

Appendix B: Forms

San Mateo County Parks and Recreation Maintenance Unit
WORK REQUEST

I. DESCRIPTION OF WORK				
Unit #	Park Name	Priority: Emergency, Urgent, Routine, As Possible, Estimate Only, Other		
Work Location				Target Date
Detailed Work Description				
Safety Hazard, or Attachments				
Availability of Park Resources and Personnel				
Proposed Charging Information				
Organization #:	Account #:	Activity Code:	Option Code:	E.P.O.#:
Contact Name(s)	Contact Telephone #	Supervisor Approval	Date Approved	
II. MANAGEMENT REVIEW				
Reviewer	O.K.	Initials	Date	Comments
Park Superintendent				Cont.
Planning and Development				Cont.
Management Analyst				Cont.
Director of Parks				Cont.
Other:				Cont.
Other:				Cont.
III. MAINTENANCE REVIEW				
Date Received	Pre-Work Conference	Maintenance Estimate		
		Materials: \$	Staff Hours: #	Other: \$
Scope of Work				Cont.
Maintenance Review Disposition			Disposition/Comments	
Schedule Priority (1-4):	Refer Back to Mgr.	Hold		
IV. WORK MANAGEMENT				
Primary Worker		Additional Maintenance Staff		
Estimated Start Date	Estimated Completion Date	Park Contact Assigned		
Materials Needed		Ordered:	By:	Rcvd:
Additional Park Unit Staff Required			Scheduled:	By:
Contractors/Rentals/Permits/Other Needs			Arranged:	By:
Changes to Original Scope of Work				Cont.
V. WORK COMPLETION INFORMATION				
Completion Date	Work Accepted By	Date	Final Cost	
			Materials: \$	Staff Hours: # Other: \$
Comments/Misc..				

Copies: Top - Maintenance Unit Final; Second - Unit Final; Third - Unit Planning; Fourth - Manager Review; Bottom - Unit Original

Suggested Ranking Criteria

Rankings within each criteria category should be between 3 and 0 with 3 being the highest possible ranking.

3 - this project meets all the applicable criteria for this category

2 - this project meets most of the applicable criteria for this category

1 - this project meets a few of the applicable criteria for this category

0 - this project does not meet any of the criteria for this category

n/a - this project does not have any relevance to this criteria category (e.g. a polygon that includes invasive plant removal only, would receive an n/a for the trails criteria).

Proposed Project	Ranking (0,1,2,3, N/A)	TOTAL
Protects And Enhances The Park's Most Sensitive Natural Areas		
a. T&E, special status species, locally rare species		
b. Wetlands		
c. Special Ecological Area, rare or sensitive vegetation communities, and/or unique geologic feature		
Sum		
Controls And Reduces Threats To Natural Resources And/Or Cultural Resources And/Or Restores Natural Processes		
a. Controls and/or removes targeted invasive plant material		
b. Controls non-natural erosion & restores natural hydrology/drainage		
Sum		
Trail and Visitor Use Improvements		
a. Trail and Visitor Use Improvements		
b. Project reduces need for trail maintenance		
c. Improves the integrity and circulation of the trail system		
i. Clear logical main trail		
ii. "Rib" connectors to destinations and communities		
iii. Trail heads and loops etc.		
d. Removes non-designated social trails		
e. Reduces sedimentation, erosion and resource trampling disturbance		
f. Enhances visitor experience (destinations, circulation, linkages)		
g. Improves Public Safety		
Sum		
Public Engagement and Support		
a. Provides interpretive opportunities		
b. Provides for increased volunteer/stewardship opportunities		
c. Demonstrated or potential to garner significant public interest and support		
d. Improves intrinsic visitor and recreational experiences		
e. Increases understanding and support for natural resource values of Park		
Sum		

Proposed Project	Ranking (0,1,2,3, N/A)	TOTAL
Potential for Funding		
a. Funding available (in part) through other programs/projects		
b. Funding potential		
c. Future leverage “quotient”		
Sum		
Potential for Implementation Success, Project Feasibility		
a. Project can be accomplished within projected timeline Including permitting and CEQA (“project readiness”)		
b. High level of outcome for resources expended		
Sum		
Integrates With Existing Projects		
Sum		
Consistency with Internal Programs and Staff Capacity		
a. Adds support to existing Park programs		
b. San Mateo County Park staff capacity/in line with Park values		
c. Reduces maintenance crises		
d. Compatible with internal organizational priorities		
Sum		
TOTAL RANKING FOR PROPOSED PROJECT		

Suggested Ranking Criteria Example

Rankings within each criteria category should be between 3 and 0 with 3 being the highest possible ranking.

3 - this project meets all the applicable criteria for this category

2 - this project meets most of the applicable criteria for this category

1 - this project meets a few of the applicable criteria for this category

0 - this project does not meet any of the criteria for this category

n/a - this project does not have any relevance to this criteria category (e.g. a polygon that includes invasive plant removal only, would receive an n/a for the trails criteria).

Project example: *San Mateo County Parks department wants to update a bridge structure, remove encroaching non-native ivy and restore approximately 1-acre around the bridge to native vegetation. The bridge spans a creek that is a popular trail and California red-legged frog is known to be present near the project site.*

Proposed Project	Ranking (0,1,2,3, n/a) (3 = highest)	TOTAL
Protects And Enhances The Park's Most Sensitive Natural Areas		
a. T&E, special status species, locally rare species	3	
b. Wetlands	3	
c. Special Ecological Area, rare or sensitive vegetation communities, and/or unique geologic feature	3	
Sum		9
Controls And Reduces Threats To Natural Resources And/Or Cultural Resources And/Or Restores Natural Processes		
a. Controls and/or removes targeted invasive plant material	3	
b. Controls non-natural erosion & restores natural hydrology/drainage	2	
Sum		5
Trail and Visitor Use Improvements		
a. Trail and Visitor Use Improvements	3	
b. Project reduces need for trail maintenance	3	
c. Improves the integrity and circulation of the trail system	3	
i. Clear logical main trail	3	
ii. "Rib" connectors to destinations and communities	0	
iii. Trail heads and loops etc.	0	
d. Removes non-designated social trails	n/a	
e. Reduces sedimentation, erosion and resource trampling disturbance	2	
f. Enhances visitor experience (destinations, circulation, linkages)	2	
g. Improves Public Safety	3	

Proposed Project	Ranking (0,1,2,3, n/a) (3 = highest)	TOTAL
	Sum	19
Public Engagement and Support		
a. Provides interpretive opportunities	3	
b. Provides for increased volunteer/stewardship opportunities	3	
c. Demonstrated or potential to garner significant public interest and support	1	
d. Improves intrinsic visitor and recreational experiences	3	
e. Increases understanding and support for natural resource values of Park	1	
	Sum	11
Potential for Funding		
a. Funding available (in part) through other programs/projects	2	
b. Funding potential	1	
c. Future leverage "quotient"	1	
	Sum	4
Potential for Implementation Success, Project Feasibility		
a. Project can be accomplished within projected timeline Including permitting and CEQA ("project readiness")	1	
b. High level of outcome for resources expended	2	
	Sum	3
Integrates With Existing Projects		
<i>Integrates with the goal of maintaining safe access to the public</i>	3	
	Sum	
Consistency with Internal Programs and Staff Capacity		
a. Adds support to existing Park programs	1	
b. San Mateo County Park staff capacity/in line with Park values	2	
c. Reduces maintenance crises	2	
d. Compatible with internal organizational priorities	3	
	Sum	8
TOTAL RANKING FOR PROPOSED PROJECT (highest ranking possible = 90)		62

COUNTY OF SAN MATEO
DIVISION OF PARKS AND RECREATION
455 County Center, 4th Fl., Redwood City, CA 94063-1646
Office: (650) 363-4020
Application For A Scientific Collection Permit

(Type or print clearly when filling out this application.)

Date of Application: _____ Expires: _____

Name: _____ Driver's License No. _____

Address: _____ Apt. No. _____ City: _____

State: _____ Zip: _____ Telephone: Home () _____ Fax () _____

Work () _____ Ext. _____

State Permit No. _____ Permit No. _____

Start Date(s): _____ Time(s): _____

Project Description: _____

(Please attach an additional sheet(s), if more space is needed.)

Project or Thesis Title: _____

Park: _____ Location(s) where you wish to collect: _____

Approximate Date of Completion: _____.

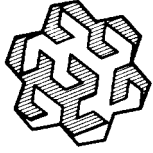
COLLEGE AND HIGH SCHOOL STUDENTS, PLEASE HAVE THE FOLLOWING COMPLETED:

Name of College or High School: _____

Address: _____ City: _____ State: _____ Zip: _____

Signature of Faculty Advisor: x _____ Title: _____

Please Print Name: _____ Telephone: () _____



TRA

THOMAS REID ASSOCIATES
ENVIRONMENTAL CONSULTANTS

560 Waverley Street, Suite 201, P.O. BOX 880, Palo Alto, CA 94301
Tel: (650) 327-0429 ☐ Fax: (650) 327-4024 ☐ www.TRAenviro.com

Dear Permit Applicant:

Attached is the application you requested for a San Bruno Mountain Site Activity Permit. Please fill it out and FAX to the following parties for approval:

Sam Herzberg at San Mateo County (650) 599-1721
Thomas Reid Associates (650) 327-4024

Do not limit yourself to the space provided. Although some projects are small and the application may be completed on the form, more detail is usually required than will fit on the application form. Each category should be answered in detail, including personnel used, job schedule, and protective measures intended to limit impacts. Job schedules and personnel used during different phases of work are best communicated in a table. Protective measures needed to avoid impacts may include erosion control, careful timing of work, education and avoidance of sensitive resources, and limitations on the equipment and personnel used.

Approval of the San Bruno Mountain Site Activity Permit does not render unnecessary other permits that may be required for your project, from other agencies or governing bodies (i.e. US Army Corps of Engineers, California Department of Fish and Game, US Fish and Wildlife Service, California Regional Water Quality Control Board, California Department of Forestry, Bay Area Air Quality Management District). It is the applicant's responsibility to have all necessary permits in order before beginning the project.

Proof of the landowner's permission for the project or initiation of the project is also required, if the applicant and landowner are not the same.

Sincerely,

Patrick Kobernus
San Bruno Mountain HCP activities coordinator

COUNTY OF SAN MATEO
Parks and Recreation Division
County Government Center
Redwood City, CA 94061

When completed FAX to:
Thomas Reid Associates (TRA) (650) 327-4024
Sam Herzberg, San Mateo County (650) 599-1721

SAN BRUNO MOUNTAIN
HABITAT CONSERVATION PLAN SITE ACTIVITY PERMIT

not a valid permit until approved below

PROJECT: _____ LEAD AGENCY: _____

PROPERTY OWNER: _____ DATE: _____

APPLICANT: _____ CONTACT PERSON: _____

ADDRESS: _____

PHONE: _____ EMAIL: _____

HCP Administrative Parcel Number: _____

Project Description (include site maps - 1" = 200 ft. - discuss access, parking, equipment storage, spoils disposal, etc.): Attach maps, and a separate sheet or report if necessary.

Equipment required: _____

Personnel required: _____

Onsite contact (name, telephone): _____

Job schedule (daily): _____

Scope of impact to habitat and proposed protective measures: _____

If applicant and property owner are not the same, attach a copy of a document showing proof of the property owner's concurrence with or permission for the project, or initiation of the project, including a contract or other signed statement.

Applicant's Signature/Title: _____

FOR STAFF USE ONLY

PERMIT VALID UPON APPROVAL BELOW

County Contact: _____ Phone: _____

Conditions of Approval: Inform TRA and San Mateo County when work is completed or stopped

Signature/Title: _____ Date: _____

NOTE: Use Additional Pages for Further Description

TRA: (01/06/2002)

This permit does not absolve applicant of responsibility to obtain all other applicable permits; this permit grants HCP Habitat Manager approval to projects within the San Bruno Mountain HCP. Other permits may be required.

**SAN MATEO COUNTY MAINTENANCE NOTIFICATION
(FORM RM-E01)**

SECTION 1: TO BE COMPLETED BY OPERATOR, SUPERVISOR OR MANAGER			
REQUESTOR/TITLE		PHONE NUMBER	
DATE OF REQUEST	PROJECT START DATE	CATEGORY OF WORK	RM EO PRV
LOCATION OF WORK (ROAD NAME, ADDRESS OR MILE MARKER, DISTANCE TO & NAME OF CROSS STREET)			
DESCRIPTION OF WORK (INCLUDING EQUIPMENT USED/NEEDED, AVOIDANCE MEASURES TAKEN, EROSION CONTROLS APPLIED, ETC.)			
WORK SITE DIAGRAM			
SECTION 2 – TO BE COMPLETED BY MANAGER			
PERMITS/NOTIFICATIONS REQUIRED:			
PERMITS/NOTIFICATIONS COMPLETED BY: NAME/TITLE		DATE	

Distribution: Supervisor Maintenance Manager/Division Manager Office File

EDGEWOOD PARK & PRESERVE MONITORING PROGRAM

**By
Ricardo Trejo**

INTRODUCTION

In compliance with County of San Mateo Agriculture Weed Abatement this monitoring program is intended to monitor the Exotic Plant Eradication and/or Habitat Restoration Programs. To initiate the monitoring program, the following outline intention is for collection and recording data needed in order to evaluate the effectiveness and impacted that the park's native plant will incur during the eradication process or progress in restoration projects. All individual areas are to be mapped and data pertaining to an area is to be logged in a logbook.

MONITORING GUIDLINE

INTRODUCTION:

Description of the area that is to be studied/restored (marsh habitat, grassland etc.) and identified by placing boundary markers. Give information on the type of native plants to the area, and of the exotic plants to be eradicated.

GOALS AND OBJECTIVES:

Why and what is to be accomplished. Duration of study (start date and ending date, not to exceed one calendar year), so that the method and procedure can be evaluated and make adjustments if needed.

PROCEDURE:

1. Identify each area to be studied/restored and mark its boundary with stakes, give size of area.
2. In area to be studied, estimate the population of the different type of plants that exist (seasonal). Example; If area to be studied is 50 square feet, take two or three ten square feet readings of the different types of plants (native and exotic) that exist in the area by season.
3. How are exotic plants to be exterminated (hand pulled, chemicals, control burn etc.).
4. Assist nature in native plants restoration by planting seedlings (how many are planted and dated), by spreading native seeds (type and where were seeds collected), or by allowing native plants to restore naturally.
5. If seeds are collected from the park to grow seedlings in a control environment, record the weight of seeds collected and type.
6. What types of equipment/tools are to be used?

PRO/CON:

Example:

1. Given the procedures what can be expected.
Pro: Extermination of exotic plants allows native plants to dominate area.
Con: Mass number of persons in study area may cause excessive packing of soil and plant stumping.
2. Time and weather factors (spring vs. fall etc.).

DATA:

1. How many and type of exotic plants were removed and date.
2. How many native plants seedling planted and date.
3. Record interval schedules for plant population readings (native and exotic plants).
4. List of factors that may be affecting the results in the study.

CONCLUSION:

Are the native plants population increasing or not. Exotic plants continue dominating areas. Should alternative measures take place, if so what.

TRAIL RESOURCE TRAINING

OUTLINE

BY RICARDO TREJO

I. INTRODUCTION

- A. Pass Procedures
- B. Present View Point Awareness
- C. Communication

II. REGULATIONS

- A. CEQA
- B. ADA
- C. Local, State, and Federal
- D. Resource/Habitat Sensitive
- E. Monitoring Program

III. TRAIL RESTORATION

- A. Generic vs. Local on site Specification
- B. Repairs beyond trail tread
- C. Trail Inventory

IV. FINANCIAL SUPPORT

- A. Monitoring cost factor
- B. Interpretive/Education Programs
- C. Public/Special interest support groups
- D. Grant information

Simultaneous Development Application (if any): _____

TRT # _____

San Mateo County Planning and Building Division • 590 Hamilton Street, Redwood City
California 94063 • 363-4161

Application for Permit to Trim or Remove

Sections 11,000 et seq and 12,000 et seq of the San Mateo County Ordinance Code.

HERITAGE TREE(S) SIGNIFICANT TREE(S)



Applicant: _____

Address: _____

Telephone: _____

Date of Application: _____

10 Day Period of Posted Notice

From: _____

To: _____

Address and/or parcel number where tree(s) located: _____

Tree(s) Diameter or Circumference (at 4 1/2 ft height)	Kind of tree(s)	Health of tree(s)	Reason for Removal/Trimming

REMOVAL PLAN:

1. Method of removal: _____

2. Equipment to be used: _____

3. Method of tree(s) disposal: _____

The information contained in the application is accurate and true to the best of my knowledge. I understand that an approved permit may be conditional. Further, the decision on this application may be appealed to the San Mateo County Planning Commission. Authority to remove or trim a tree is effective only after the appeal period has expired.



recycled paper

Applicant's Signature

VEGETATION WORK REQUEST (Page 1)

I. DESCRIPTION OF WORK

Unit #	Park Name	Priority (Emergency, Urgent, Routine, As Possible, Estimate Only, Other):	Project Ranking (if available):
Work Location			Target Start Date:
Project Title			Habitat type(s):
Availability of Park Resources and Personnel		Species Benefitted (List):	

II. PROPOSED CHARGING INFORMATION

Organization #:	Account #:	Activity Code:	Option Code:	E.P.O.#:
Contact Name(s)	Contact Telephone #	Supervisor Approval		Date Approved:

III. MANAGEMENT REVIEW

Reviewer	O.K.	Initials	Date	Comments
Park Superintendent				Cont.
Planning and Development				Cont.
Management Analyst				Cont.
Director of Parks				Cont.
Other:				Cont.
Other:				Cont.

IV. STAFF REVIEW

Date Received	Pre-Work Conference (date)	Summary Cost Estimate:		
		Materials: \$	Staff Hours: #	Other: \$

V. DETAILED WORK DESCRIPTION

Description of Work:	Acres
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VEGETATION WORK REQUEST (Page 2)

V.1 Work Needs Checklist (Circle)

	Baseline data collection	Permits, Approvals, Agreements Public Notifications (List)	Plant Materials collection /propagation (Attach list)	Herbicide application (type)	Tree removal /Forestry Assessment	Mowing/ Maintenance Crew	Rare Plant, Wildlife Surveys	Other Specialty Services (list)	Signage, Fencing, Erosion Control (list)	Performance Monitoring (type, frequency)
Details (Specify)										

V.2 Work Schedule, Frequency (fill in for each type of project):

Total duration										
Seasonal restrictions										
Optimal treatment timing										
Retreatment timing/frequency										
Proposed start date										
Projected completion date										

V.3 Waste Disposal Options

Green Waste Generated (amt):	Type: (grass clippings, wood debris, invasive plants)	Disposal Method:	Recycle Works Notification/Assistance Y/N
Maintenance Review Disposition		Disposition/Comments	
Schedule Priority (1-4):	Refer Back to Mgr.		

VEGETATION WORK REQUEST (Page 3)

VI. WORK MANAGEMENT

Primary Worker(s):	Additional Maintenance Staff (List Names):		
Estimated Start Date	Estimated Completion Date	Park Contact Assigned	
Materials Needed (list):	Ordered (Date):	By:	Rcvd:
Additional Park Unit Staff Required		Scheduled:	By:
Contractors/Rentals/Permits/Other Needs		Arranged:	By:
Changes to Original Scope of Work			Cont.

VII. WORK COMPLETION INFORMATION

Completion Date:	Work Accepted By:	Date:	Total Acres Treated:	Species Benefitted:
Staff Hours (Total):	Final Cost Staff:	Final Cost Materials: \$	Other costs:	TOTAL COST:

Comments/Misc.

Revegetation Monitoring: Project Field Assessment Form (PAGE 1)

Date: Observer: Location (ATTACH MAP):	Project Name: Project Number: Park: Project Manager:
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Type of Project (Circle 1)

Revegetation	Tree Removal/ Forest Improvement	Fuel Load Management Fire Management	Invasive Plant Control	Sensitive Species Habitat Enhancement	Erosion Control/ Non-point Source Pollution control	Mowing	Trail Maintenance	Winter Stormproofing /Culverts, Roads, Bridges	Other (Specify)
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Status Of Project

Monitoring Year (CIRCLE ONE):	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	Other	
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Active Restoration (Planting) Sites- Plant Survivorship Monitoring

Parameter	Measure	Site 1	Site 2	Site 3	Site 4	Site 5	DEFINE Annual Performance Criteria (Fill in from monitoring report- example: XX % survival in Year XX)	DEFINE Overall Success Criteria (Fill in from monitoring report- example: XX % survival by end of the project in Year XX)	Target met? Y/N
Trees	% Survival								
Shrubs	% Survival								
Groundcover/ Herbs	% Survival								

Active Restoration (Planting) Sites- Assessment of Growth, Vegetation, Canopy Cover

Trees	Average height, stem width or dbh								
	Vegetation or Canopy cover (Use Cover Class Estimates 1-5 on Page 3)								
	Evidence of new growth? Y/N?								
Shrubs	Vegetation or Canopy cover (Use Cover Class Estimates 1-5 on Page 3)								
	Evidence of new growth? Y/N?								
Groundcover/ Herbs	Vegetation or Canopy cover (Use Cover Class Estimates 1-5 on Page 3)								
	Evidence of new growth? Y/N?								

Revegetation Monitoring: Project Field Assessment Form (PAGE 2)

Date: Observer: Location (ATTACH MAP):	Project Name: Project Number: Park: Project Manager:
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Ground Condition

Mulch installed depth (Inches): Litter? Y/N: Quantity present: Thatch/Weeding Needed? Y/N % ground coverage of thatch/weeds? Other concerns: (shading/crowding the plantings)	Other Ground Condition Problems (DESCRIBE)-(e.g., watering, erosion, damage, deer browse)
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Invasive Plants

Are Target Invasive Plants Present ? If so, what species? Describe Location and Population size.

Are Other Weedy Plants Present (grasses, annual weeds)? If so, what species? Describe Location and Population size.

Environment

Trampling	Describe Extent/Problem Here:	Describe possible solution here:
Herbivory/deer browse, rodents	Describe Extent/Problem Here:	Describe possible solution here:
Poor drainage	Describe Extent/Problem Here:	Describe possible solution here:
Overly dry soils	Describe Extent/Problem Here:	Describe possible solution here:
Plant breakage	Describe Extent/Problem Here:	Describe possible solution here:
Insect Damage	Describe Extent/Severity Problem Here: Identify	Describe possible solution here:
Disease damage/loss	Disease/Describe Severity/Problem Here:	Describe possible solution here:
Other concerns	Describe Extent/Problem Here:	Describe possible solution here:

Revegetation Monitoring: Project Field Assessment Form (PAGE 3)

Date: Observer:	Project Name: Project Number:
Location (ATTACH MAP):	Park: Project Manager:

Remediation / Follow Up Action

Action 1:	Assigned to:	Completed by:	Target Completion Date:	Actual Completion Date:		
Describe:	Park Staff:	Name:				
	Volunteer:	Organization:				
	Contractor:					
Action 2:	Assigned to:	Completed by:	Target Completion Date:	Actual Completion Date:		
					Park Staff:	Name:
					Volunteer:	Organization:
Describe:						
	Contractor:					
Action 3:	Assigned to:	Completed by:	Target Completion Date:	Actual Completion Date:		
					Park Staff:	Name:
					Volunteer:	Organization:
Describe:						
	Contractor:					

REFERENCES

Score	Cover class	Midpoint Value	Visual Estimate of Cover classes
1 =	0%-5%	3%	
2 =	6%-25%	15.00%	
3 =	26% -50%	38%	
4 =	51%-75%	63%	
5 =	76% - 100%	88%	

Supporting Project Data

(Attach Project Maps , Baseline Data, Photos and Success Criteria Here)

Grazing Monitoring Form

Date:	Lessee
Observer:	Lease #
Location:	Renewal Date:

General Site Conditions (Describe overall condition of site, forage, brush, invasive plants, grass; fencing; number of animals present on day of survey, etc.)

Observed issues, Problems, Concerns (Describe anything of concern such as erosion caused by animals, over utilization, underutilization, damage to fencing, watering facilities, native plants, etc.)

Visual RDM ESTIMATES (Attach Map of Sampling Locations)

Site No.	RDM Visual Estimate (See attached sheet for references)		
	High (3)	Moderate (2)	Low (1)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Subtotal			

TOTAL

Average for Entire Site (Add up all RDM Estimate values and divide by the total number of sample sites)

Remedial Actions Needed? Describe Recommendations (for example: reduce/increase # animal units, discontinue grazing, change season, add cross fencing, add additional water sites, etc.)

Figure 1. Light grading results in high ECDH levels.



Figure 2. Moderate grading results in the recommended moderate level of ECDH.



Figure 3. Heavy grading results in low ECDH levels.



Photo Monitoring Form

Date:

Park Name:

Observer:

General comments:

Project Name:

Attach Map of Photo Points here

HABITAT MONITORING Transect/Quadrat Monitoring Form

Date: Observer: Location: (Attach Map of Sampling Locations)	Park Name: Project Name: Contact Person/Manager: Photo No.
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Transect/Quadrat Data

	T1	T2	T3	T4	T5
Habitat Type: (grassland, scrub, forest, etc)					
Q1					
Q2					
Q3					
Q4					
Q5					
Sum					
Average Cover Class (divide by 5)					
Cover Class Midpoint Value (refer to chart below)					

Reference:				
	Score	Cover class	Midpoint Value	
	1 =	0%-5%	3%	
	2 =	6%-25%	15.00%	
	3 =	26% -50%	38%	
	4 =	51%-75%	63%	
	5 =	76% - 100%	88%	

HABITAT MONITORING Transect/Quadrat Monitoring Form

Date: Observer: Location: (Attach Map of Sampling Locations)	Park Name: Project Name: Contact Person/Manager: Photo No.
--	---

Transect/Quadrat Data

	T6	T7	T8	T9	T10
Habitat Type: <small>(grassland, scrub, forest, etc)</small>					
Q1					
Q2					
Q3					
Q4					
Q5					
Sum					
Average Cover Class <small>(divide by 5)</small>					
Cover Class Midpoint Value <small>(refer to chart on next page)</small>					

Reference:		Score	Cover class	Midpoint Value
		1 =	0%-5%	3%
		2 =	6%-25%	15.00%
		3 =	26% -50%	38%
		4 =	51%-75%	63%
		5 =	76% - 100%	88%

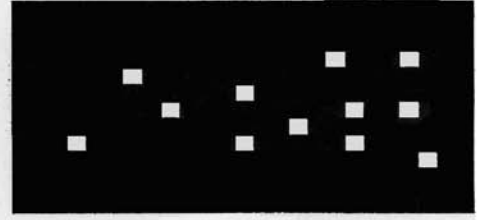
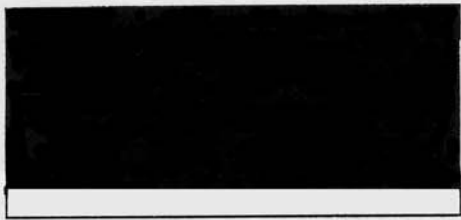
HABITAT MONITORING Transect/Quadrat Monitoring Form

Date: Observer: Location: (Attach Map of Sampling Locations)	Park Name: Project Name: Contact Person/Manager: Photo No.
--	---

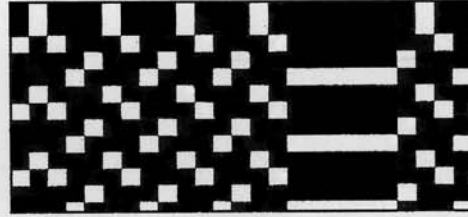
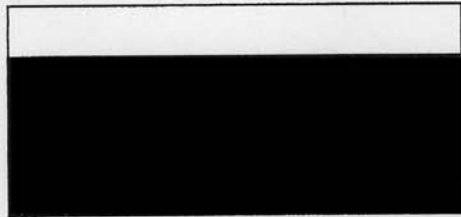
DATA SUMMARY: Transect/Quadrat Data (ENTER Summary Data (From Sheets 1 and 2))

Habitat Type: (enter type in boxes to right i.e. grassland, scrub, forest, etc)	Grassland	Shrubland	Forest	Other (Add)	Other (Add)
	(enter midpoint range for each transect in appropriate habitat column)				
T1					
T2					
T3					
T4					
T5					
T6					
T7					
T8					
T9					
T10					
Sum By Habitat Type					
Average Habitat (divide by sample number in each habitat type)					
Summary Habitat Cover Class Midpoint Value (refer to chart below)					

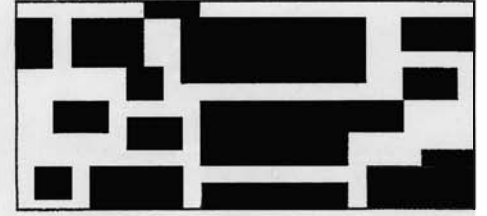
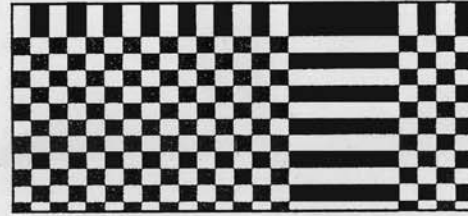
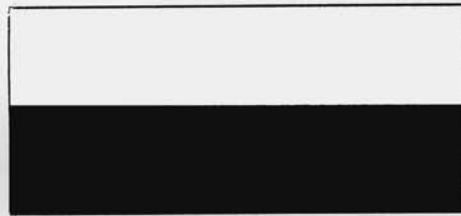
Reference:	Score	Cover class	Midpoint Value
	1 =	0%-5%	3%
	2 =	6%-25%	15.00%
	3 =	26% -50%	38%
	4 =	51%-75%	63%
	5 =	76% - 100%	88%



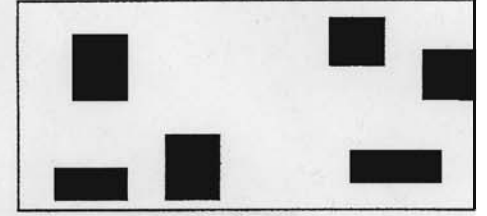
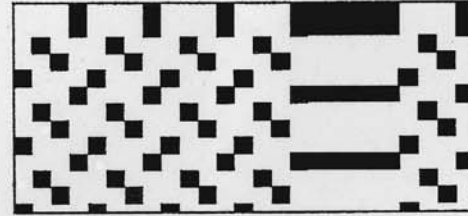
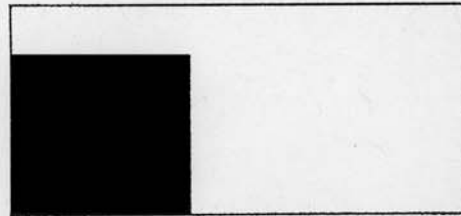
90%



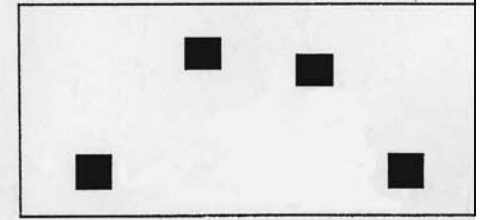
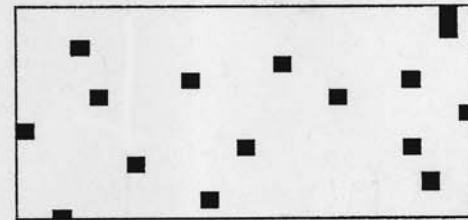
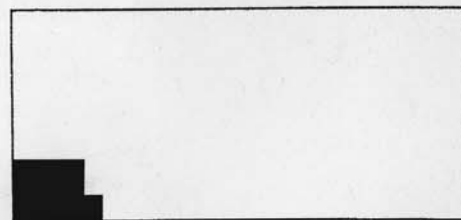
75%



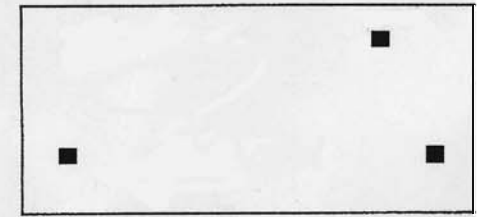
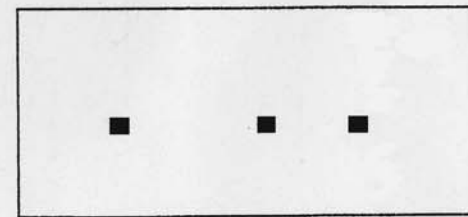
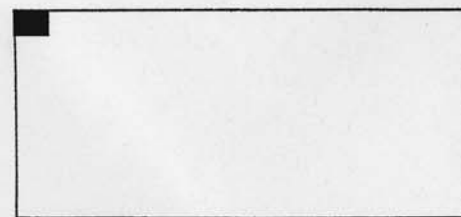
50%



25%



5%



1%

TREE RISK ASSESSMENT FORM

TREE NUMBER:
DATE:
ASSESSOR'S NAME:

TREE SPECIES:
TREE DIAMETER:
SPECIFIC TREE LOCATION:

OWNERSHIP:

OWNER'S NAME & PHONE:

BOUNDARY LINE TREE _____

SINGLE OWNER TREE _____

FEET FROM BOUNDARY (falling in / falling out):

RISK ASSESSMENT:

MAJOR STRUCTURAL FAULTS (describe type and location):

FAULT #1 (ZONE=): _____

FAULT #2 (ZONE=): _____

FAULT #3 (ZONE=): _____

OTHER STRUCTURAL FAULTS:

MINOR RISKS:

TARGETING (people / property / resources over space and time):

RISK ACCEPTANCE GIVEN MANAGEMENT OBJECTIVES (hazard thresholds):

ACTIONS:

_____ NO REMOVAL

_____ MANAGERIAL NOTICE OF RISKS

_____ MINOR FAULTS AND CORRECTIONS / RISK REDUCTION

_____ REMOVAL

** _____ PRIORITY REMOVAL **

TREE RISK ASSESSMENT: SYSTEMATIC EVALUATION PROCESS

Dr. Kim D. Coder, University of Georgia 1990

ZONE 1: STEM / ROOT BASE (4 feet up and out) -- Bottom four feet of main stem and zone of rapid taper (ZRT) in roots stretching out four feet.
NO COMPROMISE -- NO DOUBT

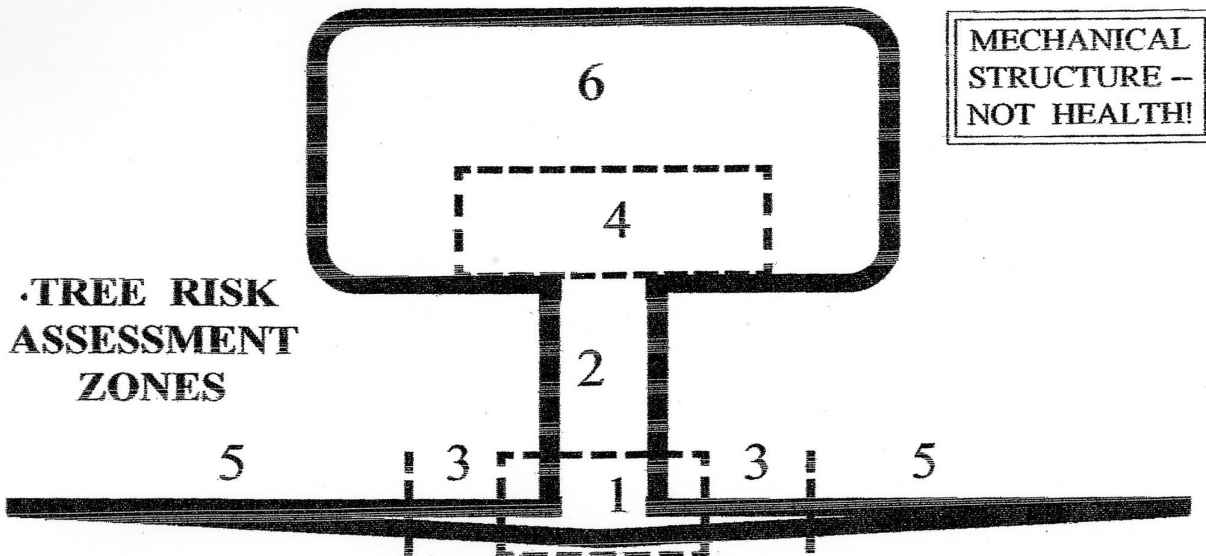
ZONE 2: MAIN STEM (up to live crown and base of scaffold branches)
ZONE 3: PRIMARY ROOT SUPPORT (out to 1/2 the drip line)
ZONE 4: PRIMARY BRANCH SUPPORT (major branch base area plus the basal 1/3 of their length)

Faults in zones two, three, and four are correctable with large inputs of time, money, materials and technical maintenance. Corrective measures may represent a notification of problems.

ZONE 5: REMAINDER OF WOODY ROOTS (out to 1.5 times the dripline)
ZONE 6: REMAINDER OF CROWN

Zones five and six are not of primary structural concern but any faults still represent significant risks

Criteria: When three significant simple faults that could lead to catastrophic loss are identified (in zone order), or one significant compound fault that could lead to catastrophic loss is identified, stop and assess targeting aspects of the area, and reexamine site management objectives to determine a hazard designation and removal priority. Examine tree from at least three sides.



4.1 CDFA Weed Observation and Monitoring Form

Bold line items (also asterisked) are required; other lines are optional.

METADATA	
Collection date (mm/dd/yyyy)*	
Observer name*	
Observer contact information*	Address:
	City: _____ State: _____ Zip: _____
	Phone: _____
	Email: _____
Source of the data*	Organization name or WMA Code:
Hand-annotated map ID	
SITE DESCRIPTION	
Site name or ID*	
Site address or other description	
State*	
County*	
National ownership*	
Local ownership	Landowner name:
Quad name	
HUC number	
Land use type	Ag Rangeland Rural Res. Urban Indust/Comm. Other
Invaded vegetation type	Forest Woodland Chap/Scrub Grass Herb Aquatic-Fr Aquatic-Sa Marine
Gross Area	Area: _____ sq. ft. _____ sq. m _____ sq. mi. _____ acres _____ ha
Disturbances & impacts	
Associated species	
WEED DESCRIPTION	
Weed genus and species*	
Weed common name(s)	
Presence or Absence*	P A
Infested area*	Area: _____ sq. ft. _____ sq. meters _____ sq. mi. _____ acres _____ ha
Canopy Cover*	Choose one: <1% 1-5% 5-25% 25-50% 50-75% 75-95% 95-100%
Appearance/phenology	Circle any: germ'g./early growth new growth flowering seeding senesc. dead
Distribution pattern	Circle any: clumpy scattered patchy scattered even linear
Photo documentation	(Use table on back to log photos)
Weed Location	
Geo Feature type*	Circle one: _____ Point _____ Polygon _____ Line _____
Geographic location*	GPS waypoint or feature ID:
	Coords. (if point): X: _____ Y: _____
Coordinate system*	UTM Zone: _____ Lat/Long dec. degs _____ Other (specify): _____
Datum*	WGS 84/NAD83 _____ Other (specify): _____
Location offset	Distance: _____ feet _____ meters Bearing/direction: _____
Location data accuracy*	Choose one: <1m 1-5m 5-15m 15-100m 100m-1km 1km-10km >10km
Locality description	
Distance to water	Est'ed distance: _____ Horiz or Vert? _____ Units: _____

SECTION 2: SHARED DATA STANDARDS

SECTION CONTENTS:

- 2.1 BACKGROUND ON SHARED DATA STANDARDS**
- 2.2 CORE WEED INFORMATION TO COLLECT**
- 2.3 FORMS FOR DATA COLLECTION**
- 2.4 STORING DATA IN SPREADSHEETS, DATABASES, AND FILING CABINETS**

2.1 Background on shared data standards

Data standards are necessary when data is being collected that may potentially be shared with others or combined with data collected at other times. A common format allows data collected by different organizations to fit together with a minimum of effort. In addition, established data standards help new data collection projects avoid many common mistakes.

In the overall effort to control weeds, there are some very compelling reasons for sharing data, from the regional level to the global level.

We know that weeds do not recognize property lines or jurisdictional boundaries. For regional weed managers to work effectively with different property owners and neighboring jurisdictions, it is important to be able to share inventory and mapping data.

By definition, invasion by alien species is a global problem. Ideally, invasive plant control would be supported by constantly updated information on the big-picture status of invasions. In order to gain full perspective on the movement and density of invasive species, we need a large number of surveyors and a means for rapidly combining their observations into a common database. With enough data and the ability to share it quickly, valuable new information services can be created, such as early alert systems and predictive modeling. These will enable better-informed weed management decisions, and also present political decision makers with a more clear idea of the threat posed by invasive plants.

There is widespread recognition among land management agencies that sharing invasive species data is of the utmost importance for stemming

the tide of this environmental catastrophe. This consensus is evidenced by the recent proliferation of national and international declarations, groups, and efforts toward the goal of sharing and combining data. The Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW), the Global Invasive Species Programme (GISP), and the many regional Exotic Pest Plant Councils are just a few of the groups that have worked on standards and examples of data sharing.

Many of these programs have begun to develop online databases, and there is a concentrated effort to coordinate the rapid, open exchange of data on a global scale. Data standards are at the core of this work.

NAWMA, the North American Weed Management Association, has developed a weed mapping content standard called *The International Standards for Inventory, Monitoring, and Mapping of Invasive Plants*. The data standards presented in this section of the handbook for California weed mappers is based on the NAWMA standard with the addition of a data structure and the keywords and pick-lists that will be useful in California. The table in Section 4.2 (“A Comparison of the NAWMA and CDFA Data Standards”) shows the two data standards side by side.

2.2 Core weed information to collect

The data for which we need a standard is straightforward and contains those elements everyone will want to collect: what weed was observed, how much of it there is, where it is, who owns the land, who saw it, when they saw it, and how accurately they mapped it. The role of a standard is to make this data collection consistent across observers and organizations.

The following describes the standard data content elements that we have developed for California weed managers. The first part of the list describes categories you will need to collect when in the field. The second part of the list describes categories that could be recorded in the office, whether before the field outing or upon returning. See also Section 4.3 “Summary of Minimum Requirements for Weed Mapping.”

In the field

Collection Date: The full date on which the infestation was observed should be written on all paper forms in the format YYYYMMDD (or one you could convert to that format when it comes time to share the data). If you are using a GPS unit, the date will be automatically stored with each observation.

KINDS OF DATA STANDARDS

These standards help different organizations combine datasets and analyze them together meaningfully.

Content standards

These give consistency to the names and definitions of data fields and the attributes assigned to them. They make it possible for different data collectors to “speak the same language.”

Sampling protocol

These give guidance for collecting field data, which helps multiple observers create consistent datasets.

Data structure

This standard specifies the way data is organized in a database. It makes it easier to combine data from different kinds of databases into one database.

Data format

This is a standard for actual file type, which makes combining data much easier. The “Shapefile” format is a common example for ArcView GIS users. “XML” is a more generic format that is not associated with a particular software package.

Observer: The full name of the person who observed the infestation should be written on all paper forms.

Site Name or ID, any site description information: Record a name for the site or an alphanumeric identifier and also put this on your hand-drawn map. Make any observations describing the site while there.

Genus/species: The scientific name for weeds should be used to avoid confusion. If you are using a mapping-grade GPS with a data dictionary, or digital form, you can create a menu to choose from. The Jepson manual, the CalFlora database (online at <www.calflora.org>), or the Integrated Taxonomic Information Systems (ITIS) can be used as sources of current scientific names. If you use a common name in the field you will need to translate it when you are back in the office.

Presence/Absence: This is implied as “presence” when there is information describing an infestation (such as cover class), but a simple absence report can be made for an area as well by stating the species and indicating the location, and saying it is “absent.”

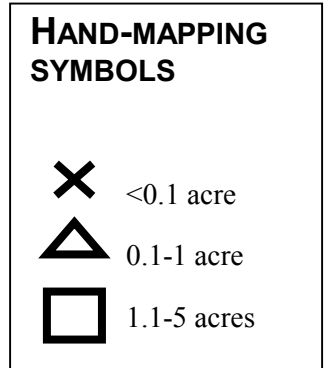
Gross Area and Infested Area: “Gross area” is an estimate of the size of the general region where the weeds occur and may be used when precision is either unnecessary or impractical (see further discussion of this in the Yellow starthistle case study, Section 4.8). An example of the use of gross area is the identification of a 40-acre property that has weeds in large patches, but also has un-infested areas. The fact that the observer put “40 acres” in the gross area field correctly conveys the fact that a detailed survey was not done. This associated with average cover density of the weed is a quick way to note the presence and severity of an infestation.

In contrast, “infested area” is an estimate of the size of the *specific* region in which the weed occurs, mapped more carefully by thoroughly observing the site and estimating the area of the land covered by the weed (whether it’s sparse or dense cover).

When hand mapping, we recommend the use of point symbols (shown at right) to mark infestations under five acres. For infestations five acres and larger, draw the areas onto the map (assuming you are using a map with 1:24,000 scale such as a USGS topo quad). Avoid drawing areas or lines if there are not clear reference features by which to judge location, as it may be misleading. If you use colors or abbreviations as codes (to indicate the type of weed, for example), be sure to write a key to the code on every document where the code is used.

If you are using a GPS unit to measure location, you should record the size of the infestation in acres.

Canopy Cover: Canopy cover is percent of the infested area covered by the weed being surveyed. One way to think of this is to visualize all of



the weeds pushed together until their canopies touch, and then estimate this area and the portion of the overall infested area that this represents. Classify the cover into one of the categories listed at right.

National Ownership, Local Ownership: Record the national ownership code, as listed in the table on the following page. State ownership codes may also be developed in the future. Local ownership can be recorded as the name and contact information of the party who owns the property for future reference.

Geographic Location: If you are hand-mapping, indicate on your map with the desired symbol and give the feature an identifying alphanumeric identifier. Put this feature ID into the form that contains the descriptive information for that location. If you are writing down coordinates from a GPS unit, be careful of transcription errors as small numerical mistakes can translate into big geographic errors. It's helpful to stick with one coordinate system displayed in a consistent format, know what those numbers should look like, and always mind your decimals.

If you are storing points in your recreation-grade GPS unit, or points, lines, and polygons in your mapping-grade GPS unit, your location data is stored digitally. GPS data is automatically stored by the unit in the pre-chosen format, the default of which is usually latitude and longitude in WGS84. Once this is downloaded to your computer, you can convert the data into any projection you need. If you are creating polygons or line features with a GPS, the data is more complex and will be handled entirely in its digital form.

Coordinate System and Datum: Record the coordinate system in which you are recording data. This includes the projection and datum—for instance, UTM Zone 10 NAD83. It's best to set this up in advance, whether by choosing the coordinate system that is displayed by the GPS unit, or decided how coordinates will be taken from a map.

Location Accuracy: Location accuracy refers to the closeness of the coordinates recorded to the real-world location (which can also thought of as the “fuzziness” of the data). High accuracy in location reporting is not always necessary or desired- the important thing for future data interpretation is to record it, whether it is high or low! Location accuracy takes both the accuracy of the mapping method and the intended exactness of the location data into account for a number that indicates how much error or fuzziness should be considered part of the data. Note: “precision” and “accuracy” are different- precision essentially refers to the number of decimal places, so a very high-precision GPS instrument can give you a high-precision location number with 6 decimal places, but still be inaccurate as far as its closeness to the real-world location you're trying to record. See the paragraph on accuracy in the GPS section (3.2) for information about factors that effect accuracy.

COVER CLASSES

(BASED ON DAUBENMIRE)

Cover Class	Range of Coverage	Midpoint of Range
TRACE	<1%	--
1	1- 5%	2.5%
2	5- 25%	15.0%
3	25 - 50%	37.5%
4	50 - 75%	62.5%
5	75 - 95%	85.0%
6	95 - 100%	97.5%

NATIONAL OWNERSHIP CODES

Listed below are codes that are likely to be useful in California. For a full list, see Appendix C of the NAWMA guidelines at www.nawma.org. This webpage includes information on specific tribal codes for reservations.

ARS	Agricultural Research Svc.
ALOT	Native American Allotments
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Mgmt.
CGOV	County-owned lands
DOD	Department of Defense
NPS	National Park Service
NRCS	Natural Resources Conservation Svc.
PVLA	Privately-owned lands
STAT	State-owned lands
TNC	The Nature Conservancy
TRIB	Tribal lands
UNIV	University lands
USFS	US Forest Service
USFW	US Fish & Wildlife Service
USGS	US Geological Survey
USOT	US Government - Other

Location Offset: Location offset is the direction and distance to the target location. Sometimes you can't stand right on the clump of weeds, but you'd like to record which way and how far to look when you get to that waypoint.

Weed Description Information: The parts of the form that describe the weed infestation, appearance/phenology and distribution pattern, along with documenting photos, should of course be filled out while in the field. Use the pick-lists for descriptors as presented in the sample field form.

Examples of error estimates

1) Joe Weedman observed some *Arundo donax* while driving to work. In the office, he made a report, assigning an approximate location for the infestation by taking coordinates from a quad map shown in TOPO! software. Joe decides to assign an error of a few hundred meters to the observation.

2) Joe returns to the infestation a week later with his Trimble Pro-XRS mapping-grade GPS receiver. He maps the single clump of plants by standing right in the clump. The GPS point is meant to indicate the exact location, and under perfect conditions this instrument can provide sub-meter accuracy, but Joe couldn't stay long to get the recommended 180 readings, and his PDOP was high. He decides that an error of about 10 meters is appropriate.

In the office

Make sure to record the following information. It is not critical to record this information in the field—it can be done in the office (promptly) after the field work.

Observer Contact Information: This may be the same as the organization contact information, and so you won't probably need to write it on every form. The purpose of this information is to allow for contacting the observer should there be questions about the data later on. Keep contact information up to date.

Source of Data: Record the full name of the agency or organization responsible for collecting the data. If the agency has a national ownership code, that may be used. Again important mostly when you decide to send the data to someone outside the organization.

County: Record the county name, or the state code, or the six-digit FIPS (Federal Information Processing Standards) code for your county. A table listing these two systems of codes along with the county names can be found in Section 4.6.

ERROR ESTIMATES

Use these broad classes:

<1m

1-5meters

5-15 meters

15-100 meters

100 meters-1 km

1 km-10 km

>10 km

The accuracy ranges from 1 km to more than 10 km are useful for indicating that a data point represents the center of a large area in which the weed is known to be present.

HUC Code (for aquatic weeds only): Look up and record the Hydrologic Unit Code for the watershed in which the aquatic weed occurs. See the USGS HUC website at <<http://water.usgs.gov/GIS/huc.html>>.

2.3 Forms for data collection

As mentioned above, we've included with this handbook a model form for collecting data in the field (found in Section 4.2). The form is designed for recording all of the above information. The form can be used "as-is" to collect this data together with hand-drawn maps or GPS data (or both). The form can also be used as a template for designing your own custom paper form, GPS data dictionary, or electronic form on a PDA.

2.4 Storing data in spreadsheets, databases, and filing cabinets

Storing the data from the field forms

Even if you are doing your mapping entirely on paper, it is suggested that you enter your weed observation data into a simple spreadsheet, and when you do that to create the metadata that is so important for keeping track of it all. Taking this step *as soon after collecting the data as possible* is a good data management habit that will serve you well. On the disk at the back of the handbook, we've included an Excel workbook file containing a group of simple spreadsheets with the basic fields for recording data from the paper field forms. The fields match the standard as discussed above. Doing this will not only help you know what data you have, it will enable you to share your information with others.

The sheets in the Excel workbook are called: Observer Contact Information, Metadata and Site Description, Weed Observation, and Photo Log. All of these are sections in the standard, and could have been put into a single spreadsheet. The reason for creating separate sheets is to avoid having to enter data many times when it can be entered once and used multiple times by referencing its ID number- the basis for a relational database. Until a database application is developed with forms for data entry, it is up to you to use the keywords recommended in the model form. The workbook and its spreadsheets could form the template for such a database in software such as MS Access. ArcView can be set up to communicate with the Access database tables, allowing for the descriptive records to integrate with the geographic information display and analysis abilities of a GIS. Digital forms would help with mistake-free data entry (and auto-generation of the all-important IDs). These developments are likely to be done in the near future for all to use.

Mail to:
 California Natural Diversity Database
 Department of Fish and Game
 1807 13th Street, Suite 202
 Sacramento, CA 95814
 Fax: (916) 324-0475 email: WHDAB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
 Elm Code _____ Occ. No. _____
 EO Index No. _____ Map Index No. _____

Date of Field Work mm/dd/yyyy: _____

California Native Species Field Survey Form

Scientific Name: _____

Common Name: _____

Species Found? Yes No _____ If not, why? _____

Total No. Individuals _____ Subsequent Visit? yes no
Is this an existing NDDB occurrence? no unk.
 Yes, Occ. # _____

Collection? If yes: _____
 Number _____ Museum / Herbarium _____

Reporter: _____
Address: _____

E-mail Address: _____
Phone: _____

Plant Information

Phenology: _____ % vegetative _____ % flowering _____ % fruiting

Animal Information

# adults	# juveniles	# larvae	# egg masses	# unknown
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
breeding	wintering	burrow site	rookery	nesting
other				

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: _____ Landowner / Mgr.: _____

Quad Name: _____ Elevation: _____

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S GPS Make & Model _____

Datum: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: Easting/Longitude _____ Northing/Latitude _____

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Other rare taxa seen at THIS site on THIS date:

Site Information Overall site quality: Excellent Good Fair Poor

Current / surrounding land use: _____

Visible disturbances: _____

Threats: _____

Comments: _____

Determination: (check one or more, and fill in blanks)

Keyed (cite reference): _____

Compared with specimen housed at: _____

Compared with photo / drawing in: _____

By another person (name): _____

Other: _____

Photographs: (check one or more)

Plant / animal	Slide <input type="checkbox"/>	Print <input type="checkbox"/>	Digital <input type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? yes no

California Natural Community Field Survey Form

Mail to:
 Natural Diversity Database
 California Dept. of Fish and Game
 1416 Ninth Street
 Sacramento, CA 95914
 (916) 324-6857

For office use only

Source Code _____ Quad Code _____

Community Code _____ Occ # _____

Map Index # _____ Update Y _____ N _____

Please provide as much of the following information as you can. Please attach a map (if possible, based on the USGS 7.5 minute series) showing the site's location and boundaries. Use the back if needed.

Community name: _____

Reporter: _____ E-mail Address: _____ Phone _____

Affiliation and Address _____

Date of field work: _____ County: _____

Location (**Please attach/submit map**):

Quad name: _____ T _____ R _____ $\frac{1}{4}$ of _____ $\frac{1}{4}$ sec _____ Meridian _____

UTM Zone ____ Northing _____ Easting _____

Landowner/Manager: _____ Photographs: Slide Print

Elevation: _____ Aspect: _____ Slope (indicate % or °) _____ Drainage: _____

Site acreage: _____

Evidence of disturbance or threats:

Current land use:
 Substrate/Soils:

General description of community:

Any Special Plants or Animals present:

Successional status/Evidence of regeneration of dominant taxa:

Overall site quality: Excellent Good Fair Poor Comments (below):

Basis for report: Remote image Binocular/Telescopic survey Windshield survey Brief walk-thru
 Detailed survey Other _____

Relevé: In the space below, indicate each species cover % within the following growth form categories:

<p><u>Trees</u></p> 	<p><u>Shrubs</u></p> 	<p><u>Herbs/Graminoids</u></p>
---	--	--

Continue on back if needed. Thank you for your contribution.

Trees

Shrubs

Herbs/Graminoids



General Instructions for Filling Out California Natural Diversity Database Field Survey Forms

The California Natural Diversity Database (CNDDDB) is the largest, most comprehensive database of its type in the world. It presently contains almost 40,000 site specific records on California's rarest plants, animals, and natural communities. The majority of the data collection effort for this has been provided by an exceptional assemblage of biologists throughout the state and the west. The backbone of this effort is the field survey form.

Although the future lies in the digitally submittible field form and map, this system is not yet in place. Enclosed are copies of CNDDDB paper field survey forms for species and natural communities. The CNDDDB would appreciate your field observations on rare, threatened, endangered, or sensitive species and natural communities (elements) submitted to us on these forms.

To determine what species and natural communities are of concern to us, refer to our free publications for lists of which elements these include: *Special Vascular Plants, Bryophytes, and Lichens List, Special Animals List, and Natural Communities List*. Reports on multiple visits to sites that already exist in the CNDDDB are as important as new site information as is it helps us track trends in population/stand size and condition. Naturally, new site information is also welcomed.

Enclosed is an example of a field survey form that includes the information we like to see. Note that you may either submit a copied portion of a USGS topographic quad map with the population/stand outlined or marked (see back of enclosed example), or provide a set of coordinates (GPS coordinates, TRS information, or other). You do not have to submit all of this information; just one will suffice, and generally the best choice is to submit a map. Furthermore, you do not have to fill out every box on the form; just fill out what seems relevant to your site visit. Remember that your name and telephone number and/or email are very important in case we have any questions about the form.

If you are concerned about the sensitivity of the site, remember that the CNDDDB can label your element occurrence "Sensitive" in the database, thus restricting access to that information.

The CNDDDB is only as good as the information in it, and we depend on people like you as the source of that information. Thank you for your help in improving the CNDDDB.

Please see also, [Instructions for Collecting Information with Global Positioning Systems for the California Natural Diversity Database](#).

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95814
Fax: (916) 324-0475

For Office Use Only
Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work: 8 - 10 - 2000

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Lupinus padre-crowleyi*

Common Name: Father Crowley's lupine

Species Found? Yes No _____ If not, why?

Total No. Individuals *10 Subsequent Visit? yes no
Is this an existing NDDB occurrence? 8 no unk.
Yes, Occ. #

Collection? If yes: _____
Number Museum / Herbarium

Reporter: Your Name Here

Address: Your Organization and Address Here
Your Town, State Zipcode Here

E-mail Address: youremail@here

Phone: (000) 000-0000

Plant Information

Phenology: _____ % vegetative 100 % flowering _____ % fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
breeding wintering burrow site rookery nesting other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Along Shepherd Pass trail, between the first and second saddles above the main switchbacks from Symmes Creek to the top of the ridge, as the trail levels out and begins to drop down towards Shepherd Creek drainage. **See Comments, below.

County: Inyo Landowner / Mgr.: USDA, Inyo National Forest

Quad Name: Mount Williamson, CA Elevation: 9081 ft.

T 14S R 34E Sec 20, NW ¼ of NE ¼, Meridian: H M S Source of Coordinates (GPS, topo. map & type): GPS

T _____ R _____ Sec _____, _____ ¼ of _____ ¼, Meridian: H M S GPS Make & Model Garmin 12

Datum: NAD27 NAD83 WGS84 Horizontal Accuracy 3-5 meters meters/feet

Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)

Coordinates: Easting/Longitude E383883.83 Northing/Latitude N4063216.65

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):

Moderately steep, east facing slope; sandy granitic soil; sagebrush scrub: *Artemisia tridentata*, *Eriogonum umbellatum*, *Arctostaphylos patula*, *Symphoricarpos* sp., *Angelica lineariloba*

Other rare species? None seen.

Site Information Overall site quality: Excellent Good Fair Poor

Current / surrounding land use: Wilderness; hiker trail passes adjacent to population

Visible disturbances: Trail work could potentially impact population; however, Inyo NF standards call for surveys prior to any ground disturbing activities.

Threats:

Comments: *Population was located late in the day; no count was conducted, but <10 plants were visible from the trail, Further survey work needed.

**Going up the trail towards the pass, the plants are located above the trail, just before the 2 big Jeffrey pines below the trail

Determination: (check one or more, and fill in blanks)

- Keyed (cite reference): _____
- Compared with specimen housed at: UC herbarium
- Compared with photo / drawing in: _____
- By another person (name): _____
- Other: _____

Photographs: (check one or more) Slide Print Digital
Plant / animal
Habitat
Diagnostic feature

May we obtain duplicates at our expense? yes no

