***Project Title:***

**Setting Regional Strategies for Invasive Plant Management Using CalWeedMapper**

***Project Leader:***

Doug Johnson, Executive Director
California Invasive Plant Council
1442-A Walnut St. #462
Berkeley, CA 94709

510-843-3902
dwjohnson@cal-ipc.org

***Scope & Budget:***

Location: CA LCC Wide
Duration in months: 12
Requested Funding: $94,706.00
Leveraged Funding: $104,460.00

***Partners:***

Cal-IPC has funding from several other entities to work on CalWeedMapper and associated online prioritization tools. Amounts listed below are those available during the time period of the proposed CA LCC grant. US Forest Service: $53,000 (awarded) US Fish & Wildlife Service: $25,000 (awarded) National Forest Foundation: $3,500 (in-hand) California State Parks/Santa Cruz Resource Conservation District: $6,000 (awarded) Total: $87,500 Natural resource managers throughout the state will contribute their expertise to developing regional invasive plant management strategies. We value these In-kind services at 100 participants x 4 hours x $40/hour = $16,000. In addition, we will leverage in-kind contributions of time from system designers from EDDMapS and iMap Invasives as we take steps toward transfer of our approach. We estimate 4 designers x 4 hours x $60/hour = $960.

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*Briefly summarize the goals of the project, what products will result, and how the products support decision-making and conservation delivery for natural resource management within the CA LCC.*

Invasive plant management, especially early detection and rapid response, is critical to wildland stewardship. It is one key step toward strengthening ecosystem resilience in the face of climate change. Cal-IPC's CalWeedMapper, a new online decision-support tool, is designed to help land managers set effective stewardship goals, with an emphasis on early detection. CalWeedMapper provides a basis for establishing regional invasive plant management strategies that incorporate climate change. Given the number of invasive plant species, the site-specific landscape complexities, and climate change, it can be overwhelming to determine invasive plant management priorities in a particular area. CalWeedMapper integrates multiple factors into a clear analytic framework to help land managers set priorities. Using the tool, Cal-IPC brings together regional partnerships to develop goals and mobilize on-the-ground implementation. The proposed project aims to take a major step toward structuring coordinated invasive plant management priorities across California. We will meet with regional collaborators in at least six regions to develop regional invasive plant management strategies. We support multiple types of regions at different scales, but we are especially interested in forming a complete network of functional regions across the state. Given the existing WMA structure established over the last decade, we expect to build on these politically defined regions. For an ecoregional perspective, we will also coordinate with the Dept. of Fish & Game's revision process for the state's Wildlife Action Plan. Putting these regional strategies in place will provide a clear programmatic vision for public and private stewardship funders, making clear what conservation activities are the top priorities, what conservation goals can be achieved, and what financial resources are needed. In addition to the individual regional strategies, we will work to connect the regions so that their efforts support each other and forms a well-integrated strategy at the landscape-scale. The biological outcome we are aiming for is strengthened ecosystem resilience to environmental change. We will develop a standard process and materials for developing regional strategies, which will help other regions use this approach. A new webpage on CalWeedMapper will be created for those developing and implementing regional strategies so they can easily track their progress over time.

*For continuing 2011 CA LCC projects, describe the accomplishments and outcomes to date, why additional funds are needed, and what this proposal will add to the project.*

The main accomplishments to date are (1) completing and releasing the CalWeedMapper online tool in late 2011, (2) completing and integrating range suitability maps based on downscaled GCMs, and (3) integrating conservation GIS layers. CalWeedMapper displays multiple types of information: USGS quad-based invasive plant distribution and spread based on expert knowledge; point data for invasive plant occurrences; suitable range maps—current and future—derived

from climatic data; and state biological richness data. CalWeedMapper generates reports for a user-selected region, detailing which species may be appropriate for eradication, containment, or surveillance. Cal-IPC has begun working with local stakeholders to use CalWeedMapper to develop regional invasive plant management strategies. So far, we have begun working with a five-county group in the Central Sierra, with a three county group on the Central Coast, with the Cache Creek Watershed Forum in Yolo and Lake Counties and with the Shasta-Trinity National Forest. Additional funds will allow us to work with natural resource managers across the state to develop regional invasive plant management strategies using CalWeedMapper. By generating strategies for at least six regions, we will take a major step forward in putting the tool into practice. CalWeedMapper will be enhanced to track these particular regional strategies so that on-the-ground implementation progress can be monitored over time. We will create a standardized process and materials for using CalWeedMapper to generate regional invasive plant management strategies. This will help transfer the approach to other regions . We will also be able to connect multiple regions so that their priorities and efforts support each other. This project is the natural next step in using this powerful decision-making tool to help resource managers set effective regional strategies.

*Briefly describe how the project team (main PIs) provides the range of experience, expertise, and organizational capacity needed to accomplish the project.*

Cal-IPC's project team has expertise in web mapping applications, ecological analysis, and natural resource management needs. We developed CalWeedMapper over the last two years (Jan. 2010-Mar. 2012), including coordination with multiple contractors to build the online system and coordination of more than 100 meetings with land managers across the state. The team coordinated modeling and analysis to develop suitable range maps for invasive plants, and is now coordinating regional strategy meetings. We have experience managing grants from funders including the US Forest Service, Cal. Dept. of Food and Agriculture, National Fish and Wildlife Fndn., and Resources Legacy Fund. Cal-IPC is a 20-year-old nonprofit organization with an active board of directors and a membership of 800 natural resource managers. PIs: Doug Johnson (M.A. Geography), Executive Director since 2002. Recent projects: "Mapping invasive plant distribution and spread" (USFS/CDFA, 1/10-3/12, 50%, $1.5 million). Current projects: "Integrated Mapping Tools for Effective Invasive Plant Management" (5/12-9/14, 25%, $160,000). Elizabeth Brusati (Ph.D. Ecology), Science Program Manager since 2004. Recent projects: "Mapping invasive plant distribution and spread" (USFS/CDFA, 1/10-3/12, 50%, $1.5 million). Current projects: "Developing an online invasive species risk-mapping tool" (CA LCC), 7/11-12/12, 40%, $96,000; "Mapping risk of spread for invasive plants that threaten forest lands" (USFS), 6/10 -9/12, 40%, $180,000. Dana Morawitz (M.A. Geography), Mapping Program Manager since 2010. Recent projects: "Mapping invasive plant distribution and spread" (USFS/CDFA, 3/10-3/12, 100%, $1.5 million). Current projects: "Developing an online invasive species risk-mapping tool" (CA LCC, 4/12–12/12, 40%, $96,000); "Mapping invasive plants in the Shasta-Trinity National Forest" (NFF, 3/12-3/13, 5%, $5,000); "Identifying invasive plant surveillance targets for State Parks" (SCRCD, 6/12-5/13, 8%, $8,000).

*Identify which National LCC Performance Measure(s), if any, your project addresses.*

A risk and vulnerability assessment

# Setting Regional Strategies for Invasive Plant Management Using CalWeedMapper

**Project Description**

Invasive plant management, especially early detection and rapid response, is a critical component of wildland stewardship. Managing invasives can be a key step toward strengthening ecosystem resilience in the face of climate change. Cal-IPC's CalWeedMapper (http://calweedmapper.calflora.org), a new online decision-support tool, is designed to help land managers set effective invasive plant management strategies.

CalWeedMapper 's statewide maps of invasive plant distribution, spread, management and suitability provide a basis for establishing regional management strategies that incorporate climate change. The tool suggests target species for surveillance, eradication, and containment. Given the number of invasive plant species, the range of site-specific landscape complexities, and the uncertainties of climate change, determining invasive plant management priorities in a particular area can be overwhelming. CalWeedMapper integrates multiple factors—current status, future trends, and conservation targets—into a clear analytic framework to help land managers set priorities and mobilize on-the-ground management action.

The proposed project aims to take a major step toward structuring regional invasive plant management strategies across California. After a decade of experience with projects undertaken by the state's network of Weed Management Areas (WMAs), it is clear that regional coordination is essential. Cal-IPC has begun to work with partners in several regions to develop consensus strategies based on CalWeedMapper—a five-county central Sierra region, a three-county central coast region, the Cache Creek Watershed Forum in Yolo and Lake counties, and the Shasta-Trinity National Forest. (The Sierra and Cache Creek regions have already begun applying for implementation grants based on the priorities identified.) This work involves Cal-IPC staff facilitating several meetings with local stakeholders to evaluate the priorities suggested through CalWeedMapper and scope top priority actions. The proposed project would support this work, enabling us to complete invasive plant management strategies with six or more regions across the state.

While we are actively supporting different types of regions (CalWeedMapper includes national and state parks, national forest, refuges, counties, WMAs, watersheds and ecoregions), we are especially interested in forming at least one complete set of regions that cover the entire state. The existing WMA structure is based primarily on county boundaries and has many practical benefits. We have set up a draft set of multi-WMA regions to take advantage of this infrastructure. For working with ecological regions, we will coordinate with the California Dept. of Fish & Game's ecoregional prioritizations for the revision of the state's Wildlife Action Plan. This collaboration presents an important opportunity to map invasive plant impacts on wildlife in more detail.

Putting these regional strategies in place will provide a clear programmatic vision for public and private funders of stewardship work, helping to clarify which conservation activities are the top priorities, what conservation goals can be achieved, and what financial resources are needed. CalWeedMapper

illustrates how much uninvaded land can be protected by taking early action, providing a compelling case for action. By coordinating multiple regions, we can provide a vision for landscape-level goals.

Along with our main efforts working with regions, we will also seek to enhance the approach and transfer it widely. We will develop a standard process for developing regional strategies, and build a section on the CalWeedMapper site where each region's strategies are presented with tools for tracking their progress. As we work with regional partners to develop strategies, we will collect their suggestions for new design features and assess their cost. (Currently we are exploring the potential for automating an assessment of habitat type overlap between a plant species and the region of concern.) To close data gaps, we will organize a campaign to update expert knowledge data in CalWeedMapper. To complement the existing quad-mapping tool, we are beginning (with other funding) to develop a similar prioritization tool that will work with specific occurrence data, and we will use our interactions with regional partners to help vet that approach. Finally, we will work with colleagues in other states and with iMap Invasives (at the New York Heritage Program) and EDDMaps (University of Georgia) to explore how we can best extend this approach nationally.

**CA LCC Priorities Addressed**

This project addresses priority issue # 1: Decision support for managers. CalWeedMapper and our regional process are designed to help managers most effectively allocate limited resources, with a focus on surveillance and eradication. Any given region may contain a hundred or more invasive plants with varying degrees of impacts and distribution. Our tools will help land managers sort through them so they do not ignore important early detection species or spend all of their time on a few well-publicized species. Regional strategies will improve coordination among local partners, making their work more effective at the landscape scale and positioning them for funding on-the-ground projects.

The overall biological outcome expected from this project is improved ecosystem resilience to climate change by removing invasive plants that negatively impact native plant and animal species. Reducing this stressor will improve the ability of native ecosystems to absorb changes created as species move with climate change. CalWeedMapper establishes an ecological baseline by mapping statewide distribution for more than 200 species, and its updating capacity will track spread over time and support long-term monitoring and performance assessment. Its range suitability maps, based on downscaled GCM output, help managers anticipate areas where a plant's suitability is changing appreciably.

**CA LCC Criteria Addressed**

This project will result in clear measurable responses by producing a strategic plan for each region with specific targets for surveillance, eradication, and containment. Regional partners can then work to secure funding for on-the-ground actions, and track their progress in CalWeedMapper over time. Users include land managers from regional, state and national parks, county agricultural departments, ecological reserves, land trusts, Resource Conservation Districts, and other land management entities.

Understanding how invasive plant distribution will shift with climate change, and how to prepare for it, are significant sources of uncertainty in wildland management. Regional strategies will seek to address uncertainty by incorporating results from climate modeling that uses an ensemble method to gauge

agreement between multiple downscaled GCMs about whether a species seems likely to expand or contract in a particular region. These results are especially helpful in selecting surveillance targets.

This project is integrative because it addresses multiple taxa and can be applied at multiple scales. CalWeedMapper includes more than 200 species of plants, and allows users to generate summary reports for a range of region types at multiple scales, including counties, USDA ecoregions, National Forests, National and State Parks, refuges, WMAs and watersheds. CalWeedMapper integrates the "biological richness" layer from the California Dept. of Fish and Game's Areas of Conservation Emphasis program, and we are currently working to add in the Essential Habitat Connectivity layer from Caltrans . We are building on existing efforts by using and adding occurrence data to the Calflora Database, a repository of California plant data for 15 years. We are working to integrate with existing related efforts by remaining in communication with the Healy Hamilton/PRBO LCC-funded project to model native plants and birds. Overlaying our results and theirs could provide additional information on stressors for native species. Finally, we are working with Fish and Game to incorporate our strategic approach into their Wildlife Action Plan update process.

This project supports existing collaborations by working with stakeholders in the forty Weed Management Areas across the state. In-kind contributions of expertise will be provided by the dozens of organizations whose land managers participate in developing regional strategies.

This project was designed to be transferable. USGS quads were selected as the mapping unit because they forma regular grid across the country. We have applied for a collaborative grant with partners in Arizona, Nevada, and two national invasive species mapping systems about transferring our approach. We will continue the dialog with these partners during this project.

Our project team has the capacity to accomplish the work, which is a natural extension of existing efforts that led to the creation of CalWeedMapper. Our board of fifteen directors, all of whom are land managers or research ecologists, serves to provide valuable oversight for these efforts. Cal-IPC is a membership organization with an extensive network of land managers across the state. We are recognized as the definitive source of information on invasive plants in California, and have taken leadership in representing the needs of natural resource managers.

**Scope of Work – Approach & Integration with Related Projects**

Over the course of one year, this project will work with at least six regions in California to develop regional invasive plant management strategies that provide a blueprint for on-the-ground action. We will standardize a streamlined regional approach that can be used in other regions, and we will enhance the CalWeedMapper tool to track progress made in implanting each regional strategy.

Developing a regional strategy in partnership with regional partners typically involves two to three regional meetings with "homework" in between. Meetings combine the spatial information in CalWeedMapper with the on-the-ground knowledge of local land managers. To date we have based our strategic plans mostly on county boundaries, using our contacts through Weed Management Areas (WMAs) to convene a meeting for a multi-county area. Using political boundaries is useful to land managers who have to follow these boundaries, such as pest control biologists with county agriculture departments, who have played a key role in WMAs. However, ecological regions have a natural logic as

well, and we will work to integrate our prioritization process with the upcoming Wildlife Action Plan update process based on USDA ecoregions.

Participants receive a Management Opportunities Report from CalWeedMapper before meeting. The report catalogs all species in or near the region, and lists them as potential surveillance, eradication, or containment targets, divided by Cal-IPC Inventory ratings of High, Moderate, or Limited. Surveillance targets are those species that are not in the region but are found within 50 miles; eradication targets are species present in isolated USGS quadrangles; containment targets are species covering a wider area. Meetings focus on revising and narrowing the lists generated by CalWeedMapper. Meeting participants review the species in each category, make corrections, and indicate their level of concern for each species. For example, a "surveillance" species may be removed from consideration because it requires a habitat type not present in the region. "Containment" species that have few populations may be moved moved to the potential eradication list. Corrections needed to data in CalWeedMapper are noted. The first goal is to arrive at eradication and surveillance lists with a manageable number of top-priority species.

For surveillance targets, the next step is to learn to identify the species, which are often unfamiliar to those in the region, and then determine the most likely places for the species to find its way into the region. This combines knowledge of current nearby locations, vectors of spread, and habitat types. Entities responsible for these susceptible areas then develop plans to survey them at appropriate intervals. Communication with neighboring regions is also set up to keep informed about observed spread of the species.

For eradication targets, the goal is to arrive at control plans and costs so the effort is shovel-ready. First, partners determine how well mapped the species is, and to estimate the cost of remaining field mapping needed for full delimitation (number, location and size of populations). For these populations, the most effective treatments are selected and costs are estimated by treatment year on a timeline. If permitting is needed, those costs are included in costs as well.

Finally, public outreach goals are set. Typically this entails selecting a set of species for which the public is asked to report sightings. Brochures and other outreach can be developed around this set of species, which also increases regional awareness of the basic ecological problem.

This grant will allow us to refine our approach, extend it to cover six regions, to explicitly incorporate climate change into the planning process, and to integrate our approach with the process for updating the California Department of Fish and Game's Wildlife Action Plan. Our current LCC grant plus other funding has allowed us to complete suitable range models for many species on the Cal-IPC Invasive Plant Inventory, including future projections. An ensemble approach will help us judge the strength of our models, and these results will be incorporated into the prioritization process for regional strategies.

In addition to the strategies for individual regions, we will facilitate inter-regional collaboration. This will ensure that neighboring regions are providing each other with important information, and that partners are learning from approaches that are successful in other regions. We will organize conference calls or webinars, and consider an in-person meeting in conjunction with Cal-IPC's annual Symposium.

This project integrates with many other related efforts. Cal-IPC staff currently participates in the Climate Work Group for the Wildlife Action Plan update, and we will be working to integrate our approach into their process. We also continue to work with the Cal. Dept. of Food & Agriculture to guide the work of the state's WMAs, although funding has been eliminated. We work closely with Calflora, which maintains an online database of plant locations, and the Consortium of California Herbaria, which shares data on voucher specimens from their network. We have initiated dialog with the two growing national systems for mapping invasive plants, EDDMapS out of the University of Georgia and iMap Invasives out of the New York State Heritage Program, with the intention of sharing our approach with them so that it can be used nationally. We are active in the National Association of Exotic Pest Plant Councils, and will share our approach with other states through this forum. (We can also reach out to other LCCs as appropriate.) For our modeling work, we collaborate with PRBO Science, Climate Central, David Ackerly, Healy Hamilton, and Scott Loarie. We have exchanged data with Fish & Game's Biogeographic Data Branch, and are in touch with the California Climate Commons and Data Basin.

**Products/Data Sharing**

Products from this project will be available publicly online as part of the CalWeedMapper website. Data is also available for sharing with entities like the state Dept. of Fish & Game, Data Basin, and the California Climate Commons. We are active in making presentations to natural resource managers at conferences and meetings. Our goal is to have a set of standardized regional strategies that integrate statewide, and getting the products out and sharing them is a core aspect of making this happen. Below are the major deliverable products from this project and a timeline for completion.

Dec. 31, 2012: Design process and materials for developing regional invasive plant management strategies. Coordinate with CDFG Wildlife Action Plan process.

March 31, 2013: Complete strategic plans for 2 regions. Incorporate climate uncertainty measure into regional approach.

June 30, 2013: Complete strategic plans for 2 additional regions. Complete "regional strategies" webpage in CalWeedMapper.

Sept. 30, 2013: Complete strategic plans for 2 additional regions. Hold statewide meeting or conference call for regional partners. Complete standardized process and materials.

**Measuring Results**

The following metrics will be used to show our project's success:

1) Number of regional invasive plant management strategies completed. Number of stakeholders engaged in generating and adopting strategies. Number of square miles that can be protected through these strategies.

2) Number of field projects planned, initiated or funded as a result of the strategies. This may be unlikely within the one-year project timeframe, but our webpage for regional strategies will provide a space for capturing this information over time.

3) Educational efforts planned, initiated or funded as a result of the strategies.

# California Landscape Conservation Cooperative 2012 Proposal Budgets

| Budget Categories | CA LCC Request | Partner(s) Contribution(s) (monetary) | Partner(s) Contribution(s) (non-monetary value/in-kind) | **Total** |
|---|---|---|---|---|
| | | | | |
| Salaries | $ 65,312.00 | $ 62,875.00 | | $ 122,267.15 |
| Supplies | $ - | $ - | $ - | $ - |
| Overhead | $ 17,994.00 | $ 16,625.00 | | $ 33,934.27 |
| Equipment | $ - | $ - | $ - | $ - |
| Other (specify) | $ 11,400.00 | $ 8,000.00 | $ 16,960.00 | $ 39,360.00 |
| **Total** | $ 94,706.00 | $ 87,500.00 | $ 16,960.00 | $ 199,166.00 |

**Other:**

Salaries under LCC pay for 60% FTE Mapping Program Manager, 30% FTE Mapping & Modeling Specialist, and include fringe benefits.

Overhead is figured at Cal-IPC's negotiated federal indirect rate of 19% of total project costs.

Other under LCC comprises: contractors for specialized online mapping design [TerraGIS 20 hours, GreenInfo Network 40 hours, Calflora 20 hours] to refine CalWeedMapper; and travel [24 meetings @ $200]. Other in cash match comprises contractor dollars to same contractors above. Cal-IPC has funding from several other entities to work on CalWeedMapper and associated online prioritization tools. Amounts listed below are those available during the time period of the proposed CA LCC grant.

US Forest Service: $53,000 (awarded)
USFWS: $25,000 (awarded)
National Forest Foundation: $3,500 (in-hand)
California State Parks/Santa Cruz Resource Conservation District: $6,000 (awarded)
Total: $87,500

Other in in-kind match comprises expert participation in creating regional invasive plant managerment plans. Natural resource managers throughout the state will contribute their expertise to developing regional invasive plant management strategies. We value these In-kind services at 100 participants x 4 hours x $40/hour = $16,000. In addition, we will leverage in-kind contributions of time from system designers from EDDMapS and iMap Invasives as we take steps toward transfer of our approach. We estimate 4 designers x 4 hours x $60/hour = $960.

**Yolo County Resource Conservation District**
221 West Court Street, Suite 1
Woodland, CA 95695
yolorcd@yolorcd.org
phone (530) 662-2037
fax (530) 662-4876
www.yolorcd.org

May 11, 2012

Doug Johnson
California Invasive Plant Council
1442-A Walnut St., #462
Berkeley, CA 94709

**Re.** California Invasive Plant Council LCC Application Letter of Support

Dear Mr. Johnson:

The Yolo County Resource Conservation District strongly supports the California Invasive Plant Council's proposal to the California Landscape Conservation Cooperative titled "Setting Strategic Regional Priorities for Invasive Plant Management Using CalWeedMapper." The RCD is involved in many invasive plant management projects, including those developed through the three-county Cache Creek Watershed Forum. Prioritizing invasive plant management opportunities is critical for us to make the best use of our resource management dollars.

Cal-IPC's CalWeedMapper is a user-friendly online decision-support tool that provides a host of information for setting regional management strategies. The tool combines current distribution data with climate change information to support strategic planning at the landscape level. We have begun the process of using CalWeedMapper in conjunction with local knowledge to clarify our region's species of concern, formalize a strategic plan and mobilize land managers to pursue funding for strategic on-the-ground management. This process of strategic regional collaboration is already proving very helpful our region.

As we move forward with Cal-IPC in a strategic prioritization process using CalWeedMapper, we will benefit even more when neighboring regions are also implementing plans based on this structured prioritization. Yolo RCD will contribute to this project by giving user feedback to help Cal-IPC enhance CalWeedMapper and their regional strategic planning process. We are excited to collaborate on this project, and are committed to setting up "shovel ready" management projects based on our consensus priorities. We strongly recommend funding for this proposal.

Sincerely,

Jeanette Wrysinski
Executive Director

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Climate Science and Renewable Energy Branch
1416 Ninth Street, Suite 1342-B
Sacramento, CA 95814
www.dfg.ca.gov

*EDMUND G. BROWN, Jr., Governor*
*CHARLTON H. BONHAM, Director*

May 14, 2012

Doug Johnson, Executive Director
California Invasive Plant Council
1442-A Walnut St., #462
Berkeley, CA 94709

Dear Mr. Johnson,

As the project lead for the California Department of Fish & Game's upcoming effort to revise the state's Wildlife Action Plan, I am excited to partner with Cal-IPC on regional prioritization of invasive plant management. Our agency's natural resource managers will benefit from such prioritization, as will other resource managers across the state working to protect wildlife.

Our existing Wildlife Action Plan identifies invasive species as a top stressor on wildlife, and one that is likely to be exacerbated by climate change. Addressing invasive species is an important action that natural resource managers can take immediately to increase ecosystem resiliency. Cal-IPC's online tool, CalWeedMapper, provides critical spatial analysis to support regional prioritization of invasive plant management targets. Employing this tool can help regional stakeholders determine priorities and get funding to implement on-the-ground projects.

Our process for revising the plan will involve meetings to set wildlife conservation priorities in 19 ecoregions across the state. This is an excellent opportunity to employ CalWeedMapper's prioritization approach. We look forward to working with Cal-IPC to integrate the tool into our planning process.

I strongly recommend Cal-IPC's proposal to the California Landscape Conservation Cooperative for funding. Please contact me if you have any questions.

Sincerely,

Armand Gonzales
Special Advisor

# United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Hollister Field Office
20 Hamilton Court
Hollister, CA 95023
Phone (831) 630-5000 Fax (831) 630-5055
www.ca.blm.gov/hollister

May 14, 2012

In Reply Refer to:
1780 (CA190.52)

Doug Johnson
California Invasive Plant Council
1442-A Walnut St., #462
Berkeley, CA 94709

Dear Mr. Johnson:

The Bureau of Land Management strongly supports the California Invasive Plant Council's proposal to the California Landscape Conservation Cooperative titled "Setting Strategic Regional Priorities for Invasive Plant Management Using CalWeedMapper." The BLM is involved in many invasive plant management projects, including those our staff works on at the Fort Ord National Monument in Monterey County. Prioritizing invasive plant management opportunities is critical for us to make the best use of our resource management dollars.

Cal-IPC's CalWeedMapper is a user-friendly online decision-support tool that provides a host of information for setting regional management strategies. The tool combines current distribution data with climate change information to support strategic planning at the landscape level. We have begun the process of using CalWeedMapper in the central coast region of Santa Cruz, Monterey and San Benito counties to clarify our region's species of concern, formalize a strategic plan and mobilize land managers to pursue funding for strategic on-the-ground management. This process of strategic regional collaboration hold great promise for our region.

As we move forward with Cal-IPC in a strategic prioritization process using CalWeedMapper, we will benefit even more when neighboring regions are also implementing plans based on this structured prioritization. BLM botanists here at Fort Ord National Monument will contribute to this project by giving user feedback to help Cal-IPC enhance CalWeedMapper and their regional strategic planning process. We are excited to collaborate on this project, and are committed to setting up "shovel ready" management projects based on our consensus priorities. We strongly recommend funding for this proposal.

Sincerely,

Eric Morgan
Fort Ord National Monument Manager

# CURRICULUM VITAE
## Douglas W. Johnson

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(510) 843-3902
Fax: (510) 217-3500
E-mail: dwjohnson@cal-ipc.org

## EDUCATION

**M.A.** (2002), Geography, San Francisco State University. Emphasis on restoration ecology, conservation GIS, and wilderness perceptions.

**M.S.** (1987), Mechanical Engineering, Stanford University

**B.S.** (1985), Mechanical Engineering, University of California at Davis

## PROFESSIONAL EMPLOYMENT (selected)

| | |
|---|---|
| 2002-present | Executive Director, California Invasive Plant Council, Berkeley, CA. |
| 2001-2002 | Environmental Consultant, GIS and technical writing, Berkeley, CA |
| 2000-2001 | Environmental Aide, California State Parks, San Francisco, CA |
| 2000 | GIS Mapping Intern, The Nature Conservancy, San Francisco, CA |
| 1990-1999 | Project Manager, Bureau of Energy Conservation, Hetch Hetchy Water & Power, San Francisco, CA |
| 1987-1989 | Project Manager, The New Curiosity Shop, Mountain View, CA |

## CURRENT POSITIONS

| | |
|---|---|
| 2009-present | California Invasive Species Advisory Committee, currently serving as Past-Chair |
| 2008-present | National Association of Exotic Pest Plant Councils executive committee, currently serving as Treasurer |
| 2006-present | California Horticultural Invasives Prevention (Cal-HIP) partnership, Steering Committee member |

## AWARDS (selected)

Environmental Leadership Grant recipient, Switzer Foundation, 2002 and 2010

Environmental Fellow, Switzer Foundation, 2000

Steven Pease Memorial Award (top graduate students in SFSU Geography), 1999

**PUBLICATIONS** (selected)


California Department of Food and Agriculture. 2002. *California Weed Mapping Handbook*.

California Department of Food & Agriculture and California Invasive Weeds Awareness Coalition. 2005. *California Noxious & Invasive Weed Action Plan*.

California Invasive Plant Council, 2002-2012. *Cal-IPC News*, quarterly newsletter.

California Invasive Plant Council. 2006. *California Invasive Plant Inventory*.

California Invasive Plant Council. 2011. *Preventing the Spread of Invasive Plants: Best Management Practices for Land Managers*.

California Invasive Plant Council. 2012. *Preventing the Spread of Invasive Plants: Best Management Practices for Transportation and Utility Corridors*.

California Invasive Plant Council. 2012. CalWeedMapper. Online tool at http://calweedmapper.calflora.

DiTomaso, Joseph M., and Douglas W. Johnson. 2006. *The Use of Fire as a Tool for Controlling Invasive Plants*. California Invasive Plant Council Publication 2006-01.

Farrell, Sharon, Pete Holloran, Doug Johnson, and Anouk Mackenzie. 2004. *The Weed Workers' Handbook: A Guide to Techniques for Removing Bay Area Invasive Plants*. California Invasive Plant Council.

Wayne, Lisa, *et al.* 1999. *Native Habitat Restoration: A Guide for Citizen Involvement in San Francisco Natural Areas*. San Francisco Recreation and Park Department.