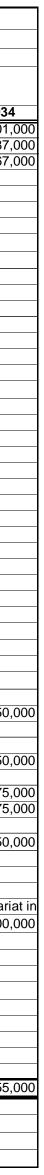
CMER Master Project Schedule																					
Recommended FP HCP Adaptive Management Program Priority Projects																					
		Revised M	larch 27, 20	14 to be co	nsistent with	AMP bud	get sent to I	Policy for th	neir April 3	3, 2014 meet	ing										
	Project																				
Project	Priority																				
OMED Colores Clott		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
CMER Science Staff Project Support		601,000 487,000	601,000 387,000	601,000 387,000	601,000 387,000	601,000 387,000		601,000 387,000	601,000 387,000		601,000 387,000	601,000 387,000	601,000 387,000	601,000 387,000	601,000 387,000	601,000 387,000	601,000 387,000	601,000 387,000	601,000 387,000	601,000 387,000	601,000 387,000
Project Support Project Administration		267,000	267,000	267,000	267,000	267,000		267,000	267,000		267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	
Type N Experimental Buffer Treatment Project in Hard Rock Lithologies	1	304,000	214,000	100,000		_0.,000						_0:,000		_0.,000					_0.,000		
Type N Experimental Buffer Treatment Project - Hard Rock- Amphibian Genetics - Post sample Type N Experimental Buffer Treatment Project - Hard Rock- Amphibian Demographics/Channel Metrics Type N Experimental Buffer Treatment Project in Hard Rock Lithologies - Temp/Sediment/Vegetation/Litterfall	1	0	200,000	200,000	85,000	40,000															
Type N Experimental Buffer Treatment Project - Hard Rock- Amphibian Demographics/Channel Metrics		0	165,000	231,000	153,000	153,000															
Type N Experimental Buffer Treatment Project in Hard Rock Lithologies - Temp/Sediment/Vegetation/Litterfall	1	134,000	320,000	190,000	119,000	75,000															
Type N Experimental Buffer Treatment Project - Soft Rock Lithologies Eastside Type N Forest Hydrology	1	344,000 425,000	382,000	360,000	360,000	255,000	188,000														
Eastside Type N Riparian Effectiveness - Perennial	1	425,000	150,000	360,000	360,000	360,000	360,000	360,000	350,000	150,000	75,000										
Eastside Type N Riparian Effectiveness - Dry		80,000	175,000	175,000	350,000	350,000		350,000	350,000		150,000	75,000									
Buffer Integrity - Shade effectiveness (amphibian response)	1	30,000									,	,									
Type N Extensive Westside - Temperature (Baseline status)	1																				
Eastern Washington Riparian Assessment (EWRAP) Bull Trout Overlay Solar Radiation	1	Completed	50,000																		
Bull Trout Overlay Solar Radiation Bull Trout Overlay Temperature/Shade	1	Completed Completed																			
Eastside Type F Riparian Effectiveness (BTO add-on)	1	0																			
Riparian Hardwood Conversion	1	10,000	73,000																		
Type F Extensive East & Westside - Temperature (Baseline status)	1	10,000																			
Mass Wasting Effectiveness Monitoring (Post mortem buffer effectiveness)	1	Completed							<u> </u>												
Unstable Slopes Criteria Evaluation and Development (new UPSAG) Road Sub-Basin-Scale Effectiveness Monitoring - Resample	1	5,000	25,000	Pending final :	scoping and da	ata-mining Po	ost Mortem da	ita; a full-blow 75,000	n project m 700,000	hay not be need 150,000	ded. 75,000										
Forest Practices and Wetlands Systematic Literature Review	1	60,000						75,000	700,000	150,000	75,000										
Forested Wetlands Effectiveness Study	2	25,000	100,000	150,000	350,000	350,000	350,000	350,000	350,000	150,000	100,000										
Wetlands Program Research Strategy	2	33,000						-			,										
Wetland/Stream Water Temp Interactions	2		100,000	150,000	350,000	350,000	350,000	350,000	350,000	150,000	100,000										
Wetland Hydrologic Connectivity Wetlands Management Zone Effectiveness Monitoring	2	_				100,000	150,000	350,000	350,000	350,000	350,000	100,000 350,000	150,000 150,000	350,000 100,000	350,000	150,000	100,000				
Amphibians in Intermittent Streams	2	_	100,000	150,000	350,000	350,000		350,000	350,000		150,000	100,000	150,000	100,000							
Type N Extensive Eastside - Temperature (Baseline status)	2	0	150,000	150,000	150,000	100,000		000,000	000,000	100,000	100,000	100,000									
Westside Type F Riparian Prescription Monitoring	2	10,000		350,000	350,000	350,000		350,000	350,000	150,000	150,000										
Mass Wasting Landscape-Scale Effectiveness Monitoring	2		100,000						150,000		350,000	350,000	350,000	150,000	150,000	100,000					
Watershed Scale Assessment of Cumulative Effects (sed & temp)	2		100,000	150,000	350,000	350,000		350,000	350,000		100,000										
Road Prescription-Scale Effectiveness Monitoring	2	25,000	150,000	350,000	350,000	350,000	350,000	350,000	150,000	100,000		100.000	450.000	250.000	250.000	250.000	450.000	100.000			
Windthrow Frequency, Distribution and Effects Eastside Type N BCIF												100,000	150,000	350,000	350,000	350,000	150,000	100,000			
Type F Experimental Buffer Treatment														100,000	150,000	350,000	350,000	150,000	150,000	350,000	350,000
Type F Extensive East & Westside - Vegetation (Baseline status)			100,000	150,000	150,000	150,000	150,000	100,000													·
Type F Extensive East & Westside - Temperature (Resample)						150,000	350,000	350,000	150,000	75,000	75,000	350,000	350,000	150,000	75,000	75,000					
Type F Extensive East & Westside - Vegetation (Resample)			450.000	450.000	450.000	450.000	400.000											150,000	150,000	150,000	150,000
Type N Extensive East & Westside - Vegetation (Baseline status) Type N Extensive East & Westside - Temperature (Resample)		0	150,000	150,000	150,000	150,000	100,000			150,000	350,000	350,000	150,000	75,000	75,000	150,000	350,000	350,000	150,000	75,000	75,000
Type N Extensive East & Westside - Vegetation (Resample)										130,000	550,000	550,000	130,000	75,000	73,000	130,000	150,000	150,000	150,000	150,000	75,000
Pathways of Riparian Stand Development to Maturity												100,000	150,000	150,000	150,000	150,000	75,000	100,000	,	,	
Effectiveness of RMAP Fixes																	100,000	150,000	350,000	350,000	150,000
Westside Type N BCIF						81,000							76,000			81,000					
Type N Experimental Buffer Treatment Project - Hard Rock Type F Performance Target Validation														100.000	150,000	350,000	347,000 350,000	156,000 150,000	100,000		
Mass Wasting Buffer Integrity - Windthrow										+		See Windthr	ow frequency	100,000 distribution	and effects ab					d as a strata o	r covariat i
Road Surface Erosion Model Validation/ Refinement															100,000	150,000	350,000	150,000	150,000	75,000	
Van Dykes Salamander Project		56,000	237,000	103,000	266,000	103,000									,	,			,	. 0,000	
RMZ birds		2,000	- ,		,	,											<u> </u>				
Wetlands Overlay Project																					
Wetlands Intensive Monitoring Wetlands Mitigation Effectiveness (deprioitized by CMER/ Policy)																					
Note: Order is not representative of review prioity. Some project may be dropped pending review of recent literature and some	e																				
projects may be added pending final results of CMER projects, further review and evaluation of "critical questions" in CMER's work plan, and unforeseen needs of Policy and the Board. Projects already on Policy's "Task List" do not apply.	_																				
in oments work plan, and unioreseen needs or noncy and the board. Projects already on Policy's Task List do not apply.		2 013 000	4,446,000	4 724 000	5,498,000	5 422 000	5 078 000	4 940 000	5 205 000	3 680 000	3 280 000	3 130 000	2 781 000	2 780 000	2,805,000	3 161 000	3 577 000	2 861 000	2 455 000	2 405 000	2 155 000
		2,913,000	-,++0,000	<b>⊣</b> ,1∠ <del>1</del> ,000	5,430,000	J, <del>4</del> ∠∠,000	5,070,000	<del>т,34</del> 0,000	0,200,000	3,000,000	5,200,000	5,150,000	∠, <i>1</i> 01,000	∠,100,000	2,000,000	3,101,000	5,577,000	2,001,000	∠,+55,000	∠,400,000	2,100,000
Project Priority Legend																					
1 - Current projects																					
2 - CWA projects (not already implemented in 1 above)																					
		1	<u>.                                    </u>		1												L	<u> </u>			

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R Master Schedule							
March 27, 2014							



Draft

						ER Master March 27,												
CMER Master Project Schedule																		
Recommended FP HCP Adaptive Management Program Priority Projects																		
Project																		
	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052
CMER Science Staff	601,000	601,000			601,000	601,000	601,000	601,000	601,000	601,000		601,000	601,000	601,000	601,000	601,000	601,000	601,000
Project Support Project Administration	387,000	387,000			387,000	387,000 267,000	387,000	387,000	387,000	387,000		387,000	387,000	387,000	387,000	387,000 267,000	387,000	387,000
Type N Experimental Buffer Treatment Project in Hard Rock Lithologies	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000	267,000
Type N Experimental Buffer Treatment Project in Hard Rock Lithologies Type N Experimental Buffer Treatment Project - Hard Rock- Amphibian Genetics - Post sample Type N Experimental Buffer Treatment Project - Hard Rock- Amphibian Demographics/Channel Metrics Type N Experimental Buffer Treatment Project in Hard Rock Lithologies - Temp/Sediment/Vegetation/Litterfall																		
Type N Experimental Buffer Treatment Project - Hard Rock- Amphibian Demographics/Channel Metrics																		
Type N Experimental Buffer Treatment Project in Hard Rock Lithologies - Temp/Sediment/Vegetation/Litterfall																		
Type N Experimental Buffer Treatment Project - Soft Rock Lithologies																		
Eastside Type N Forest Hydrology Eastside Type N Rinarian Effectiveness - Perennial																		
Eastside Type N Riparian Effectiveness - Dry																		
Eastside Type N Riparian Effectiveness - Perennial Eastside Type N Riparian Effectiveness - Dry Buffer Integrity - Shade effectiveness (amphibian response) Type N Extensive Westside - Temperature (Baseline status)																		
Type N Extensive Westside - Temperature (Baseline status)																		
Eastern Washington Riparian Assessment (EWRAP) Bull Trout Overlay Solar Radiation																		
Bull Trout Overlay Temperature/Shade																		
Eastside Type F Riparian Effectiveness (BTO add-on)																		
Riparian Hardwood Conversion																		
Type F Extensive East & Westside - Temperature (Baseline status)																		
Mass Wasting Effectiveness Monitoring (Post mortem buffer effectiveness)																		
Unstable Slopes Criteria Evaluation and Development (new UPSAG) Road Sub-Basin-Scale Effectiveness Monitoring - Resample																		
Forest Practices and Wetlands Systematic Literature Review																		
Forested Wetlands Effectiveness Study																		
Wetlands Program Research Strategy																		
Wetland/Stream Water Temp Interactions Wetland Hydrologic Connectivity																		
Wetlands Management Zone Effectiveness Monitoring																		
Amphibians in Intermittent Streams																		
Type N Extensive Eastside - Temperature (Baseline status)																		
Westside Type F Riparian Prescription Monitoring																		
Mass Wasting Landscape-Scale Effectiveness Monitoring Watershed Scale Assessment of Cumulative Effects (sed & temp)																		
Road Prescription-Scale Effectiveness Monitoring																		
Windthrow Frequency, Distribution and Effects																		
Windthrow Frequency, Distribution and Effects Eastside Type N BCIF Type F Experimental Buffer Treatment																		
Type F Experimental Buffer Treatment	150,000	100,000																
Type F Extensive East & Westside - Vegetation (Baseline status)																		
Type F Extensive East & Westside - Vegetation (Resample)	75,000	75,000											150,000	350,000	350,000	150,000	75,000	75,000
Type N Extensive East & Westside - Vegetation (Baseline status)																		
Type N Extensive East & Westside - Temperature (Resample)	75.000												450.000	250.000	050.000	450.000	75.000	75.000
Type F Experimental Burler Treatment Type F Extensive East & Westside - Vegetation (Baseline status) Type F Extensive East & Westside - Temperature (Resample) Type N Extensive East & Westside - Vegetation (Baseline status) Type N Extensive East & Westside - Temperature (Resample) Type N Extensive East & Westside - Temperature (Resample) Type N Extensive East & Westside - Vegetation (Resample) Pathways of Riparian Stand Development to Maturity	75,000												150,000	350,000	350,000	150,000	75,000	75,000
Effectiveness of RMAP Fixes	150,000	350,000	350,000	150,000	100,000													
Westside Type N BCIF				,	,													
Type N Experimental Buffer Treatment Project - Hard Rock	216,000																	
Type F Performance Target Validation Mass Wasting Buffer Integrity - Windthrow	a larger study	<u>.</u>																
Road Surface Erosion Model Validation/ Refinement	a larger study	· {																
Van Dykes Salamander Project																		
RMZ birds																		
Wetlands Overlay Project																		
Wetlands Intensive Monitoring Wetlands Mitigation Effectiveness (deprioitized by CMER/ Policy)	100,000	150,000	350,000	350,000	350,000	150,000	100,000	150,000	150,000	75,000	75,000							
Note: Order is not representative of review prioity. Some project may be dropped pending review of recent literature and some																		
projects may be added pending final results of CMER projects, further review and evaluation of "critical guestions"																		
in CMER's work plan, and unforeseen needs of Policy and the Board. Projects already on Policy's "Task List" do not apply.																		
	2,021,000	1,930,000	1,955,000	1,755,000	1,705,000	1,405,000	1,355,000	1,405,000	1,405,000	1,330,000	1,330,000	1,255,000	1,555,000	1,955,000	1,955,000	1,555,000	1,405,000	1,405,000
Project Priority Legend																		
1 - Current projects 2 - CWA projects (not already implemented in 1 above)	+																	
$1^2 - 0^{11}$ $1^{10}$ $1^{1$																		

# CMER Work Plan Projects Listed Below will be Prioritized and Budgeted at a Later Date by CMER/Policy.

Note: Order is not representative of review prioity. Some project may be dropped pending review of recent literature and some projects may be added pending final results of CMER projects, further review and evaluation of "critical questions" in CMER's Work Plan, and unforeseen needs of Policy and the Board. Projects already on Policy's "Task List" do not apply.

#### Type N Amphibian Response Program (Effectiveness)

Tailed Frog Literature Review Tailed Frog meta-Analysis Tailed Frogs and Parent Geology **DFC Validation Program (Rule Tool)** DFC Plot Width Standardization

DFC Site Class Map Validation DFC Trajectory Model Validation **DFC** Aquatic Habitat Red Alder Growth and Yield Model

## Eastside Type F Riparian Rule Tool Program

Eastside Temperature Nomograph Eastside Type F Channel Wood Characterization Yakima River Radiotelemetry

# Westside Type F Riparian Effectiveness Program

Type F Performance Target Validation

## Eastside Type F Riparian Effectiveness Program

Groundwater Conceptual Model

# Hardwood Conversion Program

Annotated Bibliography Riparian Hardwood Conversion

# **CMZ** Delineation Program

CMZ Screen and Aerial Photo Catalog and CMZ Boundary Identification Criteria Consistency and Accuracy of CMZ Boundary Delineations

## **CMZ Validation Program**

Projects yet to be Identified

# **Unstable Landform Identification Program (Rule Tool)**

Shallow Rapid Landslide Screen for GIS (Eastside)

Landslide Hazard Zonation (priority 3 watersheds)

# Glacial Deep-Seated Landslides Program (Rule Tool)

**Evapo-Transpiration Model Refinement** 

#### Landslide Classification

Groundwater Recharge Modeling and Model Refinement

**Board Manual Revision** 

#### Mass Wasting Validation Program (Intensive)

Projects yet to be identified

#### **Roads Validation Program and Cumulative Sediment Effects**

Intensive Watershed-Scale Monitoring to Assess Cumulative Effects

#### Fish Passage Effectiveness/Validation Monitoring Program

#### Projects yet to be Identified

#### **Extensive Fish Passage Monitoring Program**

Extensive Fish Passage Trend Monitoring

# **Forest Chemicals Program (Effectiveness)**

Projects yet to be Identified

Wetlands Mapping Tools Program (Rule Tool)

**DNR GIS Wetlands Data Layer** 

Hydrogeomorphic Wetland Classification System

**Overlay Project (Wetlands Mapping)** 

