

Proposal Reviews

#21: Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups

California Department of Food and Agriculture

Initial Selection Panel Review

Research and Restoration Technical Panel Review

Bay Regional Review

Delta Regional Review

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Prior Performance/Next Phase Funding

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Environmental Compliance

Budget

Initial Selection Panel Review:

CALFED Bay-Delta 2002 ERP PSP Initial Selection Panel Review

Proposal Number: 21

Applicant Organization: California Department of Food and Agriculture

Proposal Title: Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups

Please provide an overall evaluation rating.

Explanation of Recommendation Categories: Fund

- **As Is** (a proposal recommended for funding as proposed)
- **In Part** (a proposal for which partial funding is recommended for selected project phases or components)
- **With Conditions** (a proposal for which funds are recommended if the applicant contractually agrees to meet the specified conditions)

Consider as Directed Action in Annual Workplan (a proposal addressing a high priority action that requires some revision followed by additional review prior to being recommended for funding)

Not Recommended (a proposal not currently recommended for funding-after revision may be considered in the future)

Note on "Amount":

For proposals recommended as Fund As Is, Fund In Part or Fund With Conditions, the dollar amount is the amount recommended by the Selection Panel.

For proposals recommended as Consider as Directed Action in Annual Workplan, the dollar amount is the amount requested by the applicant(s).

Fund	
As Is	-
In Part	-
With Conditions	-
Consider as Directed Action	-
Not Recommended	X

Amount: **\$0**

Conditions, if any, of approval (if there are no conditions, please put "None"):

None.

Provide a brief explanation of your rating:

The Selection Panel concurs with other reviews regarding the importance of eradicating this noxious weed and that the goals of this project are worthy. However, the unclear adaptive management approach, paucity of detail regarding monitoring, and lack of connection to existing CVPIA efforts compromises this proposal. A future submission should be considered that better articulates how a centralized spatially explicit database can inform WMA planning and action in an adaptive context.

Research and Restoration Technical Panel Review:

CALFED Bay-Delta 2002 ERP PSP Research and Restoration Technical Panel Review Form

Proposal Number: 21

Applicant Organization: California Department of Food and Agriculture

Proposal Title: Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups

Review:

Please provide an overall evaluation summary rating:

Superior: outstanding in all respects;

Above Average: Quality proposal, medium or high regional value, and no significant administrative concerns;

Adequate: No serious deficiencies, no significant regional impediments, and no significant administrative concerns;

Not Recommended: Serious deficiencies, significant regional impediments or significant administrative concerns.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
-Superior	This good proposal is trying to carry out a needed large regional invasive sp. control effort with WMAs. CDFA has offered to take the lead in this effort and they are capable of doing a good job. It did have mixed reviews and a few concerns, as noted above, should be addressed by the PI. The main concerns which need to be addressed are: the need to clarify the description and format of WMA strategic plans, biological control agents need more considerations for long term control and clarify how the money goes to WMAs.
-Above average	
X Adequate	
-Not recommended	

1. **Goals and Justification.** Does the proposal present a clear statement of goals, objectives and hypotheses? Does the proposal present a clear justification and conceptual model for the project?

A. Very good goals - WMA local support and consistent with CA noxious weed strategic plan. B. Good to excellent justifications, weak areas are: "larger scale strategies after locations are obtained are not well developed", "may require additional community structure".

2. **Likelihood of Success (Approach, Feasibility, Capabilities and Performance Measures).** Is the project likely to succeed based on the approach, feasibility and project team capabilities? Are the proposed performance measures adequate for measuring the project's success?

A. Good to excellent - Most felt this project would succeed and some felt there was detail missing on how this project would work at the local WMA level, "The project utilizes the local community input and involvement which has consistently proved more effective than regulatory policy", "WMAs have proven to be an extremely productive and successful approach". Weak areas: "the manner in which strategic plans at either a local or regional level is poorly described", "not clear how the extensive training that will probably be required in survey and GIS will be accomplished". B. Good to excellent - weak areas: "not clear from the proposal how the WMAs will make the conceptual jump from a GIS map of pepperweed infestations to a strategic plan for prevention and control", "if the plans are developed it is not clear how the effectiveness of plans will be determined", "WMAs have traditionally established their own priorities".

3. **Outcomes and Products.** Will the project advance the state of scientific knowledge in general and/or make an important contribution to the state of knowledge of the Bay-Delta Watershed? For restoration proposals, is the project likely to contribute to ecosystem restoration or species recoveries in a significant way? Will the project produce products useful to decision-makers and scientists?

A. Yes. B. Yes. C. As the project states "the ultimate product is eradicated and contained weed populations and the prevention of thousands of acres of pristine wetlands from becoming biologically impaired"; weak areas: "I am less confident that strategic management plans are guaranteed", "Control of invasive weeds without restoration would only leave the treatment area vulnerable".

4. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

A. Fair to excellent - Some feel that CDFA and WMAs are cost effective for the large amounts of local benefits and some feel the sub-contracting to WMAs is not outlined well or more funds, 50%, should be spent on control.

5. **Regional Review.** How did the regional panel(s) rank the proposal (High, Medium, Low)? Did the regional panel(s) identify significant benefits (regional priorities, linkages with other activities, local involvement) or impediments (local constraints, conflicts with other activities, lack of local involvement) to this proposal? What were they?

A. Bay - High - "The panel agreed that this project was the most comprehensive, and best focused, of all the proposals which featured control of estuarine weeds". Delta- Medium. San Joaquin - Low, "its not part of solicitation, it is a re-granting program". Sacramento - Medium. B. Very mixed reviews make the answer to this question medium Bay - "is one of the highest priorities for wetland conservation in the region" Delta - "administer control measures for NIS", "coordinating with counties". San Joaquin - "limitation may be local capacities of WMAs", "does not address regional issues or correlate with WMAs priorities", "it is not clear how money goes to WMAs", "lack of coordination with existing NIS project funded under CVPIA". Sacramento - "establishment of an entity to coordinate between weed management areas is a good idea", "funding might be better spent on implementing actual eradication efforts".

6. **Administrative Review.** Were there significant concerns about the proposal with regard to the prior performance, environmental compliance and budget administrative reviews? What were they?

A. No - "applicants are professional, dedicated and responsible". B. some concerns about more detail needed on chemical control and application permits. Indirect costs absorbed by CDFA.

Miscellaneous comments:

None

Bay Regional Review:

Proposal Number: 21

Applicant Organization: California Department of Food and Agriculture

Proposal Title: Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups

Overall Ranking: -Low -Medium **XHigh**

Provide a brief summary explanation of the committee's ranking:

The panel agreed that this project was the most comprehensive, and best focused, of all the proposals which featured control of estuarine weeds. It avoided exploratory and indefinite research, and defined a credible, efficient, hierarchical approach which culminated in local implementation. The proposal reflected authoritative expertise, and a strong focus on applications of established research rather than mere data compilation or exploratory research with limited, parochial focus. The credentials of the applicants were strong and specifically relevant to the proposal.

1. Is the project feasible based on local constraints?

XYes -No

How?

The proposal is based on methods of control, which have been field-tested and demonstrated to be effective in this region, relying on the best available contemporary applied research on the species covered. The strategy for control (inventory, mapping, and local implementation, emphasizing early eradication of pioneer or outlying colonies) is widely accepted as the most effective means of wildland weed control in the current scientific literature, and by regional bay-delta wetland vegetation experts.

2. Does the project pursue the restoration priorities applicable to the region as outlined in the PSP?

XYes -No

How?

The protection of existing remnant tidal marsh habitats which support endangered species against degradation caused by invasion of non-native dominant plant species is one of the highest priorities for wetland conservation in the region (BR-3). The emphasis on perennial pepperweed (*Lepidium latifolium*) is consistent with CALFED ecosystem priorities in the bay-delta. This proposal comprehensively addresses this threat at the most appropriate geographic scale, and with the most feasible methods.

3. Is the project adequately linked with other restoration activities in the region, such as ongoing implementation projects and regional planning efforts?

XYes -No

How?

The projects implementation phase would provide funding, expertise, and regional coordination to multiple local weed management areas (county level) over a wide geographical area, integrating local, county and statewide efforts. This is consistent with the principal expertise and extensive experience of the applicants.

4. Does the project adequately involve local people and institutions?

XYes -No

How?

This proposal is the only one reviewed which directly cites and emphasizes the seminal work of local researchers at U.C. Davis (M. Renz, J. Di Tomaso), which is currently the definitive scientific basis for Control of *Lepidium latifolium*; other proposals reviewed, by contract, offered only research which had questionable applicability and feasibility, and ignored the seminal U.C. research. The structure of program essentially depends on coordinated funding to local participants in multiple jurisdictions and ownerships

Other Comments:

Delta Regional Review:

Proposal Number: 21

Proposal Title: Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups

Overall Ranking: -Low **XMedium** -High

Provide a brief summary explanation of the committee's ranking:

This is a useful project.

1. Is the project feasible based on local constraints?

XYes -No

How?

planning effort to look at big picture of NIS by counties

2. Does the project pursue the restoration priorities applicable to the region as outlined in the PSP?

XYes -No

How?

invasive species research (MR-1 + DR-5)

3. Is the project adequately linked with other restoration activities in the region, such as ongoing implementation projects and regional planning efforts?

XYes -No

How?

administer control measures for NIS

4. Does the project adequately involve local people and institutions?

XYes -No

How?

coordinating with counties

Other Comments:

needed component of NIS management

San Joaquin Regional Review:

Proposal Number: 21

Applicant Organization: California Department of Food and Agriculture

Proposal Title: Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups

Overall Ranking: ☒Low ☐Medium ☐High

Provide a brief summary explanation of the committee's ranking:

General NIS control is not a Regional priority in this proposal solicitation. Committee could not identify specific benefit to this region.

1. Is the project feasible based on local constraints?

☒Yes ☐No

How?

Limitation may be local capacities of WMAs.

2. Does the project pursue the restoration priorities applicable to the region as outlined in the PSP?

☐Yes ☒No

How?

Specifically targets Multi-regional objectives for NIS and developing regional strategies for control, but this is not a priority objective for San Joaquin region in this solicitation.

3. Is the project adequately linked with other restoration activities in the region, such as ongoing implementation projects and regional planning efforts?

☐Yes ☒No

How?

This project addresses a Multi-regional objective for NIS (pg. 20 PSP). It is B, essentially a re-granting program to encourage local WMA's to develop regional plans manage NIS. It did not address regional issues or correlate with existing priorities set by local WMA's.

4. Does the project adequately involve local people and institutions?

☒Yes ☐No

How?

Local Weed Management Areas are the entity through which program gets implemented. However, not clear about how money will be distributed to WMAs. Not clear that WMAs have GIS capacity.

Other Comments:

Notable lack of coordination with existing NIS project funded under CVPIA (Riparian Habitat program), and CAL-EPPC initiatives. WMAs not universally ready to focus strategic planning on CALFED Priority species.

Sacramento Regional Review:

Proposal Number: 21

Applicant Organization: California Department of Food and Agriculture

Proposal Title: Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups

Overall Ranking: -Low ☒Medium -High

Provide a brief summary explanation of the committee's ranking:

The panel decided on a medium ranking, however, several panel members felt the project was a high priority because of the importance of weed management areas to non-native eradication efforts.

1. Is the project feasible based on local constraints?

☒Yes -No

How?

This feasibility of this project depends on the willingness of weed management areas to cooperate with CDFA as a funding agency and technical advisor for eradication projects. Several panel members felt the relationship of weed management areas with the CDFA is generally quite good, and asserted that this project may be quite feasible.

2. Does the project pursue the restoration priorities applicable to the region as outlined in the PSP?

☒Yes -No

How?

The project addresses restoration priorities outlined in the PSP including regional priority 5, implementing actions to prevent, control and reduce impacts of non-native invasive species in the region, particularly perennial pepperweed. The project also pursues multi-region priority 1, to prevent the establishment of non-native species.

3. Is the project adequately linked with other restoration activities in the region, such as ongoing implementation projects and regional planning efforts?

☒Yes -No

How?

Our Yes" is qualified. The project is designed to improve coordination between the CDFA and local weed management areas. However, it is not clear that the applicants coordinated with local weed management areas prior to developing this proposal, or that coordination with any other types of eradication programs was considered during the development of this

proposal.

4. Does the project adequately involve local people and institutions?

-Yes **X**No

How?

Our No is qualified. Although the project would directly target local weed management areas, the involvement of local people and institutions in this effort is unclear.

Other Comments:

The panel felt the establishment of an entity to coordinate between weed management areas is a good idea. However, it is possible that this effort could be undertaken at a lower cost and with a greater reliance on existing data than described in the proposal. Some of the requested funding might be better spent on implementing actual eradication efforts.

External Scientific: #1

Research and Restoration External Scientific Review Form

Proposal Number: **21**

Applicant Organization: **California Department of Food and Agriculture**

Proposal Title: **Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups**

Conflict of Interest Statements:

I have no financial interest in this proposal.

XCorrect

-Incorrect

In the blank below please explain any connection to proposal, to applicant, co-applicant or subcontractor or to submitting institution (write "none" if no connection):

I am the USDA-NRCS person on CINWCC (Calif. Interagency Noxious Weed Coordinating Committee) of which Steve Schoening is chair. The USDA-NRCS supports and works with many WMA (Weed Management Areas).

Review:

Please provide an overall evaluation summary rating:

Excellent: outstanding in all respects;

Good: quality but some deficiencies;

Poor: serious deficiencies.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
X Excellent	This project will go after a very big problem (invasive sp.) over a large area. It will enlist the support of hundreds of NGO and agency staff to accomplish large scale control of pepperweed and other invasives.
-Good	
-Poor	

1. **Goals.** Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

Excellent yes, yes.

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

Excellent yes, yes, yes.

This project supports a regional effort which will be needed to control pepperweed.

3. **Approach.** Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

Excellent yes, yes, yes, yes.

4. **Feasibility.** Is the approach fully documented and technically feasible? What is the likelihood of success? Is the scale of the project consistent with the objectives?

Excellent yes, excellent, yes.

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

Very good yes, yes.

6. **Products.** Are products of value likely from the project? Specifically for restoration projects, are products of value also likely from the monitoring component? Are interpretative outcomes likely from the project?

Excellent yes, yes, yes.

7. **Capabilities.** What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

Excellent yes.

8. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

Excellent yes

Miscellaneous comments:

External Scientific: #2

Research and Restoration External Scientific Review Form

Proposal Number: **21**

Applicant Organization: **California Department of Food and Agriculture**

Proposal Title: **Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups**

Conflict of Interest Statements:

I have no financial interest in this proposal.

XCorrect

-Incorrect

In the blank below please explain any connection to proposal, to applicant, co-applicant or subcontractor or to submitting institution (write "none" if no connection):

I am a co-PI on on a current NSF IGERT grant on biological invasions that has Schoenig listed as a cooperator. I served on Bennefield's Master's thesis committee

Review:

Please provide an overall evaluation summary rating:

Excellent: outstanding in all respects;

Good: quality but some deficiencies;

Poor: serious deficiencies.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
-Excellent	Although the goals are timely and the GIS study of pepperweed infestations will provide very useful information, how the strategic control plans will be developed in cooperation with the WMAs is not well described. Also, the substantial budget allocation to the WMAs is poorly justified.
XGood	
-Poor	

1. **Goals.** Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

2 - Very Good

The goals to prevent further spread of pepperweed are clearly stated. This effort is timely in the sense that pepperweed is poised to become one of the worst weeds in the Delta region.

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

3 - Good

The tactic of controlling satellite populations to slow or prevent spread is generally sound but the development of larger scale strategies after weed locations are obtained are not well developed in this proposal.

3. **Approach.** Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

3 - Good

The authors plan to use the standard technique of focusing on the eradication of satellite populations as the most efficient approach for slowing spread. Although this tactic is reasonable, the manner in which strategic plans at either a local or regional level is poorly described. After weed localities are determined and entered into a GIS, a rather vague description about developing a "triage" strategy is provided with very little details. It is not clear how the WMAs are to develop strategic plans, especially given that this proposal offers no real guidelines or concrete models for the development of such plans.

4. **Feasibility.** Is the approach fully documented and technically feasible? What is the likelihood of success? Is the scale of the project consistent with the objectives?

3 - Good

Two aspects of implementation worry me. First, it is not clear how the extensive training that will probably be required in survey and GIS will be accomplished in a timely fashion in the first year. I am not as optimistic that the CDEA personnel will be able to bring everyone in the WMAs up to speed quickly enough to obtain sufficient data in the first year to develop a strategic and implementation plan in the second year. Second, a primary product of this project will be the development of these plans by the WMAs. It is not clear from the proposal how the WMAs (or the CDE trainers, for that matter) will make the conceptual jump from a GIS map of pepperweed infestations to a strategic plan for prevention and control. Only rather vague terms are used to describe the contents of these plans; a concrete example of one might be very helpful here.

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

3 - Good

The development of GIS maps of pepperweed infestations for Objective 1 is fairly likely (eventually) although it is not clear how very small satellite populations will be detected (even with extreme effort, these small peripheral populations often remain undetected). It is less clear whether the strategic management plans will be produced because the guidelines for such plans are very vague. Further, if the plans are developed it is not clear how the effectiveness of the plans will be determined.

6. **Products.** Are products of value likely from the project? Specifically for restoration projects, are products of value also likely from the monitoring component? Are interpretative outcomes likely from the project?

3 - Good

The GIS map of pepperweed infestations would be an important product and is likely to be accomplished. I am less confident that strategic management plans are guaranteed products.

7. **Capabilities.** What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

3 - Good

Although obviously an accomplished weed scientist, there is no indication that the lead PI has much if any experience with GIS mapping and analysis. The co-PI Schoenig appears have significant experience in these techniques. It is not clear whether Bennefield has any significant experience in GIS. As a result, I am concerned that the applicants do not have sufficient expertise in GIS to provide the large amount of training that will be required during the first part of Year 1 of the proposal.

8. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

4-Fair

The bulk of the budget is for sub-contracting to the WMAs seems appropriate given that most of the fieldwork will occur there. However, how the funds will be used in the WMAs is really not outlined well at all. Given that about \$1.5 million is allocated annually to the WMAs, I think a much better description of how these funds will be used is needed.

Miscellaneous comments:

External Scientific: #3

Research and Restoration External Scientific Review Form

Proposal Number: **21**

Applicant Organization: **California Department of Food and Agriculture**

Proposal Title: **Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups**

Conflict of Interest Statements:

I have no financial interest in this proposal.

XCorrect

-Incorrect

In the blank below please explain any connection to proposal, to applicant, co-applicant or subcontractor or to submitting institution (write "none" if no connection):

None

Review:

Please provide an overall evaluation summary rating:

Excellent: outstanding in all respects;

Good: quality but some deficiencies;

Poor: serious deficiencies.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
X Excellent	*See miscellaneous comments
-Good	
-Poor	

1. **Goals.** Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

The goals, objectives and hypotheses are clearly stated and consistent throughout the proposal. It clearly addresses four fundamental problems and clearly states objectives to overcome these problems. I strongly feel that the project concept is both timely and important, based on the ecological disaster that non-native species pose to our fragile ecosystems. A lot of money is being spent publically as well as privately on controlling non-native invasive species such as *Lepidium latifolium*. A strategic coordinated approach is necessary to meet the goals of prevention and control of invasive species.

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

This study is justified as it relates to existing knowledge. The proposed project is based on a system and agency that has a proven "record" for this type of study. The timing of this project is further justified based on the need to address the "explosion" of non-native species on our fragile ecosystems. The project is both timely and long over due.

3. **Approach.** Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

Having worked on invasive species issues, as well as working with a wide variety of agencies, I feel that the approach presented for the project has been well thought out and is appropriate. I don't believe that the project will generate novel information, but the information generated will be extremely useful to many decision-makers. I further feel that the information gathered will add to the base of knowledge of weed mapping and control.

4. **Feasibility.** Is the approach fully documented and technically feasible? What is the likelihood of success? Is the scale of the project consistent with the objectives?

I believe that this project is technically feasible and is based on similar studies that have proven to be very valuable. I further feel that the scale of the project is consistent with the objectives.

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

I would like to see more "concrete" forms of measurement, however the project does address quantifiable measures adequately.

6. **Products.** Are products of value likely from the project? Specifically for restoration projects, are products of value also likely from the monitoring component? Are interpretative outcomes likely from the project?

This is the strong point of this project in my opinion. I believe that the products generated from this project will make a difference in "saving" valuable habitat from invasive non-native species. As the proposal states: " The ultimate product is eradicated and contained weed population and the prevention of thousands of acres of pristine wetlands from becoming biologically impaired".

7. **Capabilities.** What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

The track record of the applicants is excellent. CDFA works with invasive species detection and are familiar with survey work and techniques. The project team is highly skilled for this type of project. CDFA has all of the infrastructure and support in place to accomplish this project.

8. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

The budget is reasonable and thought out for the work and outcome proposed

Miscellaneous comments:

I feel that this will be an excellent project. The team and agency heading up the proposal are first rate and have a proven track record. I recommend this project!

External Scientific: #4

Research and Restoration External Scientific Review Form

Proposal Number: **21**

Applicant Organization: **California Department of Food and Agriculture**

Proposal Title: **Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups**

Conflict of Interest Statements:

I have no financial interest in this proposal.

XCorrect

-Incorrect

In the blank below please explain any connection to proposal, to applicant, co-applicant or subcontractor or to submitting institution (write "none" if no connection):

none

Review:

Please provide an overall evaluation summary rating:

Excellent: outstanding in all respects;

Good: quality but some deficiencies;

Poor: serious deficiencies.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
X Excellent	Since there is not a catagory between excellent and good, I will not deminish the ranking of this proposal. I have provided comments, evaluatons, and suggestions as part of my review. Landscape level planning and treatments by the community is certain to be a success. The soft underbelly to this approach is the regulatory permitting process. Please do your part to insure consistant and reasonable application of the regulations. The community is your partner and the understanding of the word "coordinate" is inperative. In my dealings with the USFS and BLM they do not understand to coordinate is to come together of equal rank. The word collaborate has been substituted and it seems most appropriate- to cooperate with the enemy.
-Good	
-Poor	

1. **Goals.** Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

This proposal has very clearly defined goals and objectives. This proposal is not subjective and is consistant with the California Noxious Weed Strategic Plan. Weed Management Areas (WMA) have proven to be an effective way to coordinate weed control priorities and efforts at the local landscape level. The WMA have reached out to leverage their current

funding they are reaching from SB 1740. The counties in almost all cases have increased their allocations for weed control efforts as have other grant programs. This proposal recognizes the need to maintain energy and continuity at the local level, by providing the financial and technical support that is required to control and or eradicate targeted species.

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

The mapping of existing populations as well as new and incipient populations is critical to stopping the spread of invasive weeds. Many of the current programs require mapping and monitoring, however it has become obvious that consistency in reporting and qualified personnel are problematic. The concept of knowing where your problem areas lie and encapsulating their range can only be done with accurate data. This proposal offers the consistency needed to coordinate the data input and coalesce the data sets into readable, usable, and ultimately a predictable management tool. Monitoring the programs success will require the commitment of the agency, even in a budget crisis such as we seem to be in now, to staff at a rate that will not impact or compromise this proposal. The implementation of a full-scale program such as this may require additional community structure. If a WMA and other Coordinated Resource Management groups come together, it is critical that CDFA have ultimate authority should conflict of goals arise. The accountability for delivering a program and prudent cost controls must remain with the contractee.

3. **Approach.** Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

The project utilizes the local community input and involvement which has consistently proved more effective than regulatory policy. Concern exists that, results based community involvement, may be stifled by regulatory inconsistencies in their interpretation and application of rules during the permitting process. In landscape applied treatments control measures will have to be adaptive or they will not work. Controlled research lacks the flexibility to adapt practices and applications and maintain verifiable scientific standards. It is absolutely imperative that we do not minimize what can be learned through adaptive and/or integrated vegetation management. The usefulness of this program as decision support tool depends on the protocol established for monitoring and the willingness of those who will ultimately the data collections to use both qualitative and quantitative data.

4. **Feasibility.** Is the approach fully documented and technically feasible? What is the likelihood of success? Is the scale of the project consistent with the objectives?

The WMA have proven to be an extremely productive and successful approach when dealing with such a diverse and almost overwhelming problem. The fact that if you never start you will never reach your goal. Success is a value which is a personal measure of achievement. The mapping is must to know where you are and to establish where you are going. Containment in itself might be considered a success. Given that the environment is not static, it seems more appropriate to evaluate efforts and desired or projected results as measure of achievement. A component of this program which was touched on and maybe the hinge that true success can be measured is the re-establishment and maintenance of desired vegetation.

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

Given the history of invasive weeds and the size of the problem in California WMA have been successful in all aspects control. The proposal applicants are dedicated and have proved their willingness to devote the time and resources required to complete projects. Evaluating hours and tasks assumes production. The monitoring outlined seems appropriate to assess progress. The question that remains is that WMA have traditionally established their own priorities. In a program such as this the grant applicants may not have the expected local support required. It is mentioned that a consolidated program streamlines efforts and will bring some individuals who might otherwise find this process to intrusive. This certainly has merit, but individual property rights and the ability for the public to access records from that property maybe a deterrent that cannot be overcome. As mentioned above there is mention of restoration but it is not clear how and what their plans will be. The develop of implementation plans may define this and it certainly needs to set in protocol to have restoration as a major componet of the strategic and implementation plans.

6. **Products.** Are products of value likely from the project? Specifically for restoration projects, are products of value also likely from the monitoring component? Are interpretative outcomes likely from the project?

The health of a watershed and the utility it provides is vital to clean water, T&E species, wildlife habitat, fisheries, production of food and fiber, view scapes, recreation, and other users of the watershed. Control of invasive weeds without restoration would only leave the treatment area vulnerable to the encroachment of another invasive. The true value of the product delivered will be the ability to predict and demonstrate control, revegetation and maintenance of the treated areas. It is unclear how they will achieve this. This would be great project for another grant proposal to work hand inhand with WMA to evaluate and identify types of vegetation, desired seral stages necessary to maintain diversity, and maintenace required to maintain the resource as they have planned for. The environment is not static, and without utility built into the program, maitenance costs will prohibit long term recovery. The interpetive outcome likely to be realized is the relationship of invasive weed control and fire fuels. Reduced fuel loading, as a result of the maintenance required to reduce the possibility of reinfestation, will benefit air and water quality, public safety, and costs related to fire suppression.

7. **Capabilities.** What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

This is probably the easiest section to respond to! From the grant applicants at CDFA all of the way to the participating partners in WMA I have recognized the synergy that exists to catch and control the invasive weeds in California. The CALFED project has the chance to be a success in the area of invasives if it will be partners with the communities and counties. Top down application of policy and priorities removes incentives for communities to roll there sleeves up and go to work. Nate and Steve have this understanding and the support of most communities. The CDFA has proven it's ability to suport community needs as most recently seen with the Glassy Winged Sharpshooter.

8. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

The program is only the start and the allocations appear reasonable, except in the first year. I do not see any reference to control and treatment. Year one, 1.48 million and nothing to control. Year two, 1.54 million and .5 million to control. Year three, 1.7 million and 1 million to control. Approximately 31% will actually go for control and the problem seems much larger than that. Although the WMA must match 1 for 1, the ratio remains the same, 2/3 for training and mapping and 1/3 for control. A minimum of 50% of the CALFED grant funds needs to hit the ground!

Miscellaneous comments:

Prior Performance/Next Phase Funding: #1

New Proposal Number: 21

New Proposal Title: Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups

1. Prior CALFED project numbers, titles, and programs: *(list only projects for which you are the contract manager)*

ERP 99-N11 - Purple Loosetrife Prevention, Detection & Control Actions for the Sacramento-San Joaquin River Delta System

2. Prior CVPIA project numbers, titles, and programs: *(list only projects for which you are the contract manager)*

N/A

3. Have negotiations about contracts or contract amendments with this applicant proceeded smoothly, without persistent difficulties related to standard contract terms and conditions?

XYes -No -N/A

If no, please explain any difficulties:

4. Are the status, progress, and accomplishments of the applicant's current CALFED or CVPIA project(s) accurately stated?

XYes -No -N/A

If no, please explain any inaccuracies:

5. Is the applicant's progress towards these project(s)' milestones and outcomes to date satisfactory?

XYes -No -N/A

If no, please explain deficiencies:

6. Is the applicant's reporting, records keeping, and financial management of these projects satisfactory?

XYes -No -N/A

If no, please explain deficiencies:

7. Will the project(s) be ready for next phase funding in 2002, based on its current progress and expenditure rates?

-Yes -No **X**N/A

If no, please explain:

N/A

Other Comments:

Prior Performance/Next Phase Funding: #2

New Proposal Number: 21

New Proposal Title: Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups

1. Prior CALFED project numbers, titles, and programs: *(list only projects for which you are the contract manager)*

99-F08 Purple Loosestrife Prevention, Detection, & Control in the Sac/SJ Delta and Associated Hyrdologic Units.

2. Prior CVPIA project numbers, titles, and programs: *(list only projects for which you are the contract manager)*
3. Have negotiations about contracts or contact amendments with this applicant proceeded smoothly, without persistent difficulties related to standard contract terms and conditions?

XYes -No -N/A

If no, please explain any difficulties:

4. Are the status, progress, and accomplishments of the applicant's current CALFED or CVPIA project(s) accurately stated?

XYes -No -N/A

If no, please explain any inaccuracies:

5. Is the applicant's progress towards these project(s)' milestones and outcomes to date satisfactory?

XYes -No -N/A

If no, please explain deficiencies:

6. Is the applicant's reporting, records keeping, and financial management of these projects satisfactory?

XYes -No -N/A

If no, please explain deficiencies:

7. Will the project(s) be ready for next phase funding in 2002, based on its current progress and expenditure rates?

-Yes -No **X**N/A

If no, please explain:

Applicants are professional, dedicated, and responsible. Carry out tasks and duties above and beyond what is committed to in the agreement. Very responsive to any inquiries/suggestions relating to the project.

Other Comments:

Environmental Compliance:

Proposal Number: 21

Applicant Organization: California Department of Food and Agriculture

Proposal Title: Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups

1. Are the legal or regulatory issues that affect the proposal identified adequately in the proposal?

-Yes **X**No

If no, please explain:

Project description was not detailed enough to know exactly how chemical control will be conducted. Project proponent should contact Department of Pesticide Regulation and the County Agricultural Commission to determine if and what permits are required for herbicide application.

2. Does the project's timeline and budget reflect adequate planning to address legal and regulatory issues that affect the proposal?

XYes -No

If no, please explain:

3. Do the legal and regulatory issues that affect the proposal significantly impair the project's feasibility?

-Yes **X**No

If yes, please explain:

If necessary permits are obtained, this project is feasible.

Other Comments:

Budget:

Proposal Number: 21

Applicant Organization: California Department of Food and Agriculture

Proposal Title: Coordinated Regional Prevention and Control of Perennial Pepperweed and other prioritized Non-native Invasive Plants by local Weed Management Area Groups

1. Does the proposal include a detailed budget for each year of requested support?

XYes -No

If no, please explain:

2. Does the proposal include a detailed budget for each task identified?

XYes -No

If no, please explain:

3. Does the proposal clearly state the type of expenses encompassed in indirect rates or overhead costs?

XYes -No

If no, please explain:

4. Are appropriate project management costs clearly identified?

XYes -No

If no, please explain:

5. Do the total funds requested (Form I, Question 17A) equal the combined total annual costs in the budget summary?

XYes -No

If no, please explain (for example, are costs to be reimbursed by cost share funds included in the budget summary).

6. Does the budget justification adequately explain major expenses?

XYes -No

If no, please explain:

7. Are there other budget issues that warrant consideration?

-Yes ☒No

If yes, please explain:

Other Comments:

in the budget justification it states indirect costs will be absorbed by Dept of Food & Ag.