BA Receipt: 1/31/2019

Outline	Date Start	Number of Days to Draft	Date to Coordinator(s)	Date to Section 7 and NOAA GC	Date to ARA	Date Reviews End	Number of Days in Review	Review Comments Incorporated	Days to Address Review Comments	Projected Date for Clearance	Total Duration (Days)	Notes
Sufficiency Review		14	02/15/19	02/15/19	02/15/19	02/20/19	5	02/26/19	6	03/01/19	28	Task ends with letter to Reclamation and/or memo to file
Section 1 Introduction	02/01/19	14	02/15/19	02/15/19	02/15/19	02/22/19	7	03/01/19	7	03/07/19		
Section 2.0 Endangered Species Act												
2.1 Not Likely to Adversely Affect Determinations	02/01/19	14	02/15/19	02/15/19	NA	02/22/19	7	03/01/19	7	03/07/19	28	NLAA integrated into BiOp. 30 days is consistent with PCTS Best Practice.
2.2 Analytical Approach	02/01/19	21	02/22/19	02/25/19	02/25/19	03/02/19	5	03/08/19	6	03/12/19	35	
2.3 Range-wide Status of the Species and Critical Habitat	02/01/19	14	02/15/19	02/15/19	NA	02/26/19	11	03/08/19	10	03/12/19	35	Can Brittany start this sooner? Use CWF SOS with updates
2.4 Environmental Baseline	02/01/19	45	03/18/19	03/18/19	03/18/19	03/28/19	10	04/09/19	12	04/12/19	67	
2.5 Effects of the Proposed Action	02/01/19	45	03/18/19	03/18/19	03/18/19	04/02/19	15	04/12/19	10	04/22/19	70	Can develop a more detailed schedule for each division based on co
2.6 Effects of Interrelated or Interdependant Actions	02/26/19	16	03/14/19	03/14/19	03/14/19	03/25/19	11	04/04/19	10	04/12/19	37	Hatcheries
2.7 Cumulative Effects	02/01/19	14	02/15/19	02/15/19	NA	02/20/19	5	02/25/19	5	03/01/19	24	Assuming ARA does not need to review Cumulative Effects
2.8 Integration and Synthesis of Effects	03/18/19	45	05/02/19	05/02/19	05/02/19	05/13/19	11	05/20/19	7	05/24/19	63	Start drafting when effects section goes into review
2.9 Conclusion		0					0		0		0	This can wait until near the end
2.10 Incidental Take Statement	03/04/19	59	05/02/19	05/02/19	05/02/19	05/13/19	11	05/20/19	7	05/24/19	77	This is a long-duration task depending completion, review, clearance
RECLAMATION REVIEW OF TERMS AND CONDITIONS	05/25/19					05/31/19	6	06/05/19	5	06/07/19	11	
FISH AGENCY COORDINATION ON EFFECTS AND CONDITIONS	05/25/19					05/31/19	6	06/05/19	5	06/07/19	11	
Section 3 MSA/EFH	03/18/19	10	03/28/19	03/28/19	03/28/19	04/07/19	10	04/27/19	20		40	
Section 4 Fish and Wildlife Coordination Act							0		0		0	
Section 5 DATA QUALITY ACT DOCUMENTATION AND PRE-DISSEMINATION R		0					0		0		0	
Section 6 References		0					0		0		0	
Section 6 Appendices		0					0		0		0	

ROC on LTO Staffing Chart

Consultation Component	Sub-section	Lead Staff	Backup or Support Staff
Key Roles and Sections of the Consultation Process and Package including consultation lead biologist, CVO and WCR review and clearance, BA coordination, BiOp sections, EFH, etc	Major Sub- components of the BiOp	Is the primary person responsible for production (or coordination, where indicated) of assigned sections; will manage assisting staff who provide specialty expertise and support.	Expected to work closely with lead writer to produce notable quantity of text and assist in compiling contributions from specialty staff.
Lead Biologist/Scientist		Barb	N/A
Branch Chief Review/Clearance		Garwin	N/A
ESA Section 7 Review/Clearance		Naseem	N/A
NOAA GC Review/Clearance		Chris K	N/A
ARA Review/Clearance		Maria	N/A
WCR ESA Policy Support		Rosalie	N/A
Administrative Record Supprot	_	Norma	N/A
Technical Editor	_	TBD - Contractor	
Version Control Editor		TBD - Contractor	
BA Support			
BA Outline Proposal		Howard	Garwin, Naseem
Recent Science Recommendations		Barb	Jeff
Modeling recommendations		Evan	Cathy
BA Workshop		Barb	Division leads
Sufficiency Review		Barb	Division Leads
Section 7 and EFH Consultation			
Cover Letter		Garwin	NA
Introduction		Garwin	Barb

Consultation History		Garwin	Barb
Proposed Action		Evan	Naseem
Not Likely to Adversely Affect Determinations Action Area		Evan	Naseem
Analytical Approach		Cathy	Evan
Status of the Species and Critical Habitat		Kristin, TBD for Killer Whale	Brittany
Environmental Baseline		Brian	Joe
Effects Analysis - Deconstructed Action		Evan	Naseem
Effects Analysis by Division	Trinity River Division	CCO - TBD (Seth?)	CCO - TBD
	Shasta Division	Brian, Sarah	Cathy and Science Center (Eric)
	American River Division	Brian	Amanda

	Delta Division	Jeff, Kristin	Cathy and Science Center (Eric)
	East Side Division	Barb, Kristin	Erin
	Fish Passage Program	Jon	NA
	Future Conditions/Cli mate Analysis	Cathy	Cathy and Science Center (Eric)
	Hatchery Analysis	Amanda	Brian
Cummulative Effects	,	Brittany	NA
Interrelated and Interdendent Effects		Amanda	Naseem
Integration and Synthesis		Barb	Naseem, Rosalie
	Recovery Analysis	Barb	Brian and Joe backup
	Effects by Species	Brian (WR, SR) Joe (Sthd, Green sturgeon) TBD (Killer Whale)	Back up for spring- run (Erin)
Incidental Take Statement		Division Leads with Howard	Garwin to cross walk with 2009 BiOp for consistency
MSA/EFH		Division leads	editor to bring together
FWCA Data Quality Act		Barb	

References	Division leads	editor to bring together		
Appendices	Barb	editor to bring together		

Memo to record that we are in compliance with NOAA QA/QC Policy TASK Point of Contact When? Funding Details

WR Life Cycle Model Shasta Temp Model Temp Dependant Mortality CALSIM for Environmental Baseline

Science/Tech Memos

Other

Outline								
Section 1 In	troduction							
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1.3		ration Considerations						
1.4	Consultation							
1.5		ederal Action						
1.6		d and Interdepenent Action						
1.7	Action Area							
	Endangered Spe							
2.1		o Adversely Affect Determinations						
	2.1.1	CCC Steelhead						
	2.1.2	CCC Steelhead Critical Habitat						
2.2	Analytical A							
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	2.2.2	Legal and Policy Framework						
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	2.2.3	General Overview of the Approach and the Models Used						
	2.2.4	Evidence Available for the Analysis						
	2.2.5	Deconstructing the Action						
	2.2.6	Climate Change						
	2.2.7	Integrating the Effects						
	2.2.8	Presentation of the Analysis in this Opinion						
2.3	Range-wide Status of the Species and Critical Habitat							
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		2.3.1.2 Critical Habitat for Winter-run Chinook Salmon						
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		2.3.1.2.2 Spawning Habitat						
		2.3.1.2.3 Adequate River Flows						
		2.3.1.2.4 Water Temperatures						
		2.3.1.2.5 Habitat and Adequate Prey Free of Contaminants						
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		2.3.1.3.1 Adult Migration and Spawning						
		2.3.1.3.2 Egg and Fry Emergence						
		2.3.1.3.3 Juvenile Rearing and Emigration						
		2.3.1.3.4 Estuarine/Delta Rearing						
		2.3.1.3.5 Ocean Rearing						
		2.3.1.4 Description of VSP Parameters						
		2.3.1.4.1 Abundance						
		2.3.1.4.1 Additionice 2.3.1.4.2 Productivity						
}		2.3.1.4.3 Spatial Structure						
		2.3.1.4.4 Diversity						
-	2.2.2	2.3.1.4.5 Summary of ESU Viability						
	2.3.2	Central Valley Spring-run Chinook Salmon						
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		2.3.2.2 Critical Habitat for Central Valley Spring-run-run Chinook Salmon						
		2.3.2.2.1 Spawning Habitat						
		2.3.2.2.2 Freshwater Rearing Habitat						
		2.3.2.2.3 Freshwater Migration Corridors						
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		2.3.2.2.5 Summary of the Physical or Biological Features of Spring-run Chinook Salmon Critical Habi						
		2.3.2.3 Life History						
		2.3.2.3.1 Adult Migration and Spawning						
		2.3.2.3.2 Egg and Fry Emergence						
		2.3.2.3.3 Juvenile Rearing and Emigration						
		2.3.2.3.4 Estuarine/Delta Rearing						
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		2225 Ocean Pagring
		2.3.2.3.5 Ocean Rearing 2.3.2.4 Description of VSP Parameters
		2.3.2.4.1 Abundance
		2.3.2.4.2 Productivity
		2.3.2.4.3 Spatial Structure
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		2.3.3.3 Life History
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		2.3.3.3.2 Smolt Migration
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		2.3.3.3.5 Kelts
		2.3.3.4 Description of VSP Parameters
		2.3.3.4.1 Abundance
		2.3.3.4.2 Productivity
		2.3.3.4.3 Spatial Structure
		2.3.3.4.4 Diversity
		2.3.3.4.5 Summary of ESU Viability
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		2.3.4.1 Species Listing and Critical Habitat Designation History
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		2.3.4.2.4 Water Quality
		2.3.4.2.5 Migration Corridor
		2.3.4.2.6 Water Depth
		2.3.4.2.7 Sediment Quality
		2.3.4.3 Green Sturgeon Life History
		2.3.4.3.1 General Information
		2.3.4.3.2 Adult Migration and Spawning
		2.3.4.3.3 Juvenile Migration
-		2.3.4.3.4 Egg and Larval Stages 2.3.4.3.4 Juvenile Develepment and Emigration
		2.3.4.3.5 Estuarine Rearing 2.3.4.3.6 Ocean Rearing
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	2.3.?	Placeholder for Killer Whale Critical Habitat
	2.3.?	Placeholder for Species and Critical Habitat in the Trinity Division
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	2.4.1	Climate Change as Part of the Future Baseline
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		Status of the Species and Critical Habitat in Clear Creek
		CV Spring-run Chinook Salmon
		CV Spring run Chinook Salmon Critical Habitat
		CCV Steelhead
		CCV Steelhead Critical Habitat
		Historical Conditions
		Future Baseline Excluding CVP/SWP Effects
		Recovery Planning
		······································

Status of the Species and Critical Habitat in the Sacramento River	
Winter-run Chinook Salmon	
Winter-run Chinook Salmon Critical Habitat	
CV Spring-run Chinook Salmon	
CV Spring-run Chinook Salmon Critical Habitat	
CCV Steelhead	
CCV Steelhead Critcal Habitat	
Green Sturgeon	
Green Sturgeon Critical Habitat	
Historical Conditions	
Future Baseline Excluding CVP/SWP Effects	
Recovery Planning	
Status of the Species and Critical Habitat in the American River Division	
CCV Steelhead	
CCV Steelhead Critical Habitat	
Historical Conditions	
Future Baseline Excluding CVP/SWP Effects	
Recovery Planning	
Status of the Species and Critical Habitat in the Delta Division	
Winter-run Chinook Salmon	
Winter-run Chinook Salmon Critical Habitat	
CV Spring-run Chinook Salmon	
CV Spring-run Chinook Salmon Critical Habitat	
CCV Steelhead	
CCV Steelhead Critical Habitat	
Green Sturgeon	
Green Sturgeon Critical Habitat	
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Future Baseline Excluding CVP/SWP Effects	
Recovery Planning	
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CCV Steelhead Critcal Habitat	
Historical Conditions	
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Recovery Planning	
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Placeholder for Trinity Division Crititical Habitat	
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Human Related Activities	
Prey Availability	
Vessel Activity and Sound	
Non-vessel Sound	
Oil Spills	
Scientific Research	
Recovery Planning	
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Deconstructed Action	
Shasta Division	
Clear Creek	
Deconstruct the Action	
Assess Species Exposure	
Assess Species Response	
Assess Risk to Individuals	
Effects on Critical Habitat	
Sacramento River	

	Deconstruct the Action
	Assess Species Exposure
	Assess Species Response
	Assess Risk to Individuals
	Effects on Critical Habitat
	American River Division
	American River
	Deconstruct the Action
	Assess Species Exposure
	Assess Species Response
	Assess Risk to Individuals
	Effects on Critical Habitat
	Delta Division
	Placeholder to discuss components of this division dependant on BA breakdown. This could be very co
	East Side Division
	Stanislaus River
	Deconstruct the Action
	Assess Species Exposure
	Assess Species Exposure Assess Species Response
-	Assess Species Response Assess Risk to Individuals
<u> </u>	
	Effects on Critical Habitat
	Fish Passage Program
	Effects of the Action on Southern Resident Killer Whales
2.6	Effects of Interrelated or Interdependant Actions
	Nimbus Hatchery
2.7	Cumulative Effects
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	Winter-run Chinook Salmon Critical Habitat
	CV spring-run Chinook Salmon
	CV spring-run Chinook Salmon Critical Habitat
	CCV steelhead
	CCV steelhead Critical Habitat
	Green Sturgeon
	Green Sturgeon Critical Habitat
	Southern Resident Killer Whales
	Summary of the Environmental Baseline
	Winter-run Chinook salmon
-	Winter-run Chinook Salmon Critical Habitat
	Future Baseline Excluding CVP/SWP Effects
	Recovery Planning
	Assessment of Risk to the ESU
	CV spring-run Chinook Salmon
	CV spring-run Chinook Salmon Critical Habitat
	Future Baseline Excluding CVP/SWP Effects
	Recovery Planning
	Assessment of Risk to the ESU
	CCV steelhead
	CCV steelhead Critical Habitat
	Future Baseline Excluding CVP/SWP Effects
	·

		Recovery Planning
		Assessment of Risk to the DPS
		Green Sturgeon
		Green Sturgeon Critical Habitat
		Future Baseline Excluding CVP/SWP Effects
		Recovery Planning
		Assessment of Risk to the DPS
		Southern Resident Killer Whales
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	2.10.2	Effect of the Take
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	2.10.4	Terms and Conditions
	2.10.5	Reinitiation of Consultation
	2.10.6	Conservation Recommendations
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3.1.	Essential Fis	h Habitat Affected by the Project
3.2.	Adverse Effe	ects on Essential Fish Habitat
3.3.	Essential Fis	h Habitat Conservation Recommendations
3.4.	Statutory Re	esponse Requirement
3.5.	Supplement	al Consultation
Section 4 I	Fish and Wildlife C	oordination Act
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Section 6 I	References	
Section 6	Appendices	

BA Receipt:	1/31/2019									
ection and Title	e	Lead Writer/Coordinator	Assistant Writer	Specialty Staff	Reviewer (Note: Naseem will review all sections for Division clearance; Who from NOAA GC will review all sections for GC clearance; names below are additional review)	Date Start (Date to	Date to Reviewer(s)	Date to GC	Date Er
cetton una Truc	-	Is primary person responsible for production (or	Expected to work closely with lead	Will provide expertise and assistance on specific	Will review section in draft form to ensure solid			(0)		
		coordination, where indicated) of assigned sections; will manage assisting staff who provide specialty	writer to produce notable quantity of	components in very targeted matter; may be required to draft text regarding their component	foundation and identify issues/concerns. Is expected to be consulted during draft					
		expertise and support; will check-in with Cathy on	text and assist in compiling	but is not responsible for overall section text	development to provide early guidance on					
		status, issues, updates, etc.	contributions from specialty staff.	production.	document objective and structure.					
INTROD	DUCTION	Garwin				02/01/19	02/15/19	02/15/19	02/15/19	02/15/
1.1. Backgro	ound	Garwin		-					. , .,	
	tation History and Considerations	Garwin		-	-					
	Consultation History Key Consultation Considerations	Garwin Garwin	_	-	-					
	ed Action/Project Description	Garwin			-					
	lated and Interdependent Actions	Garwin	-	-						
1.5. Action A	Area	Garwin		-						
	IGERED SPECIES ACT: BIOLOGICAL OPINION AND INCIDENTAL TA		-		-	02/07/19				07/24/
2.1. Analytic		Garwin	RBI			02/07/19	09/02/16	10/07/16	10/07/16	10/15/
2.1.1. 2.1.2.	Introduction Legal and Policy Framework	Garwin Garwin	RBI Melanie R	-						
2.1.2.	General Overview of the Approach and the Models Used	Garwin	RBI	- -						
2.1.4	Evidence Available for the Analysis	Garwin	-	-						
2.1.4.	Integrating the Effects	Garwin	RBI	-						
2.1.5.	Presentation of the Analysis in This Opinion	Garwin	RBI	-		/ /	//			
2.2. Rangew 2.2.1.	wide Status of the Species and Critical Habitat Species and Critical Habitat Not Likely to be Adversely Affected	Brian Brian			-	02/07/19	08/30/16	08/30/16	10/01/16	10/15/
2.2.2.	Life Histories, Population Trends, Critical Habitat, and Factors				-					
	2.2.2.1. Chinook Salmon	Brian		-	-					
	2.2.2.1.1. Winter-Run Chinook Salmon	Brian		Yvette	-					
	2.2.2.1.2. Spring-Run Chinook Salmon 2.2.2.2. Steelhead	Brian Brian		Naseem Jeff S, Amanda	1					
	2.2.2.3. Green Strugeon	Brian		Doug, Joe, Yvette	_					
	2.2.2.4. Southern Resident Killer Whales	?		-						
	nmental Baseline	Brian	_	-		02/07/19	10/15/16	10/22/16	10/29/16	11/05/
2.3.1.	Status of the Species and Critical Habitat 2.3.1.1. Winter-Run Chinook Salmon	Brian Brian	-	- Yvette						
	2.3.1.1.1. Winter-Run Chinook Salmon Critica			-						
	2.3.1.2. Spring-Run Chinook Salmon	Brian		Naseem						
	2.3.1.2.1. Spring-Run Chinook Salmon Critica 2.3.1.3. Steelhead	Brian Brian		Jeff S, Amanda						
	2.3.1.3.1 Steelhead Critical Habitat	Brian		Jeli S, Allialida						
	2.3.1.4. Green Strugeon	Brian		Doug, Joe, Yvette						
	2.3.1.4.1. Green Strugeon Critical Habitat	Brian		-						
	Southern Resident Killer Whales of the Action On (NMFS) Species	? Garwin		•		02/07/19	05/11/19	05/18/19	05/18/19	05/25/:
2.4.1.	Conveyance Facility Construction	Doug (activity coordinator)	-			02/07/13	03/11/13	03/10/13	03/10/13	03/23/
	2.4.1.1. Winter-Run Chinook Salmon	Yvette	e e							
	Deconstruct the Action	Yvette	-							
	Assess Species Exposure Assess the Species Response	Yvette Yvette	-							
	Assess the Risk to Individuals	Yvette	-							
	2.4.1.2. Spring-Run Chinook Salmon	Naseem	-							
	2.4.1.3. Steelhead	Jeff S.	-							
	2.4.1.4. Green Sturgeon 2.4.1.5. Southern Resident Killer Whales	Doug Dan Lawson	-	Bruce (upstream temps, CCF)						
	2.4.1.5.1. Fall-Run and Late-Fall Run Chinool		-	Brycen (upstream temps, ccr)						
2.4.2.	Operations of New and Existing Facilities	Cathy, Yvette (activity coordinator)	e e	Evan (monitoring and ad mgmt)						
	2.4.2.1. Winter-Run Chinook Salmon	Yvette	-	Lee (upstream temps, CCF)						
	2.4.2.2. Spring-Run Chinook Salmon 2.4.2.3. Steelhead	Naseem Jeff S.		Monica (south Delta, construction)						
	2.4.2.4. Green Sturgeon	Doug	-	Joe (green sturgeon) Melanie O (water quality)						
	2.4.2.5. Southern Resident Killer Whales	Dan Lawson	-	Melanie O (water quality) ESB (construction, design, engineering)						
	2.4.2.5.1. Fall-Run and Late-Fall Run Chinool		-	Jonathan (critical habitat)						
2.4.3.	Maintenance of Facilities (New and Existing?) 2.4.3.1. Winter-Run Chinook Salmon	Doug (activity coordinator) Yvette	-	Amanda (steelhead)						
	2.4.3.1. Winter-Run Chinook Salmon 2.4.3.2. Spring-Run Chinook Salmon	Yvette Naseem	-	John W (hydro and bench analyses, analytical						
	2.4.3.3. Steelhead	Jeff S.	-	review)		1				
	2.4.3.4. Green Sturgeon	Doug	-	Jean (CCF, HORB, passage)						
	2.4.3.5. Southern Resident Killer Whales 2.4.3.5.1. Fall-Run and Late-Fall Run Chinool	Dan Lawson Brian	-							

ection and Title	Lead Writer/Coordinator	Assistant Writer	Specialty Staff	Reviewer (Note: Naseem will review all sections for Division clearance; Who from NOAA GC will review all sections for GC clearance; names below are additional review)	Date to Date Start Coordinat	Date to or Reviewer(s)	Date to GC	Date End
2.4.4.1. Winter-Run Chinook Salmon	Yvette	-						
2.4.4.2. Spring-Run Chinook Salmon	Naseem	-						
2.4.4.3. Steelhead	Jeff S.	-						
2.4.4.4. Green Sturgeon	Doug	-						
2.4.4.5. Southern Resident Killer Whales	Dan Lawson	-						
2.4.4.5.1. Fall-Run and Late-Fall Run Chinook	Brian	-						
2.5. Effects of the Action On (NMFS) Critical Habitat	Erin				02/07/19 05/11/19	05/18/19	05/18/19	05/25/19
2.5.1. Conveyance Facility Construction	Sean	-	-					
2.5.2. Operations of New and Existing Facilities	Sean	-	-					
2.5.3. Maintenance of Facilities (New and Existing?)	Sean	-	-					
2.5.4. Conservation Measures	Sean	-	-					
2.6. Cumulative Effects	Cathy	-	Erin	-	08/09/16 11/10/16		11/17/16	
2.7. Integration and Synthesis	Cathy, Doug (coordinators)	-			05/25/19 12/21/16	06/22/19	06/22/19	06/29/19
2.7.1. Winter-Run Chinook Salmon	Cathy, Yvette	-	Bruce (upstream temps and CCF)		i			
Status	Cathy, Yvette	-	Brycen (upstream temps and ops)					
වූ ්වූ უ Summary of Proposed Action Effects	Cathy, Yvette	-	Evan (monitoring and ad mgmt)					
સું રેં ટ્રે Assess Risk to the Population	Cathy, Yvette	-	Lee (upstream temps)					
প্র ই ই Assess Risk to the ESU/DPS	Cathy, Yvette	-	Erin (general)					
2.7.2. Winter-Run Chinook Salmon Critical Habitat	Sean	Cathy, Yvette	Monica (south Delta, construction)					
2.7.3. Spring-Run Chinook Salmon	Naseem	-	Joe (green sturgeon)					
2.7.4. Spring-Run Chinook Salmon Critical Habitat	Sean	Naseem	Melanie O (water quality)					
2.7.5. Steelhead	Jeff S.	-	ESB (construction, design, engineering)					
2.7.6. Steelhead Critical Habitat	Sean	Jeff S	Jonathan (critical habitat)					
2.7.7. Green Sturgeon	Doug	-	Amanda (steelhead)					
2.7.8. Green Sturgeon Critical Habitat	Sean	Doug						
2.7.9. Southern Resident Killer Whales	Dan Lawson	-	Melanie R (general)					
2.7.9.1. Pacific Coast Salmon	Brian	-	John W (hydro and bench analyses, analytical					
2.8. Conclusions	Cathy	Doug	-		06/10/19		/ /	06/29/19
2.9. Incidental Take Statement	Cathy (Coordinator)	•			04/16/19 12/30/16	01/02/16	01/02/16	07/24/19
2.9.1. Amount or Extent of Anticipated Take	Lee		-	-				
2.9.1.1. Conveyance Facility Construction	Lee	Yvette, Naseem, Jeff S, Doug	-	-				
2.9.1.2. Operations of New and Existing Facilities 2.9.1.3. Maintenance of Facilities (New and Existing?)	Lee Lee	Yvette, Naseem, Jeff S, Doug Yvette, Naseem, Jeff S, Doug	-	-				
			-	-				
2.9.1.4. Conservation Measures	Lee	Yvette, Naseem, Jeff S, Doug		-				
2.9.2. Effect of the Take	Cathy, Lee	-1.	Lee, Doug	-				
2.9.3. Reasonable and Prudent Measures and Terms and Conditions	Ryan	Cathy	- All	-				
2.9.3.1 Reasonable and Prudent Measures 2.9.3.2 Terms and Conditions	Ryan	-	All	-				
	Ryan	-	All	-	03/17/19			05/04/45
2.10. Conservation Recommendations 2.11. Reinitiation of Consultation	Ryan Ryan, Melanie R	Cathy	All		03/17/19			06/24/19
	Kyan, Melanie K Cathy	Catny	Doug, Erin	_	05/25/19			06/24/19
2.12. "Not Likely to Adversely Affect" Determinations			Doug, Erili			44/24/45	00/20/05	
MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT ESSI 3.1. Essential Fish Habitat Affected by the Project	Jonathan				08/09/16 11/17/16	11/24/16	11/24/16	12/15/16
3.1. Essential Fish Habitat Affected by the Project 3.2. Adverse Effects on Essential Fish Habitat	Jonathan Jonathan	-	-		i			
		-	-					
3.3. Essential Fish Habitat Conservation Recommendations 3.4. Statutory Response Requirement	Jonathan Jonathan	-	-		i			
	Jonathan Jonathan	-	-		i			
3.5. Supplemental Consultation	JUHANIAN	-	-					
4	Erin, Cathy		-	-	03/21/19			11/15/16
FISH AND WILDLIFE COORDINATION ACT								
FISH AND WILDLIFE COORDINATION ACT DATA QUALITY ACT DOCUMENTATION AND PRE-DISSEMINATION REVI	Erin, Cathy		-		03/21/19			11/15/16
DATA QUALITY ACT DOCUMENTATION AND PRE-DISSEMINATION REVI		-		•				
DATA QUALITY ACT DOCUMENTATION AND PRE-DISSEMINATION REVI	Erin, Cathy a, Dave		-	-	03/21/19			07/24/19

DRAFT: 9/20/2016

See Cathys report
Interview Erin about templates for effects and other lessons learned

Real Time Operations

Clear Creek

OPS Group
Current Lead
SOG
Barb
Monica?
DOSS
Jeff, Kristin
ARG
Gary, Garwin
SRTTG
Sarah, Garwin

Sarah

WOMT Garwin, Jeff
B2IT Barb
CALFED OPS Barb, Jeff
DAT Jeff, Barb
DCT Jeff, Barb

WIIN Storm Flex Barb

BA Receipt: 1/31/2019

Interim Milestone

Milestones for BiOp Section 1 Introduction

- 1 Background
- 2 Coordination Operations Agreement
- 3 Consultation History

Milestones for BiOp Sections 2.1 Proposed Acti

- 1 Project Description
- 2 Interrelated and Interdependant Action
- 3 Action Area

Milestones for Section 2.2 Analytical Approach

- 1 Introduction
- 2 Legal and Policy Framework
- 3 General Overview of the Approach and
- 4 Evidence Available for the Analysis
- 5 Integrating the Effects
- **6** Presentation of the Analysis in This Opi

Milestones for Section 2.3 Range-wide Status o

- Species and Critical Habitat Not Likely t
- 2 Life Histories, Population Trends, Critica

Milestones for 2.4 Environmental Baseline

Species and Critical Habitat Not Likely t Life Histories, Population Trends, Critica

Milestones for BiOp Section 2.5 Effects of the A

- 1 Planning and Analysis of Effects Analysi Completion of Effects Analysi. Analyses Concluded for Bridge
- 2 Complete Identification of Key Points a
- 3 Review of Key Points and Outline of Dis
- 4 Core Team Completes Initial Draft of Ef

 Date to Coordinator(s) for Re
- 5 Complete Final Draft of Effects Analysis
 Initial Draft to Regional Coord
 Revisions to Initial Draft Base
 Initial Draft to ARA (In rolling
 Revisions to Initial Draft Base
 Completion of Final Draft Sec

Milestones for BiOp Section 2.6 Cummulative E Milestones for BiOp Section 2.7 Integration and

- 1 Complete Identification of Key Points a
- 2 Review of Key Points and Outline of Int

- 3 Core Team Completes Initial Draft of In

 Date to Coordinator for Revie
- 4 Complete Final Draft of Integration and Initial Draft to Reviewer(s) an Initial Draft to ARA Revisions to Initial Draft Base Completion of Final Draft

Milestones for BiOp Section 2.9 Incidental Take

- 1 Complete Analyses Required for Take C
- 2 Complete Identification of Key Points a
- 3 Review of Key Points and Outline of Tal
- 4 Complete Initial Draft of Take Determir

 Date to Coordinator
- 5 Complete Final Draft of Take Determina Initial Draft to Reviewer(s) an Revisions to Initial Draft Base Completion of Final Draft

	Date Start	Date End
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nion		
f the Species and Critical Habitat	02/07/19	02/14/19
to be Adversely Affected by the Proposed Action	02/07/19	02/07/19
al Habitat, and Factors Affecting the Status of the Species	02/07/19	02/07/19
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to be Adversely Affected by the Proposed Action	02/07/19	02/07/19
al Habitat, and Factors Affecting the Status of the Species	02/07/19	02/07/19
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ction On Species and Sectoin 2.5 Effects of the Action on Critical Habitat	02/07/19	02/07/19
is	02/07/19	02/07/19
s Structure	02/07/19	02/07/19
e Table and Effects Analysis Outline Completion	02/07/19	02/07/19
nd Develop Outline of Discussion of Effect and Logic	02/07/19	02/07/19
scussion of Effect by Management (via Meeting Presentations)	02/07/19	02/07/19
fects Discussion and Logic (No Tech Editing)	02/07/19	02/07/19
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dinator and GC reviewers (in rolling fashion)	02/07/19	02/07/19
d on Review (In rolling fashion)	02/07/19	02/07/19
fashion) (12/9, 12/13, 12/15, 12/16 blocked as review days)	02/07/19	02/07/19
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tions for Peer review)	02/07/19	02/07/19
ffects	02/07/19	02/07/19
1 Synthesis	02/07/19	02/07/19
nd Develop Outline of Integration and Synthesis	02/07/19	02/07/19
egration and Synthesis by Management (via Meeting Presentations)	02/07/19	02/07/19

tegration and Synthesis (No Tech Editing)	02/07/19	02/07/19
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I Synthesis	02/07/19	02/07/19
d GC (Division Coordinator, Regional Coordinator, Tech Editor)	02/07/19	02/07/19
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d on Review (Includes Reviewer Sign-Off on Revisions)	02/07/19	02/07/19
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Statement	02/07/19	02/07/19
Determination and RPMs	02/07/19	02/07/19
nd Develop Outline of Take Determination and RPMs	02/07/19	02/07/19
ke Determination and RPMs by Management (via Meeting Presentations)	02/07/19	02/07/19
nation and RPMs	02/07/19	02/07/19
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ation and RPMs	02/07/19	02/07/19
d GC (Division Coordinator, Regional Coordinator, ARA, Tech Editor)	02/07/19	02/07/19
d on Review (Includes Reviewer Sign-Off on Revisions)	02/07/19	02/07/19
	02/07/19	02/07/19
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We can start this before initiation

We can start this before initiation

We can start this before initiation

Drafting

aft to Section 7 Coordinator and NOAA GC
o Initial Draft based on review

BA Receipt: 8/2/2016

Interim Milestone	Date Start	Date End	Week Number Start	Week Number End
Interim Milestone Milestones for BiOp Section 1 Introduction and Consultation History	Date Start	Ena	Start	End
1 Introduction	08/09/16	#REF!	1	#REF!
Background	09/01/16	#KLF: 09/21/16	1	#KEF:
Coordinated Operations Agreement	09/01/16	09/21/10		
Consultation History				
2 Proposed Action	10/02/16	10/16/16	9	11
Proposed Action	10/02/10	10/10/10	-	11
Interelated and Interdependant Actions				
Action Area				
3 Analytical Approach	10/16/16	10/23/16	11	12
4 Status of the Species and Critical Habitat Date to Coordinator(s) for Review	10/23/16 11/10/16	11/10/16 11/17/16	12	14
5 Complete Final Draft of Effects Discussion and Logic	11/17/16	11/24/16	15	16
Initial Draft to Reviewer(s) and GC (Division Coordinator, Regional Coordinator, ARA, Tech Editor)	11/17/16	11/20/16		
Revisions to Initial Draft Based on Review (Includes Reviewer Sign-Off on Revisions)	11/20/16	11/24/16		
Completion of Final Draft	11/24/16	,_ ,,		
Interim Milestones for BiOp Section 2.7 Integration and Synthesis	, ,			
1 Complete Identification of Key Points and Develop Outline of Integration and Synthesis	11/24/16	12/08/16	16	18
2 Review of Key Points and Outline of Integration and Synthesis by Management (via Meeting Presentations)	12/08/16	12/15/16	18	19
3 Core Team Completes Initial Draft of Integration and Synthesis (No Tech Editing)	12/15/16	12/21/16	19	20
Date to Coordinator for Review	12/21/16	12/22/16		
4 Complete Final Draft of Integration and Synthesis	12/22/16	12/29/16	20	21
Initial Draft to Reviewer(s) and GC (Division Coordinator, Regional Coordinator, ARA, Tech Editor)	12/22/16	12/26/16		
Revisions to Initial Draft Based on Review (Includes Reviewer Sign-Off on Revisions)	12/26/16	12/29/16		
Completion of Final Draft	12/29/16			
Interim Milestones for BiOp Section 2.9 Incidental Take Statement				
Complete Analyses Required for Take Determination and RPMs	09/20/16	11/27/16	7	17
2 Complete Identification of Key Points and Develop Outline of Take Determination and RPMs	11/27/16	12/11/16	17	19
3 Review of Key Points and Outline of Take Determination and RPMs by Management (via Meeting Presentations)	12/11/16	12/18/16	19	20

Interim Milestone	Date Start	Date End	Week Number Start	Week Number End
4 Complete Initial Draft of Take Determination and RPMs	12/18/16	12/30/16	20	21
Date to Coordinator	12/30/16	01/02/17		22
5 Complete Final Draft of Take Determination and RPMs	01/02/17	01/23/17	22	25
Initial Draft to Reviewer(s) and GC (Division Coordinator, Regional Coordinator, ARA, Tech Editor)	01/02/17	01/11/17		
Revisions to Initial Draft Based on Review (Includes Reviewer Sign-Off on Revisions)	01/11/17	01/23/17		
Completion of Final Draft	01/23/17			

DRAFT: 9/13/2016

BA Receipt: 8/2/2016

Interim Milestone	Date Start	Date End
interim Milestones Interim Milestones for BiOp Sections 1 (introduction), 2.2 (Status of species), and 2.4 (Environmental baseline)	Date Staff	Ellu
Initial Draft to ARA (12/6 blocked as review day)	12/6/2016	12/08/16
nterim Milestones for BiOp Section 2.4 Effects of the Action On Species and Sectoin 2.5 Effects of the Action on Critical Habitat	12/0/2010	12/06/16
1 Planning and Analysis of Effects Analysis	08/09/16	10/02/16
Completion of Effects Analysis Structure	09/01/16	09/21/16
Analyses Concluded for Bridge Table and Effects Analysis Outline Completion	09/12/16	10/02/16
2 Complete Identification of Key Points and Develop Outline of Discussion of Effect and Logic	10/02/16	10/02/16
3 Review of Key Points and Outline of Discussion of Effect by Management (via Meeting Presentations)	10/24/16	10/28/16
4 Core Team Completes Initial Draft of Effects Discussion and Logic (No Tech Editing)	10/28/16	11/10/16
Date to Coordinator(s) for Review	11/10/16	11/17/16
5 Complete Final Draft of Effects Analysis	11/18/16	12/09/16
Initial Draft to Regional Coordinator and GC reviewers (in rolling fashion)	11/28/16	12/08/16
Revisions to Initial Draft Based on Review (In rolling fashion)	12/05/16	12/12/16
Initial Draft to ARA (In rolling fashion) (12/9, 12/13, 12/15, 12/16 blocked as review days)	12/09/16	12/16/16
Revisions to Initial Draft Based on Review (Includes Reviewer Sign-Off on Revisions)	12/16/16	12/23/16
Completion of Final Draft Sections for Peer review)	12/23/16	
nterim Milestones for BiOp Section 2.7 Integration and Synthesis	/ /	
1 Complete Identification of Key Points and Develop Outline of Integration and Synthesis	11/24/16	12/15/16
2 Review of Key Points and Outline of Integration and Synthesis by Management (via Meeting Presentations)	12/15/16	12/15/16
3 Core Team Completes Initial Draft of Integration and Synthesis (No Tech Editing)	12/15/16	12/27/16
Date to Coordinator for Review	12/27/16	12/30/16
4 Complete Final Draft of Integration and Synthesis	12/30/16	01/19/16
Initial Draft to Reviewer(s) and GC (Division Coordinator, Regional Coordinator, Tech Editor)	12/30/16	01/13/16
Initial Draft to ARA	12/30/16	01/13/16
Revisions to Initial Draft Based on Review (Includes Reviewer Sign-Off on Revisions)	01/13/16	01/19/16
Completion of Final Draft	01/19/16	
nterim Milestones for BiOp Section 2.9 Incidental Take Statement		
1 Complete Analyses Required for Take Determination and RPMs	09/20/16	11/28/16
2 Complete Identification of Key Points and Develop Outline of Take Determination and RPMs	11/28/16	12/02/16
3 Review of Key Points and Outline of Take Determination and RPMs by Management (via Meeting Presentations)	12/02/16	12/16/16
4 Complete Initial Draft of Take Determination and RPMs	12/16/16	12/23/16
Date to Coordinator	12/23/16	12/30/16
5 Complete Final Draft of Take Determination and RPMs	12/30/16	01/19/16
Initial Draft to Reviewer(s) and GC (Division Coordinator, Regional Coordinator, ARA, Tech Editor)	12/30/16	01/13/16
Revisions to Initial Draft Based on Review (Includes Reviewer Sign-Off on Revisions)	01/13/16	01/19/16

Interim Milestone	Date Start	Date End
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Completion of Final Draft	01/19/16	

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