1.2 Policies

- A. **Land Use** - Lands and facilities will be managed to protect the character of the water supply, sustain and restore the natural wildland and wildlife characteristics, and allow for limited passive recreational experiences, as defined in Title 9 of the Marin Municipal Water District Code.
- B. **Commodity Use of Natural Resources** - The District shall not harvest and sell any natural resources from the Mount Tamalpais watershed except for the sale of water in the normal course of the District's responsibilities to provide drinking water through its infrastructure or where sound watershed preservation decisions result incidentally in the availability of excess resources.
- C. **Facilities Development** - Any new facilities, uses or leases, or improvements to existing facilities proposed for these lands will be:
 - Limited to essential public services and shall not be attractions in themselves, but incidental to the primary purpose of the watershed or enjoyment and conservation of Mt. Tamalpais in its natural condition;
 - Designed, constructed and maintained to assure conformity to the District Watershed Protection Policy;
 - Reviewed by an appropriate citizens group and technical advisors if controversial in nature or posing a significant impact on District lands; and approved only if impacts on the water supply and natural environment are insignificant or can be adequately mitigated. Exceptions will be limited to water-related facilities and are subject to

environmental assessment and public hearings and will only be granted where alternatives have been carefully evaluated and the public benefit outweighs the anticipated impact to the watershed; and

- Existing uses, leases and facilities will be reviewed annually to assure compliance with good watershed management practices and preservation of natural wildland characteristics.

- D. **Revenues** - All revenues from Watershed Fees and Leases will be administered in accordance with Board Policy No. 35.
- E. **Adaptive Management** - The District will implement an adaptive management strategy, using inventory, management, monitoring and evaluation. The District will assemble baseline inventory data describing the natural resources under its stewardship and monitor those resources at regular intervals to detect or predict changes. Visitor use levels and patterns will also be monitored. The resulting information will be analyzed to detect changes that may require intervention and to provide reference sites for comparison with other impacted areas. The District will encourage and support research that addresses resource management issues on the watershed.
- F. **Regional Cooperation** – The District is committed to working cooperatively with federal, state, and local agencies, user groups, local communities, adjacent landowners, and others in the protection of the water supply, and the management of natural resources and recreational uses. In order to better achieve the District's management objectives, the District will continue to foster formal and informal lines of communication and consultation.
- G. **Staffing** - The District will evaluate staffing levels to ensure adequate personnel are available to maintain its facilities, roads and trails, and natural resources, manage visitor use and to enforce its regulations.
- H. **Memorials** - Individuals are prohibited from building any structure, monument or facility. The District may accept, following staff review and approval, private donations to fund construction or replacement of necessary park benches, picnic tables, bridges and other structural facilities as memorials.
- I. **Water Quality Protection** – Land or facility management activities on the watershed, such as the use of chemicals, must be evaluated so that uses are restricted to specific targets or areas and will cause no harm to water quality.

PART 2 - Biological Diversity

2.1 Goals

Protecting the integrity of the watershed is best achieved through maintaining natural conditions on watershed lands consistent with District policies and federal and state laws. The District is committed to restoring and sustaining native biological diversity on District lands, in particular the variety of living organisms, the genetic differences among them, and the natural communities and ecosystems providing their habitat.

2.2 Policies for Biological Diversity

- A. **Species and Habitats** - The District will protect and restore species richness and complexity of habitats on District lands, and seek to preserve or restore natural habitats to the fullest extent possible.
- B. **Rare Species** - The District will identify and promote the conservation of all special status plant and animal species especially those listed under federal and state Endangered Species Acts.
- C. **Adverse Impacts** - The District will minimize adverse impacts to spatial and temporal patterns of native species for reproduction, feeding, migration and dispersal.
- D. **Genetic Preservation** - The District will wherever possible, ensure that revegetation and landscaping efforts in and immediately adjacent to natural areas will use seeds, cuttings, or transplants representing species and gene pools native to the watershed.
- E. **Population Management** - The District will act to perpetuate viable populations of native plant and animal life within District lands. Natural processes will be relied on to govern populations of native species to the greatest extent possible. Unnatural concentrations of native species caused by human activities may be controlled where they present a threat to public health and safety or where they threaten to disrupt ecosystem processes. The District may seek to control animal populations, in coordination with the California Department of Fish and Game (DFG) and according to applicable DFG codes, when such animals present a direct threat to visitor's health and safety and in developed areas when necessary to protect property or landscaping.
- F. **Natural Disturbances** - The District will ensure that landscape conditions caused by natural phenomena, (e.g. landslides, earthquakes, floods, natural fires, or windstorms) will not be modified unless required for public safety or operations of the water delivery facilities. The District will seek to restore the effects of fire as an ecosystem process by the careful, planned use of prescribed burning.

- G. **Exotic Species** - The District will give high priority to the control of exotic species (exotic species are those that are not native to District lands and that bring about changes in species composition, community structure, and/or ecosystem function) that substantially impact native natural resources. The overall approach will be in keeping with the principles of Integrated Pest Management (IPM). A variety of methods including mechanical removal, chemical application, the introduction of biological control agents, and the use of prescribed burns may be used as practicable to achieve the desired results as long as these methods do not jeopardize water quality or cause harm to non-target organisms. Nonnative plants and animals will not be introduced into the District lands except in rare cases where:
- They are the nearest living relatives of extirpated native species;
 - There are improved varieties of native species that cannot survive current environmental conditions;
 - They are used to control established exotic species; or
 - The District is legally required to do so.
- H. **Release of Native Wildlife that has been Rescued and or Raised in Captivity** - Release onto District lands of native wildlife that has been rescued from other sites and/or raised in captivity will be allowed only on a case by case basis upon written approval from the Superintendent of Watershed Resources. Approval may be granted when it appears doing so would benefit released animals without significantly disrupting existing native wildlife and vegetation and after consideration of the following:
- The characteristics of the species, the number of individuals, and the health of the released animals;
 - The likelihood of the proposed release sites being already occupied by individuals of the same species;
 - The potential for acute predation of, or competition with, other species in the proposed release location; and
 - The proximity of the release site to areas of human habitation where the released animals may pose a nuisance.
- I. **Post-fire Revegetation and Erosion Control Response** - The District's post-fire watershed and vegetation recovery and restoration goals include: making every reasonable effort to ensure the protection and natural recovery of natural communities and protecting rare and sensitive animals, plants, and habitats in fire zones during rehabilitation efforts. The District will seek to allow natural reestablishment of vegetation, only using mechanical methods or seeding to reduce erosion in selected areas. Determining rehabilitation strategies for any site should take into account the following:
- Fire intensity and timing;
 - Past fire frequency and its effect on the vegetation of the site;

- Effects of fire suppression activities on the vegetation;
- Potential for natural recovery of the vegetation;
- Potential for expansion and establishment of exotic plants; and
- Available information on sensitive species and habitats in the area.

Seeding is appropriate only if there is clear, scientific evidence that a given seeding mix will more effectively establish ground cover than the remaining viable seeds in the natural seedbank, and seeding has been demonstrated to be an effective restoration technique in relation to that specific incident's conditions (e.g. slope, soil-type, soil and duff damage, etc.). The District believes that seeding may be appropriate in areas where fire suppression activity has removed or destroyed the natural seedbank (e.g., bulldozing). The District acknowledges that seeding is appropriate when human safety is an issue and it would help stabilize the watershed.

During or following a fire event, the Incident Commander will establish a team to make recommendations for post-fire rehabilitation. The team should evaluate the availability of seed mixes and the site-specific appropriateness of available seed. If no appropriate seed is available, non-vegetative erosion techniques should be employed. Natural recovery of plant communities and the success of rehabilitation treatments will be monitored and the results will be integrated into future management plans.

- J. **Reservoir Fishery Management** - The District will manage its reservoirs for recreational fishing, including non-native fish species, in cooperation with the Department of Fish and Game. The goal of the Lake Lagunitas program is to manage for a self-sustaining population of rainbow trout. The District recognizes the habitat value of opportunistic lakeshore vegetation. Lakeshore vegetation removal to improve access for anglers may be accomplished in limited areas under the guidance of a written plan. The protection and management of vegetation in the lakes should not compromise the District's water management responsibilities.
- K. **Pest Management** - Strategies for managing pest populations (pests are animals or plants that threaten important resources on the watershed) will be influenced by whether the pest is an exotic or native species. Many fungi, insects, rodents, diseases, and other species are native organisms that perform important functions in a natural ecosystem. Native pests will be allowed to function unimpeded except where control is desired to:
- Prevent the loss of the host or host-dependent species from the ecosystem;
 - Prevent outbreaks of the pest from spreading to forests, trees, other plant communities, or animal populations outside the watershed;

- Conserve threatened, endangered, or unique plant specimens or communities; or
- Protect against a significant threat to public safety.

Proposed pest control measures must be included in a District-approved resource management plan. All Plans must adopt a strategy that includes clear objectives, monitoring, research, and evaluation.

PART 3 - Erosion Control

3.1 Goals

Erosion resulting from roads and trails and other human development of the watershed will be controlled in order to maintain a high quality of water, prevent displacement of water storage capacity, and to maintain and enhance the stream habitat.

3.2 Policies

- A. **Road and Trail Management** - All trails and roads on the watershed will be managed according to District standards established to reduce erosion, especially into the streams and reservoirs.
- B. **Management of Other Facilities** - All other watershed facilities will be designed, constructed and maintained to reduce or control erosion.
- C. **Stabilizing Natural Erosion** - Erosion resulting from natural events may be stabilized where feasible and where there are clear benefits to water quality, reservoir capacity and/or stream habitat.

PART 4 - Fire Management

4.1 Goals

The District will manage its lands to prevent loss of watershed resources from uncontrolled wildfire, will carefully restore the role of fire in ecosystem management, and will use fire as a tool for specific management objectives.

4.2 Policies

- A. **Fire Management** – The District classifies all fires as prescribed fires or wildfires. Prescribed fires are those intentionally set for specific purposes and under controlled circumstances. All other fires are

wildfires and will be suppressed. The District will work closely with local, state, and federal fire departments and land management agencies to develop effective programs to manage fire risks and benefits on a regional basis, and to meet vegetation management goals for the watershed.

- B. **Wildfire Prevention and Suppression** - The District will maintain staff, equipment, and prepare and keep current protocols to ensure its ability to respond quickly and suppress fires on the watershed. The methods used to suppress all wildfires will be those that minimize the impact of fire fighting effort on the watershed.
- C. **Fuel Breaks** - The District will maintain a system of fuel breaks on District-owned watershed lands to improve suppression capabilities in the event of a wildfire. These fuel breaks shall be designated in the District's most current Vegetation Management Plan.

The District may allow fuel breaks on District lands to be constructed and maintained by neighboring private landowners immediately adjacent to the Watershed. These fuel breaks will be constructed at the expense of the private landowner consistent with specifications contained in a written agreement with the District. Agreements will specify, at a minimum, the location of the fuel break, vegetation to be removed, timing, and maintenance requirements.

- D. **Prescribed Fires** - The District recognizes the importance of prescribed fire as a tool for managing watershed lands. Prescribed fires (commonly referred to as prescribed burns or controlled burns) are fires deliberately ignited by District land managers to achieve predetermined resource management objectives, such as controlling exotic species, maintaining specific vegetation types (e.g. meadows, open woodlands), and reducing hazardous fuel accumulations. To ensure that these objectives are met:
- Each prescribed fire will be conducted according to a detailed written plan. The plan and its elements will be developed in coordination with, and under the approval of, appropriate fire agencies.
 - All prescribed fire management plans will consider effects on air quality, visibility, and health along with other resource management objectives. Management actions to minimize the production and accumulation of smoke will be included in every written plan. All prescribed fires will comply with state and local smoke management and air quality regulations.
 - All prescribed fires will be monitored to:
 - Record the significant fire behavior and operational decisions;
 - Determine whether specified objectives were met; and
 - Assess fire effects.

PART 5 - Recreational Use

5.1 Goals

The District will ensure that public recreation activities on watershed lands are consistent with the District's mission to safeguard water quality and protect natural resources. This will be accomplished by fostering public stewardship of the natural values of the watershed through safe and responsible use, volunteerism, and community participation in watershed management programs. The District will provide visitors with the appropriate information to inspire, educate, and encourage safe and lawful use of the watershed, and to minimize adverse impacts on natural resources.

5.2 Policies

- A. **Regulation of Recreational Use** - The District will manage visitor use, regulating extent, type, duration, and of visitor activities. A use or activity may be restricted or prohibited when it is inconsistent with the District's watershed management goals and policies and /or violates a state or federal law. Where practical, such determinations will be based on the results of study or research, including natural and social sciences, visitor use surveys and environmental impacts. Periodic monitoring of visitor use patterns will be conducted. Restrictions and/or regulations will be reviewed periodically by District staff to determine consistency with the District's general watershed management goals and policies. The public will be notified of restrictions on use(s) of watershed lands.
- B. **Recreation Use Criteria** - The District will consider the purpose of the watershed and the effects on the natural resources and visitors when determining the appropriateness of a specific recreational activity in a specific area. The District will prohibit on watershed lands and discourage on adjacent lands those activities that may result in:
- Impacts detrimental to wildlife, vegetation or other watershed resources or natural processes;
 - Consumptive use of watershed resources (e.g. mushroom collection, hunting, etc.);
 - Impacts to sensitive habitats or special status species (e.g. increased sedimentation impacts to anadromous fish or loss of riparian habitat);
 - Impacts on visitors from conflicting types of recreational use; and
 - Danger to the welfare or safety of the public.
- C. **Management Approaches** - Appropriate tools for managing recreational activities may include:
- General or special regulations;

- Permit and reservation systems;
- Local restrictions;
- Public use limits;
- Closures
- Public outreach and education (through signs, maps, notices, displays, and interpretive programs); and
- Limited and/or improved public access points necessary to control and minimize visitor impacts.

PART 6 - Watershed Commercial Use

6.1 Goals

The District's will prevent the exploitation of the watershed for commercial gain.

6.2 Policies for Commercial Use

- A. **Commercial Use** - The District will discourage commercial use of the watershed, especially those uses that may damage or impair natural features of the watershed. The District will prohibit organized recreational activities or competitive events that involve commercialization, advertising or publicity by the participants and/or organizers. The District may permit those commercial uses or services that do not negatively impact watershed lands and are consistent with the goals and policies in the Watershed Management Policy.
- B. **Fund Raising Events** - Fund raising events that generate revenue for watershed purposes will be considered and may be allowed on a case-by-case basis upon approval by the Board of Directors.

This Policy will be in effect upon adoption and until subsequently amended by action of the Board of Directors.