Project Name

	Planning Steps and Actions	State Program Manager	Planning Staff Leader	Hydraulic Engineer	Planning Engineer	Resource Conservationist	Agronomist	Soil Scientist	Range Conservationist	Forester	Economist	Environmental .Coordinator	Biologist	Archeologist	Geologist	CET/CADD Technician	Admin. Assistant - Word Proc	GIS Specialist	SLO/Other Personnel	Field Office Project Assistance	
INITIATE PLANNING		8															24				
A.	Written Request for Assistance (SF-424)		4																40		
B.	Discuss Purpose and Need for project with Sponsors		8	4								4							8	4	
	1. Determine need for Steering Committee		4																4	4	
	2. Define Study Area			4												4			4	8	
	3. Develop Project Map															4		8			
C.	Initial Site Visit		16	16	8	8					8	8							40	8	
D.	Establish Reviewable Record		1																		
	Subtotal—Initial Planning	**8**	**33**	**24**	**8**	**8**					**8**	**12**	**0**	**0**	**0**	**8**	**24**	**8**	**96**	**24**	**96**
Step 1 - IDENTIFY PROBLEMS, OPPORTUNITIES & CONCERNS		4															48				
A.	Publicize planning start locally		2																4	8	
B.	Identify the need for the proposed action (quantify, extent, magnitude, timing, frequency etc.)		4																4	4	
C.	Identify planning intensity		2																	2	
D.	Assemble interdisciplinary planning team		2																		
E.	Conduct interdisciplinary planning team meeting		4	4	4	4	4	4	4	4	4	4	4	4	4	4		4		4	
F.	Develop Project Plan of Work (POW)		8	8	8	8	8	8	8	8	8	8	8	8	8	8			4	8	
G.	Develop Public Participation Plan		4																4	4	
H.	Gather and review existing data		8	16	8	8	8	8	8	8	8	8	8	8	8	8				8	
	1. Conduct literature review			16	8	16	16	16	16	16	16	16	16	16	16						
	2. Determine additional data and studies needed																				
I.	Field review / reconnaissance of watershed		8	8	8	8	8	8	8	8	8	8	8	8	8	8				8	

J.	Notice of Intent to prepare EIS to Federal Register Liaison		4									8									
K.	Obtain local input																				
	1. Discuss with sponsors		4	4	4	4	4	4	4	4	4	4									
	2. Discuss with local NRCS		4	8	4	4	4	4	4	4	4	4									
	3. Establish Steering Committee if necessary		2																		
	4. Solicit input from Federal / State agencies, Tribes, special groups		2									16									
	5. Publicize and conduct public meetings		24	16	16							16								8	
	Subtotal Step 1 - Identify problems, opportunities, & concerns	**4**	**82**	**80**	**60**	**52**	**52**	**52**	**52**	**52**	**52**	**92**	**44**	**44**	**44**	**28**	**48**	**4**	**16**	**54**	**92**
Step 2 - DETERMINE OBJECTIVES		4															8				
A.	Document Sponsor Objectives		8																	4	
	1. Prioritize Objectives/Resource Issues																				
	2. Determine Purposes Associated with Objectives (Desired Future Conditions)																				
B.	Write Purpose and Need Statement (40 CFR Section 1508.9b)																				
C.	Write Scope of Plan-EA/EIS		8		4	4						4									
	Subtotal Step 2 - Determine Objectives	**4**	**16**	**0**	**4**	**4**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**4**	**16**
Step 3 - INVENTORY RESOURCES		8										40					80				
A.	Conduct resource inventories and watershed assessment																			40	
	1. Identify Resource Attributes/Indicators					8															
	2. Identify Evaluation Procedures/Methods		2	2	2	2	2	2	2	2	2	2	2	2	2						

3. Identify a forecasting approach (P&G Section 3.4.7)		2	2	2	2	2	2	2	2	2	2	2	2	2						
4. Determine context for each resource issue		2	2	2	2	2	2	2	2	2	2	2	2	2						
5. Collect air quality data											2									
6. Identify coastal zone management areas											2									
7. Identify coral reefs											2									
8. Identify ecological critical area												4								
9. Identify essential fish habitat												8								
10. Identify fish species												8								
11. Identify floodplains			8	8																
12. Collect forest health data									8											
13. Inventory highly erodible cropland						8														
14. Identify invasive species						4						4								
15. Collect landuse and crop inventory data					8															
16. Identify migratory birds												2								
17. Identify natural areas											2									

18. Identify parklands											2									
19. Inventory prime and unique farmland					8															
20. Collect range health data								8												
21. Identify riparian areas												8								
22. Identify scenic areas											2									
23. Identify significant scientific features													4							
24. Collect soil health data							8													
25. Soils inventory data							8													
26. Identify threatened and endangered species												8								
27. Identify upland wildlife species												8								
28. Identify water bodies (streams, lakes, ponds, etc.)					8							8								
29. Collect water quality data					40															
30. Collect water quantity data			8	16																
31. Identify wild and scenic rivers												4								
32. Locate and identify wetlands												56								

	33. Identify wetland wildlife species												8								
	34. Collect HGM Data												8								
	35. Collect WHEG or other methodology Data												40								
	36. Collect SIRMOD/SPAW Model Data					8															
	37. Collect NLEAP/CROPFLEX Data					16															
	38. Collect FUSED Data					8															
	39. Collect RUSLE2 Data						8														
	40. Collect WEQ Data						8														
	41. Collect WEPP Data						8														
B.	Economics and social effects																				
	1. Collect Population demographics										4										
	a. Indentify low income population, minorities, Native Americans, etc.																				
	b. Income																				
	c. Districts																				
	2. Identify effects to public health and safety		4	16	8						24										
	a. Public water supply																				
	b. Emergency vehicle and school bus transportation routes																				
	c. Access to medical facilities, shopping and markets																				
	d. Road and bridge infrastructure																				
	3. Identify effects to homes, businesses & agricultural operations			16	16						16										
	a. Determine effects of drawdown time of detention pool																				
	b. Current productivity																				
	c. Enterprise input costs																				

	d. Damage costs																				
	e. Operation and maintenance costs																				
	4. Identify visual concerns				4							4									
	a. Map visual resources, landscape uses and visibility																				
	b. Determine viewsheds and scenic or unique landscape elements																				
	5. Collect economic data										80										
	a. Land cost																				
	b. Rental rates																				
	6. Identify non-NEPA laws related to project area		4									4									
	7. Identify approved Regional Water Resource Plans in project area				4																
C.	Archeological and Historic Resources																				
	1. Determine undertakings and APE													1							
	2. Consultation with SHPO, State Archaeologist, THPO, Federally recognized Tribes													30							
	3. Design and conduct cultural resources surveys of project area													5							
	4. Literature reviews													1							
	5. Field inventory (if necessary)													4							
	6. Cultural Resources found. Evaluate for NRHP													1							
	7. Testing, mitigation (if necessary)													10							
	8. Determination of eligibility and effect. Consultation													30							
	9. Develop treatment plan and MOA													20							

	10. Execution of MOA													30							
D.	Engineering																				
	1. Surveys															80		40		320	
	a. Topographic survey with elevation-storage-area curves			16																	
	b. Sediment storage survey of reservoir (rehabilitation projects)			8																	
	c. Locate needed cross sections			16																	
	d. Houses, roads, bridges in breach zone/100-yr and 500-yr floodplain			8																	
	2. Evaluate condition of structure																				
	a. Structures				16																
	b. Dam (rehabilitation projects)				16																
	c. Principal spillway conduit, inlet and outlet (PS - rehabilitation projects)				8																
	d. Auxiliary spillway (AS - rehabilitation projects)				4																
	e. Appurtenances (rehabilitation projects)				4																
E	Geology																				
	a. Review existing geologic information														16						
	b. Perform preliminary geologic investigation														80						
F.	Support maps																				
	a. Digitize watershed boundary																	8			
	b. Digitize wetlands by type																	16			
	c. Digitize water bodies																	8			
	d. Digitize land use																	80			
	e. Digitize soils																	80			
G.	Document Problem		40	16	16	24					24	16	24	16	16						
	Subtotal Step 3 - Inventory Resources	**8**	**54**	**118**	**126**	**134**	**42**	**22**	**14**	**14**	**154**	**82**	**204**	**158**	**118**	**80**	**80**	**232**	**0**	**360**	**36**

Step 4 - ANALYZE RESOURCE DATA		8	40														40				
A.	Analyze existing data																				
	1. Generate resource statistics																	8			
	2. Develop support maps																	80			
	3. Evaluate air quality data											4									
	4. Classify fishery												32								
	5. Determine forest health									32											
	6. Determine range health								32												
	7. Determine riparian proper functioning condition (PFC)												32								
	8. Determine soil health							32													
	9. Evaluate water quality data					56															
	10. Evaluate water quantity data				40																
	11. Classify wetlands												40								
	12. Use HGM												24								
	13. Use WHEG or other methodology												40								
	14. Use SIRMOD/SPAW				16	32															
	15. Use NLEAP/CROPFLEX					40															
	16. Use FUSED					16															
	17. Use RUSLE2						32														
	18. Use WEQ						32														
	19. Use WEPP						32														
	20. Quantify Onsite/Offsite damages				16	16					32										
	21. Develop resource existing conditions					40															
B.	Geology																				
	1. Erosion studies—sheet & rill, ephemeral, gully, channel, etc.										8				8						
	2. Sedimentation																				
	a. Determine sedimentation delivery ratios														4						
	b. Determine onsite/offsite sedimentation rates														12			4			

	3. Soil Mechanics Lab testing and analysis																		240		
	4. Ground water safe yield analysis														40						
C.	Hydrology and Hydraulics															12					
	1. Determine impact area			8												4					
	2. Research and review existing hydrology/hydraulic models			24																	
	3. Develop watershed schematic			4																	
	4. Determine watershed conditions (CN, Tc, rainfall, etc.)			24												8		16			
	5. Run preliminary hydraulics			60																	
	6. Develop hydrologic model for watershed			40												4					
	7. Run hydrologic models																				
	a. Existing conditions			60												8					
	b. Future-without-project condition			40												16		16			
	8. Review Municipal & Industrial or Rural Water supply studies				74											8					
D.	Review Cultural Resource data													8							
E.	Economics and social effects (future-without-project condition)																				
	1. Urban or developed area damages																				
	a. Denote on aerial photo affected properties upstream and downstream			4												4		4			
	b. Determine property values (structure and contents)										16										
	c. Survey first floor elevations of properties			4																80	
	d. Determine "damage starts" elevation of property			2																	
	e. Run URB1			2							8										
	f. Determine infrastructure damage (roads, bridges, utilities)										8										
	g. Determine costs of utility outage, re-routing traffic										4										
	2. Agricultural area damages										16										

	3. Nonagricultural area damages (roads, bridges, oil wells, etc.)										8										
	4. Review social resource data										8										
	5. Review and interpret visual resource data																				
	Subtotal Step 4 - Analyze Resource Data	**8**	**40**	**272**	**146**	**144**	**96**	**32**	**32**	**32**	**140**	**84**	**168**	**8**	**64**	**64**	**40**	**128**	**240**	**80**	**27**
Step 5 - FORMULATE ALTERNATIVES		8															24			24	
A.	Identify quality criteria					8															
B.	Develop practice/measure list				8	8															
C.	Determine reasonable alternatives considering completeness, effectiveness, efficiency and acceptability			16	20	16	16	16	16	16	16	16	16	8	16						
D.	Determine practice/measure extents				16	32															
E.	Determine treatment increments				8						8										
F.	Determine practice/measure adoption rates				8																
G.	Identify Permits, Licenses or other Entitlements required for action				4	4						4		4							
H.	Define Mitigation strategies				4	4						4		4							
I.	Determine project costs for each alternative				80											40		16			
	Subtotal Step 5 - Formulate Alternatives	**8**	**36**	**16**	**148**	**72**	**16**	**16**	**16**	**16**	**24**	**24**	**16**	**16**	**16**	**40**	**24**	**16**	**0**	**24**	**1**
Step 6 - EVALUTATE ALTERNATIVES		8															40				
A.	Environmental Evaluation																				
	1. Complete EE and document findings											72	112					8			
B.	Evaluate Resource Data		8																		
	1. Review HGM					8							8								
	2. Review WHEG or other methodology					8							48								
	3. Review SIRMOD/SPAW output				16	16															
	4. Review NLEAP/CROPFLEX output				16	16															
	5. Review FUSED output				8	8															
	6. Review RUSLE2 output					8															
	7. Review WEQ output					8															
	8. Review WEPP output					8															
	9. Review Range Health determinations					8															
	10. Review Forest Health determinations					8															

	11. Review Fishery classifications					8															
	12. Review Soil Health determinations					8															
	13. Review Riparian PFC impacts					8															
	14. Conduct trend analysis					32															
	15. Extrapolate model results					24															
	16. Review landscape and visual resource impacts																				
C.	Geology		4																		
	1. Foundation and slope stability																				
	a. Analyze foundation and slope stability				8										24						
	b. Seismic analysis														8						
	c. Seepage analysis														16						
	d. Recommendations for additional detail geologic investigation														16			4			
	2. Sedimentation																				
	a. Determine sediment damages														16			4			
	b. Determine future sediment storage requirements (50-100yr)														8			4			
	3. Groundwater analysis														16						
D.	Hydrology and Hydraulics		4																		
	1. Run hydrologic models																				
	a. Evaluate future with project condition (varies with alternatives)			40																	
	b. Determine effects structures have on watershed (release flows, discharges, downstream water surface elevations)			40												16		16			
	2. Run SITES model for each dam				24																
	3. Breach inundation study (catastrophic failure)																				
	a. Breach Analysis				24																
	b. Document effects of breach in report format with breach map				16											16		16			
	c. Determine NRCS hazard classification				4																

	d. Determine dam risk of failure from overtopping (7 CFR Part 650)				4																
	4. Develop floodplain maps (breach, 100-yr & 500-yr with and without project)			16												16		24			
	5. Determine watershed safe yield for water supply			24																	
E.	Economics (all alternatives)		4																		
	1. Determine economic benefits for each alternative										40										
	2. Trend analysis for alternatives										40										
	3. Recreation Area			4							8										
	a. Determine number of visitor-days per year																	4			
	4. Calculate Average Annual damages										8										
	a. Urban, Agricultural and Recreation areas																				
	5. Calculate benefit/cost ratio										2										
	6. Determine NED Plan for Water Resource projects										2										
F.	Identify direct and indirect effects (40 CFR Section 1502.16)					16															
G.	Determine Significance of Effects (context & intensity)		24																		
	1. Air quality											4									
	2. Archeological and historic properties											2		8							

3. Coastal zone management areas											4									
4. Coral reefs											4									
5. Ecological critical areas												4								
6. Economic and social			4	4	4					16										
a. Current productivity																				
b. Damage costs																				
c. Enterprise input costs																				
d. Income																				
e. Land cost																				
f. O&M costs																				
g. Population demographics																				
h. Rental rates																				
7. Environmental Justice										4	4									
8. Erosion and sedimentation			2	8			8							16	16					
9. Essential fish habitat											2	8								
10. Fish resources												8								
11. Floodplains			8	8																
12. Floodwater damage			4							2										
13. Forest health									8											
14. Highly erodible cropland						8														
15. Human health and safety			2	2	2					2										
16. Invasive species						4						4								

17. Land use and management				4	4					2	4									
18. Migratory birds												2								
19. Natural areas											2									
20. Parklands											2									
21. Prime and unique farmland					8															
22. Range health								8												
23. Riparian Corridor PFC impacts												8								
24. Scenic areas											2									
25. Significant scientific features													4							
26. Soil health							8													
27. Threatened and endangered species											4	8								
28. Transportation and infrastructure			2	4	2					2										
29. Visual resources				4	4					4	4		4	4						
30. Water bodies (streams, lakes, ponds, etc.)					8						4	8								
31. Water Quality				8	8						8									
32. Water Quantity			8	8																
33. Wetlands											2	8								
34. Wild and scenic rivers												4								

	35. Wildlife resources											2	8								
	36. Other resource concerns				8	8	8				8	8		8							
H.	Develop mitigation or reformulate to avoid adverse environmental effects		4																		
	1. Environmental				8							16	8								
	2. Downstream erosion			24	8										8						
	3. Landscape and visual resources																				
I.	Determine potential for effect controversy		4		4							4									
J.	Identify possible conflicts between Federal, State, Local and Tribal; Policies, Laws, and Objectives (40 CFR Section 1502.16)		4		4							4		4							
K.	Identify major environmental conflicts resolved (7 CFR Part 650)											4									
L.	Identify unresolved environmental conflicts & NRCS proposed resolution (7 CFR Part 650)											4									
M.	Identify consistency with Regional Water Resource plans (7 CFR Part 650)		4		4	4					4	4									
N.	Identify and determine if effects are cumulatively significant (7 CFR Part 650)		2			8						8	8								
O.	Identify adverse environmental effects that can't be avoided (40 CFR Section 1502.16, 7 CFR Part 650)		2			8						8	8								
P.	Determine the impacts on short-term land use (40 CFR Section 1502.16, 7 CFR Part 650)		2		2	4					4	2	2								
Q.	Determine impacts to long-term productivity (40 CFR Section 1502.16, 7 CFR Part 650)		2		2	4					4	2	2								
R.	Determine energy and natural or depletable resource requirements & conservation potential (40 CFR Section 1502.16)		2		2	2					2	8	2								

S.	Determine urban quality impacts (40 CFR Section 1502.16)		2		2	2					4	2	2								
T.	Determine reuse and conservation potential of Alternatives (40 CFR Section 1502.16)		2		2	4					4	4	2								
U.	Identify Risks and Uncertainty of effects (7 CFR Part 650)		2		2	2					8	4	2								
V.	Determine if Actions create any precedents (7 CFR Part 650)		2		2	2					2	8	2								
W.	Identify irreversible or irretrievable commitments of resources (40 CFR Section 1502.16, 7 CFR Part 650)		2		2	4					4	4	2								
	Subtotal Step 6 - Evaluate Alternatives	**8**	**80**	**178**	**226**	**288**	**20**	**16**	**8**	**8**	**176**	**224**	**278**	**28**	**132**	**64**	**40**	**80**	**0**	**0**	**28**
Step 7 - Make Decisions		8															120				
A.	Compare Alternatives (NED, EQ, OSE and RED accounts)		2	2	6						6										
B.	Review Alternatives with Sponsors		8	8	8	8						8								8	
C.	Identify preferred alternative		2			2					2										
D.	Determine level of NEPA documentation required		2									2									
E.	Prepare draft document for review																				
	1. Develop Plan cover		2			2										8					
	2. Write Summary/Fact Sheet (40 CFR Section 1502.12)		2	2	2	4	2	2	2	2	2	2	2	2	2						
	3. Write Purpose and Need section		4	4	4	16	4	4	4	4	4	4	4	4	4					16	
	4. Review and refine Scope of Plan-EA/EIS section		2	1	1	4	1	1	1	1	1	1	1	1	1						
	5. Write Affected Environment section		2	8	8	16	8	8	8	8	8	8	8	8	8					16	
	6. Write Alternatives section		8																		
	a. Write Formulation Process section			4	4	8	4	4	4	4	4	4	4	4	4						
	b. Write Alternatives Considered but Eliminated from Detail Study section			4	4	8	4	4	4	4	4	4	4	4	4						
	c. Write Description of Alternatives section			4	4	8	4	4	4	4	4	4	4	4	4						
	7. Develop Comparison of Alternatives Table			4	4	16	4	4	4	4	8	8	4	4	4						
	8. Write Environmental Consequences section		8	16	16	32	16	16	16	16	16	24	16	8	8						
	9. Write Consultation and Public Participation section (7 CFR Part 650)		2			8						8	4	4							
	10. Write Provisions of the Preferred Alternative section		4																		

	a. Write Rationale for Alternative Preference section					8					4	4										
	b. Write Measures to be Installed section			4	4	8						4										
	c. Write Mitigation section		2		4	8						8	24									
	d. Write Permits and Compliance section				4	4						4		2								
	e. Write Costs and Cost Sharing section				4	4					8											
	f. Write Installation and Finance section				4	4					8											
	g. Write Operation, Maintenance and Replacement section			4	8	8					2	4										
	h. Develop Economic and Structural Tables			16	16	16					16											
	11. Write References section		2	2	2	8	2	2	2	2	2	2	2	2	2							
	12. Write List of Preparers section (40 CFR Section 1502.17)		2			4																
	13. Write Distribution List section (40 CFR Section 1502.19)		2			4																
	14. Write Index section (40 CFR Section 1502.10)		2	2	2	8	2	2	2	2	2	2	2	2	2							
	15. Appendices																					
	a. Finalize Appendix C: Support Maps		2	4	4	4	4	4				4	4		4	8		16		4		
	b. Write Investigation and Analysis Section		2	16	16	24	16	16	16	16	24	16	16	16	16							
	c. Compile Appendix D: Supporting Information		2	4	4	4	4	4	4	4	4	4	4	4	4	4		4		4		
	d. Update Project Map		2		2	2										8		16				
	16. Prepare Watershed Agreement		2		8	8					8	8										
	17. Prepare Landrights Work Maps		2		16											80		80				
	Subtotal - Make Decisions	8	70	109	159	258	75	75	71	71	133	137	107	69	67	108	120	116	0	48	**25**	
F.	**Reviews**	8															40					
	1. Conduct internal interdisciplinary State Office review		40	40	40	40	40	40	40	40	40	40	40	40	40					40		
	a. Make Plan modifications					16																
	2. Technical review by NWMC																		240			
	a. Make Plan revisions		4	8	8	24	8	8	8	8	8	8	8	8	8							
	3. Sponsor Draft Plan/EA review																			240		
	4. Conduct Inter-Agency review																		360			
	5. Conduct Public meetings		8	8	8	8	8	8	8	8	8	8										
	Subtotal - Reviews	8	52	56	56	88	56	56	56	56	56	56	48	48	48	0	40	0	600	280	**6**	

G.	**Prepare Final Plan/EA or EIS**	8															16				
	1. Resolve comments and incorporate changes		16																		
	a. Revise Plan/EA			8	8	16	8	8	8	8	8	16	8	8	8						
	b. Include Letters and Comments in Appendix A					8															
	2. Hold additional public meeting if necessary																				
	Subtotal - Prepare Final Plan/EA or EIS	8	16	8	8	24	8	8	8	8	8	16	8	8	8	0	16	0	0	0	**24**
H.	**Final Plan Approval**	16															16				
	1. Final Plan/EA																				
	a. Prepare and sign FONSI		8																		
	b. Prepare and publish FONSI Notice of Availability		4																240		
	c. Sign Watershed Agreement/Plan																			160	
	d. Make required copies of Plan/EA																				
	e. Request funding authorization		4																480		
	Subtotal - Plan/EA Approval	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	720	160	**73**
	2. Final Plan/EIS																16				
	a. Make required copies of Plan/EIS																				
	b. Provide copies of Final Plan/EIS to EPA & commentors		8																		
	c. EPA publishes Notice of Availability of the Final Plan/EIS																		240		
	d. Prepare and sign Record of Decision		4																		
	e. ROD Notice of Availability to Federal Register Liaison																				
	f. Sign Watershed Agreement/Plan																			160	
	g. Request funding authorization		4																480		
	Subtotal - Plan/EIS Approval	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	720	160	**73**
	Subtotal Step 7 - Make Decisions	**40**	**154**	**173**	**223**	**370**	**139**	**139**	**135**	**135**	**197**	**209**	**163**	**125**	**123**	**108**	**192**	**116**	**1320**	**488**	**170**
	Total Initiate Planning and Steps 1 through 7	**88**	**495**	**861**	**941**	**1072**	**365**	**277**	**257**	**257**	**751**	**731**	**873**	**379**	**497**	**392**	**456**	**584**	**1672**	**1034**	**297**
Step 8 - Implement Plan																					
	1. Funding																				
	2. Permits																				

	3. Land rights																			
	4. Surveys																			
	5. Final Design																			
	6. Develop Project Agreement - Landowner Contracts																			
	7. Develop O&M Agreement																			
	8. Technical Assistance																			
	9. Construction																			
	Total Step 8 – Implement Plan																			
Step 9 - Evaluate the Plan																				
	1. Conduct Status Reviews																			
	2. Monitor plan measures																			
	3. Evaluate plan measures																			
	4. Follow-up with SLO Regarding O&M Inspections																			
	Total Step 9 – Evaluate the Plan																			

(12) Determination of feasibility

(i) Technical

(ii) Financial

(iii) Logistical

(13) Conclusion and Recommendations