Cow Creek Easement Acquisition and Riparian Habitat Enhancement Project

Project Information

1. **Proposal Title:**

   Cow Creek Easement Acquisition and Riparian Habitat Enhancement Project

2. **Proposal applicants:**

   Kathleen Gilman, Shasta Land Trust
   Nancy Schaefer, The Conservation Fund
   George and Chris McArthur, landowners
   Harry Hathaway, landowner

3. **Corresponding Contact Person:**

   Kathleen Gilman
   Shasta Land Trust
   P.O. Box 992026 Redding, CA 96099-2026
   530 223-5856
   shastalandtrust@yahoo.com

4. **Project Keywords:**

   Anadromous salmonids
   At-risk species, fish
   Habitat Restoration, Riparian

5. **Type of project:**

   Implementation_Full

6. **Does the project involve land acquisition, either in fee or through a conservation easement?**

   Yes

   If yes, is there an existing specific restoration plan for this site?

   No

7. **Topic Area**:

   Riparian Habitat

8. **Type of applicant:**

   Private non-profit

9. **Location - GIS coordinates:**

   Latitude: 40.6500

   Longitude: -122.110

   Datum:

   Describe project location using information such as water bodies, river miles, road intersections, landmarks, and size in acres.

   Hathaway Ranch centroid GIS coordinates are described above; JS Ranch centroid GIS coordinates: latitude 40.580, longitude -122.090) Both properties are east of Redding approximately 14 miles. The Hathaway Ranch (6755 acres) is bissected by Oak Run Road, and the JS Ranch (7100 acres) is bissected by Whitmore Road.

10. **Location - Ecozone:**

    4.2 Cow Creek

11. **Location - County:**

    Shasta

12. **Location - City:**

    Does your project fall within a city jurisdiction?

    No

13. **Location - Tribal Lands:**

    Does your project fall on or adjacent to tribal lands?

    No

14. **Location - Congressional District:**

    2nd

15. **Location:**

    California State Senate District Number: 4

    California Assembly District Number: 02

16. **How many years of funding are you requesting?**

    2

17. **Requested Funds:**
    a) Are your overhead rates different depending on whether funds are state or federal?

No

If no, list single overhead rate and total requested funds:

Single Overhead Rate: 15%

Total Requested Funds: $3083,411.00

b) Do you have cost share partners already identified?

No

c) Do you have potential cost share partners?

Yes

If yes, list partners and amount contributed by each:

Proposition 13 Watershed Program To be determined

CVPIA Conservation Program To be determined

d) Are you specifically seeking non-federal cost share funds through this solicitation?

No

If the total non-federal cost share funds requested above does not match the total state funds requested in 17a, please explain the difference:

18. **Is this proposal for next-phase funding of an ongoing project funded by CALFED?**

No

Have you previously received funding from CALFED for other projects not listed above?

No

19. **Is this proposal for next-phase funding of an ongoing project funded by CVPIA?**

No

Have you previously received funding from CVPIA for other projects not listed above?

Yes

If yes, identify project number(s), title(s) and CVPIA program.

20. **Is this proposal for next-phase funding of an ongoing project funded by an entity other than CALFED or CVPIA?**

    No

    Please list suggested reviewers for your proposal. (optional)

21. **Comments:**

Environmental Compliance Checklist

Cow Creek Easement Acquisition and Riparian Habitat Enhancement Project

1. **CEQA or NEPA Compliance**
   a) Will this project require compliance with CEQA?

      Yes
   b) Will this project require compliance with NEPA?

      No
   c) If neither CEQA or NEPA compliance is required, please explain why compliance is not required for the actions in this proposal.

2. **If the project will require CEQA and/or NEPA compliance, identify the lead agency(ies).** *If not applicable, put "None".*

   CEQA Lead Agency: California Department of Fish and Game
   NEPA Lead Agency (or co-lead:)
   NEPA Co-Lead Agency (if applicable):

3. **Please check which type of CEQA/NEPA documentation is anticipated.**

   CEQA
   XCategorical Exemption
   -Negative Declaration or Mitigated Negative Declaration
   -EIR
   -none

   NEPA
   -Categorical Exclusion
   -Environmental Assessment/FONSI
   -EIS
   Xnone

   If you anticipate relying on either the Categorical Exemption or Categorical Exclusion for this project, please specifically identify the exemption and/or exclusion that you believe covers this project.

   The habitat and water quality enhancement projects should be exempt under CEAQ Article 19, Section 15304 - Minor Alterations to Land.

4. **CEQA/NEPA Process**
   a) Is the CEQA/NEPA process complete?

      No

      If the CEQA/NEPA process is not complete, please describe the dates for completing draft and/or final CEQA/NEPA documents.

CEQA compliance will be completed in Year 1 for the Clover Creek demonstration project.

b) If the CEQA/NEPA document has been completed, please list document name(s):

5. **Environmental Permitting and Approvals** (*If a permit is not required, leave both Required? and Obtained? check boxes blank.*)

LOCAL PERMITS AND APPROVALS

Conditional use permit		
Variance		
Subdivision Map Act		
Grading Permit	Required	
General Plan Amendment		
Specific Plan Approval		
Rezone		
Williamson Act Contract Cancellation		
Other		

STATE PERMITS AND APPROVALS

Scientific Collecting Permit		
CESA Compliance: 2081		
CESA Compliance: NCCP		
1601/03	Required	
CWA 401 certification	Required	
Coastal Development Permit		
Reclamation Board Approval		
Notification of DPC or BCDC		
Other		

FEDERAL PERMITS AND APPROVALS

ESA Compliance Section 7 Consultation		
ESA Compliance Section 10 Permit		
Rivers and Harbors Act		
CWA 404		
Other		

PERMISSION TO ACCESS PROPERTY

Permission to access city, county or other local agency land. Agency Name:	
Permission to access state land. Agency Name:	
Permission to access federal land. Agency Name:	
Permission to access private land. Landowner Name: George and Chris McArthur (JS Ranch)	Required, Obtained

6. **Comments.**

Land Use Checklist

Cow Creek Easement Acquisition and Riparian Habitat Enhancement Project

1. **Does the project involve land acquisition, either in fee or through a conservation easement?**

   Yes

   If you answered yes to #1, please answer the following questions:
   a) **How many acres will be acquired?**

      Fee: 0
      Easement: 13,855
      Total: 13,855

   b) Will existing water rights be acquired?

      No

   c) Are any changes to water rights or delivery of water proposed?

      No

2. **Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal?**

   Yes

3. **Do the actions in the proposal involve physical changes in the land use?**

   Yes

   If you answered yes to #3, please answer the following questions:
   a) How many acres of land will be subject to a land use change under the proposal?

      less than an acre

   b) Describe what changes will occur on the land involved in the proposal.

      Two culverts will be replaced.
   c) List current and proposed land use, zoning and general plan designations of the area subject to a land use change under the proposal.

Category	Current	Proposed (if no change, specify "none")
Land Use	**cattle grazing**	**none**
Zoning	**Grazing Land**	**none**
General Plan Designation	**Grazing Land**	**none**

d) Is the land currently under a Williamson Act contract?

Yes

e) Is the land mapped as Prime Farmland, Farmland of Statewide Importance, Unique Farmland or Farmland of Local Importance under the California Department of Conservation's Farmland Mapping and Monitoring Program?

Yes

If yes, please list classification:

JS Ranch contains approximately 300 acres of Farmland of Statewide Importance, and 200 acres of Prime Farmland

f) Describe what entity or organization will manage the property and provide operations and maintenance services.

Shasta Land Trust, a nonprofit 501(c)(3)organization, will hold, monitor and enforce the easements.

4. Comments.

Conflict of Interest Checklist

Cow Creek Easement Acquisition and Riparian Habitat Enhancement Project

Please list below the full names and organizations of all individuals in the following categories:

- **Applicants listed in the proposal who wrote the proposal, will be performing the tasks listed in the proposal or who will benefit financially if the proposal is funded.**
- **Subcontractors listed in the proposal who will perform some tasks listed in the proposal and will benefit financially if the proposal is funded.**
- **Individuals not listed in the proposal who helped with proposal development, for example by reviewing drafts, or by providing critical suggestions or ideas contained within the proposal.**

The information provided on this form will be used to select appropriate and unbiased reviewers for your proposal.

Applicant(s):

Kathleen Gilman, Shasta Land Trust
Nancy Schaefer, The Conservation Fund
George and Chris McArthur, landowners
Harry Hathaway, landowner

Subcontractor(s):

Are specific subcontractors identified in this proposal? No

Helped with proposal development:

Are there persons who helped with proposal development?

Yes

If yes, please list the name(s) and organization(s):

Nancy Schaefer The Conservation Fund

Francis Berg Bureau of Land Management

Tim Reilly North State Resources

Dan Scollon Shasta Community College

Dean Angelides Vestra, Inc.

Comments:

Budget Summary

Cow Creek Easement Acquisition and Riparian Habitat Enhancement Project

Please provide a detailed budget for each year of requested funds, indicating on the form whether the indirect costs are based on the Federal overhead rate, State overhead rate, or are independent of fund source.

Independent of Fund Source

Year 1												
Task No.	Task Description	Direct Labor Hours	Salary *(per year)*	Benefits *(per year)*	Travel	Supplies & Expendables	Services or Consultants	Equipment	Other Direct Costs	Total Direct Costs	Indirect Costs	Total Cost
1	Purchase 1/2 value of conservation easements	234	7956	288		840	6350		3000000	3015434.0	2315.0	3017749.00
2	Inventories	20	680	24		50	33371			34125.0	5118.00	39243.00
3	Demonstration project	10	330	12		50	9093			9485.0	948	10433.00
		264	8966.00	324.00	0.00	940.00	48814.00	0.00	3000000.00	3059044.00	8381.00	3067425.00

Year 2												
Task No.	Task Description	Direct Labor Hours	Salary *(per year)*	Benefits *(per year)*	Travel	Supplies & Expendables	Services or Consultants	Equipment	Other Direct Costs	Total Direct Costs	Indirect Costs	Total Cost
1	Purchase remaining value of easements with matching funds	234	7956	477		840	4300			13573.0	2035	15608.00
2	Monitor demonstration project						328			328.0	50	378.00
		234	7956.00	477.00	0.00	840.00	4628.00	0.00	0.00	13901.00	2085.00	15986.00

Year 3												
Task No.	Task Description	Direct Labor Hours	Salary *(per year)*	Benefits *(per year)*	Travel	Supplies & Expendables	Services or Consultants	Equipment	Other Direct Costs	Total Direct Costs	Indirect Costs	Total Cost
		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Grand Total=3083411.00

Comments.

Budget Justification

Cow Creek Easement Acquisition and Riparian Habitat Enhancement Project

Direct Labor Hours. Provide estimated hours proposed for each individual.

Executive Director, 234 hrs.

Salary. Provide estimated rate of compensation proposed for each individual.

Executive Director, $7956

Benefits. Provide the overall benefit rate applicable to each category of employee proposed in the project.

.036% approximately benefit rate for Executive Director first year; .072% second year(based on one week paid vacation first year, 2 weeks paid vacation second year)

Travel. Provide purpose and estimate costs for all non-local travel.

no non-local travel

Supplies & Expendables. Indicate separately the amounts proposed for office, laboratory, computing, and field supplies.

Office $600; computing $100; field supplies $140

Services or Consultants. Identify the specific tasks for which these services would be used. Estimate amount of time required and the hourly or daily rate.

Grantwriter to acquire matching funds: 150 hours, $30/hour Bookkeeping: 31 hours, $60/hour; Stream assessment, Geomorphologist, 10 days,$480/day, Field survey assistant, 10 days, $240/day; Erosion inventory, Project manager, 10 days, $163/day, Lead Conservation Technician, 102 days, $88/day, Conservation Technician, 100 days, $72/day, Secretary 15 days, $64/day Culvert Replacement, Demo project, Inspector 2 days, $163/day

Equipment. Identify non-expendable personal property having a useful life of more than one (1) year and an acquisition cost of more than $5,000 per unit. If fabrication of equipment is proposed, list parts and materials required for each, and show costs separately from the other items.

none

Project Management. Describe the specific costs associated with insuring accomplishment of a specific project, such as inspection of work in progress, validation of costs, report preparation, giving presentatons, reponse to project specific questions and necessary costs directly associated with specific project oversight.

Executive Director hours: 20 hours for Inventories, 10 hours for Demonstration project. These hours will be spent with inspection of work (approx 8 hours), responding to questions from contractors (approx. 12 hours), giving presentations to Board of Directors (approx. 2 hours); Miscellaneous project management including reports, phone calls (approx. 8 hours)

Other Direct Costs. Provide any other direct costs not already covered.

$3 million to purchase 1/2 value of two conservation easements

Indirect Costs. Explain what is encompassed in the overhead rate (indirect costs). Overhead should include costs associated with general office requirements such as rent, phones, furniture, general office staff, etc., generally distributed by a predetermined percentage (or surcharge) of specific costs.

office furniture, telephone costs, rent, file cabinet, desk, fire proof safe

Executive Summary

Cow Creek Easement Acquisition and Riparian Habitat Enhancement Project

Executive Summary - Cow Creek Watershed Easement Acquisition and Riparian Habitat Enhancement Project. Shasta Land Trust (SLT) is requesting $3.07 million to acquire conservation easements on two ranches in the Cow Creek watershed, a tributary of the Sacramento River watershed, totaling 13,855 acres just east of the city of Redding. With approximately 10 miles of riparian corridor between the two ranches, there are extensive riparian and upland resources to protect including Chinook salmon and steelhead habitat. Cow Creek is recognized and documented by the U.S. Fish & Wildlife Service (USFWS) as important spawning and rearing grounds for fall-run Chinook and steelhead. In addition, this proposal includes a demonstration restoration project and an inventory on both properties to evaluate further restoration needs. These easements will prevent development on the properties, protect watershed and water quality, protect the continuation of wildlife friendly agriculture, and serve as a regional model to encourage other landowners to initiate restoration and water quality improvement efforts in partnership with SLT. As Shasta County and Redding grow, they look to this watershed to provide open, developable land. The Cow Creek watershed is under growing pressure for conversion to rural residential uses as evidenced by rural residential general plan designations on adjacent properties. The recently completed Cow Creek Watershed Assessment, documents the many impacts to Cow Creek and its principal tributaries, Old Cow Creek, Little Cow Creek, Oak Run Creek, Clover Creek, and South Cow Creek. These impacts include water diversions resulting in elevated temperatures, fish passage barriers, sedimentation due to livestock grazing, loss of riparian cover, urbanization and creekside development and gravel mining. The goals of the Cow Creek project include maintaining the properties as largely undeveloped, agricultural operations, reducing grazing impacts in riparian corridors, reducing physical barriers for fish and improving water quality by modifying irrigation water return systems. Purchase of easements and the completion of riparian and water quality enhancement projects will meet CALFED and CVPIA goals of protecting and enhancing anadromous fish habitat.

Proposal

Shasta Land Trust

Cow Creek Easement Acquisition and Riparian Habitat Enhancement Project

Kathleen Gilman, Shasta Land Trust
Nancy Schaefer, The Conservation Fund
George and Chris McArthur, landowners
Harry Hathaway, landowner

A. Project Description

Shasta Land Trust (SLT) is requesting $3.08 million to acquire conservation easements on two ranches in the Cow Creek Watershed totaling 13,855 acres just east of the city of Redding**.** With approximately 10 miles of riparian corridor between the two ranches, there are extensive riparian and upland resources to protect including Chinook salmon and steelhead**.** In addition, this proposal includes a demonstration restoration project and an inventory on both properties to evaluate further restoration needs. These easements will prevent development on the properties, protect watershed and water quality, protect the continuation of wildlife friendly agriculture, and serve as regional models to encourage other landowners to initiate restoration and water quality improvement efforts in partnership with SLT.

1. Problem Statement

The Cow Creek watershed, on the eastern edge of Redding, is a major watershed of Shasta County. It is the most northerly un-dammed tributary to the Sacramento River. Its principal tributaries include Old Cow Creek, Little Cow Creek, Oak Run Creek, Clover Creek, and South Cow Creek, all which flow in a southwesterly direction and form the main stem of Cow Creek in Millville. The lower reaches, characterized by flat valley areas to rolling foothills with oaks and gray pines, face increasing urbanization and conversion of grazing lands to higher intensity uses. Biologically sensitive wetlands and riparian corridors, water quality, fisheries, wildlife habitat and agriculture are all threatened. Wildlife is increasingly dependent on agricultural lands for food, cover and water availability.

As Shasta County and Redding grow, they look to this watershed to provide open, developable land. The Cow Creek Watershed, depicted on Attachment #1 is under pressure for conversion to rural residential uses. As can be seen from Attachment #2, rural residential designation encircles these properties. While today the majority of the agricultural land in the Cow Creek Watershed is designated Grazing Land (as defined by the General Plan), even those lands in the Williamson Act can be converted to rural residential. In Shasta County, it is possible for landowners to pull their property out of Williamson before their 10-year contract has expired. As can be seen from Attachment #2, rural residential designation nearly encircles these properties.

Among the special status species that rely on the Sacramento River and its tributaries are the fall-run Chinook salmon, currently considered by the National Marine Fisheries Service (NMFS) as a candidate for listing under the Federal Endangered Species Act (ESA) and steelhead trout, currently listed as threatened under the California Endangered Species Act and the ESA. Cow Creek is recognized and documented by the U.S. Fish & Wildlife Service (USFWS) as important spawning and rearing grounds for fall-run Chinook and steelhead.

Prior to settlement by Euro-Americans, Cow Creek produced all runs of Chinook salmon *(Oncorhynchus tshawytscha)* and steelhead *(Oncorhynchus mykiss).* Historic actions, mainly water diversions and impacts to water quality, have limited the use of Cow Creek by anadromous fish. Nonetheless, Cow Creek and its tributaries within the project proposal area, (i.e. Little Cow

Creek, Clover Creek and Old Cow Creek) still maintain populations of Chinook, steelhead and resident native fish species. The predominant use is by fall run Chinook. However, these tributary streams and, perhaps, Oak Run Creek have the potential to support increased numbers of late fall, winter and spring runs of Chinook as well as steelhead. Historically, the Cow Creek Watershed most likely supported increased runs of Chinook and steelhead. The Cow Creek Watershed Assessment (p. 2 - 18) notes that Native Americans were able to "...catch enough salmon for the entire winter...."This statement is underscored by the presence of permanent villages of the Central Yana along Clover Creek in ethnographic studies (Johnson, 1978: 361; Sapir and Spier, 1943: 240, et.seq.).

The recently completed "Cow Creek Watershed Assessment, Public Review Draft," funded by the David and Lucille Packard Foundation, identifies several factors limiting overall ecosystem health. As stated in the assessment:

> The Cow Creek Watershed has been influenced and changed by input from both man and nature. The most recent period of influence and change has been in response to the arrival of European man beginning in the middle of the last century. In the last 150 years, European man has molded the watershed environment to fit his needs. The most significant impacts are related to the exclusion of fire, introduction of non-native grasses and brush species, mining and development. Prior to the arrival of European man, Native people also managed the landscape to meet their specific needs….
>
> With this increased rural development comes the impact to natural resources. As rural areas are developed, their very nature is impacted. Open tracts of land are divided with homes, fences, gardens and features of domestic life. This impacts the ability of wildlife to utilize these areas and natural ecosystems to flourish….
>
> The vegetation matrix in the Cow Creek Watershed has changed significantly in the last 100 years. Changes have resulted primarily from:
>
> - Exclusion of fire;
> - Non-native plant substitution;
> - Land management (development and timber harvest); and
> - The current vegetative matrix from the valley to the highest elevation is denser both vertically and horizontally….
>
> Many non-native plants have been introduced to the watershed. These include many annual grasses, forbs and brush species. Star thistle, medusahead and other non-native weeds have increased over time….
>
> Additionally, impacts to plant communities increases as residential construction replaces the oak woodland community. Impacts to the blue oak community has been discussed for several years and has drawn attention from several state and local agencies to minimize the loss of California native oaks….

> Wildlife populations in the Cow Creek Watershed have been modified by changes in vegetation management and diversity. The Cow Creek deer herd is in decline due to reduction in early successional habitat….

"The Central Valley Project Improvement Act Tributary Production Enhancement Report" (CH2MHill, 1998, taken from Cow Creek Watershed Assessment), states that:

> Loss of habitat from livestock grazing practices and agricultural diversion of water has reduced or degraded salmon and steelhead spawning and rearing habitats. Hydropower facilities have altered instream flows. Agricultural diversions are unscreened resulting in the loss of juvenile fish emigrating from the watershed. Population growth in the communities of Palo Cedro, Bella Vista, Oak Run and Millville is increasing the demand for water and the associated development is impacting riparian areas within the lower watershed….
>
> Water quality in Cow Creek has been significantly affected by siltation and erosion in the upper watershed. Streambanks have been eroded by excessive livestock grazing along Cow Creek and its principal tributaries. The resulting soil erosion and stream channel siltation have degraded salmon and steelhead spawning substrate in Cow Creek and its tributaries….
>
> Elevated water temperature in the summer, resulting from low stream flows and the lack of riparian cover resulting from livestock grazing, frequently reach levels that are detrimental or even lethal to salmon and steelhead.

The report identified six primary factors limiting anadromous fish production in Cow Creek:

1. Diversions decrease instream flows resulting in elevated spring, summer and fall water temperatures and reduced habitat availability;
2. Barriers limiting upstream passages of adults;
3. Juveniles are entrained at irrigation and other unscreened diversions;
4. Livestock grazing results in sedimentation of substrate and the loss of riparian cover;
5. Urbanization and creek side development results in habitat loss and degradation; and
6. Gravel mining removes riparian vegetation and spawning gravel from the stream.

Erosion problems that have been identified on the JS Ranch are typical of those found on other agricultural properties in the watershed. The terraces bounding Clover Creek on its' south side are experiencing active dissection. Rills, master rills and gullies are forming at an increasing rate. These erosional features are introducing fine-grained sediments, mainly silts and clays, into Clover Creek. These sediments are occluding the interstitial spaces within the gravel bed load of Clover Creek, consequently impairing the spawning habitat for fish including anadromous salmonids. The subject terraces are comprised mainly of Myers silty-clay (USDA, 1974:46) which is a well-drained soil with slow permeability, medium runoff character and moderate potential for erosion. Adjoining this terrace to the south are hills comprised principally of

Sehorn silty-clay (USDA, 1974:59). This soil unit is found on steeper slopes and has a moderate to high potential for erosion. The current dissection has nearly bifurcated the terraces and are poised to enter the much more erosive hills.

The gullying appears to be related to past agricultural uses and, primarily, the construction of fences and roads. An inspection of early aerial photos reveals linear features perpendicular to Clover Creek. These features are likely furrows from plowing and the alignment of pasture fencing. The furrows and cattle trails along fences have channeled water causing accelerated runoff and incision. Exacerbating these problems are the access roads which have mobilized soil directly and, more importantly, channeled runoff into master rills leading to the removal of substantial amounts of fine sediments and the development of large gullies.

The use of motorized vehicles, principally related to the power line maintenance and ranch management, during the wet season needs to be curtailed. The soil has a high clay content and is slow to dry after saturation leading to severe rutting and, subsequently, the need to use alternate routes to avoid the quagmires.

The demonstration project will replace two culverts on the JS Ranch that are of particular concern, with obvious erosion and gullying. The installation of proper drainage crossings (currently open rills or gullies with corrugated metal pipe) will reduce erosion and road maintenance. Simultaneous with this work, modification of the active headcuts must be undertaken.

Shasta Land Trust has recognized these impacts in a recent long-range planning effort. The Trust has is defined its focus to address the problems of riparian habitat and oak woodlands degradation and loss in the Sacramento Valley and foothills east of Redding. SLT's priority for the next 3-5 years is the protection, restoration and enhancement of the Cow Creek and Bear Creek Watersheds. Shasta Land Trust is close to acquiring its first conservation easement, Fenwood Ranch, consisting of 2,180acres and 2-1/2 miles of Sacramento River frontage. Fenwood Ranch is at the mouth of Cow Creek and Bear Creek and is the first step of the Trust's plans to protect these watersheds.

2. Justification

Shasta Land Trust is proposing to purchase conservation easements on the Hathaway and JS Ranches totaling 13,855 acres and 10 miles of creek frontage to protect and enhance the riparian habitat and improve water quality to benefit Chinook salmon (*Oncorhynchus tshawytscha)* and steelhead (*Oncorhynchus mykiss*). The 6,755-acre Hathaway Ranch and the 7,100-acre JS Ranch are both located in the Cow Creek Watershed (see Attachments #3 and #4). The easements will extinguish development rights, allow grazing to continue, protect riparian and wetland habitat, prevent the sale of water rights and restrict oak harvesting. By protecting a threatened, critical resource in perpetuity, these easements will directly ensure permanent protection and assist recovery efforts for winter-run and fall-run Chinook salmon, steelhead trout, and a number of other threatened and endangered species. The project lands provide key migratory habitat, as well

as terrestrial species habitat for raptors, deer, elk, and a myriad of other bird and mammal species. Natural resource interpretation and habitat restoration opportunities will be created for Shasta Land Trust. Wildlife friendly agricultural practices currently in place and those planned by SLT and the landowners will go far to protect the resources. The Hathaway and JS Ranches are in the line of development, and if placed under easements, could serve to hold back sprawl.

Shasta Land Trust is also proposing to pursue riparian and aquatic habitat and water quality enhancements in conjunction with the purchase of the JS easement. The proposed demonstration project on the JS Ranch calls for replacement of two significant culvert head-cuts located on the north end of the property on Clover Creek. Resource inventories will be conducted to determine future restoration needs, addressing erosion problems and agricultural methods. With this on-the-ground erosion control demonstration project and future restoration, effluent and sediment will be prevented from being a major threat to water quality. The ability to keep these large properties intact, while repairing water quality problems now occurring and preventing future water quality degradation, is what makes this project critical for the Cow Creek Watershed.

The current proposal within the Cow Creek Watershed seeks primarily to restore stream quality as a means to benefit steelhead and all runs of Chinook. The secondary goal is to protect upland habitats, vernal pools and dependent wildlife populations on a landscape scale from the possibility of destruction by development or careless agricultural practices. The main vehicle to accomplish these goals is the purchase of land conservation easements, which preclude intensive land development, maintain the properties as largely undeveloped agricultural operations, and encourage the adoption of habitat friendly agricultural practices on the two ranches. These might include fencing sensitive riparian areas, developing off-stream water sources, and creating wetlands to absorb irrigation effluent before it is returned to the stream. Immediate needs are for a Demonstration erosion control project on the terraces adjoining Clover Creek and for inventories of the two ranches to identify actions necessary to restore biological function to the stream and upland habitats.

A series of possible measures may be needed subsequent to the purchase of a conservation easement, implementation of an initial erosion control program and assessment of restoration needs. The development of “wildlife friendly” agriculture, such as the exclusion of cattle from the riparian zones, retrofitting or removing water diversions and, possibly, acquisition of water rights, are intended to facilitate the restoration of aquatic, riparian and immediately adjoining habitats. Protection of the landscape and restoration of the aquatic habitats is expected to have additional benefit to upland species, riparian dependent species such as the willow flycatcher, and vernal pool species such as the fairy shrimp and tadpole shrimp. Some upland species, such as elk and deer, will especially benefit from restoration and conservation practices implemented on a landscape scale encompassing the Hathaway and JS Ranches. If feasible, restoration and conservation practices could be extended to the Old Hunt Ranch, the property between the Hathaway and JS Ranches. Further Shasta Land Trust goals of working on a landscape scale in this watershed call for additional lands and riparian corridors protected to benefit migratory species and overall health of the watershed.

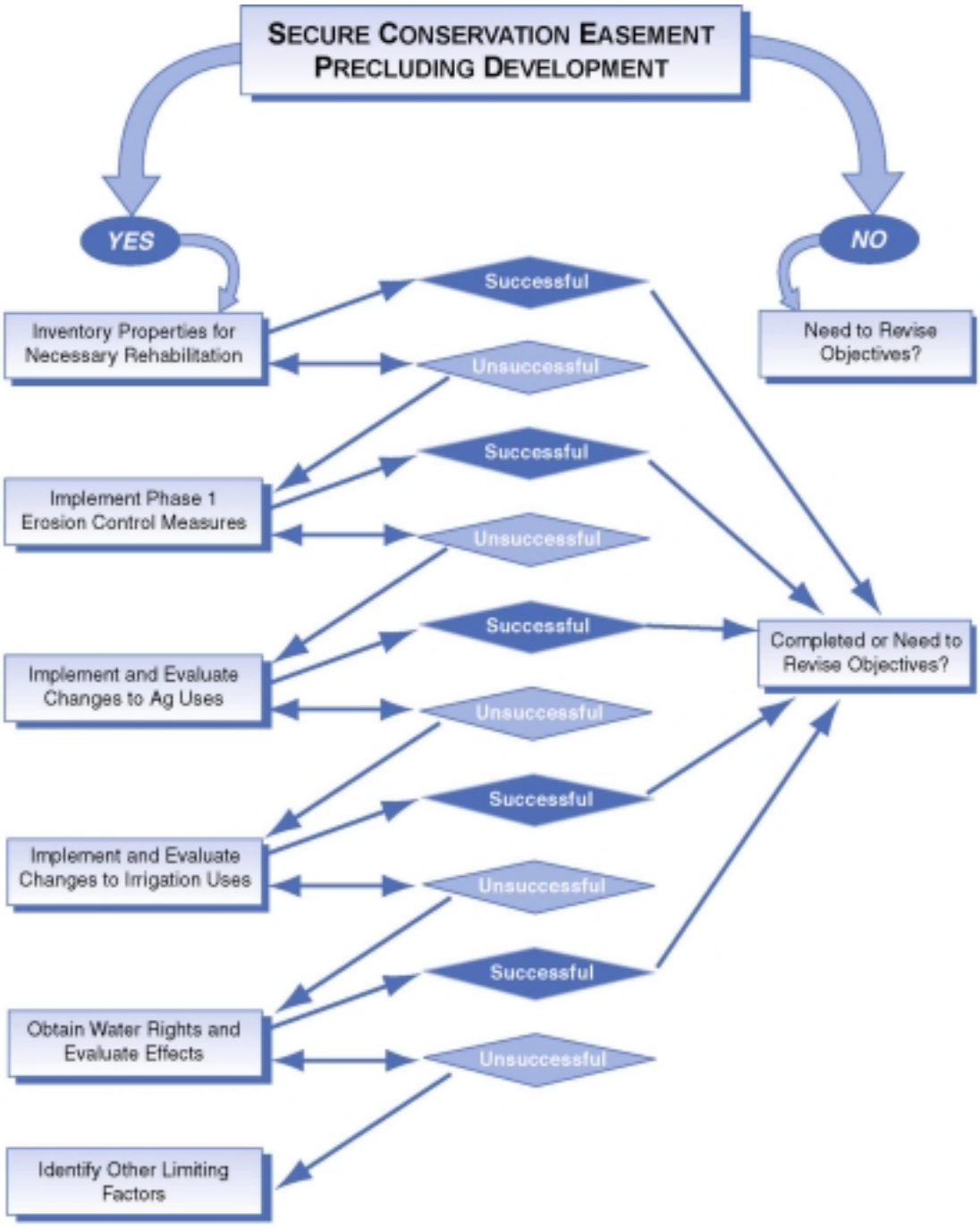
Implementation of the proposal is congruent with "Action Items" of the "Cow Creek Watershed Assessment, Public Review Draft," which include:

- Encourage retention of large ownerships to enhance stewardship and management efficiency for agricultural resources, fuels management and preservation of open space;
- Obtain landowner easements and cooperation along key habitat corridor;
- Pursue grant funding or cost-share payments for landowners to inventory, prepare plans and implement best-management practices that reduce water quality impacts;
- Consider restoring and protecting oak woodlands in the lower watershed. Evaluate need for zoning and land use protection for oak. Oak regeneration will enhance wildlife habitats.
- Emphasize habitat restoration in areas associated with agricultural lands;
- Encourage the concept of the working watershed aspect of land use – managing and producing natural resources as a land use goal;
- Create treatment zones for uptake of nutrients and pathogens resulting from livestock and irrigation runoff;
- Conduct hydrologic studies and/or channel evaluations of primary tributaries to identify specific areas requiring restoration activities;
- Evaluate water conservation measures for existing diversions to increase stream flows;
- Evaluate the possibility of augmenting stream flows by offsite storage and retention of winter flood flows to improve habitat for fish and wildlife;
- Develop a plan to identify factors contributing to elevated water temperatures, such as irrigation return flows, riparian community vegetation changes, or diversion of stream flow;
- Develop proactive control programs for non-native invasive plants such as cooperative projects with landowners and government agencies;
- Encourage state agencies and landowners to identify and cooperate on worthwhile projects [to enhance native wildlife populations];
- Investigate measures to increase flows in Cow Creek and tributaries, including providing alternate water sources during important periods;
- Evaluate whether increasing flow will reduce temperature within the watershed.

In addition, both ranches are highly visible properties owned by well-regarded members of the agricultural community. Successful development of conservation easements on the two ranches will encourage acceptance and participation by other stakeholders within the Cow Creek watershed and, especially, the ranching community. Naturally, the proposal and the broader inclusion of other participants will collectively restore the tributary streams of Cow Creek.

The conceptual model below provides a graphic depiction of the proposed results of the conservation easements, demonstration project and inventories. While the flowchart appears lineal, in reality, the process is cyclical and involves iterative steps and decision points. Monitoring of the success of each discrete undertaking would be accomplished by a team consisting of the landowners, Shasta Land Trust, the Western Shasta Resource Conservation District (WSRCD) and, as necessary, specialists drawn from the local field offices of the

California Department of Fish and Game (DFG) or other natural resource managing agencies. Success is defined as meeting the objectives of the proposal, which include achieving an acceptable level of increase in the number of spawning anadromous salmonids, conserving riparian or vernal pool dependent species, or stabilizing upland native species.



3. Approach

Shasta Land Trust is proposing to purchase conservation easements that limit future development, protect agricultural lands, riparian and aquatic habitat. The Trust has identified two ranches totaling 13,855 acres of important agricultural and riparian land in the lower Cow Creek Watershed that will benefit from the protection provided by conservation easements and future enhancement projects. The Trust is also proposing to complete a demonstration sediment control project on Clover Creek (JS Ranch) and complete an inventory of both properties to identify additional opportunities to enhance aquatic and riparian habitat and water quality. The total cost of this project is estimated to be $6.22 million dollars**.** We are requesting $3.07 million dollars from CALFED to be matched with other state, federal and private funds.

Shasta Land Trust and the Trust for Public Land developed an easement on the Fenwood Partners Ranch, tailored to the Shasta County landscape and the Fenwood owners. From this model easement, Shasta Land Trust and the Fund are crafting the two new easements. These easements will be tailored to the property owners, easements that protect both wildlife habitat and agriculture. Shasta Land Trust and the Fund are in the process of negotiating easement terms with the Hathaway family and the JS Ranch owners. Once agreement has been reached on the easement terms, Shasta Land Trust and the Fund will contract with the landowners to accept donations and/or purchase the easements and convey these easements to SLT to hold, monitor and enforce in perpetuity. The model easement taken from the Fenwood Ranch will be available for review after it is recorded, which is expected to occur by the end of this calendar year.

During the easement acquisition process, Shasta Land Trust will complete a description of each properties' Conservation Values and prepare Present Conditions Reports that thoroughly document the condition of the agricultural and wildlife habitat. These reports become the baseline documents for assessing compliance with easement terms.

Once the properties are protected with easements, Shasta Land Trust will work with each landowner to restore and enhance terrestrial and aquatic habitats, reduce erosion and agricultural runoff. The *Cow Creek Easement Acquisition and Riparian Habitat Enhancement Project* is intended to complement present agricultural land use practices and enhances the wildlife habitat of the properties. The landowners will continue to develop specific land use management plans that are economically and environmentally viable.

The purpose of the inventories is to locate, identify and quantify sources of erosion and irrigation problems contributing to sediment to the various tributaries in the project areas. The work will include field survey of channel and bank condition, noting areas of concern, and estimating stream erosion factors such as channel incisement, lateral erosion, and vegetative condition in the riparian area. A report will be prepared that defines channel conditions, and may be organized into "reaches" of similar condition. In the erosion inventories, emphasis will be on human-related and irrigation related disturbances, and focus on site-specific sources, such as roads, trails, and domestic disturbances from livestock. Erosion volumes will be estimated using a direct volume calculation and future erosion estimates made based on the amount of material expected to erode

over a 25-year period, assuming treatment no is applied. A site information database will be generated, which will include the site name, location, estimated potential of sediment, the source of sediment and cause if known (see Attachment #5 for sample of type of forms used). These inventories will be conducted by WSRCD and Streamside, a restoration-consulting firm. The methodology has been used for previous WSRCD and Streamside projects.

After erosion and irrigation inventories are performed on the properties, SLT will assist each landowner with the development of a Conservation Plan that addresses present and future concerns within the easement. The Conservation Plan will include such recommendations as fencing sensitive riparian areas and the elimination and control of tailwater return, a problem that poses a threat to added erosion into Cow Creek. Cost-sharing programs such as the US Fish and Wildlife Service's Partners for Wildlife, Natural Resource Conservation Service's EQIP, and the National Fish and Wildlife Foundation would be made available to the landowners so they might complete recommendations of the Conservation Plan in a timely manner. Education efforts, such as elimination of noxious weeds within the easement areas, will also be offered to help the landowners develop wise land use strategies.

4. Feasibility

The *Cow Creek Watershed Easement Acquisition and Riparian Habitat Enhancement Project is* a feasible approach for these landowners. Conservation easements have been well received in the ranching community because the landowners recognize that easements are a viable alternative to sale for development. Both the Hathaway and JS Ranch owners are enthusiastic about entering into easements with Shasta Land Trust (see Attachments #6 and #7, Letters of Interest).

Easements are increasingly used throughout the country to protect historical, agricultural, recreational, and scenic and wildlife lands because they are flexible tools that can be tailored to the landowners' needs and to the resource that is targeted for protection. The model easement that has been developed for Shasta Land Trust will not only prevent further development and protect agricultural and natural resources, it will also encourage these landowners to undertake cooperative habitat and water quality projects with Shasta Land Trust that will then be permanently protected by the easements.

Shasta Land Trust, in partnership with the Trust for Public Land (TPL), has nearly completed a 2,180 acre easement, Fenwood Partners Ranch, at the confluence of Cow Creek and Bear Creek (see Attachment #1). With 3-1/2 miles of river frontage, this property acts as a keystone for SLT's work in these two important watersheds. Mike Reeves, TPL's Project Manager of the Western Rivers Program, and SLT's Executive Director Kathleen Gilman worked closely together on this project to make it happen. Funding to purchase the easement has been pledged from several state and federal agencies, including the California Department of Transportation, the California Resources Agency, the U.S. Bureau of Reclamation, the U.S. Fish and Wildlife Service, and the U.S. Natural Resources Conservation Service. Shasta Land Trust will receive a portion of the donation made by the Fenwood Ranch property owners to increase SLT's capacity for new projects.

The Cow Creek Easement Acquisition and Riparian Habitat Enhancement Project has strong support from the Central Valley Regional Water Quality Control Board, and the Western Shasta Resource Conservation District. (see Letters of Support, Attachments #8 and #9). We realize that it is important to have support from state and local public officials. Plans are being made to present these projects to both Assemblyman Dick Dickerson and the Shasta County Board of Supervisors

5. Performance Measures

Performance measures for the *Cow Creek Easement Acquisition and Riparian Habitat Enhancement Project* will take several forms.

Successful Purchase of Conservation Easements. The number of acres and miles of stream corridors protected with conservation easements will measure program success. For the purposes of this CALFED request, we are pursuing 13,855 acres and approximately 10 miles of creek frontage. Indirect success will be measured by the increase in the level of interest of neighboring property owners to protect the conservation values of their properties with easements.

Implementation of Demonstration project. The successful implementation of the culvert replacements above Clover Creek will also be used as a performance measure.

Monitoring and Enforcement. Success will also be measured by the lack of violations to easement terms, which will be a result of SLT implementing a strong monitoring and enforcement program. The terms of each easement require the Trust to monitor compliance, and in the event of a violation, enforce the easement through mediation or legal action. Easement monitoring will be conducted annually or more frequently if necessary, by inspecting the land and talking to the landowner about future plans to avoid conflict with the easement protections. This monitoring effort will include the establishment of a baseline inventory of land and existing structures, aerial and ground photos, the design of easement inspection and report forms, and the acquisition of all necessary tools. The monitoring procedure will be documented and a regular system shall be used on all easements conveyed to SLT.

Monitoring of the demonstration project will take place on a bi-annual basis, to determine the effectiveness of the improved water crossings and determine if any modifications need to be made to the structures.

Inventory Reports. The success of the inventory project will be measured by achieving the completion of reports to document the findings. The report products will include assessment of channel conditions by reach, volume estimates of erosion, determination of active vs. inactive channel erosion, fishery habitat condition, analysis of channel and floodplain function, and recommendations for future restoration or protection design. A site information database will be generated for the erosion inventory, which will include the site name, location, estimated potential of sediment, the source of sediment and cause if known. Also included in the database will be GPS coordinates, accessibility of the site, general soil type, date inventoried, aspect,

grade, estimated potential for future erosion, suggested treatment, and potential sediment savings with treatment.

6. Data Handling and Storage

Because conservation easements are in perpetuity, Shasta Land Trust recognizes that there is an extra special need for data to be prepared, handled and stored by all members and volunteers according to a set standard. Western Shasta RCD stores all their data on cd's with a weekly backup system, and a fire proof safe holds their backup disks. Shasta Land Trust will work with Western Shasta RCD and Streamside in establishing any other protocols needed for the collection and storage of data. The protocols will ensure the collection of data is consistent for each landowner and that the data is stored in such a way that will guarantee its permanence.

7. Expected Products/Outcomes

- Purchase conservation easements on JS and Hathaway Ranches totaling 13,855 acres and approximately 10 miles of riparian corridor on Cow, Clover and Oak Run Creeks. These easements will protect major working landscapes, wildlife and fisheries habitat from development, as well as protecting vernal pools and other important resources downstream from these ranches.
- Completion of demonstration project on Clover Creek contributing to improved water quality.
- Completion of inventories on JS and Hathaway Ranches, which will document riparian and aquatic habitat conditions, identify and quantify sources of erosion, and provide recommendations for future restoration or water quality enhancements that will lead to improved conditions for anadromous fish.

8. Work Schedule

Project	Task	Milestone	Dates
		Started	Completed
Year 1: Conservation easements	Acquire ½ value of easements on JS and Hathaway Ranches	November 2002	October 2003
Year 1: Inventories	Inventory both ranches for restoration and enhancement needs	Spring 2003	November 2003
Year 1: Implement Clover Creek Demonstration Project	Replace 2 culverts above Clover Creek on JS Ranch	April/May 2003	October 2003
Year 1: Reporting	Quarterly reports	February 2003	November 2003
Year 1 & 2: Conservation easements	Acquire remaining ½ value of easements on JS and Hathaway Ranches	ongoing	November 2004
Year 2: Monitoring	Monitor demonstration project	October 2003	November 2004-ongoing
Year 2: Reporting	Quarterly reports	February 2004	November 2004
	Final report		November 2004

B. Applicability to CALFED ERP and science Program Goals and Implementation Plan and CVPIA Priorities

1. ERP, Science Program and CVPIA Priorities

Goal 4: Habitats. This project will use conservation easements to protect aquatic, riparian, wetland, and upland habitats to benefit at risk species including Chinook salmon and steelhead. The demonstration project will begin the process of reversing erosion and the subsequent degradation of water quality. After the inventories are completed, later phases of the project will improve riparian habitats through fencing, erosion control and revegetation with native species, which in turn should improve the water quality to benefit anadromous fish. The current agricultural practices are wildlife friendly and the easements will preserve these practices.

Goal 5: Non-native Invasive Species. The conservation easements prohibit the intentional introduction of non-native invasive plant and animal species to the land and water. The easements also require landowners to control invasive species. Shasta Land Trust intends to work with the JS and Hathaway Ranch owners as part of their overall Conservation Plans to eliminate noxious and invasive weeds on these ranches.

The following table lists the California Department of Food and Agriculture (CDFA) Noxious weeds and the California Exotic Pest Plants Council (CalEPPC) List of Invasive Pests, that can be found in the Cow Creek Watershed:

Latin Name	Common Name
Ailanthus altissima	tree of heaven
Arundo donax	giant reed, arundo
Bromus tectorum	Cheat grass, downy brome
Cardaria draba	White-top, hoary cress
Centaurea maculosa	Spotted knapweed
Centaurea squarrosa	Squarrose knapweed
Cortaderia selloana	pampas grass
Onopordum acanthium	Scotch thistle
Cardus pucnocephalus	Italian thistle
Centaurea solstitialis	Yellow starthistle
Cynodon spp and *hybrids*	bermudagrass
Cystisus scoparius	Scotch broom
Ficus carica	edible fig
Hypericum perforatum	Klamath weed
Onopordum acanthium	Scotch thistle
Phalaris aquatica	Harding grass
Rubus discolor	Himalayan blackberry
Salvia aethiopsis	Mediterranean sage
Sorghum halepsense	Johnson grass
Tamaris chinensis, T. gallica, T. parviflora & T. ramosissima	Tamarisk, salt cedar
Taeniatherum caput-medusae	medusahead
Tribulus terrestris	puncturevine
Vinca major	periwinkle

Taken from the "Cow Creek Watershed Assessment, Public Review Draft", 2001.

Goal 6: Sediment and Water Quality. Enhancement projects implemented as a result of the inventories are expected to reduce sediment transport and improve water quality.

CVPIA Priorities: This project meets CVPIA priorities as described below.

Biological Resource Considerations. The project will protect and enhance riparian and aquatic habitat for the federally endangered Chinook salmon *(Oncorhyncus tshawytscha)* and steelhead (*Oncorhyncus mykiss*). These habitat improvements will provide long-term benefits.

Implementation Considerations. The project is technically feasible, can be completed in a timely manner with willing landowners with a variety of potential funding partners and has strong local support. The Program is also compatible with other CALFED/CVPIA programs and other restoration projects in the region. In addition, the project is "implementable" because legal, regulatory and technical obstacles to implementation have been taken into consideration.

Economic Considerations. The project will have a positive impact on the local economy by providing cash payments for agricultural easements that allow landowners to keep land in agricultural production. The project will also benefit water quality once the demonstration project is completed, and further habitat and water quality enhancements have been implemented. The purchase of easements is much more cost effective than acquiring properties in fee and incurring maintenance and operations expenses.

2. Relationship to Other Ecosystem Restoration Projects

Shasta Land Trust was awarded a grant from the Natural Resources Conservation Service to install fencing along the sensitive riparian zones, wildlife-friendly cross fencing and alternate stockwatering sources on the Fenwood Ranch property. This project shows the Trust's and the landowners' commitment to improving water quality and wildlife habitat in the Cow Creek and Bear Creek Watersheds.

The Western Shasta Resource Conservation District (WSRCD) encouraged and supported the creation of the Cow Creek Watershed Management Group, a 501(c3) organization, which supports conservation and healthy use of resources in the watershed. The WSRCD was awarded a grant to conduct the "Cow Creek Watershed Assessment" for the watershed from the David and Lucille Packard Foundation and the State Water Resources Control Board. The assessment is in draft form and will be finished next month. The RCD is applying for two grants from CALFED in this round of applications: 1) Cow Creek Fish Passage and Screening Project, and the 2) Cow Creek Fish & Water Quality Baseline Monitoring Program.

3. Requests for Next-Phase Funding. N/A

4. Previous Recipients of CALFED Program or CVPIA funding.

The Trust for Public Land and Shasta Land Trust received funding from CVPIA to partially fund the Fenwood Partners conservation easement. This funding, $600,000 dollars total, came from the Central Valley Project Conservation Program and the Habitat Restoration Program.

5. System-Wide Ecosystem Benefits.

The purchase of conservation easements and implementation of riparian and aquatic enhancement projects on the Hathaway and JS Ranches contributes to the ecological health of the Sacramento River ecosystem by protecting and enhancing habitat for anadromous fish including Chinook salmon and steelhead. Enhancing riparian corridors for neotropical migrants, terrestrial species such as deer, bobcat, ringtail also contributes benefits beyond the Cow Creek Watershed.

Sensitive species and vernal pools found in proximity to the ranches include those shown on Attachment #10. The Cow Creek Watershed Assessment identifies the following special-status wildlife species found in the watershed as threatened, endangered, or species of management concern. All of these species could directly benefit from this conservation easement project:

Latin Name	**Common Name**
Falco peregrinus anatum	American Peregrine Falcon
Haliaetus leucocephalus	Bald Eagle
Desmocerus californicus dimorphus	Long-Horned Elderberry Beetle
Clemmys marmorata	Northwestern Pond Turtle
Pandion haliaetus	Osprey
Corynorhinus townsendii pallescens	Pale Big-Eared Bat
Rana aurora	Red-legged Frog
Bassariscus astutus	Ringtail
Hydromantes shastae	Shasta Salamander
Brachinecta lynchi	Vernal Pool Fairy Shrimp
Lepidurus packadi	Vernal Pool Tadpole Shrimp

Taken from the "Cow Creek Watershed Assessment, Public Review Draft", 2001.

6. Additional information for Proposals Containing Land Acquisition

a. Willing Seller. George and Chris McArthur, owners of JS Ranch, are very interested in selling a conservation easement and made the initial contact with SLT. The owner of Hathaway Ranch, Harry Hathaway is also a willing seller. SLT and the Fund have initiated negotiations with the JS Ranch owners and SLT is in negotiations with the Hathaway owners.

b. Consistent with county/city general plan or evidence of local government support. The Shasta County General Plan designates both ranches as Grazing Land. Both properties are currently enrolled in the Williamson Act. The *Cow Creek Easement Acquisition and Riparian Habitat Enhancement Project* has significant support from a diverse group of

organizations. Because we know getting local support is a sensitive issue, and it takes time, we are laying out our strategy in this regard. SLT and the Fund, along with the project's landowners, will be presenting the project to the Shasta County Board of Supervisors. Any letters of support acquired in the future will be forwarded.

c. Prioritize land not mapped as Prime, of Statewide Importance, or Unique Farmland or where use remains agriculture. All lands will remain in agricultural production. The JS Ranch contains approximately 300 acres of Farmland of Statewide Importance, and 200 acres of Prime Farmland.

d. Ecological criteria: biological richness, connectivity, historical biologic importance, unique habitat opportunity in relation to meeting CALFED and CVPIA goals. Acquiring conservation easements on these two ranches, in addition to the Trust's easement purchase on the Fenwood Partners Ranch, is a concerted effort on the part of Shasta Land Trust to connect biological corridors and migration routes in the Cow Creek Watershed. The protection of grasslands and oak savannah benefits terrestrial species such as deer, mountain lion and bobcat. This project relates to CALFED and CVPIA goals to restore and protect anadromous fisheries habitat and water quality.

e. Time-sensitive acquisition opportunity. The Cow Creek watershed is an important agricultural area of habitat and scenic diversity. The area is facing increasing pressure for residential development and it is important to protect these values with willing private landowners. The cost of the easements is relatively low compared with other private land in California.

C. Qualifications

Shawn Tillman, Chairman, Board of Directors*:* Shawn Tillman carries the responsibility for guiding the Shasta Land Trust Board of Directors. He is Senior Redevelopment Project Manager at the City of Redding. Mr. Tillman manages the housing and community revitalization projects for the City. Formerly the Board Chairman of Viva Downtown Redding, Lorenz Senior Apartments and Treehouse Senior Apartments, Mr. Tillman is experienced in managing nonprofit organizations. He holds a BA in Liberal Arts from Simpson College, and a certificate of Land Use and Environmental Planning from University of California, Davis. In former employment with Cox Real Estate, Redding, he was the real estate and land disposition manager for a local private foundation.

Kathleen Gilman, Executive Director, Shasta Land Trust: Kathleen Gilman will be responsible for developing the monitoring and enforcement protocol, administering the grant funds, and implementing the proposal. As the founder and now Executive Director, she is responsible for managing a number of projects for SLT, including the Fenwood Conservation Easement. While a Board member of WSRCD, she was the project manager of the Clear Creek Watershed Analysis. Ms. Gilman managed projects for Carter House Science Museum during her employment as Museum Curator from 1985 to 1990.

Ms. Gilman holds a BS in Zoology from California Polytechnic University, Pomona (1979) and an MS in Biological Conservation from California State University, Sacramento (1987).

***Nancy Schaefer, Director, California Office, The Conservation Fund**:* Nancy is involved with the JS Ranch and is overseeing the easement acquisition process and assisting with securing funding. Nancy Schaefer was hired in February 1999 to open a California office for The Conservation Fund. Nancy is developing land protection programs throughout California in partnership with resource agencies and land trusts. Prior to joining the Fund, Nancy founded and coordinated the San Francisco Bay Joint Venture. Her responsibilities included identifying and securing critical wetland habitat, creating public/private partnerships to ensure the restoration, enhancement and permanent stewardship of these properties, securing funding to accomplish these goals and raising operating funds. Nancy also worked at the Trust for Public Land where she managed the Trust's Wetlands Protection Program for seven years and served on the board on the Central Valley Habitat Joint Venture. Nancy is a founding member and officer of the Muir Heritage Land Trust where she chairs the Land Acquisition Committee. Nancy holds a BS in Forest Science from the University of New Hampshire (1980) and an MBA from California State University, Sacramento (1987).

D. Cost

1. Budget. See website forms**.**

2. Cost-sharing.

Shasta Land Trust is requesting $3.08 million to contribute toward a total estimated project cost of $6.27 million dollars. The Trust will pursue federal, state and private matching funds to complete the acquisitions and further enhancements.

In addition, Shasta Land Trust receives funding from a variety of sources to support its operations:

- Membership (over 100 members)
- Fundraising activities
- Great Valley Center LEGACI grant recipient for the past 3 years, the current grant funds operational needs, training, organizational development
- TPL/EPA Grant for current year, this grant will fund work by SLT partnering with California Department of Fish and Game on vernal pool projects that DFG is already immersed in. SLT will work with DFG on specific acquisition of at risk vernal pool sites as well as long range planning effort to determine other focus areas.

E. Local Involvement

Shasta Land Trust is a community based nonprofit, 501(c)3 organization. With over 100 members, and a much larger mailing list of interested supporters and volunteers, SLT enjoys strong grassroots support in Shasta County. With recent press about the Fenwood easement, including an endorsement by the local newspaper, SLT is poised to move forward with its work in the Cow Creek and Bear Creek Watersheds (See Attachment #11).

Shasta Land Trust is working closely with the City of Redding in its Parks, Trails and Open Space Planning efforts. The City plans two public meetings this fall and winter, with the Trust assisting in the planning and facilitating of these meetings.

In the coming months, SLT will be reaching out to the Shasta County Board of Supervisors, and other diverse groups such as the Chamber of Commerce and the Shasta Builders Exchange. The Trust will be presenting its program and perspective easement properties with the expectation that support will be increased in the political and public community.

Shasta Land Trust has been invited to send a representative from the Trust to join the *Cow Creek Watershed Group* Board of Directors. It is expected that SLT will be working closely with this watershed group in the years ahead.

Shasta Land Trust is also working with DFG in its efforts to protect valuable vernal pool habitat in the Redding area. The Trust has received a grant from The Trust for Public Land, with funds from The Environmental Protection Agency, to assist DFG in acquiring valuable vernal pool sites as well as assessing future acquisition opportunities.

F. Compliance with Standard Terms and Conditions

All Standard Terms and Conditions have been reviewed in Attachment D. Shasta Land Trust agrees to comply with all terms and conditions.

G. Literature Cited

Johnson, Jerald Jay
1978 Yana. *Handbook of North American Indians, Volume 8.* William Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

Sapir, Edward and Leslie Spier
1943 Notes on the Culture of the Yana. *University of California Anthropological Records* 3(3): 239-298. University of California, Berkeley, California.

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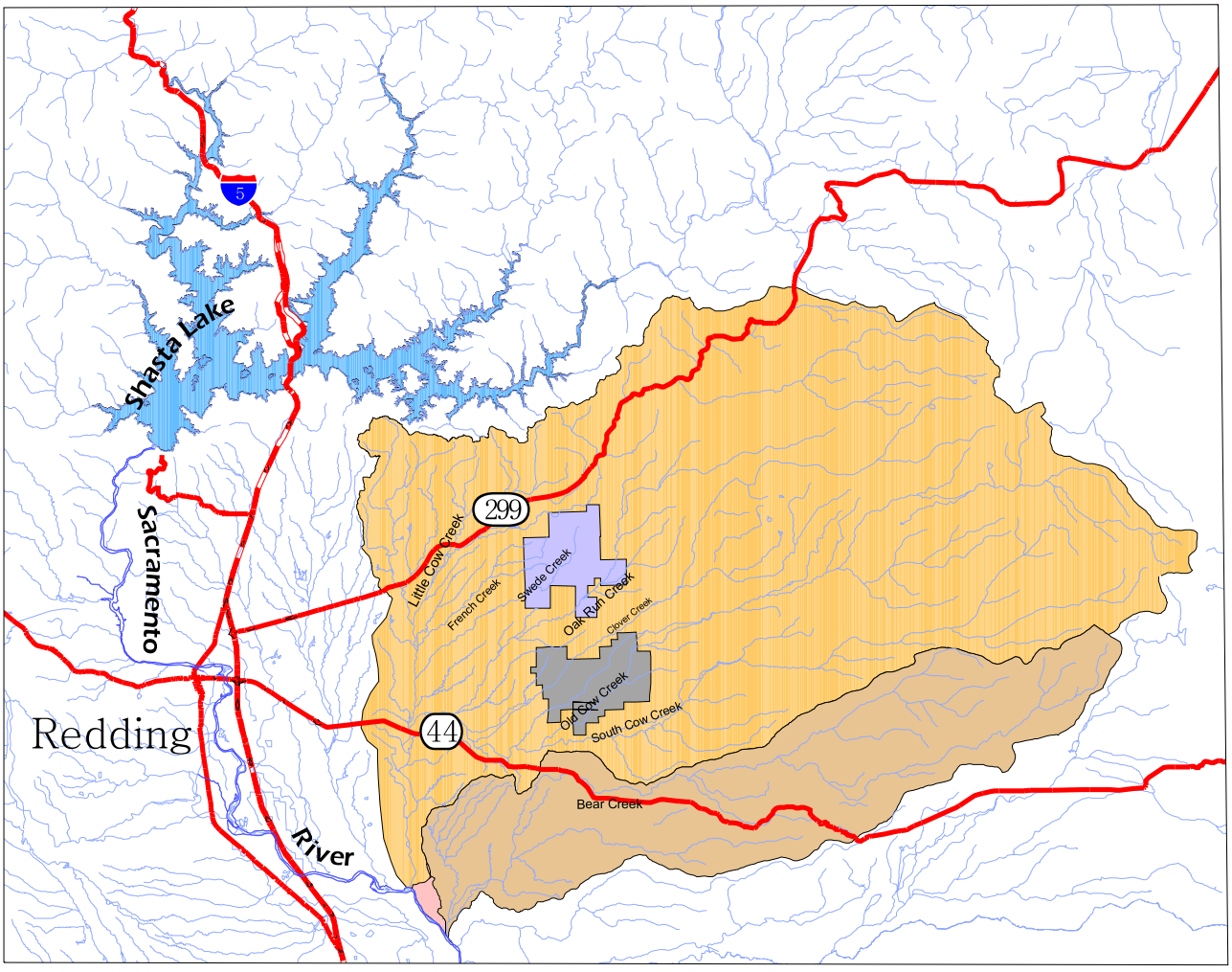
2001 Cow Creek Watershed Assessment (Draft). SHN Consultants, Redding, California.

United States Department of Agriculture
1974 Soil Survey of Shasta County Area, California. U.S. Government Printing Office, Washington, D.C.

ATTACHMENTS

ATTACHMENT #1

Fenwood, Hathaway and JS Properties within Cow Creek and Bear Creek Watersheds

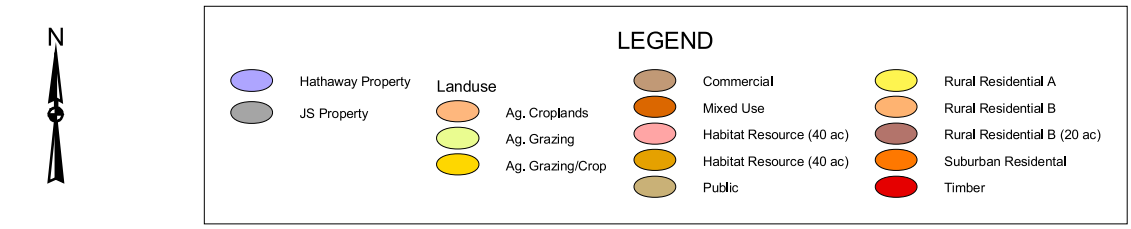


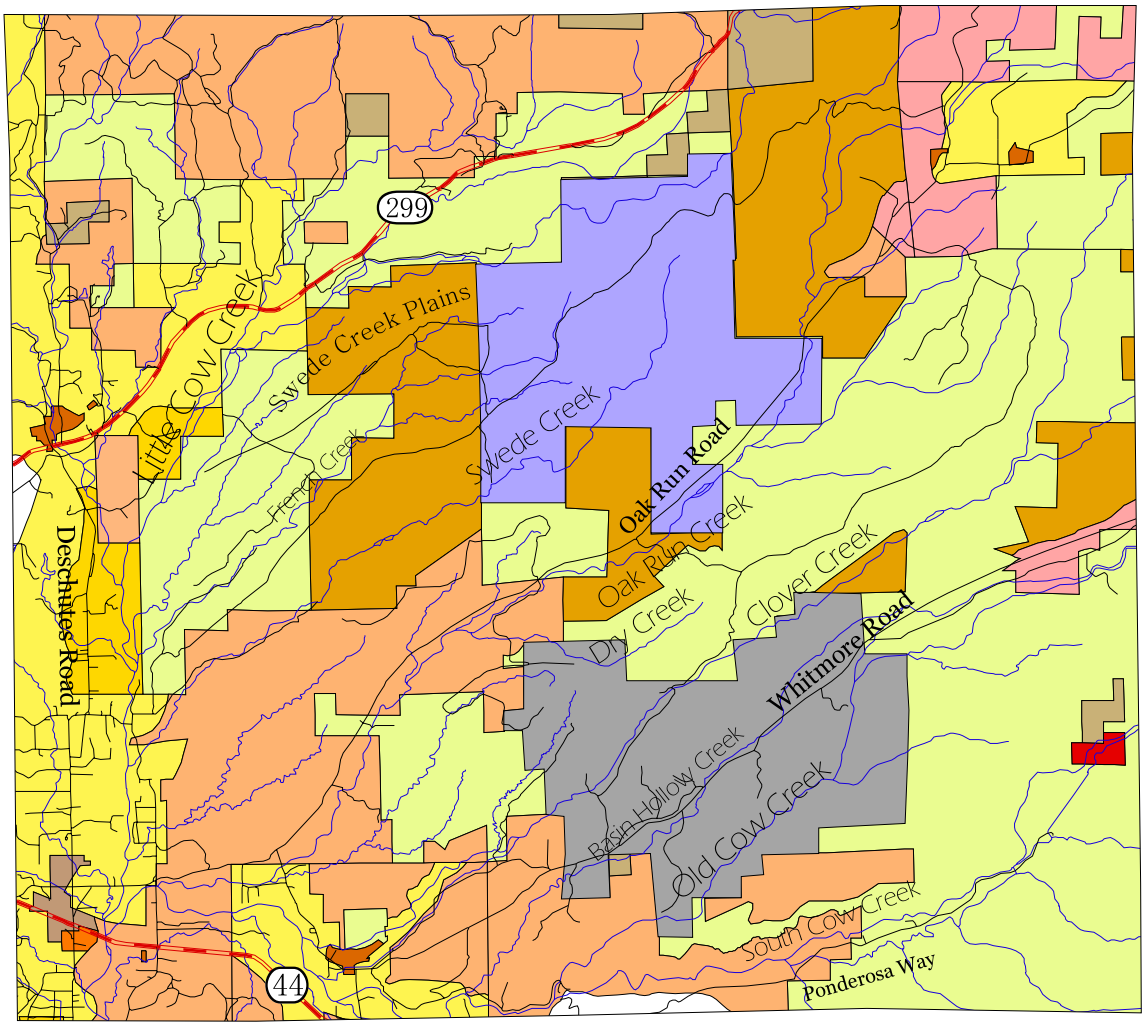
3 0 3 6 Miles

Map produced for the Shasta Land Trust
at the Shasta College GIS Center. Oct 1, 2001.
Sources: USGS DLGs, CaDFG Calif. Natural Diversity Database,
USFWS National Wetlands Inventory.

ATTACHMENT #2

Hathaway and JS Properties with Surrounding Landuse

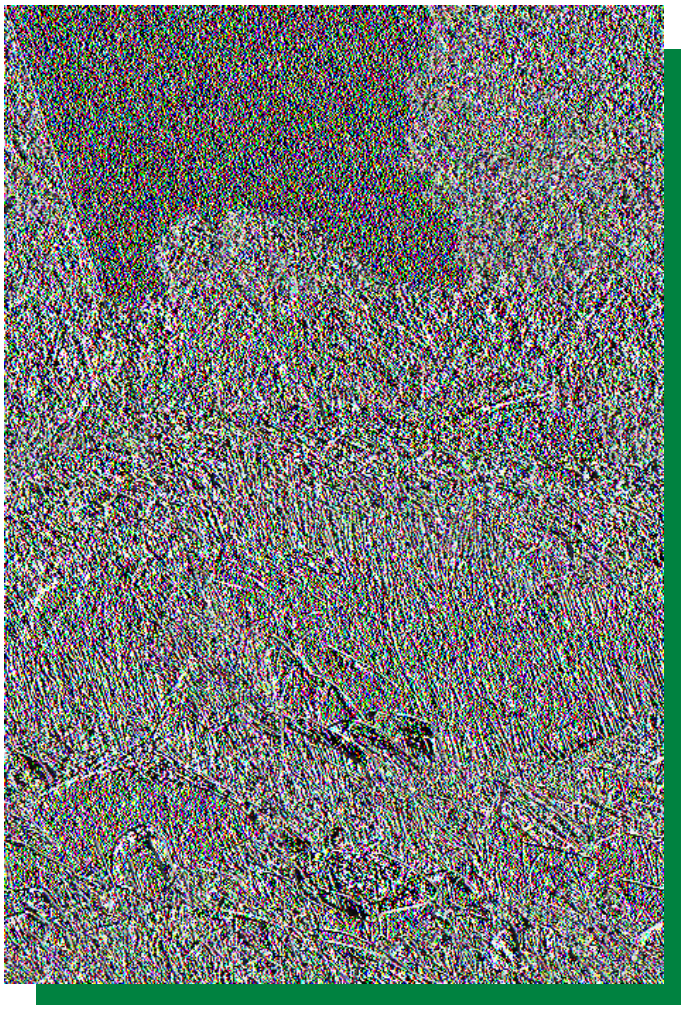




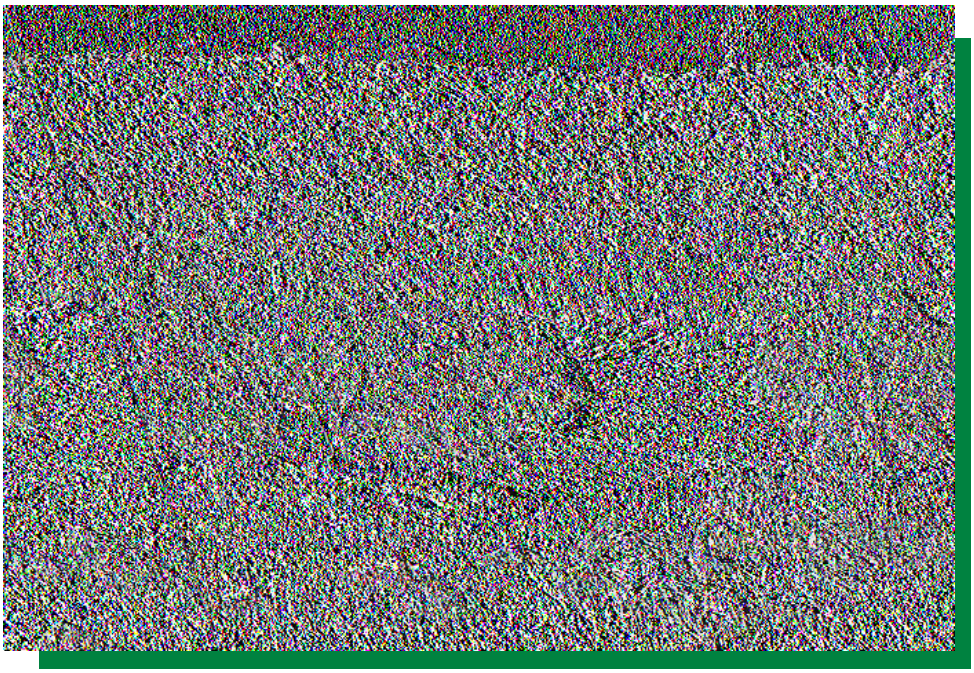
1 0 1 2 Miles

Map produced for the Shasta Land Trust
at the Shasta College GIS Center. Oct 1, 2001.
Sources: USGS DLGs, Shasta County Planning and Parcel maps.

ATTACHMENT #3
Hathaway Photos

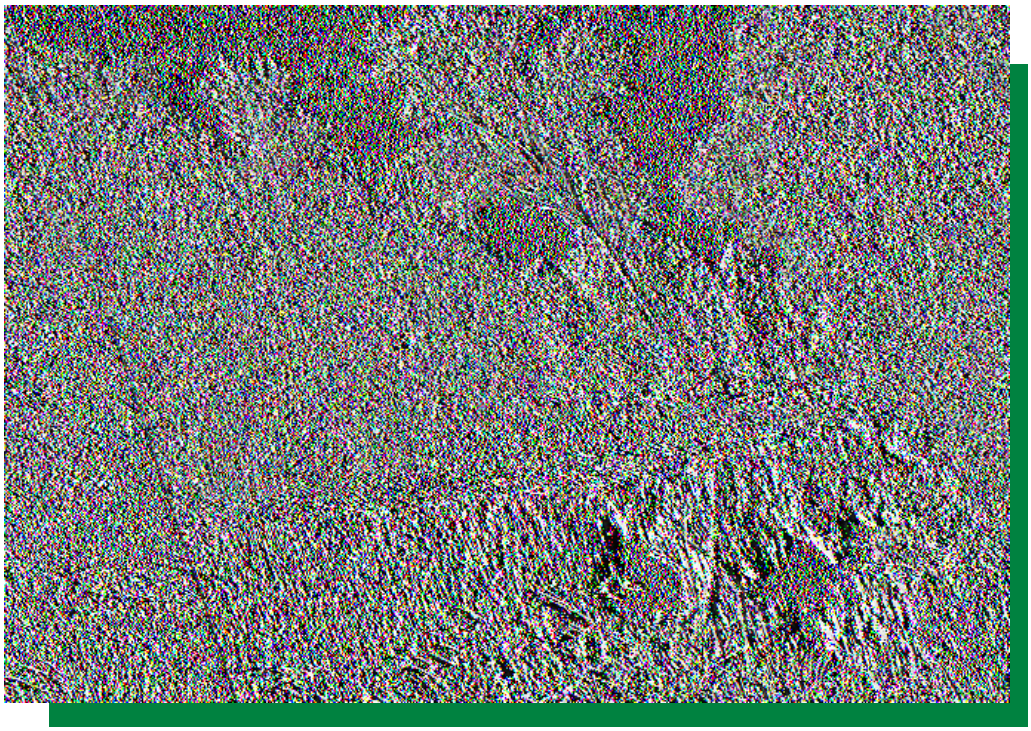


Hathaway Ranch, Oak Run Creek

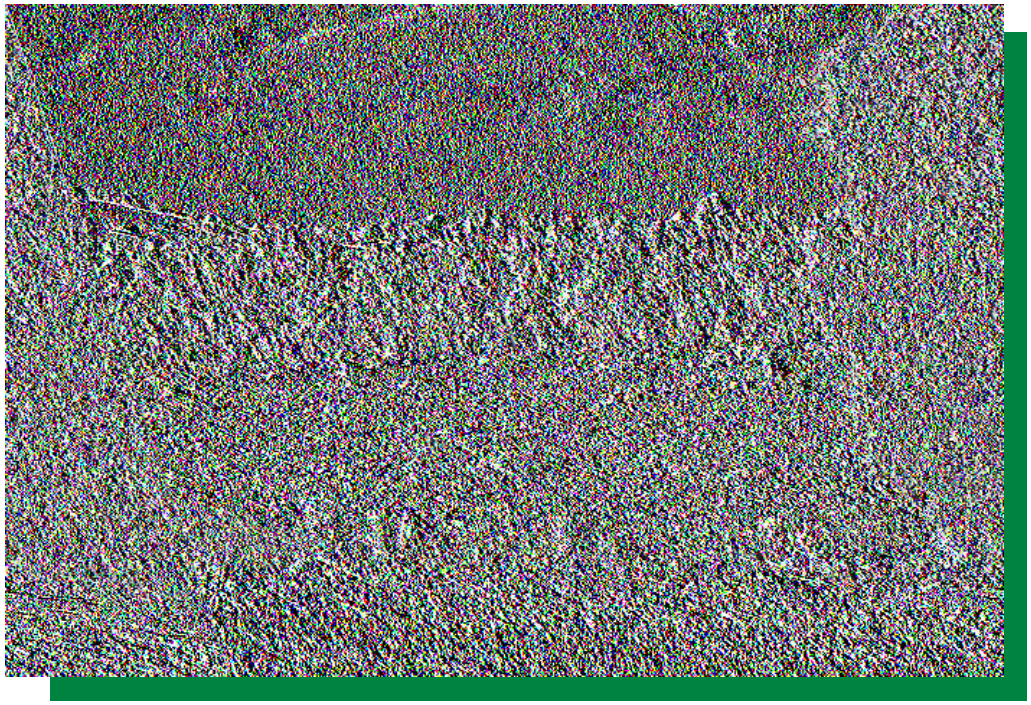


Overlooking Hathaway Ranch Uplands

ATTACHMENT #4
JS Photos



Old Cow Creek, JS Ranch



Overlooking JS Ranch Uplands and Irrigated Pasture

ATTACHMENT #5

Upper Clear Creek Watershed Road/Culvert Inventory Data Sheet 12/21/00

Road Segment: _____ Problem number: _____ Road # (FS): _____(BLM)_____ COOP (Y/N) _____

GPS: E _____ N _____ Elevation _____ Err+/- _____

Date mapped: _____ By: _____

Land Ownership: _____ Topo. used: _____

Roll of film # (if used): _____ Frame number (read off of camera): _____

I. Access Information [ ] Same as previous sheet

Road condition: [ ] Maintained/driveable [ ] Unmaintained/driveable [ ] Undriveable [ ] Abandoned [ ] Trail
Access: [ ]2WD [ ] 4WD [ ] Equipment only [ ] Walk only

Access Comments: _____

_____

_____

II. Erosion Site Data
Type of soil: [ ] DG [ ] Non DG

A. [ ] ROAD_____% [ ] Insloped [ ] Outsloped [ ] Crowned [ ] Flat [ ] w/Berm [ ] Other _____
Type: [ ] Skid [ ] Haul [ ] Access [ ] Maintained _____ [ ] Surfaced _____
1. Feature: [ ] Cut Bank [ ] Road Surface [ ] Fill Slope [ ] Stream Crossing [ ] Landing [ ] Swale
2. Cause: [ ] Inboard Ditch [ ] Road Drainage [ ] Stream Diversion [ ] Stream Channel [ ] Mass Movement
[ ] No Culvert [ ] Culvert *(see below)* [ ] Swale [ ] Other _____

Channel Gradient: _____ %
Culvert Size: _____ Culvert Length: _____ [ ] In Channel [ ] Road drainage relief [ ] Abandoned
Headwall measurement (top of cmp to top of road): _____ inches
Culvert Condition: [ ] Good [ ] Fair [ ] Poor **Existing Culvert is:** [ ] Working [ ] Failed [ ] Other _____
Evidence of Culvert Overtopping: [ ] Yes [ ] No **Evidence of Past Diversion:** [ ] Yes [ ] No
Culvert Inlet Control: [ ] Rocked [ ] Flared [ ] On Grade [ ] None [ ] Plugged [ ] Other: _____
Culvert Outlet Control:[ ] Rocked [ ] Shotgunned [ ] On Grade [ ] None [ ] Plugged [ ] Other: _____
Stored Sediment Quantities Estimated: Inlet: _____ yds^3 Outlet: _____ yds^3
Plugging potential: [ ] High [ ] Medium [ ] Low
Diversion Potential: [ ] >50' [ ] <50' [ ] None **Crossing Volume:** _____ yds^3
Receiving feature of diversion: [ ] Adjacent cross drain [ ] Adjacent stream crossing [ ] Hill slope [ ] Fill slope
[ ] Not Applicable [ ] Other _____

B. [ ] CHANNEL
1. Feature: [ ] Head Cut [ ] Stream Bank [ ] Other _____
2. Cause: [ ] Road Construction [ ] Mining [ ] Logging [ ] Other _____

C. [ ] Hillslope
1. Feature: [ ] Gully [ ] Mass Movement [ ] Other _____
2. Cause: [ ] Road Drainage [ ] Other _____

Comments _____

_____

_____

III. Future Erosion Potential

A. **Gully Method:** *Length x Width x Depth ÷ 27 = yds^3*
B. **Prism Method:** *Length x Width x Depth ÷ 54 = yds^3*
C. **Conical Volume Method:** ***1)*** *Length^2 x 3.14 x Width of road ÷ 648 = yds^3*

(LESSER EVENT) | **(BIG EVENT)**

Comments on future erosion: _____

_____

_____

IV. Sediment Delivery Data:

A. Estimated potential for future erosion **(Lesser event):** [ ] High [ ] Medium [ ] Low [ ] None
B. Estimated potential for future erosion **(Big event):** [ ] High [ ] Medium [ ] Low [ ] None
C. Estimated distance from main sediment contributor or to substantial channel which sediment will enter (ft.) _____ (enter zero if in channel)
D. Will sediment enter the channel [ ] Yes [ ] No
E. Total sediment **(Lesser event)** _____ yds^3
F. Total sediment **(Big Event)** _____ yds^3
G. Attention recommended 1 2 3 (1 needing immediate attention)

V. Treatment Data (use numerical value one through three, one being the preferred):

A. Treat Class: 1 2 3 Equipment 1 2 3 Hand Work Only 1 2 3 Combination
B. Possible Treatment: 1 2 3 Excavation 1 2 3 Road Drainage 1 2 3 Head Cut 1 2 3 Grade Stabilization
1 2 3 Slope Stabilization 1 2 3 Stream Crossing 1 2 3 Other _____
C. Description: 1 2 3 Crossing 1 2 3 Road 1 2 3 Stream bank 1 2 3 Sediment basin 1 2 3 Sediment removal
1 2 3 Pullback 1 2 3 Culvert maintenance 1 2 3 Water bar 1 2 3 Rolling dip 1 2 3 Out slope
1 2 3 Rock surface 1 2 3 Rock crossing 1 2 3 New culvert w\overflow 1 2 3 Culvert overflow
1 2 3 Outlet protection 1 2 3 Decommission 1 2 3 Road Closure 1 2 3 Other _____

Comments on Treatment _____

_____

_____

VI. SKETCH w/north arrow & labels:

ATTACHMENT #6
Hathaway Owner's Letter of Interest

September 25, 2001

Ms. Kathleen Gilman
SHASTA LAND TRUST
P.O. Box 992026
Redding, CA 96099

Dear Ms. Gilman:

I am one of the family members and managing partner of the 7,000 acre Hathaway Ranch, which is located in Shasta County east of Millville along the Oak Run Road. I have been contacted by the Shasta Land Trust concerning their application for CALFED grant funds to utilize in acquiring a conservation easement on our ranch.

Our family has owned the ranch since the late 1800's when the family first settled in Shasta County. Our desire is for the ranch to remain in family ownership and continue the tradition of cattle ranching. Like many families, we are now faced with inheritance tax problems, competing family interests, and of course, the financial stress that all agricultural families' face today. A conservation easement may help our family overcome some of the problems and allow us to continue the family tradition of cattle ranching in Shasta County.

I'm looking forward to meeting as soon as possible to begin our discussion regarding the details of the conservation agreement. Please contact either Bill Wright at Shasta Land Services or myself to set up our appointment.

Sincerely,

Harry S. Hathaway

Harry Hathaway
12433 Oak Run Road
Oak Run, CA 96096
(530) 941-0672

cc: Bill Wright, Shasta Land Services

ATTACHMENT #7

McArthur Livestock
George & Chris McArthur
PO Box 159
McArthur, CA 96056
(530) 336-6133 Bus. (530) 336-6221 Res. (530) 336-6355 FAX

September 30, 2001

Shasta Land Trust
Redding, CA 96001

To Whom It May Concern:

We are asking the Shasta Land Trust to help us secure a Conservation Easement on our 7100 +/- acre ranch in Millville, California of Shasta County. We are willing sellers of a Conservation Easement.

In addition, we are also looking at a resource inventory off stream watering systems, fish screen for diversion and ditch by-pass structures that afford water quality.

Sincerely,

George McArthur

ATTACHMENT #8

California Regional Water Quality Control Board
Central Valley Region
Robert Schneider, Chair

Winston H. Hickox
Secretary for Environmental Protection

Redding Branch Office
Internet Address: http://www.swrcb.ca.gov/~rwqcb5
415 Knollcrest Drive, Suite 100, Redding, California 96002
Phone (530) 224-4845 • FAX (530) 224-4857

Gray Davis
Governor

2 October 2001

Patrick Wright
Executive Director
CALFED Bay Delta Program
1416 Ninth St., Suite 1155
Sacramento, CA 95814

PROPOSAL FOR COW CREEK CONSERVATION EASEMENT – SHASTA LAND TRUST

This is in support of the joint proposal by Shasta Land Trust and The Conservation Fund for purchase of conservation easements on the Hathaway and JS Ranches in the Cow Creek watershed in eastern Shasta County.

For the past two years the Regional Board has been working with the Western Shasta RCD and the Cow Creek Watershed Group to establish a locally directed watershed program for Cow Creek, identify issues of concern, and complete a Watershed Assessment. A list of priority actions is part of that Watershed Assessment and it includes the recommendation to encourage retention of large ownerships to enhance stewardship and management efficiency for agricultural resources, fuels management and preservation of open space. This project proposal is a significant step towards implementing that recommendation.

The Regional Board has conducted its own water quality monitoring of Cow Creek. We have documented elevated concentrations of fecal coliform bacteria and have additional concerns with regard to high water temperatures and accelerated erosion and sediment discharge. Improved management practices which are a part of this project proposal (and subsequent project work which will likely follow the Ranch assessments) will assist the Regional Board in addressing our water quality concerns.

The Cow Creek watershed is almost entirely in private ownership. We believe that perhaps the most important aspect of this project proposal will be to demonstrate a public/private partnership which will result in non-intrusive continuation of private land management while also providing for protection and enhancement of important resources such as water quality, fisheries, wildlife, and timber management.

If you have any questions, please contact me at 530-224-4851 or the address above.

DENNIS R. HEIMAN
Environmental Specialist

cc: Kathleen Gilman, Shasta Land Trust
Nancy Schaefer, The Conservation Fund

ATTACHMENT #9

Western Shasta Resource Conservation District

3294 Bechelli Lane, Redding, CA 96002
(530) 224-3250 Fax 224-3253 E-mail: wsrcd@westernshastarcd.org

October 2, 2001

Kathleen Gilman, Executive Director
Shasta Land Trust
3179 Bechelli Lane
Redding, CA 96002

Dear Ms. Gilman:

The Western Shasta Resource Conservation District supports your application to CALFED for funds to acquire conservation easements on two ranches in the Cow Creek Watershed.

We recently completed the Cow Creek Watershed Assessment in conjunction with the Cow Creek Watershed Management Group, which included local agency input through a Technical Advisory Committee. One of the 'Action Options' listed in the Land Use section of the assessment is:

> Encourage retention of large ownerships to enhance stewardship and management efficiency for agriculture resources, fuels management, and preservation of open space.

The use of conservation easements with willing landowners in order to preserve the use of the land for agricultural purposes and preserve open space, has our support. The Williamson Act declares that in a rapidly urbanizing society, agricultural lands have a definite public value as open space, and the preservation in agricultural production of such lands constitutes and important physical, social, esthetic, and economic asset to existing or pending urban or metropolitan development. These values are heartily supported by our district.

Thank you for your continued dedication to the preservation of both agricultural use of these lands and open space.

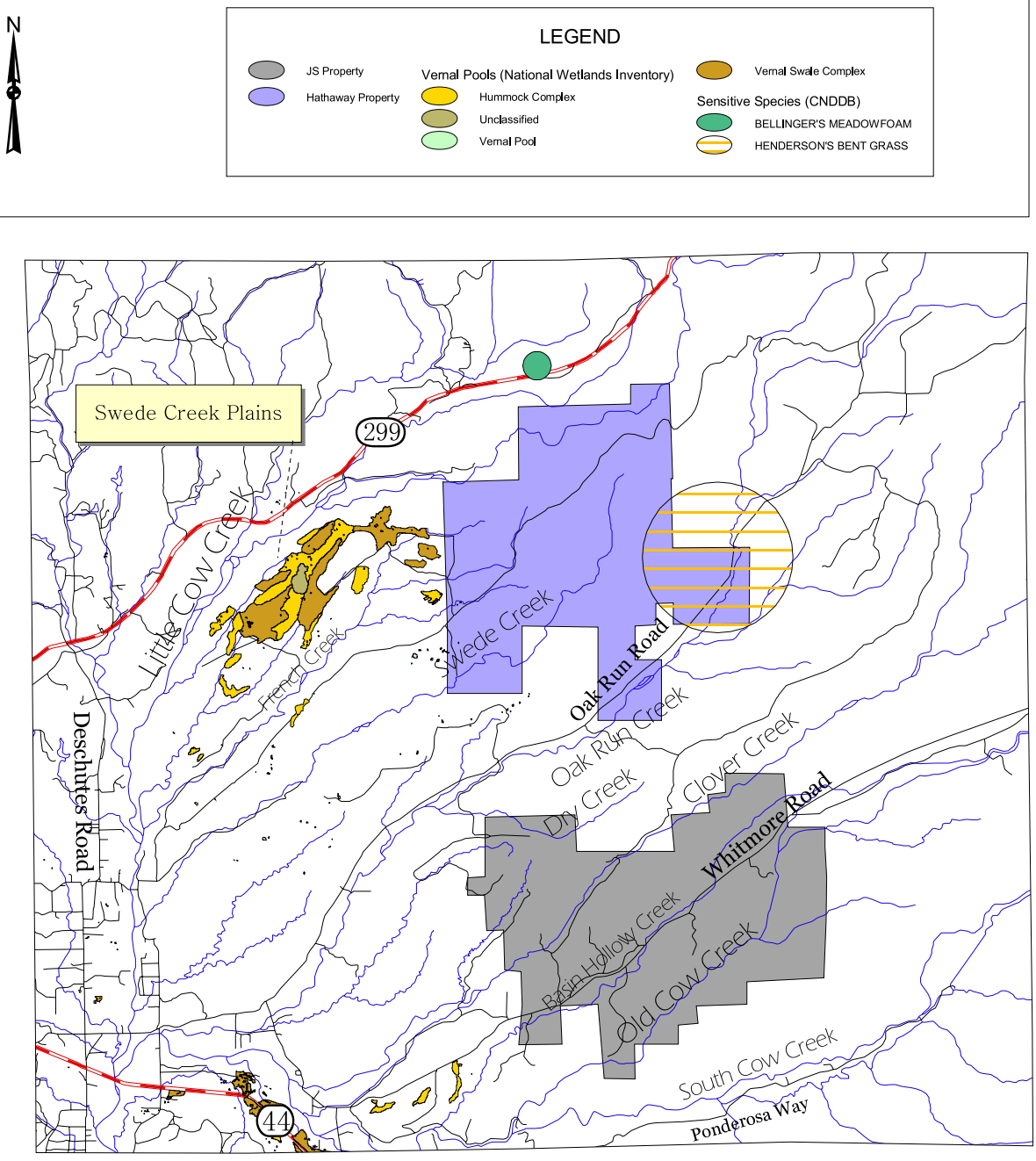
Sincerely,

sent by e-mail

Tom Engstrom, President
Board of Directors

ATTACHMENT #10

Hathaway and JS Properties with adjacent Vernal Pools and Sensitive Species



1 0 1 2 Miles

Map produced for the Shasta Land Trust
at the Shasta College GIS Center. Oct 1, 2001.
Sources: USGS DLGs, CaDFG Calif. Natural Diversity Database,
USFWS National Wetlands Inventory.

ATTACHMENT #11

FLYING TIME: Extension granted for truck stop's environmental study. *B-2*

Local

Section **B**

Record Searchlight

Wednesday, August 29, 2001

Land trust makes first deal

Group buys development rights of Fenwood Ranch to protect wildlife

By Scott Hobley
Record Searchlight

Tires crunching on cracked hardpan soil startle two deer dozing in the grass under a blue oak.

Hawks wheel in the thermals above the tallest trees, competing with distant Lassen Peak for altitude. Something large — possibly a mountain lion — lopes into a clearing and melts into the shadows.

A developer six years ago had proposed building golf courses, a school and more than 1,000 homes on this rangeland four miles east of Anderson.

That development deal fell through. And now the 2,180-acre property, known as the Fenwood Ranch, is off the market.

The Shasta Land Trust announced Tuesday an agreement to buy development rights for the ranch, used as winter range for a herd of cattle fattened on chemical-free feed.

When escrow closes on the property later this year, the 3-year-old, Redding-based land conservation group will have its first purchase.

Kathleen Gilman, the nonprofit's executive director, said Fenwood Ranch's large size and varied wildlife make it a perfect beginning project. Biologists have found more than 100

See *Land*, B-5

B-5

LAND: *Owners give up their right to build in exchange for tax breaks*

Continued from B-1

animal species on the property, she said. Vernal pools seem with fragile life each spring.

The ranch, which sits between Cow Creek and Bear Creek, includes 2½ miles of bluffs along the Sacramento River. That makes it a favorite roosting place for bald eagles, osprey and Cooper's hawks, Gilman said.

Jim Rickert manages the ranch and approached the land trust two years ago, when he heard the organization was interested in buying conservation easements for large agricultural properties in Shasta County.

Other land trusts, such as the Nature Conservancy, have used conservation easements to protect thousands of acres in the Lassen foothills east of Red Bluff.

Under the agreement, owners give up the right to build houses, roads and other non-agricultural buildings on the ranch in exchange for property and estate tax breaks.

Rickert said he prefers conservation easements because they compensate landowners and are voluntary. The alternative, he said, are regulations that enforce land protection while treading on people's property rights.

"It seems like this is a kinder, gentler way to have influence on community viewscapes," Rickert said. "I did not want this to become a 1,000-home subdivision."

Rickert's link to Fenwood Ranch goes back to his grandparents, who were friends of the owners. Rickert brokered the deal that could have turned the ranch into a country club.

Today, Fenwood is part of a 14,000-acre network of ranches in four far Northern California counties, where Rickert raises beef cattle using sustainable organic farming methods. Rickert also sells cattle hides to pharmaceutical firms producing collagen, a substance used in burn treatment, plastic surgery and other skin therapy.

The Fenwood herd, which averages about 400, moves to a ranch near Fall River Mills in late spring, when strong sun sears the grass in the northern Sacramento Valley.

The Shasta Land Trust has begun negotiating conservation easements on two other large ranches in the Cascade foothills east of Redding, Gilman said.

The group, with a membership of about 100, plans a fund raiser in the fall.

The Trust for Public Land helped the Shasta organization draw up the Fenwood conservation easement. Experts in other land conservation groups are scouring the document and pointing out loopholes, Gilman said.

More than five state and federal agencies have pledged money to buy the easement, Gilman said.

Donors include the California Department of Transportation, the California Resources Agency, the U.S. Bureau of Reclamation, the U.S. Natural Resources Conservation Service and the U.S. Fish and Wildlife Service.

Gilman declined to release the easement's cost before the deal closes.

Reporter Scott Hobley can be reached at 225-8220 or at shobley@redding.com.

Give Light And The People Will Find Their Own Way

SCRIPPS HOWARD

Record Searchlight

About letters

Letters to the editor are welcomed, in writing, fax or by e-mail.

Mailed letters must be signed and all must include the author's real name, including full first name, middle initial and last name. Include daytime phone number and residence address for verification; only name and hometown will be published.

Letters should be succinct (less than 200 words) and are subject to editing.

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Editorial

Look to land trust to make priority of saving landscape

The Shasta Land Trust is off to a great start.

The Redding-based nonprofit group is making good on its mission to maintain open space and conserve agricultural land. A 2,180-acre piece of property east of Anderson will be preserved as a ranch into perpetuity, Executive Director Kathleen Gilman announced last week.

"We'll have a big celebration when the deal closes and the deed is recorded," Gilman said.

The land trust is putting the finishing touches on purchasing the development rights for the Fenwood Ranch, a move that will let the property owners continue to keep cattle during the winters and provide them with breaks on property and estate taxes. Most important, the deal will prevent the gorgeous land from being developed. A project had been proposed six years ago to build more than 1,000 homes, golf courses and a school on the land. Had the deal gone through, oak trees would have vanished and more than 100 species of animals would have been pushed aside.

The public will also will benefit. Land trust representatives will be able to lead walks and allow bird-watching, activities that aren't always available on land obtained by the trust. Pristine views of bluffs along the Sacramento River will be preserved for boaters, and motorists can take in views of the property from nearby roads.

Gilman calls the Fenwood Ranch "a wonderful signature property." It's the organization's first purchase and culminates two years' worth of ironing out details and rounding up funding. The Fenwood deal involves five state and federal agencies that have signed on as donors.

The land trust is working on easements covering two more large ranches east of Redding. It would be great if publicity from the latest deal brings inquiries from more landowners.

The Shasta Land Trust, now 100 members strong, started with a vision 3½ years ago. The Fenwood deal brings that vision into focus. We wish the group success in its endeavors.