FORM 1 of 13: DESCRIPTIVE STATISTICS ABOUT PLANS

FINAL	VERSION, Created: 1999-01-27	
1	Plan code	
2	Species code	
3	Student code	

Gene	General descriptive questions about the recovery plan.				
#	Answer each of the following questions regarding the species' recovery plan. Plan code				
4 5	Number of species in plan (include listed and non-listed species)				
3					
6	Is this plan a single species plan, a multiple species plan, or identified as an ecosystem-based plan?				
7	Total # of pages [including appendices]				
8	Total # of tasks in recovery outline				
9	Date recovery plan approved [YYYY]				
10	Date recovery plan approved [MM]				
11	Date recovery plan approved [DD]				
12	Has the original plan been revised?				
13	Date of 1st revision [YYYY]				
14	Date of 2nd revision [YYYY]				
15	Date of 3rd revision [YYYY]				
16	Date of 4th revision [YYYY]				
17	Is this plan a revision of the species' recovery plan?				
18	What motivated revision of the recovery plan?				
19	Who primarily drafted the plan?				
	How many individuals from each category below actively participated in plan development				
	(e.g. were a member of a recovery team)?				
20	a. USFWS/NMFS employees				
21	b. Other federal employees				
22	c. State/local resource agency employees				
23	d. Other state/local government employees				
24	e. Tribal groups				
25	f. Consultants				
26	g. Private individuals				
27	h. Business/industry representatives				
28	i. Academic scientists				
29	j. Environmental organization representatives				
30	k. Other individuals not listed above				
31	What was the affiliation of the team leader or individual who drafted the plan?				
32	Number of species experts involved in drafting the recovery plan?				
33	Does the plan include an index of public comments?				
	How many people/organizations from each category below submitted comments?				
34	a. USFWS/NMFS employees				
35	b. Other federal employees				
36	c. State/local resource agency employees				
37	d. Other state/local government employees				
38	e. Tribal groups				
39	f. Consultants				
40	g. Private individuals				
41	h. Business/industry representatives				
42	i. Academic scientists				
43	j. Environmental organization representatives				
44	k. Other people/organizations not listed above				

FORM 2 of 13: DESCRIPTIVE STATISTICS ABOUT SPECIES

FINAL	FINAL VERSION, Created: 1999-01-27					
45	Plan code					
46	Species code					
47	Student code					

Gene	eral descriptive questions about the species.	
#	Answer each of the following questions regarding the subject species.	
48	Genus name (eg., "Pinus")	
49	Species name (eg., "contorta")	
50	Taxonomic subdivision (eg., "ssp. bolanderi")	
51	Taxonomic authority for lowest subdivision (eg, "(Parl.) Critchf.")	
52	Common name (eg., "Bolander pine")	
53	Taxonomic level	
54	ESA listing status	
55	Date of the species' ESA listing (YYYY)	
56	Date of the species' ESA listing (MM)	
57	Date of the species' ESA listing (DD)	
58	Has Critical Habitat been designated?	
59	Date of Critical Habitat designation (YYYY)	
60	Date of Critical Habitat designation (MM)	
61	Date of Critical Habitat designation (DD)	
62	USFWS recovery priority for species: 1 - 18, +/- C	
63	Does the plan refer to this species as a keystone species?	
64	Does the plan refer to this species as an umbrella species?	
65	Does the plan refer to this species as an indicator species?	
66	Species' taxon	
67	What is the species' principal ecological role?	
68	What is the species' home range radius?	
69	How large was the historic range of the species?	
70	Within the historic range of the species, how were populations distributed?	
71	How large was the range of the species at the time the plan was developed?	
72	Within the range of the species at the time the plan was developed, how were populations	
	distributed?	
73	What is the principal ecotype in which the species occurs?	+
74 75	Is the species a habitat specialist or generalist?	+
75 76	What is the successional stage of the species' principal habitat?	
76	In what geographic region does the species occur?	
77 78	Does the species occur in more than one country? Does the species occur in more than one state?	+
76 79	USFWS/NMFS region responsible for coordinating recovery of species	+
80	What proportion of the species' primary habitat occurs on Federal vs. non-Federal land?	
81	How much of the species' current range is actively managed to reduce threats?	
	According to FWS reports to Congress, what is the most recent reported trend in species	
82	status?	
00	Does the recovery plan identify specific habitat areas that FWS considers important for	
83	recovery?	
84	Is there a recovery task to identify or re-evaluate such habitat?	
85	Does the recovery plan define actions that would constitute "take" of the species prohibited	
00	under section 9 of the Endangered Species Act?	

FORM 3 of 13: WHAT WE KNOW, PART I

FINAL	FINAL VERSION, Created: 1999-01-27				
86	Plan code				
87	Species code				
88	Student code				

Ques	stions regarding information used in the recover	ry plan.					
4,300		A	В	С	D	Е	F
		L					
		Was information on this topic/issue presented in the recovery plan?	<u>_</u>		_		es for
		ent	.≘ ::		ary		ore ial
		es(E E		≅ّ. ہے		my /mc
		ıd e	Identify the two principal types of information presented: [Column B: primary, Column C: secondary]		identify the two principal sources of the nformation presented: [Column D: primary, Column E: secondary]		Does the Introduction or Recovery Objectives section of the plan indicate that some/more information of this type would be beneficial for recovery efforts?
		sue	i		s c O c		ery so e b
		si/s	ary		12 E		you d b
		ppic	ji y		no il		Sec e the
		s tc	a t :				or F
		thi	G G		çi Si ∑		ndi ndi
		on ازد	ËË		two princip presented secondary]		ctic in i s ty
		on olar	항		o b		pd pla thi ts?
		nati ry p	≥ ∪ _		Se tk		the of the ffor
		orn	the ed:		t ë i		of t
		inf	en t		ify mn		on nai
	Outcomplex of information would be accompanied.	Vas information or he recovery plan?	Identify the presented: secondary]		Identify the nformatior Column E:		Does the Introduction of the pla information of this ecovery efforts?
#	Categories of information used in recovery plans	≥ ₹	D P S		<u> </u>		<u> </u>
	HABITAT				ı		ı
89	General habitat affiliations						
90 91	Amount/quality of general habitat Amount/quality of feeding habitat						
92	Amount/quality of breeding habitat						
93	Amount/quality of migration habitat						
94	Trends in habitat quality						
95	Trends in habitat quantity						
96	Historic range						
97	Current range						
98	Habitat fragmentation/isolation						
99	Other habitat information not captured in above categories						
	POPULATION BIOLOGY				•		
100	Population size						
101	Number of subpopulations						
102	Trends in population size						
103 104	Population trends by habitat types Demographic (eg, birth and death) rates		-				
	PVA/models						
	1 VAIIIoueis						
106	Other population biology information not captured in above categories						
	LIFE HISTORY						
107	Life span						
108	Mode of reproduction (e.g., sexual, asexual, self-compatible, obligate						
	outcrosser)						
109	Clutch/litter size/seed production						
110	Age of sexual maturity						
	Age/stage specific mortality rates						
	Age/stage specific fecundity rates Other life history information not contured in above estagories						
113	Other life history information not captured in above categories GENETICS						
114	Basic genetics						1
	Genetic variation within populations						
	Genetic variation among populations						
	Gene flow between populations						
	Other genetics information not captured in above categories						
	BEHAVIOR						
119	Dispersal behavior						
	Breeding behavior						
	Foraging behavior						
122	Other behavior information not captured in above categories		L				
400	GENERAL ECOLOGY Direct interactions with other enesies						
123	Direct interactions with other species						
124 125	Indirect interactions with other species Succession, predictable disturbance regimes						
	Caccession, productable disturbance regimes						
126	Other types of information not captured elsewhere in this matrix						
-	M		I		I		I.

FORM 4 of 13: WHAT WE KNOW, Part II

FINAL	FINAL VERSION, Created: 1999-01-27					
127	Plan code					
128	Species code					
129	Student code					

Ouron	tions regarding information used in the reserve	n, plan				
Ques	tions regarding information used in the recove	ry pian. G	Н	<u> </u>	J	K
		or	sst.]	e int	r.	۷.
		How many recovery tasks specifically call for collection of some/more information on this topic/issue?	What is the highest implementation priority assigned to these tasks? [Priority 1 is highest.]	What is the estimated total cost to implement these tasks, in \$000's? [If there are multiple tasks, sum their costs.]	To what extent have any of these tasks been completed? [Consult FWS contact]	Who has primarily implemented the task(s)? [Consult FWS contact]
		y ca	What is the highest implementation priority assigned to these tasks? [Priority 1 is high	m un	sks	ask
		sally on o	n p 1 is	are ii	£ tã	Je t
		cific	atic rity	st to	To what extent have any of these to completed? [Consult FWS contact]	₽
		pe	ent rio	co The	the	nte
		s s infe	em ? [F	tal E 1	/ of /S (шe
		tasl	npl sksʻ	d tc s? s.]	an) F	윤
		, m	st ii tas	ate 00% ost	ve	'ir Itac
		ove	ghe	tim \$0	t ha	So Jij
		rec f sc	hig th	es in the		ži S
		ny n o	the d to	the sks um	ext ed?	ρ
		ma ctio íss	is nec	is ta	hat elete	has
		How many r collection of topic/issue?	'hat ssig	What is the estimated these tasks, in \$000's? lasks, sum their costs.]	w c	Who has primarily imp [Consult FWS contact]
#	Categories of information used in recovery plans	I S S	8 ≤	\$ ₽ Ø	<u> </u>	≥ ⊆
130	HABITAT General habitat affiliations					
131	Amount/quality of general habitat					
	Amount/quality of feeding habitat					
133	Amount/quality of breeding habitat					
134	Amount/quality of migration habitat		-			
135	Trends in habitat quality					
136	Trends in habitat quantity					
137	Historic range					
138 139	Current range Habitat fragmentation/isolation					
140	Other habitat information not captured in above categories					
	POPULATION BIOLOGY					
141	Population size					
142	Number of subpopulations					
143	Trends in population size					
144 145	Population trends by habitat types Demographic (eg, birth and death) rates					
146	PVA/models					
147						
147	Other population biology information not captured in above categories					
148	LIFE HISTORY					
140	Life span Mode of reproduction (e.g., sexual, asexual, self-compatible, obligate					
149	outcrosser)					
150	Clutch/litter size/seed production					
151	Age of sexual maturity		-			
152	Age/stage specific mortality rates					
153	Age/stage specific fecundity rates					
154	Other life history information not captured in above categories GENETICS					
155	Basic genetics					
156	Genetic variation within populations					
157	Genetic variation among populations					
158	Gene flow between populations					
159	Other genetics information not captured in above categories					
160	BEHAVIOR Dispersal hehavior					
161	Dispersal behavior Breeding behavior					
162	Foraging behavior					
163	Other behavior information not captured in above categories					
	GENERAL ECOLOGY					
164	Direct interactions with other species					
165	Indirect interactions with other species					
166	Succession, predictable disturbance regimes					
167	Other types of information not captured elsewhere in this matrix					

	Summary questions	
168	Information presented in the recovery plan suggests that the biology	
100	of the species is understood to what extent?	
169	Information presented in the recovery plan suggests that the status of	
109	the species is understood to what extent?	

FORM 5 of 13: FACTORS THREATENING SPECIES, PART I

FINAL	VERSION, Created: 1999-01-27	
170	Plan code	
171	Species code	
172	Student code	

Ques	Questions regarding factors contributing to endangered/threatened status												
Que:	stions regarding ractors contributing	L	M	N N	0	P	u Stat Q	.us R	S	Т	U	V	W
						<u> </u>				<u> </u>		-	••
	Categories of factors contributing to	s this factor cited in the listing decision as affecting he species?	Is this factor cited in the recovery plan as affecting the species?	Briefly describe the particular nature or character of this factor. [This will not be standardized data, but may be useful for subsequent investigations.]	If this factor is cited in one document but not the other, why?	How substantial a threat does the recovery plan identify this factor to be?	Are the effects of this factor historic, current, or anticipated?	How frequently does this factor affect the species?	When this factor affects the species, what is the extent of this effect?	Over what temporal scale does this factor affect the species?	Does this factor have direct or indirect effects on species?	identify the two principal sources of information used to substantiate the effect of this factor on the species: Column V: primary, Column W: secondary]	
#	endangered/threatened status of species	s th	s th	3rie his nay	£ £	og de gen	r Tri	∮	Vhe) ye	oo be	der o sı Col	
#	CONSTRUCTION	. <u>~</u> ≠	<u>~</u> ~		_ = 0	<u> </u>	מ ע		> 0	U s	L S		
173	Commercial												
174	Urban/suburban												
175	Rural												
176	Public utilities												
177	Roads												
	Other construction activities not captured in the												1
178	above categories												
179	AGRICULTURE Dryland herbaceous	ı	1		ı	ı	ı	ı	ı	ı	ı		
	Irrigated herbaceous												
	Dryland woody plants												
182	Irrigated woody plants												
183	Tree farming (for pulp or lumber)												
184	Aquaculture												
	Other agriculture activities not captured in the												
185	above categories												
	RESOURCE USE				ı	ı	ı	ı	ı	ı	ı		
186	Timber extraction (logging)												
	Ore extraction (mining) Oil/Gas												
188 189	Grazing												
190	Fishing/hunting												
191	Specimen collection	<u> </u>											
	Other resources uses not captured in the above												
192	categories	<u> </u>											
	WATER DIVERSION												
193	Dams												
	Irrigation Flood control	 											
	Groundwater extraction	1						-					
	Wetland fill												
	Dredging												
	Other water diversions not captured in the above	İ											
199	categories												
	POLLUTION												
	Water - point source												
	Water - non point source							 					
	Air - point source	<u> </u>											
	Air - non point source Atmospheric deposition	1											
	Solid waste	 											
	Toxic substances (e.g. pesticides)												
	Acid precipitation	1											
	Other pollution not captured in the above												
208	categories												<u> </u>

Continued from previous page: FORM 5 of 13: FACTORS THREATENING SPECIES, PART I

For your own reference					
Plan code					
Species code					
Student code					

		L	М	N	0	Р	Q	R	S	Т	U	٧	W
												•	
		is this factor cited in the listing decision as affecting the species?	Is this factor cited in the recovery plan as affecting the species?	Briefly describe the particular nature or character of this factor. [This will not be standardized data, but may be useful for subsequent investigations.]	If this factor is cited in one document but not the other, why?	How substantial a threat does the recovery plan identify this factor to be?	Are the effects of this factor historic, current, or anticipated?	How frequently does this factor affect the species?	When this factor affects the species, what is the extent of this effect?	Over what temporal scale does this factor affect the species?	Does this factor have direct or indirect effects on species?	Identify the two principal sources of information used to substantiate the effect of this factor on the species: [Column V: primary, Column W: secondary]	
	Catagories of factors contributing to	is fa	is fa	fly of fact be	s fa r, v	' su tify	the	fe	다 다 다	r w	s th	tify um	
#	Categories of factors contributing to endangered/threatened status of species	s th	Is this fac species?	ßrieł nis ∣ nay	the	dow	rei	<u> </u>	Vhe	Over wha species?	Does this species?	den Solt	
#	EXOTIC/ALIEN SPECIES	= +	<u> </u>	<u> </u>	<u> </u>	Ι.Ω	∀	I	S 0	O 15		<u> </u>	
209	Competition		I I				I I						
	Predation												
211	Parasitism												
	Pathogens												
213	Disease vector												
214	Habitat modification												
	Other exotic/alien species factors not captured in												
215	the above categories												
	SPECIES INTERACTIONS [other than exotics spr	p.]											
216	Competition with focal species												
217	Predation on focal species												
218	Parasitism of focal species												
	Prey of focal species												
220	Pathogens of focal species												-
	Other species interactions not captured in the												1
221	above categories		oxdot										
	HABITAT DYNAMICS												
222	Successional change												
223	Modified disturbance - fire regimes												
224	Modified disturbance - hydrodynamic regimes												
225	Modified disturbance - agricultural regimes												-
226	Other habitat dynamics factors not captured in the												
226	above categories OTHER FACTORS												
227	Inbreeding depression/genetic "bottlenecking"				1				1				
227	Climate change												
229	Weather extremes (e.g. drought, flood)												
230	Catastrophies/stochastic events												
230	Odiasii opines/stochastic events												
231	Other factors not captured elsewhere in this matrix												

FORM 6 of 13: FACTORS THREATENING SPECIES, PART II

FINAL	VERSION, Created: 1999-01-27	
232	Plan code	
233	Species code	
234	Student code	

ues	tions regarding factors contributing to e							
		Х	Y	Z	AA	BB	CC	DD
		. <u>s</u>	assignec is	What is the estimated total cost to implement these tasks, in \$000's? [If there are multiple tasks, sum their costs.]			For how many of these tasks does the recovery plastate that >1 species (listed or unlisted) will benefit by implementation?	For how many of these tasks does the recovery pla state that specific actions are constrained because of the effects on other species (listed or unlisted)?
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		es	<u>s</u> . as	s, s	u e	<u>~</u>	be be	ove Dec iste
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		<u>8</u>	등 요	= <u>#</u>	E E	e O	Si	as nst ste
		ci.	rati	m st t	esi	£	형도	9 0 E
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		Jar ,	s t s:]	s tl	at e	호북	hat v	w hat
	Categories of factors contributing to	v n or?	at i ask nes	ati ß,	Å j₫	o is	ho mp	ho e t
#	endangered/threatened status of species	How many recovery tasks specifically address this factor?	What is the highest implementation priority to tasks that address this factor? [Priority 1 highest.]	What is the estimated total cost to implement thes tasks, in \$000's? [If there are multiple tasks, sum their costs.]	To what extent have any of these tasks been completed? [Consult FWS contact]	Who is primarily implementing these task(s)? [Consult FWS contact]	For how many of these tasks does the recovery plastate that >1 species (listed or unlisted) will benefit by implementation?	ft
17		1 T T	> = =	_ 	_ F 0	<u> </u>	<u> т « о</u>	T S O
12 F	Commercial							
235	Commercial		-					
236	Urban/suburban	-						
237	Rural							
238	Public utilities							
239	Roads							
	Other construction activities not captured in the above							
240	categories							
	AGRICULTURE							
241	Dryland herbaceous							
242	Irrigated herbaceous							
243	Dryland woody plants							
244	Irrigated woody plants							
245	Tree farming (for pulp or lumber)							
246	Aquaculture							
0	Other agriculture activities not captured in the above							
247	categories							
	RESOURCE USE							
248	Timber extraction (logging)							
249	Ore extraction (mining)							
249 250	Oil/Gas							
251	Grazing	-	-					
252	Fishing/hunting	-	1					
253	Specimen collection	-						
	Other resources uses not captured in the above							
254	categories							
	WATER DIVERSION							
255	Dams							
256	Irrigation							
	Flood control							
	Groundwater extraction							
	Wetland fill							
260	Dredging							
	Other water diversions not captured in the above							
261	categories							
	POLLUTION							
262								
263	Water - non point source							
	Air - point source							
265								
		-						
	Atmospheric deposition	-	-					
266	Calid wasts	1						
266 267	Solid waste							
266 267 268	Toxic substances (e.g. pesticides)							
266 267								

Continued from previous page: FORM 6 of 13: FACTORS THREATENING SPECIES, PART II

For your own reference	
Plan code	
Species code	
Student code	

		Х	Υ	Z	AA	ВВ	СС	DD
		any recovery tasks specifically address this	What is the highest implementation priority assigned to tasks that address this factor? [Priority 1 is highest.]	What is the estimated total cost to implement these tasks, in \$000 s? [If there are multiple tasks, sum heir costs.]	To what extent have any of these tasks been completed? [Consult FWS contact]	Who is primarily implementing these task(s)? [Consult FWS contact]	For how many of these tasks does the recovery plat state that >1 species (listed or unlisted) will benefit by implementation?	For how many of these tasks does the recovery plar state that specific actions are constrained because of the effects on other species (listed or unlisted)?
	Categories of factors contributing to	How ma	/hat tas ighe	/hat isks	м о	/ho Son:	or h tate y im	or h tate f the
#	endangered/threatened status of species EXOTIC/ALIEN SPECIES	工立	> 7 <u>=</u>	\leq \(\psi \)	⊢ŏ		டத்த	тю́
271	Competition		l					
272	Predation							
273	Parasitism							
274	Pathogens							
275	Disease vector							
276	Habitat modification							
	Other exotic/alien species factors not captured in the							
277	above categories							
	SPECIES INTERACTIONS [other than exotics spp.]							
278	Competition with focal species							
279	Predation on focal species							
280	Parasitism of focal species							
281	Prey of focal species							
282	Pathogens of focal species							
	Other species interactions not captured in the above							
283	categories							
00.6	HABITAT DYNAMICS							
284	Successional change							
285	Modified disturbance - fire regimes							
286 287	Modified disturbance - hydrodynamic regimes							
201	Modified disturbance - agricultural regimes Other habitat dynamics factors not captured in the above							
288	categories							
200	OTHER FACTORS		-	<u> </u>			<u> </u>	
289	Inbreeding depression/genetic "bottlenecking"							
290	Climate change							
291	Weather extremes (e.g. drought, flood)							
292	Catastrophies/stochastic events							
202	Other factors not contured alsowhere in this matrix							
293	Other factors not captured elsewhere in this matrix		1			l		

	Rank the relative importance of the 3 major categories of effects. Enter "0" for all unranked	
	items.	Rank
294	Habitat destruction	
295	Habitat degradation	
296	Habitat fragmentation	
297	Natural mortality	
298	Human-caused mortality	
299	Effects of exotic/alien species	
300	Effects of environmental pollutants	
301	Altered disturbance regimes	
302	Agriculture	
303	Resource use/extraction	
304	Other effects on species	

FORM 7 of 13: MANAGEMENT ACTIONS

FINAL VERSION, Created: 1999-01-27							
305	Plan code						
306	Species code						
307	Student code						

Ques	tions regarding management actions propose	ed in re	COVE	rv nlan							
2403	nanagement deticne proposi	EE	FF	GG	НН	II	JJ	KK	LL	ММ	NN
										7	
i		action(s) proposed. be useful for	ty	"		he	es			nat	nat he
i		SO	his	sks	.⊑	of ti	ddı			e t	e #
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i		ig e	ally	sig P	the	ame.	esc	cor	Suo	ry	- θ - Θ
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i		ag,	lan	n p	mi s,	at	s th	tas	tas	s th efit	s th
i		ata	y p	atio	t to	÷	oe:	se	the	oeg	oe d b
i		שב	ver	inta It a	osi ta	ate n?	s d	the	j j	s d	s d
i		ula zer	co	me) He	ndic rtai	ıre	of	ī.	sk:) w	rai)?
i		rtic ardi	re /pr	ple	tota	r ice	ası	L)	me	e ta ted	e te nst ted
i		pa nds Jati	the	im Jaç	p L	la un	πe	e a	<u>e</u>	ese	ese co silr
1		the particular management action(s) prop standardized data, but may be useful for sstigations.]	acti	est nar	nati	ry I	fic	iav inte	<u>.</u> E	f th	f ff
1		De 1	sks	igh. is r	stin 3re	on:	ecil nty	th S	Ę	y ol	y of s sc s oi
1		crik ot k it ir	, ta: me	e hi	the the	acti	sp 'tai	ter WS	nal	ani	an. tior stec
1		ll n	any	for T	\$ ₹	je r	nat Icel	t e,	pri _	m' sil)	ac ac
1		Briefly describe the particular [This will not be standardized subsequent investigations.]	How many tasks in the recovery plan specifically call for this type of management action/program?	What is the highest implementation priority assigned to tasks that call for this management action/program? [Priority 1 is highest.]	What is the estimated total cost to implement these tasks, in \$000's? [If there are multiple tasks, sum their costs]?	Does the recovery plan indicate that the outcome of any of the proposed actions is uncertain?	If so, what specific measures does the plan describe to address such uncertainty?	To what extent have any of these tasks been completed? Consult FWS contact]	Who is primarily implementing the task(s)? [Consult FWS contact]	For how many of these tasks does the recovery plan state that species (listed or unlisted) will benefit by implementation?	For how many of these tasks does the recovery plan state that specific actions are constrained because of the effects on other species (listed or unlisted)?
	Categories of management actions that may be proposed in	rief This Lbs	NO E	'ha' at e ghe	'ha)00	obi	so, Ich	y o	h Tr	or h	oec
	recovery plans	面上で	υţ	≥ ÷ ∈	≥ છ	οď	ะ		≥ 8	Я З	<u>я</u> 8 8
	POPULATION MANAGEMENT					1					
	Augment food supplies										
	Reintroduce populations to previously occupied habitats										
	Introduce populations to new habitat										
	Translocate individuals										
	Breed individuals in captivity										
	Regulate hunting/harvest Control predators of the species										
	Control disease of the species Control invasion of other species that affect the species										
	Reduce competition with the species										
	Other population management actions not captured above										
<u> </u>	HABITAT MANAGEMENT					<u> </u>					
319	Restore/enhance/maintain habitat quality										
	Secure habitat (e.g. purchase, easement, MOU, etc.)										
	Maintain/mimic natural disturbance regimes										
322	Reduce human disturbance of habitat										
	Restore/enhance/maintain breeding habitat										
	Secure breeding habitat (e.g. purchase, easement, MOU, etc.)										
	Restore/enhance/maintain feeding habitat										
	Secure feeding habitat (e.g. purchase, easement, MOU, etc.)										
327	Restore/enhance/maintain sheltering habitat										
328	Secure sheltering habitat (e.g. purchase, easement, MOU, etc.)										
	Destars/anhance/ensistein habitet for discounting of										
	Restore/enhance/maintain habitat for dispersal corridors/routes								-		
3.30)	Secure habitat for dispersal corridors/routes (e.g. purchase, easement, MOU, etc.)										
	Other habitat management actions not captured above										
331	MANAGEMENT/INCENTIVE PROGRAMS										
332	USDA Conservation Reserve Program [started 1985]										
	USDA Wetlands Reserve Program [started 1982]										
	USDA Stewardship Incentive Program [started ?]										
	USDA Forest Legacy Program [started ?]										
	USDA Environmental Quality Improvement Program [started ?]										
	FWS Habitat Conservation Plans										
	National Wildlife Refuge designation										
338											
	State incentive programs								•		
339											
339 340	State incentive programs State management programs Mitigation banks										
339 340 341	State management programs										

FORM 8 of 13: MONITORING ACTIONS

FINAL VERSION, Created: 1999-01-27							
344	Plan code						
345	Species code						
346	Student code						

Ques	stions regarding monitoring subjec	ts pro	pose	d by	recov	ery p	lan				
		00	PP	QQ	RR	SS	TT	UU	VV	ww	XX
		ny recovery tasks specifically call for monitoring of this	What is the highest implementation priority assigned to these tasks? [Priority 1 is highest.]	What is the estimated total cost to implement these tasks, in \$000's? [If there are multiple tasks, sum their costs]?	Are the data to be collected qualitative or quantitative?	How will the data be used/analyzed?	How did biological information (either species-specific information, or general principles) influence what is to be monitored?	logical information (either species-specific info, or iciples) influence how monitoring is done (i.e.,	Does the plan describe specific changes in tasks or objectives in response to monitoring results?	To what extent have any of these tasks been completed? [Consult FWS contact]	rimarily implementing these task(s)? [Consult FWS
		nan it?	s the	is th	e G	₩	id b	lid k	the Ise	at e	S P
	Subjects of monitoring that may be proposed	How mai subject?	iati ks?	nat i 00's	th	> >	w d	How did bio general prir protocols)?	es t	wh.	no is ntac
#	in recovery plans	왕	Wh	Wr \$00	Are	Ŷ	운 5	Ho ger pro	Do	0 ≥	Who is p contact]
	MONITORING FOCAL SPECIES										
347	Presence/absence										
348	Number of individuals										
349	Trends in population size										
350	Number of populations										
351	Trends in number of populations										
352	Extinction/persistence of populations										
353	Reproductive rates										
354	Mortality rates										
355 356	Age/stage structure Genetic parameters										
357	Movement patterns										
	Health/physiological condition (e.g. endocrine										
358	levels, stress, weight, etc)										
250	Other focal species monitoring not captured in the										
359	above categories										
	MONITORING ASSOCIATED SPECIES										
360	Prey species										
	Predator species										
	Competitor species										
	Parasites/pathogens										
364	Exotic species										
365	Other associated species monitoring not captured in the above categories										
	MONITORING HABITAT										
366	Habitat quantity										
367	Trends in habitat quantity										
368	Habitat quality										
369	Trends in habitat quality										
370	Other habitat monitoring not captured in the above										
	categories										

FORM 9 of 13: PUBLIC RELATIONS

FINAL	VERSION, Created: 1999-01-27	
371	Plan code	
372	Species code	
373	Student code	

Ques	stions regarding public relations actions prop	osec	l by r	ecove	erv p	lan	
	paone regarding paone relations actions prop	YY	ZZ	AAA	BBB	CCC	DDD
#	Categories of public relations actions	How many tasks specifically call for this type of action?	What is the highest implementation priority given to these tasks? [Priority 1 is Nighest.]	What is the estimated total cost to implement these tasks, in \$000's? [If there are multiple tasks, sum their costs]?	Are specific programs or activities proposed, or are they to be developed?	To what extent have any of these tasks been completed? [Consult FWS contact]	Who is primarily implementing the task(s)? [Consult FWS contact]
374	Increasing public awareness of species status						
375	Developing public support for species conservation						
376	Encouraging public participation in recovery efforts						
377	Enforcing legal protections for species						

FORM 10 of 13: PLAN ADMINISTRATION & IMPLEMENTATION

FINAL VERSION, Created: 1999-01-27				
378	Plan code			
379	Species code			
380	Student code			

Ques	stions regarding recovery plan administration & implementation	on					
	Answer each of the following questions regarding recovery plan administration						
#	and implementation						
381	Does the plan propose that an individual or committee be designated to coordinate						
301	implementation of the recovery plan?						
382	Does the plan propose to establish a centralized database for information on the status						
302	of the species?						
383	Does the plan propose to establish a system by which to monitor implementation of						
303	recovery tasks?						
	For how many tacks does the recovery plants Implementation Schodule identify						
	For how many tasks does the recovery plan's Implementation Schedule identify						
	the following groups to be "Responsible parties"? [Bear in mind that designation						
	as a "Responsible party" is in no way a binding commitment to actually						
384	a. USFWS/NMFS						
385	b. Other federal agencies						
386							
387	c. State/local resource agencies						
388	d. Other state/local government agencies						
389	e. Tribal groups						
390	f. Consultants						
391	g. Private individuals						
392	h. Business/industry i. Academic scientists						
393							
394	j. Environmental/conservation organizations k. Other people/organizations not listed above						
334	According to the recovery plan's executive summary, how many years is recovery						
395	expected to take if the recovery plan is implemented as scheduled?						
	According to the recovery plan, what is the total estimated/projected cost for						
396	implementing Priority 1 recovery tasks? (in \$000's)						
	According to the recovery plan, what is the total estimated/projected cost for						
397	implementing Priority 2 recovery tasks? (in \$000's)						
	According to the recovery plan, what is the total estimated/projected cost for						
398	implementing Priority 3 recovery tasks? (in \$000's)						
	According to FWS reports to Congress, how much money has been spent on recovery						
399	actions for this species, to date? (in \$000's)						
	If the recovery plan is fully implemented, will the species still require any active						
400							
	Does the plan explicitly specify a need for future review and, if necessary, revision of the						
	plan? [The standard disclaimer page of the recovery plan should not be used to answer						
401	this question.]						

FORM 11 of 13: RECOVERY CRITERIA, PART I

FINAL VERSION, Created: 1999-01-27						
402	Plan code					
403	Species code					
404	Student code					

Questions regarding measurement of recovery criteria											
Ques	stions regarding measuren	EEE	FFF	GGG	HHH	ria III	JJJ	KKK	LLL	MMM	NNN
								NNN		IVI IVI IVI	INININ
		How will achievement of the target value be measured/determined?	s the metric of the recovery criterion qualitative or quantitative?	Over what duration must the target value be maintained to meet the recovery criterion? [# of years]	How much variation in the target value can be tolerated and still satisfy the recovery criterion? [+- % error]	On what basis was the metric for the recovery criterion selected?	Identify the two principal sources of information used to select the metric for the recovery criterion: [Column JJJ: primary sources, Column KKK: secondary source]		On what basis was the target value for the recovery criterion selected?	Identify the two principal sources of information used to determine the target value for the recovery criterion: [Column MMM: primary sources, Column NNN: secondary source]	
	Metrics used to define recovery	ow w	the	/er v	ow n tisfy	On what b	entif e me urce		On what be	entifitern term MM:	
#	goals/criteria	ΙĔĔ	<u>s</u>	óặ	Sa I	Se Se	S t g		o Se	<u>Ğ</u> eğ <u>Ğ</u>	
405	Total pop size (# ind)										
406	# of subpopulations # of individuals in each										
407	subpopulation										
408	Trends in total population size (# of individuals)										
409	Trends in # of subpopulations										
410	Trends in # of individuals in each										
411	subpopulation Total range	-									
412	Quantity of habitat										
413	Quality of habitat										
414	Existence/significance of threat										
415	Age structure of population										
416	Implementation of post-delisting management programs										
417	Securement of water rights										
418	Productivity/net recruitment rates										
419	Securement of habitat (i.e., legal protection)										
420	Other metrics not captured above										

FORM 12 of 13: RECOVERY CRITERIA, PART II

FINAL	FINAL VERSION, Created: 1999-01-27					
421	Plan code					
422	Species code					
423	Student code					

Questions regarding measurement of recovery criteria									
		000	PPP	QQQ	RRR	SSS	TTT	UUU	VVV
		Does assessment of the metric require spatially replicated measurements?	Does assessment of the metric require temporally replicated measurements?	Does the recovery plan state that environmental variability influenced how the target value for the recovery criterion was set?	Does the recovery plan state that environmental variability influenced how much variance would be tolerated in the target value for the recovery criterion?	oiological information influence selection of the recovery	How did biological information influence determination of the target -value for the recovery criterion?	How does the target value for the recovery criterion compare to the covalue of that metric at the time of listing?	How does the target value of the recovery metric compare to the value at the time of plan development?
	Metrics used to define recovery	es a asur	es a asur	es th	es thuend	How did k criterion?	w die ue fc	w dc ne o	w dc ue a
#	goals/criteria	Do	Dog	Do	Doi infli for	Ho	Hov	Hov	Hov
424	Total pop size (# ind)								
425	# of subpopulations								
426	# of individuals in each subpopulation								
427	Trends in total population size (# ind)								
428	Trends in # of subpopulations Trends in # of individuals in each								
429	subpopulation								
430	Total range								
431	Quantity of habitat								
432	Quality of habitat								
433	Existence/significance of threat								
434	Age structure of population								
435	Implementation of post-delisting management programs								
436	Securement of water rights								
437	Productivity/net recruitment rates								
438	Securement of habitat (i.e., legal protection)								
439	Other metrics not captured above								

FORM 13 of 13: RECOVERY CRITERIA, PART III

FINAL	FINAL VERSION, Created: 1999-01-27					
440	Plan code					
441	Species code					
442	Student code					

	stions regarding measuren	nent				
		www	XXX	YYY	ZZZ	ABC
#	Metrics used to define recovery goals/criteria	Does the recovery plan describe tasks that will monitor/measure the metric selected for the recovery criterion?	What is the highest implementation priority assigned to tasks that call for monitoring the recovery criterion metric? [Priority 1 is highest.]	What is the estimated total cost to implement these tasks, in \$000's? [If there are multiple tasks, sum their costs.]	To what extent have any of these tasks been completed? [Consult FWS contact]	Who is primarily implementing the task(s)? [Consult FWS contact]
443	Total pop size (# ind)		7 4 .=			
444	# of subpopulations					
445	# of individuals in each					
446	subpopulation Trends in total population size (# ind)					
447	Trends in # of subpopulations					
448	Trends in # of individuals in each subpopulation					
449	Total range					
450	Quantity of habitat					
451 452	Quality of habitat					
452 453	Existence/significance of threat Age structure of population					
	Implementation of post-delisting					
454	management programs					
455	Securement of water rights					
456	Productivity/net recruitment rates					
457	Securement of habitat (i.e., legal protection)					
458	Other metrics not captured above					