

Department of Agriculture, Weights and Measures



Farm Advisor/UC Cooperative Extension

Date: TBD

SUBJECT: 10-YEAR INVASIVE WEED MANAGEMENT PLAN FOR MARIN COUNTY

Dear Supervisors:

RECOMMENDATION

The Department of Agriculture/Weights and Measures and Farm Advisor/UC Cooperative Extension recommend your Board take the following actions:

1. Accept the 10-Year Invasive Weed Management Plan for Marin County and attached Invasive Weed Management Workplan (Attachment A)
2. Approve a supplemental appropriation from the General Fund of \$95,000 for the Department of Agriculture/Weights and Measures for the pilot year (FY 2013-14) of the plan, with the department returning to your Board to report on the status of the plan
3. Authorize one (1) Fixed-Term Senior Agricultural Program Assistant for a term of nine (9) months

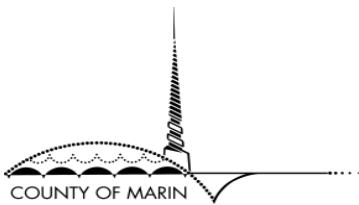
SUMMARY

Noxious and invasive weeds have become an extremely serious and challenging issue in Marin County over the past two decades. Several different species of injurious weeds have become established in Marin County and have rendered thousands of acres of pastureland, rangeland, and natural areas unusable, increased the risk of wildfires, and successfully outcompeted numerous native plant species. If nothing is done to slow and stop the spread of these invaders, it will become unfeasible to attempt to control and manage them. It will take the combined effort, cooperation, and collaboration of numerous organizations, ranchers, and private landowners to successfully manage (and hopefully eradicate) these damaging weeds from Marin County.

This 10-Year Invasive Weed Management Plan directly aligns with the countywide goals of Sustainable Communities and Environmental Preservation. The selection and use of least toxic herbicides would be consistent with the County's Integrated Pest Management (IPM) principles and practices following the existing Marin County IPM ordinance. This plan would be a living document and would be updated as needed to ensure the latest science based weed management research from UC Davis and UC Berkeley are used when making decisions.

Year 1 (FY 2013-14)

- Survey a minimum of 500 acres for woolly distaff thistle, purple starthistle, and other invasive weeds



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- Perform a minimum of 60 outreach and education events to landowners (individuals and groups), other members of the public, and various organizations about the plan, which may include the latest science based methods available to control noxious and invasive weeds, and the use of IPM principles which are consistent with the County's IPM ordinance
- Control a minimum of 300 acres of woolly distaff thistle, purple starthistle, and other invasive weeds per recommendations by the University of California
- Hold one public workshop to receive feedback about the plan, and include a discussion on the proper use of herbicides by homeowners in the urban environment
- Hold a minimum of two Landowner Advisory Group meetings
- Annually follow-up with stakeholders to provide updates on the status of the plan

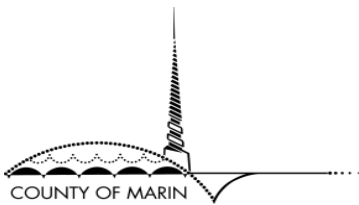
Years 2-10 (FY 2014-15 through FY 2022-23)

- Annually evaluate the effectiveness of IPM weed management and organic weed control strategies recommended by UC experts
- Continue surveying for woolly distaff thistle, purple starthistle, and other invasive weeds
- Annually control a minimum of 500 acres of woolly distaff thistle, purple starthistle, and other invasive weeds per recommendations by the University of California (including vegetation experts on the Landowner Advisory Group)
- Annually reevaluate the Invasive Weed Management Plan to ensure deliverables are being met and/or exceeded

DISCUSSION:

10-YEAR INVASIVE WEED MANAGEMENT PLAN IN MARIN COUNTY

The Department of Agriculture/Weights and Measures (Department) and Farm Advisor/UC Cooperative Extension intend to make an aggressive, collaborative long-term commitment with multiple partners to help the agricultural industry, private landowners, and other organizations address the noxious and invasive weeds infesting Marin County, thereby retaining and enhancing environmental value and sustainable ecosystems. The success of this plan will be dependent on all of these landowners and organizations working together collaboratively, and the Department and the Farm Advisor helping to facilitate effective communication and a productive working environment. The Department and Farm Advisor/UC Cooperative Extension have created a voluntary Landowner Advisory Group (which is open to any interested landowners) to provide recommendations regarding the implementation of the plan. This group will meet two to three times a year. The Department and Farm Advisor/UC Cooperative Extension would be asking a number of vegetation experts with several organizations to be on the existing voluntary Landowner Advisory Group, such as from the Marin Agricultural Land Trust, Marin Conservation League, Marin Resource Conservation District, Point Reyes National Seashore, Sonoma County Farm Advisor/UC



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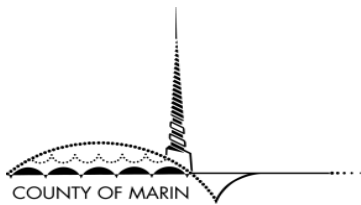
Cooperative Extension, and Environmental Action Committee of West Marin. The vegetation experts (along with the University of California) will be responsible for providing safe, effective, and affordable weed control recommendations that landowners can put into action. We have also been working closely with numerous interested stakeholders at the local, state, and federal level to garner support for the plan and have created a way they can show support through an on-line support letter on our website.

On August 26 and September 19, 2013, the Department and Farm Advisor/UC Cooperative Extension convened rancher meetings to discuss this plan. There was broad support for the plan although some ranchers made it clear that some landowners are actively and successfully managing invasive weeds on their land while others are doing nothing and have significantly contributed to the invasive weed problem. There must be recognition given to those landowners spending thousands of dollars annually to implement best land management practices to protect their lands from invasive weeds. A key element of a landowner cost share program must include the history of land management on the site. Additionally, ranchers want assurance that public agencies would be held to the same standard as private landowners regarding weed management.

Landowners have an innate responsibility to actively manage the land and protect and enhance the natural resources that are present. Additionally, it must be recognized that at the same time they must be able to earn a living.

The Department and Farm Advisor/UC Cooperative Extension would target the management and eradication of woolly distaff thistle, purple starthistle, and several other invasive weeds. A carefully planned approach would be taken to ensure resources are effectively and responsibly used to provide the greatest opportunity for success, including accurate monitoring of the long-term effectiveness of the various weed control methods. The implementation of the plan would likely start in areas with existing heavy invasive weed infestations, including outlier populations that have a high likelihood of eradication with limited resource requirements. Realistically it would likely be at least a few years before we got to the majority of the sites because of the significant invasive weed issue we have in the county, the limited funds that would be available, and the time it would take to get a handle on the larger infestations.

The most effective method of controlling invasive weeds is to prevent their introduction and establishment in the first place. Early detection and rapid response to invasive weed infestations is vital. **The cost of preventing the establishment of a noxious and invasive weed infestation is about a 1/20th the cost of eradication once it's established.** When invasive weeds are found, there are a variety of methods to control them including, hand pulling, weed whipping, hoeing, shoveling, mowing, biological control, over seeding with native grasses, herbicide treatments, prescribed burning, mulching, use of goats and/or cows, rotational grazing, etc. The type of control



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method used is based on the weed species, location, growth stage, time of year, and size of infestation.

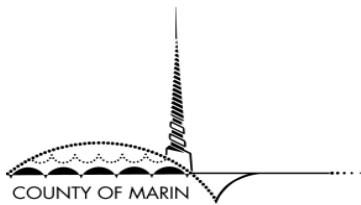
Inherent in this program and collaboration are the tenants of IPM, the research and science based approach to addressing pest issues through a careful understanding of a given pest's life-history and the environmental conditions contributing to that pest's persistence. IPM was developed and advanced at the University of California Berkeley more than 50 years ago, and today is made available to California through the statewide network of UC Cooperative Extension Academics. Locally, the Farm Advisor is working with UC Cooperative Extension Weed Advisor and UC Davis Weed Management Specialists to develop and extend the full complement of weed control measures including biological, cultural, mechanical, and chemical. This team, working in cooperation with the Marin ranching community, has a research proposal pending consideration to support the research needed to confirm the efficacy of specific cultural, mechanical, and organic chemical controls.

In applying IPM principles and the policies of Marin County, the latest science based weed management research from UC Davis, UC Berkeley, and expertise from vegetation experts on the Landowner Advisory Group would be used when making decisions on effective weed management and eradication. Non-herbicide strategies will be recommended as the first option whenever possible. When needing to control moderate to large established invasive weed infestations (generally greater than one acre), herbicide treatments are normally the most effective and practical choice. Least toxic herbicides recommended for control of these larger infestations are consistent with Marin County's policies and existing IPM ordinance. The long-term impact would be very positive because once an invasive weed population is reduced to a manageable size, non-herbicide methods for control can be used which are approved for certified organic operations (See the "Certified Organic Sites" section in Attachment A for more information). Additionally, a positive benefit of implementing this plan would be a downward trend in the amount of herbicides used in the county over the long-term.

A key aspect of this strategic plan is a robust Education and Outreach Plan to industry, private landowners, the general public, and other agencies. The groundwork for this strategic plan must be meticulously laid, evaluated, and reevaluated to ensure its success. This outreach plan would include many organizations and agencies listed above in this document.

A key initiative of the 2010 Marin Agricultural Summit was invasive weed management in both organic and conventional agriculture. Recapturing and maintaining productive rangelands and grasslands is vital to the future of Marin County agriculture and to helping maintain a healthy balanced ecosystem.

The Department would work diligently to have all landowners actively participate in the plan. In cases where landowners refuse to cooperate (and after all other options have exhausted), the



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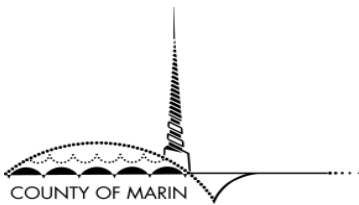
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Department does have the authority to enforce abatement summary proceedings against private landowners that refuse to manage and eradicate existing invasive and noxious weeds on their land. Abatement authority is found in Sections 6.60.010 and 6.60.020 of the Marin County Municipal Code and Sections 5401-5405 of the California Food and Agriculture Code. Holding all ranchers and other landowners equally accountable for properly managing their land for invasive weeds is imperative to the success of this plan. The Department will be proposing changes to Chapter 6.0 of the Marin County Municipal Code to include additional invasive weed species, proposed fine range for violations, and add a new section on enforcement and right to a hearing.

The Department is requesting a supplemental appropriation of \$95,000 for the pilot year (FY 2013-14) of this plan. The Department will return to your Board in one year to report on the program and to request another one-time appropriation to fund Year 2 (FY 2014-15). The Department recommends setting up a separate cost center and general ledger (GL) expenditure code specifically for Pest Management to easily manage and track all funds expended on the plan. This will provide an accurate assessment of expenditures and help determine future funding needs.

Approximately \$50,000 of the funds for FY 2013-14 would be used by the Department to support a nine month fixed-term position responsible for helping to lead the implementation of the plan. The remaining \$45,000 would be allotted for the cost share program. The recommendation is to provide each landowner a fixed dollar amount per parcel for invasive weed management. The landowner would decide how to use those funds based on their specific circumstances, including their organic or conventional status, and recommendations from the vegetation experts on the Landowner Advisory Group. The Farm Advisor/UC Cooperative Extension would provide recommendations to landowners based on current best weed management practices tailored to their particular situation. Any project that uses herbicides as a part of this cost share program must show that other non-herbicides options have been seriously considered. The Department and Farm Advisor/UC Cooperative Extension will be working closely with the Landowner Advisory Group to establish an equitable cost share program. The history of land management on the property would be a determining factor in receiving partial or full funding. The long-term goal would be to cost share sustainable control options (not herbicide use) once moderate to large invasive weed infestations were knocked down to a manageable size.

The Marin/Sonoma Weed Management Area (WMA) has been very successful at receiving state funds for local invasive weed projects over the years. Unfortunately, all funding for weed management at the state level (California Department of Food and Agriculture) was eliminated beginning FY 2011-12 due to state budget cuts. There is hope in a couple years to have limited funding reinstated. Any funding approved at the local level would be leveraged for state revenue and greatly increase the chances of the WMA receiving funds.



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The preservation of our environment through sustainable and sound practices is paramount to the public interests of Marin County as confirmed by the passing of Measure A in November 2012. Effectively managing and eradicating noxious and invasive weeds is a vital component to protecting and enhancing Marin County’s rangelands, pasturelands, open space, biodiversity, and natural resources. The Department recommends actively and collaboratively engaging ranchers and private landowners to help them gain the upper hand on injurious weeds on a long-term basis, which would allow them to reclaim invaluable productive land, and reduce herbicide use in the long-term.

The use of non-organic herbicides would be required in the short term to reduce existing larger invasive weed infestations. Once moderate to large infestations have been reduced to manageable levels, mechanical and other non-herbicide methods would be recommended. This approach would provide the greatest long-term benefit to these sites, and help keep agriculture viable in Marin County, protect our native flora and fauna, and help ensure the countywide goals of Sustainable Communities and Environmental Preservation are met.

FISCAL IMPACT

If your Board approves this request, \$95,000 will be transferred from the non-departmental budget to the Department of Agriculture, Weights and Measures for the pilot year (FY 2013-14) of the plan (FMBB TBD). Additional allocations will be subject to future Board approval.

Please let me know if you have any questions or concerns.

REVIEWED BY:	<input checked="" type="checkbox"/> County Administrator	<input type="checkbox"/> N/A
	<input type="checkbox"/> Department of Finance	<input checked="" type="checkbox"/> N/A
	<input checked="" type="checkbox"/> County Counsel	<input type="checkbox"/> N/A
	<input type="checkbox"/> Human Resources	<input checked="" type="checkbox"/> N/A

Respectfully submitted,

Stacy K. Carlsen
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Director of Weights and Measures

David Lewis
Marin UC Cooperative Farm Advisor