

# Lower Columbia and Lower Snake

January, 2011

## Introduction

The Wildlife Crediting Forum (**Forum**) was chartered in late 2009 by the Northwest Power and Conservation Council (**NPCC**) to provide input on the Council’s Wildlife Crediting Program (**WCP**). NPCC chartered the Forum to provide advice on the quantifying and accounting system (informally known as the **Ledger**) for the wildlife habitat mitigation credits associated with the construction and inundation impacts of the Federal Columbia River Power System (**FCRPS**) within the Columbia River Basin (**Basin**). The database that currently houses the Ledger is called **Pisces**. The WCP was initiated in 1981, and has been modified from time to time (most recently in 2009) by NPCC in updating the overarching Columbia River Basin Fish and Wildlife Program (**Program**).

The activities of the Forum are documented in a **Forum Summary Report** that is currently in review draft. As requested at the December 2, 2010 meeting of the Forum, four separate sub-regional (see the table below for sub-regions) analyses have been performed to understand the implication of various crediting choices and decisions. These four supplemental analyses reflect the heading structure of the overall Summary Report, but provide more detail to help review each sub-region’s remaining issues with respect to the WCP. *Note: The ratings in the “Level of Agreement” table below were made in consultation with NPCC staff. Although reviewed in draft form by the Forum on December 2, 2010, these ratings have not been concurred in by the Forum.*

## Level of Agreement on Issues by Sub-Region

	A. Federal Lands	B. Fish Projects	C. HEP Issues	D. Loss Assessment	I. Ratios	J. Facility Assignment	K. O&M	L. Inundation Gains	M. Pre-Act Mitigation
<b>Lower Four and Lower Snake</b>	High	Low	Low	High	Low	Low	Low	Low	Low
<b>Upper Columbia</b>	High	Medium	High	High	Low	High	Low	Medium	High
<b>Upper Snake</b>	Low	High	Medium	Low	Low	Low	Low	Medium	High
<b>Northern Idaho</b>	High	High	High	High	High	High	Low	High	High

The data used here is an updated version of the ledger of wildlife mitigation data in Pisces and in the NPCC Program.

### A. Federal Lands

There are no remaining issues on the use of federal lands for wildlife mitigation projects in this sub-region. The sole project using federal land occurred with the US Fish and Wildlife Service Steigerwald Lake National Wildlife Refuge.

### B. Credits for Fish Mitigation

Of the 24 fish projects reviewed by Forum, 18 are within this sub-region. Included in these are all of the Tier 3 projects that are considered least likely candidates for inclusion as construction and inundation mitigation.

**Table B-1: Candidate Fish Projects for Wildlife Credits**

Parcel Name	Proponent	Sub-Basin	Acres	Tier
Forrest Conservation Area	CTWSRO	John Day	4,232	1
Oxbow Conservation Area	CTWSRO	John Day	1,022	1
Pine Creek (Wagner Conservation Area)	CTWSRO	John Day	9,000	1
Rainwater Wildlife Area (Part II)	CTUIR	Walla Walla	2,340	1
Yakima Side Channels (Lower Naches)	Yakama Nation	Yakima	376	1
Yakama Nation Riparian/Wetlands Restoration	Yakama Nation	Yakima	5,000*	1
Oak Flats (Naches River)	WDFW	Yakima	289	2
Red River Wildlife Area (Little Ponderosa)	IDFG	Clearwater	1,300	2
Sandy River Delta	Forest Service	Sandy	1,400	2
Yakima Side Channels (Upper Yakima)	Yakama Nation	Yakima	544	2
Zumwalt Prairie Preserve (Camp Creek Ranch)	Nature Conservancy	Imnaha	27,000	2
Crims Island	Columbia Land Trust	Columbia Estuary	451	3
Crazy Johnson Creek	Columbia Land Trust	Grays	305	3
Crooked Creek (F&W)	Columbia Land Trust	Columbia Estuary	60	3
Elochoman River	Columbia Land Trust	Columbia Estuary	183	3
Germany Creek	Columbia Land Trust	Columbia Estuary	155	3
Walker Island	Columbia Land Trust	Columbia Estuary	100	3
Willow Grove	Columbia Land Trust	Columbia Estuary	312	3

These projects are expected to meet the following requirements before inclusion in the Ledger:

- Specific wildlife management plans for the project area need to be completed, approved and implemented.
- Long-term operations and maintenance funding for wildlife species/habitats must be in place and “adequate”.

- Appropriate permanent land protections (easements) should be applied, in perpetuity and with adequate protection language.
- The protected wildlife species/populations/habitats should be “priority” and so defined by in-place Federal, state or tribal management or sub-basin plans.

Unique to this sub-region are the Columbia River Estuary projects that are currently Tier 3. Most recent discussions have indicated that these projects will not provide credits for the Construction and Inundation Losses, but rather may apply to future mitigation for Operation Losses.

### C. HEP Application Variations

The variation of HEP models has some issues in this sub-regional group. Paul Ashley, of the regional HEP team, has developed proposed solutions for the Malheur River WMA where crediting for a unique land ownership pattern is required. In general the loss assessment and projects in this sub-region have applied HEP more uniformly when compared with other sub-regions in the Basin.

**Table C-1: Acres and HU by Manager**

Manager	Acres	Current HU	Protected HU	Enhancement HU
Burns-Paiute Tribe	8,145	4,705	3,937	768
Confederated Tribes Of Warm Springs	25,146	18,976	14,057	4,919
Nez Perce Tribe	10,306	19,967	19,967	0
ODFW	1,336	1,960	1,547	413
Umatilla Confederated Tribes (CTUIR)	17,470	12,842	12,091	751
USFWS	317	201	201	0
WDFW	10,762	6,753	3,578	3,175
Yakama Nation	21,479	35,130	34,077	973
<b>Grand Total</b>	<b>94,961</b>	<b>100,534</b>	<b>89,455</b>	<b>10,999</b>

### I. Ratio Application

The application of any ratios in the WCP are not agreed on by all Forum members, but are documented in the Forum Summary Report. Table I-1 below documents how projects in this sub-region break out based on the year they were booked to the Ledger.

**Table I-1: Dates of Project Credits**

Fiscal Years	Parcel Current HU	Percent of Total
1978-2001	99,679	99.15%
2001-Present	855	0.85%
<b>Grand Total</b>	<b>100,534</b>	<b>100%</b>

## J. Facility Assignment

Because of the early projects and many parties in this sub-region, the assignment of projects to facilities is still unresolved. The primary issue of concern is the assignment of project credits across multiple projects and between the various managers. Paul Ashley of the regional HEP team is developing a proposed approach to resolving the decisions made on assigning the credits.

Please note that in Table J-1, a number of projects are combined together and it is not clear how to separate out the portion of HU's assigned. This creates a series of composite projects with multiple facilities listed.

**Table J-1: Habitat Unit Assignment to Facilities**

<b>Projects</b>	<b>Current HU</b>	<b>Protected HU</b>	<b>Enhanced HU</b>
Bonneville OR, Cougar, Hills Creek	1,319	1,319	0
Bonneville WA	226	213	13
Bonneville WA, John Day WA	2,359	1,622	737
Bonneville WA, John Day WA, The Dalles WA	199	98	100
Bonneville WA, McNary WA	894	894	0
Grand Coulee, John Day WA, McNary WA	5,171	2,846	2,325
John Day OR	18,976	14,057	4,919
John Day WA	4,047	3,967	0
John Day WA, McNary WA	24,975	24,002	973
John Day WA, The Dalles WA	1,177	1,177	0
Lower Snake	25,313	24,132	1,181
McNary OR	7,655	6,904	751
McNary WA	5,826	5,826	0
McNary WA, The Dalles WA	2,397	2,397	0
<b>Grand Total</b>	<b>100,534</b>	<b>89,455</b>	<b>10,999</b>

**Table J-2: Loss Assessment by Facilities**

<b>Facility</b>	<b>All Habitat Units</b>	<b>Habitat Units (Exc. Gains)</b>
Bonneville	-9,646	-12,317
John Day	-22,157	-36,555
Lower Snake	-26,774	-26,774
McNary	-9,801	-23,545
The Dalles	-262	-2,330
<b>Total</b>	<b>-68,640</b>	<b>-101,521</b>

**L. Inundation Gains**

Two species are included in the adopted 2009 Program Table C-4 for this sub-region. They are:

**Table L-1: Inundation Gains by Species**

<b>Species</b>	<b>HU</b>
Lesser Scaup	19,137
Mallard (Wintering)	13,744
<b>Total</b>	<b>32,881</b>

**M. Pre-Act Mitigation**

Pre-Act mitigation primarily applies to this sub-region. The 1991 Geiger Report and 2004 USFWS Coordination Act Report identified 50,938 acres of Pre-Act mitigation.

**Parcel Accounting Concerns**

The following Wildlife Management Areas (WMA) include parcels that are recorded in Pisces and have a minimum HU not being summed at the WMA level. In some cases the parcel minimum HU is greater than the HEP survey results, in other cases they are simply not be summed in the Pisces database. It appears these should be included in the total, but presently Pisces and the Ledger exclude them.

This data has not been included in the Forum Summary Report yet, but was presented at the December 2010 meeting. These parcels need to be reviewed with managers to understand if these minimum HU's need to be added into the Ledger.

**Table 1: WMA's with Current HU and Minimum HU Discrepancies**

<b>WMA</b>	<b>HU Difference</b>
Lower Yakima Wetlands	80
Shillapoo - WDFW	2
<b>Total</b>	<b>82</b>

## Parcel Data for the Sub-Region

WMA	Parcel Name	Proponent	Current HU	Protected HU	Enhancement HU	Min HU	Purchase Type	Purchase FY	Acreage	Mitigated Dams
Burlington Bottoms	Burlington Bottoms	ODFW	1,319	1,319	0		Fee Title	1991	417	Bonneville OR, Cougar, Hills Creek
Iskuulpa	Iskuulpa	Umatilla Confederated Tribes (CTUIR)	4,570	4,570	0		Fee Title	1997	5,937	McNary OR
Ladd Marsh	Conley Lake	ODFW	112	40	72		Fee Title	2001	160	Lower Snake
Ladd Marsh	North City	ODFW	52	19	34		Fee Title	2001	75	Lower Snake
Ladd Marsh	Simonis	ODFW	262	93	169		Fee Title	2001	375	Lower Snake
Ladd Marsh	Wallender	ODFW	216	77	139		Fee Title	2002	309	Lower Snake
Logan Valley	Logan Valley	Burns-Paiute Tribe	1,376	608	768		Fee Title	2000	1,760	Lower Snake
Lower Yakima Wetlands	Bailey	Yakama Nation	80			80	Fee Title	1978	40	John Day WA
Lower Yakima Wetlands	Buena	Yakama Nation	65	65	0		Mix	1978	157	John Day WA
Lower Yakima Wetlands	Campbell	Yakama Nation	125	125	0		Mix	1978	360	Bonneville WA, John Day WA
Lower Yakima Wetlands	Carl	Yakama Nation	356	356	0	300	Fee Title	2006	160	McNary WA
Lower Yakima Wetlands	Dry Creek	Yakama Nation	160	160	0		Lease	1978	160	Bonneville WA, John Day WA
Lower Yakima Wetlands	East 80 Pumphouse	Yakama Nation	227	227	0		Easement	1978	78	John Day WA, The Dalles WA
Lower Yakima Wetlands	Garcia	Yakama Nation	69	69	0		Lease	1978	82	John Day WA
Lower Yakima Wetlands	Graves	Yakama Nation	283	283	0	200	Fee Title	2006	140	McNary WA
Lower Yakima Wetlands	Island Road	Yakama Nation	229	229	0		None/unknown	1978	243	John Day WA
Lower Yakima Wetlands	L. Satus Creek	Yakama Nation	367	367	0		None/unknown	1978	409	John Day WA, The Dalles WA
Lower Yakima Wetlands	Lawrence	Yakama Nation	87	87	0		None/unknown	1978	81	John Day WA
Lower Yakima Wetlands	Lawrence I (J. Lawrence)	Yakama Nation	55	55	0		None/unknown	1978	61	Bonneville WA, John Day WA
Lower Yakima Wetlands	Lawrence II	Yakama Nation	28	28	0		None/unknown	1978	40	John Day WA
Lower Yakima Wetlands	Lower Satus	Yakama Nation	8,637	8,637	0		Mix	1978	3,694	John Day WA, McNary WA
Lower Yakima Wetlands	Meninick	Yakama Nation	504	504	0		Mix	1978	428	John Day WA, The Dalles WA
Lower Yakima Wetlands	Meninick North	Yakama Nation	1,640	1,640	0		None/unknown	1978	1,052	John Day WA, McNary WA
Lower Yakima Wetlands	Meninick South	Yakama Nation	79	79	0		None/unknown	1978	68	John Day WA, The Dalles WA
Lower Yakima Wetlands	Mill Creek North	Yakama Nation	141	141	0		Mix	1978	159	Bonneville WA, John Day WA
Lower Yakima Wetlands	Mill Creek South	Yakama Nation	173	173	0		Easement	1978	165	John Day WA
Lower Yakima Wetlands	Old Goldendale	Yakama Nation	123	123	0		Easement	1978	184	Bonneville WA, John Day WA
Lower Yakima Wetlands	Olney Drain	Yakama Nation	375	375	0		Easement	1978	451	Bonneville WA, John Day WA
Lower Yakima Wetlands	Parker	Yakama Nation	25	25	0		Lease	1978	36	John Day WA
Lower Yakima Wetlands	Plank	Yakama Nation	390	390	0		None/unknown	1978	685	John Day WA
Lower Yakima Wetlands	Plank Road (East Plank)	Yakama Nation	113	113	0		Mix	1978	168	John Day WA
Lower Yakima Wetlands	Satus	Yakama Nation	8,329	8,329	0		Mix	1978	4,474	John Day WA, McNary WA
Lower Yakima Wetlands	Satus Corridor	Yakama Nation	2,177	2,177	0		Lease	1978	2,718	John Day WA
Lower Yakima Wetlands	Shuster Road	Yakama Nation	1,404	1,404	0		Mix	1978	667	John Day WA, McNary WA
Lower Yakima Wetlands	South Barks Rd.	Yakama Nation	86	86	0		Lease	1978	75	John Day WA
Lower Yakima Wetlands	Sunnyside Dam	Yakama Nation	22	22	0		Lease	1978	22	Bonneville WA, John Day WA

WMA	Parcel Name	Proponent	Current HU	Protected HU	Enhancement HU	Min HU	Purchase Type	Purchase FY	Acreage	Mitigated Dams
Lower Yakima Wetlands	T 2126	Yakama Nation	116	116	0		None/unknown	1978	95	John Day WA
Lower Yakima Wetlands	T 3669	Yakama Nation	134	134	0		None/unknown	1978	116	John Day WA
Lower Yakima Wetlands	T 4433	Yakama Nation	30	30	0		None/unknown	1978	44	John Day WA
Lower Yakima Wetlands	T 565	Yakama Nation	89	89	0		None/unknown	1978	80	John Day WA
Lower Yakima Wetlands	T 570	Yakama Nation	93	93	0		None/unknown	1978	73	John Day WA
Lower Yakima Wetlands	Tillman	Yakama Nation	63	63	0		Fee Title	1978	79	John Day WA
Lower Yakima Wetlands	Toppenish Creek Pumphouse	Yakama Nation	2,397	2,397	0		Mix	1978	1,236	McNary WA, The Dalles WA
Lower Yakima Wetlands	Wanity Slough	Yakama Nation	894	894	0		Mix	1978	361	Bonneville WA, McNary WA
Lower Yakima Wetlands	Wapato	Yakama Nation	1,352	1,352	0		Mix	1978	770	John Day WA, McNary WA
Lower Yakima Wetlands - South Lateral A	South Lateral A (Zimmerman)	Yakama Nation	1,114	682	432		Fee Title	1978	414	John Day WA, McNary WA
Malheur River	Malheur River Ranch (Denny Jones)	Burns-Paiute Tribe	3,329	3,329	0		Fee Title	2001	6,385	Lower Snake
Mosebar Pond	Mosebar Pond	Yakama Nation	891	791	100	0	Mix	1980	432	John Day WA, McNary WA
North Satus	North Satus	Yakama Nation	1,608	1,167	441	1,167	Mix	1979	722	John Day WA, McNary WA
Pine Creek	Pine Creek	Confederated Tribes Of Warm Springs	18,976	14,057	4,919		Fee Title	1999	25,146	John Day OR
Precious Lands WMA	Precious Lands - Helm Tract	Nez Perce Tribe	19,967	19,967	0		Fee Title	1999	10,306	Lower Snake
Rainwater Ranch	Rainwater Ranch	Umatilla Confederated Tribes (CTUIR)	5,187	5,187	0		Fee Title	1998	8,768	McNary WA
Shillapoo - BPA	Egger	WDFW	698	307	390	0	Fee Title	1980	612	Bonneville WA, John Day WA
Shillapoo - BPA	Herzog	WDFW	239	106	134	0	Fee Title	1978	210	Bonneville WA, John Day WA
Shillapoo - WDFW	Chapman Island	WDFW	25	12	13	0	No purchase (enhancement only)	1978	60	Bonneville WA
Shillapoo - WDFW	Shillapoo	WDFW	421	208	213	0	No purchase (enhancement only)	1978	1,012	Bonneville WA, John Day WA
Shillapoo - WDFW	Vancouver Lake - Alcoa	WDFW	199	98	100	0	No purchase (enhancement only)	1978	477	Bonneville WA, John Day WA, The Dalles WA
Steigerwald Lake NWR	Bliss	USFWS	8	8	0		Fee Title	1996	9	Bonneville WA
Steigerwald Lake NWR	Burlington Northern	USFWS	18	18	0		Fee Title	1999	27	Bonneville WA
Steigerwald Lake NWR	James	USFWS	56	56	0		Fee Title	1996	90	Bonneville WA
Steigerwald Lake NWR	Straub	USFWS	119	119	0		Fee Title	1995	191	Bonneville WA
Sunnyside - WDFW	Sunnyside - WDFW	WDFW	5,171	2,846	2,325	4,330	None/unknown	1996	8,391	Grand Coulee, John Day WA, McNary WA
Wanaket	Wanaket (Conforth Ranch)	Umatilla Confederated Tribes (CTUIR)	3,085	2,334	751		Fee Title	1993	2,765	McNary OR