Exhibit B

Project No. 01-168
Pedee Creek Watershed Assessment
Pedee Creek Watershed Council

A) Pedee Creek is a 6th field tributary to the Luckiamute River in Southern Polk County. In 1999 concerned residents along Pedee and the adjacent Ritner Creeks formed a watershed council to address local watershed issues including; the presence of federally threatened Willamette River Winter Steelhead (*Oncorhynchus mykiss*). The council was given official recognition from Polk County in January 2000 and immediately began developing an assessment of the watershed to determine restoration and monitoring needs. The Pedee/ Ritner Creeks Watershed Council, an entirely volunteer organization, requested assessment funding in 2000 but was turned down due to insufficient detail in the grant request. The council resubmitted the grant in 2001 and made several changes to improve on the recommended OWEB assessment manual. The volunteer council coordinator felt that the assessment could be accomplished using volunteer efforts instead of the usual paid staff or contractor due to the relatively small size of the watershed. The watershed, which is smaller than the OWEB suggested 5th field size watershed, had never been habitat typed any government agency. The volunteer coordinator felt that if OWEB would pay for a contractor to habitat type the stream that the rest of the assessment could be developed and could provide better stream restoration opportunities than the methods described in the OWEB assessment manual. Additionally a water quality-monitoring grant was also submitted to help fill an obvious data gap in the watershed. It was timed to be completed before the assessment so that the data could be incorporated into the assessment. Due to match grant contract difficulties, the water quality-monitoring grant was altered from its original time line, which delayed the assessment. The aquatic habitat monitoring was conducted on schedule, through the Oregon Department of Fish and Wildlife, which was paid $12,000 dollars. No other funds were distributed since the actual assessment was a volunteer effort. The Pedee/Ritner Creeks Watershed coordinator also served as a board member on the Luckiamute Watershed Council, an officially recognized council formed in 2001. In 2002 the Luckiamute Council decided to undertake a comprehensive watershed assessment for the entire Luckiamute basin. Originally, the Pedee Creek assessment was to be incorporated into the Luckiamute assessment, however upon discussion with the Luckiamute's hired contractor, it was determined that the report formats would not be compatible. The Pedee Creek assessment was being conducted using the paper forms provided in the assessment manual while the Luckiamute assessment was GIS based and was already planning on completing an assessment on Pedee Creek. The dilemma was discussed with OWEB staff and it was decided to discontinue the Pedee Creek assessment to avoid having 2 documents duplicating the same watershed. All research and data collected by the Pedee / Ritner Creeks Watershed Council was forwarded to the Luckiamute contractor. The Pedee Creek assessment was amended to only cover the aquatic habitat survey in May 2003. A more detailed GIS assessment of the entire Luckiamute basin including Pedee Creek is scheduled to be finished by March 2004

B)The volunteers who participated in the Pedee Creek Aquatic Habitat Inventory were the members of the Pedee/ Ritner Creek Watershed Council and employees of the Oregon Water Resources Department and the Oregon Department of Fish and Wildlife.

Pedee/Ritner WC	**Hours Donated**	**Government Staff**	**Hours Donated**
Chris Vandenberg Contract development	9	Kim Jones ODFW Report preparation	55
Paul Kovash (meeting advisor)	2	Bill Ferber OWRD Data compilation	5
Norm Baldwin (Meeting Advisor)	2		
Harold Skidmore (meeting Advisor)	2	**Other Volunteers**	
Tim Howard (meeting advisor)	0.5	Paul Ronco Historical interview	1
Judy Guida (Historian) Interviews	4	Nola Wolmer Historical Interview	2
David Anderson Boise (meetings)	2		
Christie Shaw Willamette (meetings)	2		
Chris Vandenberg Data compilation	86		

Total Donated hours:172.5

C)The Pedee /Ritner Creeks Watershed Council wishes to thank the following individuals who helped with this project. ODFW aquatic inventory surveyors Ryan Koch, Jason Kirchner, Jen Bock, LaNoah Babcock and Loren Stucker who assisted in collecting field data. ODFW technicians Staci Stein and Peggy Kavenaugh prepared the written report while Charlie Stein completed the technical review of the report. Kim Jones donated technical analysis and an excellent explanation and is included in the match-funding portion above. The Polk Soil and Water Conservation District provide the fiscal management for this project. Jackie Hastings was very helpful in answering questions and paying contractors.

D)The materials and methods used to complete the habitat surveys on Pedee Creek are detailed in the ODFW program document: Aquatic Inventory Project: Methods for Stream Surveys 2001. Prior to the beginning of the work, ODFW biologist and the Watershed Council Volunteer Coordinator discussed additional information the council hoped the surveyors could collect. Based on the Pedee/ Ritner Creeks Watershed council tentative action plan, surveyors were asked to identify areas where fisheries habitat could be economically enhanced. This included areas with low volumes of large wood that were easily accessible by heavy equipment. Surveyors were also asked to identify areas where riparian plantings might be useful. Trained Stream surveyors conducted field surveys of the Pedee Watershed during the early autumn of 2001. The surveyor's field notes were reviewed by the members of the Pedee/Ritner Creeks Watershed council and random areas were verified over a 2-day period by volunteers from the Watershed Council. The data was determined to be relatively accurate however the more detailed local knowledge of the volunteers of the locations of spur roads in the watershed, identified areas where equipment could conduct stream restorations with better accuracy than the ODFW surveyors.

E) The results of this project indicate that Pedee Creek and its tributaries are generally limited in suitable salmonid habitat, however there are several identified areas where restoration projects may significantly fish rearing habitat. One of the most significant findings is the low number of boulders and large wood pieces in the lower portion of Pedee Creek despite relatively good riparian shade and standing large hardwood trees. This may indicate that any trees falling into the lower portions of Pedee Creek are not remaining in the channel to become significant fish habitat. This is possibly due to extreme flood events in the lower portions of the stream and may indicate that non-cabled or otherwise stabilized structures are unlikely to remain in the local area and provide habitat structure. This is unfortunate since the low gradient channel has sufficient shade cover and could provide excellent rearing habitat for threatened winter steelhead. The data has been distributed to the Luckiamute assessment contractor who will incorporate the data as GIS layers and use multi-factor analysis to quantitatively determine the most cost effective sections of streams in the watershed to conduct restoration efforts.

F) This project was a learning experience for the members of the Pedee/ Ritner Creeks Watershed Council. The undertaking of a watershed assessment by a volunteer only group despite the relatively small size of the basin was likely a mistake, especially since a monitoring grant was being conducted simultaneously. The addition of the ODFW aquatic habitat inventory was an incredible improvement over the Channel Habitat Typing methodology described in the OWEB assessment manual, which utilized map work over field data collection. The ODFW surveys gave a much more useful source of usable data than the descriptive analysis of the OWEB manual. It is the Pedee/Ritner Creeks Watershed Council recommendation that OWEB and ODFW coordinate funds to ensure that more Oregon basins are surveyed so that councils have more reliable data sources to base decisions on. It will also be interesting to compare the GIS approach of watershed assessments to the findings in the completed portions of the Pedee Creek OWEB form assessment. It is possible that different interpretations of the data will provide different recommendations. Members of the Pedee/Ritner Creeks Watershed Council do have a minor fear that the inclusion of Pedee Creek into the total Luckiamute Watershed Assessment will reduce the probability that Pedee Creek will be given priority restoration efforts. The council understands, however, the need to combine council efforts during these times of reduced funding. The Pedee/Ritner Creeks Watershed wishes to thank OWEB for its continued support and advice during the duration of this project. Vivienne Torgesson was especially helpful and the membership of our council will greatly miss her.

Grant 201--168 Pedee Creek Watershed Assessment

Date	Volunteer Name	Affiliation	Duties	Hours	Value $	Miles Donated	Value $	Total Miles $	Total Time	Total $
######	Chris Vandenberg	Pedee/Ritner Creeks WC	contract approval	2	15	60	0.34	20.4	30	50.4
######	Chris Vandenberg	Pedee/Ritner Creeks WC	ODFW contract	4	15	78	0.34	26.52	60	86.52
######	Kim Jones	ODFW	ODFW contract	4	35	0	0.34	0	140	140
######	Chris Vandenberg	Pedee/Ritner Creeks WC	Landowner contact	8	15	50	0.34	17	120	137
######	Chris Vandenberg	Pedee/Ritner Creeks WC	ODFW survey help	4	15	20	0.34	6.8	60	66.8
######	Norm Baldwin	Pedee/Ritner Creeks WC	meeting	0.5	15	0	0.34	0	7.5	7.5
######	Paul Kovash	Pedee/Ritner Creeks WC	meeting	0.5	15	0	0.34	0	7.5	7.5
######	Chris Vandenberg	Pedee/Ritner Creeks WC	meeting	2	15	0	0.34	0	30	30
######	Harold Skidmore	Pedee/Ritner Creeks WC	meeting	0.5	15	0	0.34	0	7.5	7.5
######	Tim Howard	Pedee/Ritner Creeks WC	meeting	0.5	15	0	0.34	0	7.5	7.5
######	Doug Weston	Pedee/Ritner Creeks WC	meeting	0.5	15	0	0.34	0	7.5	7.5
######	Dave Anderson	Boise Cascade Corp	meeting	0.5	15	17	0.34	5.78	7.5	13.28
######	Christie Shaw	Willamette Industries	meeting	0.5	15	19	0.34	6.46	7.5	13.96
######	Harold Skidmore	Pedee/Ritner Creeks WC	meeting	0.5	15	0	0.34	0	7.5	7.5
######	Norm Baldwin	Pedee/Ritner Creeks WC	meeting	0.5	15	0	0.34	0	7.5	7.5
######	Paul Kovash	Pedee/Ritner Creeks WC	meeting	0.5	15	0	0.34	0	7.5	7.5
######	Chris Vandenberg	Pedee/Ritner Creeks WC	meeting	2	15	0	0.34	0	30	30
######	Judy Guida	local historian	history interview	4	15	0	0.34	0	60	60
######	Nola Wolmer	local resident	history interview	2	15	0	0.34	0	30	30
######	Chris Vandenberg	Pedee/Ritner Creeks WC	history interview	5	15	0	0.34	0	75	75
######	Chris Vandenberg	Pedee/Ritner Creeks WC	history interview	3	20	0	0.34	0	60	60
######	Paul Ronco	local resident	history interview	2	15	0	0.34	0	30	30
######	Chris Vandenberg	Pedee/Ritner Creeks WC	data acquisition	5	15	35	0.34	11.9	75	86.9
######	Chris Vandenberg	Pedee/Ritner Creeks WC	phone calls (data)	1	15	0	0.34	0	15	15
######	Bill Ferber	OWRD	Data compilation	5	35	0	0.34	0	175	175
######	Chris Vandenberg	Pedee/Ritner Creeks WC	Manual Review	4	15	0	0.34	0	60	60
######	Chris Vandenberg	Pedee/Ritner Creeks WC	Map Acquisition	8	15	70	0.34	23.8	120	143.8
######	Chris Vandenberg	Pedee/Ritner Creeks WC	Library research	4	15	34	0.34	11.56	60	71.56
######	Chris Vandenberg	Pedee/Ritner Creeks WC	History Writing	4	15	0	0.34	0	60	60
######	Chris Vandenberg	Pedee/Ritner Creeks WC	History Writing	2	15	0	0.34	0	30	30
######	Chris Vandenberg	Pedee/Ritner Creeks WC	meeting	2	15	0	0.34	0	30	30
######	Paul Kovash	Pedee/Ritner Creeks WC	meeting	0.5	15	0	0.34	0	7.5	7.5
######	Norm Baldwin	Pedee/Ritner Creeks WC	meeting	0.5	15	0	0.34	0	7.5	7.5
######	Harold Skidmore	Pedee/Ritner Creeks WC	meeting	0.5	15	0	0.34	0	7.5	7.5
######	Dave Anderson	Boise Cascade Corp	meeting	0.5	15	17	0.34	5.78	7.5	13.28
######	Kim Jones	ODFW	Total time donation	50	35	0	0.34	0	1750	1750
######	Chris Vandenberg	Pedee/Ritner Creeks WC	ODFW pickup	2	15	70	0.34	23.8	30	53.8
######	Kim Jones	ODFW	report explanation	1	35	0	0.34	0	35	35
######	Chris Vandenberg	Pedee/Ritner Creeks WC	report water qual	4	15	0	0.34	0	60	60
######	Chris Vandenberg	Pedee/Ritner Creeks WC	small grant	2	15	80	0.34	27.2	30	57.2
######	Chris Vandenberg	Pedee/Ritner Creeks WC	contract ammend	1	15	0	0.34	0	15	15
######	Chris Vandenberg	Pedee/Ritner Creeks WC	ODFW report verif	7	15	15	0.34	5.1	105	110.1
######	Chris Vandenberg	Pedee/Ritner Creeks WC	Polk NR Group	3	15	34	0.34	11.56	45	56.56
######	Chris Vandenberg	Pedee/Ritner Creeks WC	Riparian Modif	3	15	0	0.34	0	45	45
######	Chris Vandenberg	Pedee/Ritner Creeks WC	data entry	4	15	0	0.34	0	60	60
######	Chris Vandenberg	Pedee/Ritner Creeks WC	riparian verif	2	15	20	0.34	6.8	30	36.8
######	Chris Vandenberg	Pedee/Ritner Creeks WC	meeting	2	15	0	0.34	0	30	30
######	Paul Kovash	Pedee/Ritner Creeks WC	meeting	0.5	15	0	0.34	0	7.5	7.5
######	Harold Skidmore	Pedee/Ritner Creeks WC	meeting	0.5	15	0	0.34	0	7.5	7.5
######	Norm Baldwin	Pedee/Ritner Creeks WC	meeting	0.5	15	0	0.34	0	7.5	7.5
######	Christie Shaw	Willamette Industries	meeting	0.5	15	34	0.34	11.56	7.5	19.06
######	Chris Vandenberg	Pedee/Ritner Creeks WC	CHT map work	2	15	0	0.34	0	30	30
######	Chris Vandenberg	Pedee/Ritner Creeks WC	CHT map work	8	15	0	0.34	0	120	120
######	Chris Vandenberg	Pedee/Ritner Creeks WC	data entry	2	15	0	0.34	0	30	30
######	Chris Vandenberg	Pedee/Ritner Creeks WC	contract ammend	4	15	0	0.34	0	60	60
######	Chris Vandenberg	Pedee/Ritner Creeks WC	contract ammend	1	15	34	0.34	11.56	15	26.56
######	Chris Vandenberg	Pedee/Ritner Creeks WC	contract ammend	1	15	36	0.34	12.24	15	27.24
######	Chris Vandenberg	Pedee/Ritner Creeks WC	delivered to contrctr	1	15	34	0.34	11.56	15	26.56

Total to date $ 4262.38

Match Required $ 3376

MAY 7 - 2003

MEMORANDUM OF AGREEMENT

Project #201-168
Pedee Creek Watershed Assessment

Project 203-039
Luckiamute Watershed Assessment

In relation to the above projects, OWEB and the parties to the grant agreements share the following understandings:

1. OWEB funds for Project #201-168, Pedee Creek Watershed Assessment, were awarded for the purpose of hiring ODFW to conduct a fish habitat survey along Pedee Creek and for administrative fees associated with managing the grant. As a component of the project, Pedee/Ritner Creeks Watershed Council volunteers were to analyze existing information and develop an assessment for the Pedee/Ritner watershed.

2. OWEB funds for Project #203-039, Luckiamute Watershed Assessment, were awarded for the purpose of conducting a comprehensive assessment of the Luckiamute watershed. Inclusion of the Pedee/Ritner watershed in the Luckiamute watershed assessment will result in a single reference document for the entire watershed. The contractor hired by the Luckiamute Watershed Council is willing to include the Pedee/Ritner watershed in its assessment of the Luckiamute watershed at no additional cost and with no financial impact to the watershed council.

The parties to the grant agreements for the above projects agree as follows:

1. Upon submission of: 1) a completion report as detailed in Exhibit B of the grant agreement for Project #201-168; 2) a copy of the fish habitat survey report compiled by ODFW; 3) receipts documenting all expenditures related to the project; and 4) documentation of at least 25% in non-OWEB match funding, OWEB will accept the project as complete.

Oregon Department of Fish and Wildlife

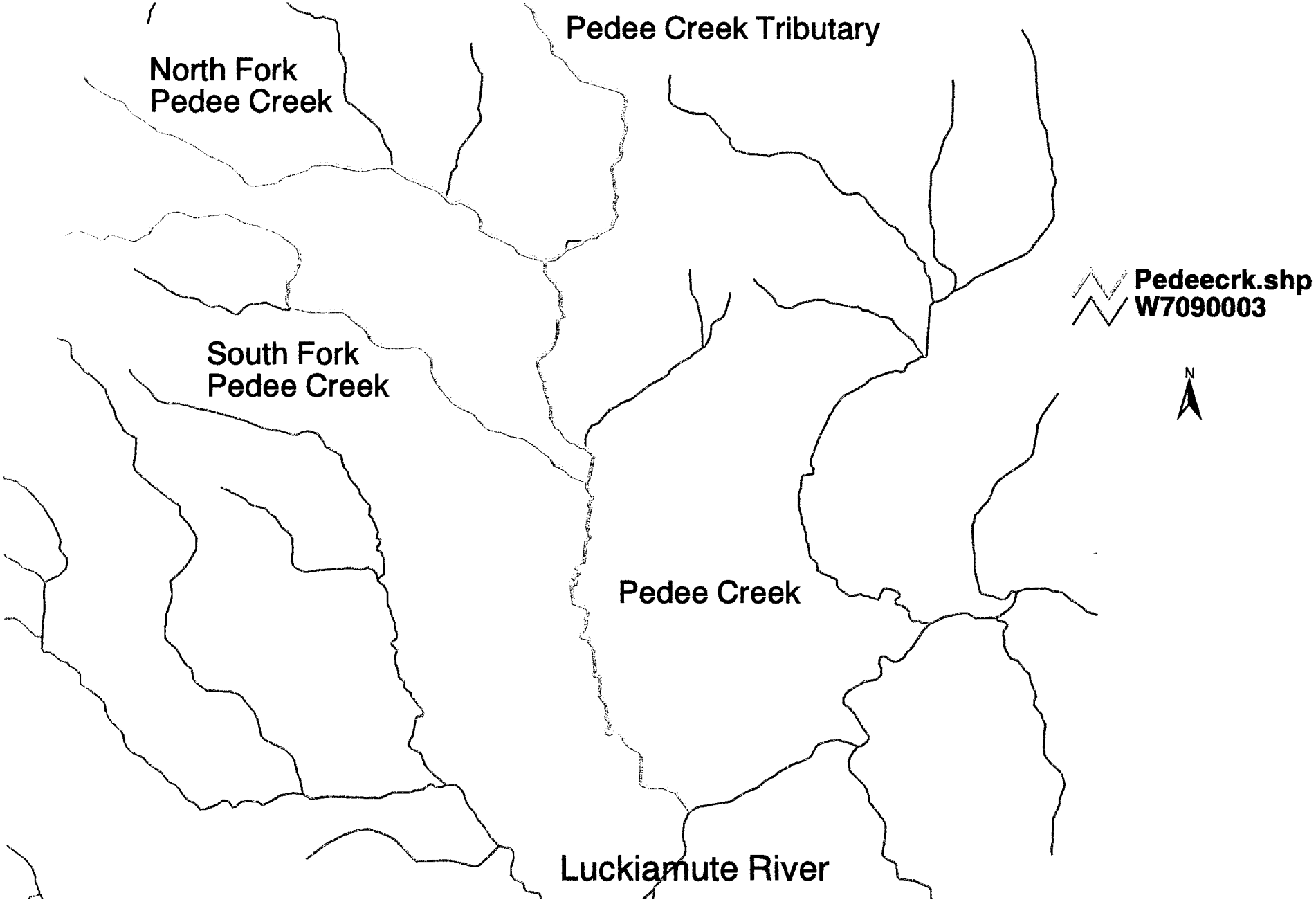
Aquatic Inventories Project

Stream Habitat Surveys

2001

Pedee Creek and Tributaries
Luckiamute River Basin

2001 Luckiamute River Basin Habitat Surveys



ODFW AQUATIC INVENTORY PROJECT

STREAM REPORT

STREAM: Pedee Creek

BASIN: Luckiamute River

DATES: August 21 - September 12, 2001

SURVEY CREW: Ryan Koch, Jason Kirchner, Jen Bock, LaNoah Babcock, Loren Stucker

REPORT PREPARED BY: Staci Stein

STREAM ORDER: 4 BASIN AREA: 38.5km^2 FIRST ORDER TRIBUTARIES: 21

USGS MAPS: Falls City, Kings Valley

HUC NUMBER: 17090003 LLID: 1234327447400

ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Pedee Creek habitat survey begins at its confluence with Luckiamute River and continues upstream 4892 meters to end at the junction of South Fork Pedee Creek. Three reaches are designated based on channel morphology and tributary influences. Scour pools and riffles are the dominant instream habitat types, and gravel, cobble, and fine sediment are the most common substrate types. There are moderate levels of active erosion. Wood volume is low. Hardwood trees 3-15cm dbh dominate the riparian zone.

REACH DESCRIPTIONS:

Reach 1: (T9S-R6W-S33) Length 807 meters Reach 1 begins at the confluence with Luckiamute River and ends at the Burbank Road bridge crossing. The stream is terrace-constrained in a broad valley. The average valley width index is 4.0 (range: 2.5-5.5). Land use for the reach is young trees (<15cm dbh). The average unit gradient is 0.7 percent. Stream habitat is primarily comprised of scour pools (48%) and riffles (36%). Stream substrate is dominated by gravel (39%) and fine sediment (44%). The average residual pool depth is 37cm. Twenty-five percent of the reach length is actively eroding. Wood volume is 6.6m^3/100m. The trees found most frequently in the riparian zone are hardwoods 3-15cm dbh. The vegetation is based on two riparian transects. This low gradient reach was noted having many small fish and beaver activity.

Reach 2: (T9S-R6W-S55) Length 1,694 meters. Reach 2 extends to property boundary. The stream is terrace constrained in a broad valley. The valley width index is 10.0. Land uses for the reach are heavy grazing and agricultural land. The average unit gradient is 0.9 percent. Scour pools (62%) are the dominant stream habitat. Stream substrate is dominated by gravel (42%) and fine sediment (42%). The average residual pool depth is 64cm. Twenty-eight percent of the reach length is actively eroding. Wood volume is 1.7m^3/100m. The trees found most frequently in the riparian zone are hardwoods 3-15cm dbh. The vegetation is based on four riparian transects. The cattle tracks, cow pies, and sluffing banks reflected heavy grazing. The crew noted screened and unscreened pumps in the creek. High beaver activity was observed. Hardpan clay is included with the bedrock in the substrate percentages; refer to the comment summary for unit numbers.

Reach 3: (T9S-R6W-S51) Length 2,391 meters. Reach 3 extends to the junction of South Fork Pedee Creek. The stream is terrace constrained in a broad valley. The valley width index is 10.0. Light grazing is the land use type. The average unit gradient is 0.5 percent. Stream habitat is comprised of scour pools (56%) and riffles (24%). Stream substrate is dominated by gravel (31%) and fine sediment (35%). The average residual pool depth is 65cm. Wood volume is 2.1m^3/100m. The trees found most frequently in the riparian zone are hardwoods 3-15cm dbh. The vegetation is based on three riparian transects. Some bank erosion was noted due to cattle and horses. Several beaver ponds and high beaver activity was observed.

COMMENTS:

The Pedee Creek survey runs through private property. The reaches are low gradient with agricultural land practices observed. A fish presence/absence survey was not conducted. The crew noted fish, frogs, crayfish, livestock activity, beaver activity, and raccoon tracks.

ODFW AQUATIC INVENTORY PROJECT

STREAM REPORT

STREAM: North Fork Pedee Creek

BASIN: Luckiamute River

DATES: September 13-18, 2001

SURVEY CREW: Loren Stucker and LaNoah Babcock

REPORT PREPARED BY: Peggy Kavanagh

STREAM ORDER: 3 BASIN AREA: 24.7km^2 FIRST ORDER TRIBUTARIES: 17

USGS MAPS: Falls City

ECOREGION: Coast Range Sedimentary

HUC NUMBER: 17090003 LLID: 1234478447712

GENERAL DESCRIPTION:

The North Fork Pedee Creek habitat survey begins at the junctions of South Fork Pedee Creek and mainstem Pedee Creek and extends 6405 meters. The dominant instream habitat types are scour pool and riffle. The substrate is primarily fine sediment, gravel, and cobble. The land uses within the valley are second-growth timber (15-30cm dbh) and young trees (<15cm dbh). There are moderate levels of active bank erosion. The trees found most frequently in the riparian zone are 3-15cm dbh hardwoods.

REACH DESCRIPTIONS:

Reach 1: (T9S-R6W-S20SE) Length 1766 meters. Reach 1 begins at the confluence of Pedee and South Fork Pedee Creeks and continues to a bridge crossing. The channel is constrained by terraces in a broad valley. The valley width index is 10.0. Land uses are second-growth timber (15-30cm dbh) and young trees (<15cm dbh). The average unit gradient is 0.7 percent. Beaver ponds (24%), scour pools (40%), and riffles (30%) are the most common habitat types. Fine sediments (42%), gravel (29%), and cobble (21%) are the predominant stream substrates. Twenty-five percent of the reach length has actively eroding banks. Wood volume is 3m^3/100m. The trees found most frequently in the riparian zone are hardwoods 3-15cm dbh (based on three riparian transects).

Reach 2: (T9S-R6W-S17SW) Length 1236 meters. Reach 2 begins at a bridge crossing and extends to a tributary junction. The channel is constrained by terraces in a broad valley. The average valley width index is 9.2 (range: 8.0-10.0). Land uses are second-growth timber (15-30cm dbh) and light grazing. The average unit gradient is 1.1 percent. Scour pools (50%) and riffles (36%) are the dominant habitat types. The majority of the stream substrate is composed of fine sediments (24%), gravel (21%), and cobble (28%). Wood volume is 5.3m^3/100m. The trees found most frequently in the riparian zone are hardwoods 3-15cm dbh (based on one riparian transect).

Reach 3: (T9S-R6W-S18NE) Length 2421 meters. Reach 3 begins at the confluence with Pedee Creek Tributary and ends at a bridge crossing. The channel is constrained by terraces across a broad valley floor. The average valley width index is 5.5 (range: 1.7-10.0). Land uses for the reach are young trees (<15cm dbh) and second-growth timber (15-30cm dbh). The average unit gradient is 1.8 percent. Scour pool (25%), riffle (36%), and rapid (30%) are the most common stream habitat types. Fine sediments (27%), gravel (27%), and cobble (28%) are the primary stream substrates. Twenty-six percent of the reach length has actively eroding banks. Wood volume is 6.4m^3/100m. The trees found most frequently in the riparian zone are hardwoods 3-15cm (based on four riparian transects).

Reach 4: (T9S-R6W-S7SW) Length 652 meters. Reach 4 extends ten meters past a tributary junction. The channel is constrained by hillslopes in a steep v-shaped valley. The average valley width index is 2.6 (range 1.5-5.0). Typically, the valley width index (vwi) for a hillslope-constrained reach is less than 2.5. Due to averaging, the vwi in reach 4 is greater than 2.5. The land use is second-growth timber (15-30cm dbh). The average unit gradient is 7.2 percent. Rapid (53%) is the dominant stream habitat type. Fine sediment (29%), gravel (24%), and cobble (24%) are the primary stream substrates. Twenty percent of the reach length has actively eroding banks. Wood volume is 33.5m^3/100m. The trees found most frequently in the riparian zone are hardwoods 3-15cm dbh (based on one riparian transect).

COMMENTS:

The crew observed fish through unit 195 (5580m). The upper limit of distribution was not determined; a fish presence/absence survey was not conducted.

There were multiple potential barriers to fish migration, which ranged from 1.4-1.6 meters high.

The crew noted numerous wildlife sitings and observations, including the following: fish, beaver activity, crayfish, sculpin, wasp, wood duck box, newt, and red legged frog.

Approximately fifty meters at the end of reach 1 were not surveyed due to lack of access.

Beaver activity was observed throughout the survey.

ODFW AQUATIC INVENTORY PROJECT

STREAM REPORT

STREAM: South Fork Pedee Creek

BASIN: Luckiamute River

DATES: August 23 - September 11, 2001

SURVEY CREW: Ryan Koch / Jason Kirchner

REPORT PREPARED BY: Staci Stein

STREAM ORDER: 3 BASIN AREA: 8.25km^2 FIRST ORDER TRIBUTARIES: 3

USGS MAPS: Falls City, Fanno Ridge

HUC NUMBER: 17090003 LLID: 1234478447711

ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The South Fork Pedee Creek habitat survey begins at the confluences of Pedee Creek and North Fork Pedee Creek and continues upstream 4,689 meters to end just upstream of the Bald Mountain Road crossing. Three reaches are designated based on channel morphology and stream gradient. The stream is constrained by hillslopes and terraces. Rapids, scour pools and dammed pools are the most common instream habitat types and cobble, gravel and boulders are the dominant substrate types. Active erosion is low. Wood volume is low in the lower reaches and high in the upper reach. Land use is predominantly second growth timber (15-30cm dbh). Conifers and hardwoods 3-30cm dbh dominate the riparian zone.

REACH DESCRIPTIONS:

Reach 1: (T9S-R6W-S20SE) Length 1,845 meters. Reach 1 begins at the junctions of Pedee and North Fork Pedee Creeks and ends approximately 75 meters upstream of an unnamed tributary junction. The stream is terrace constrained in a broad valley. The valley width index is 10.0. Land uses for the reach are second growth timber (15-30cm dbh) and light grazing. The average unit gradient is 1.2 percent. Stream habitat is comprised of scour pools (39%), rapids (38%), and riffles (20%). Stream substrate is primarily a mix of cobble (36%), gravel (21%), and boulder (19%). The average residual pool depth is 56cm. Fourteen percent of the reach length has actively eroding banks. Wood volume is 2m^3/100m. The trees found most frequently in the riparian zone are hardwoods 3-15cm dbh and conifers 15-30cm dbh. The vegetation is based on two riparian transects.

Reach 2: (T9S-R6W-S20NW) Length 1,576 meters. Reach 2 extends to a change in geomorphology. The stream is a single, unconstrained channel multiple terraces in a broad valley. The average valley width index is 9.9 (range: 9.0-10.0). Land uses are timber harvest and second growth timber (15-30cm dbh). The average unit gradient is 3.5 percent. Stream habitat is comprised of rapids (44%) and beaver-dammed pools (32%). The stream substrate is fairly evenly distributed. The average residual pool depth is 55cm. Thirteen percent of the reach length has actively eroding banks. Wood volume is 17.3m^3/100m. The trees found most frequently in the riparian zone are hardwoods

15-50 cm dbh. The vegetation is based on two riparian transects. The crew observed beaver activity in the form of dams and pools.

Reach 3: (T9S-R6W-S19NE) Length 1,268 meters. Reach 3 ends 50 meters past the Bald Mountain Road culvert crossing. The stream is hillslope constrained in a steep v-shaped valley. The average valley width index is 1.7 (range: 1.1 - 4.0). Land uses for the reach are second growth timber (15-30cm dbh) and large trees (30-50cm dbh). The average unit gradient is 7.7 percent. Rapids (61%) dominate the stream habitat. Stream substrate is primarily comprised of gravel (25%), cobble (24%), and fine sediment (30%). The average residual pool depth is 47cm. Wood volume is 106m^3/100m. The trees found most frequently in the riparian zone are conifer and hardwoods 3-15 cm dbh. The vegetation is based on three riparian transects. Dry units were present; subsurface flow and stagnant water were noted.

COMMENTS:

South Fork Pedee Creek is accessible from Bald Mountain Road. This road follows the length of the surveyed stream. The crew observed fish, trout, newts, crayfish, Pacific giant salamander, deer tracks, and beaver activity. Five log steps 1.0 meter or higher were noted in reach three. These could be potential natural barriers to upstream fish migration. At unit 82 (1553m), there was an irrigation dam with boards and tarps. Reach two had beaver activity. Reach three had numerous woody debris jams; two mass failures were noted. Fish were noted through unit 227 (4572m). The upper distribution was not determined; a fish presence/absence survey was not conducted.

ODFW AQUATIC INVENTORY PROJECT

STREAM REPORT

STREAM: Pedee Creek Tributary

BASIN: Luckiamute River

DATES: August 22 - September 12, 2001

SURVEY CREW: Ryan Koch / Jason Kirchner / Jen Bock / LaNoah Babcock / Loren Stucker

REPORT PREPARED BY: Staci Stein

STREAM ORDER: 2 BASIN AREA: 5.55km^2 FIRST ORDER TRIBUTARIES: 3

USGS MAPS: Falls City

HUC NUMBER: 17090003 LLID: 1234481447743

ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Pedee Creek Tributary habitat survey begins at the confluence with North Fork Pedee Creek and continues upstream 3091 meters to end at a potential natural barrier. Four reaches are designated based on channel morphology, tributary influence, and surveyor change. The stream is constrained by hillslopes and terraces. Rapids, cascades, and riffles are the most common instream habitat types and gravel and fine sediment (sand, silt, and organic matter) are the dominant substrate types. Active erosion is low to moderate. Hardwoods 3-30cm dbh dominate the riparian zone.

REACH DESCRIPTIONS:

Reach 1: (T9S-R6W-S17NW) Length 537 meters. Reach 1 begins at the junction with North Fork Pedee Creek and ends as the valley narrows. The stream is terrace constrained in a broad valley. The valley width index is 7.5 (range: 7.0-8.0). Land uses for the reach are large timber (30-50cm dbh) and agriculture land. The average unit gradient is 0.1 percent. Riffles (71%) dominate the stream habitat. Stream substrate is primarily a mix of bedrock (36%) and fine sediment (22%). The average residual pool depth is 40cm. Wood volume is 5.5m^3/100m. The trees found most frequently in the riparian zone are hardwoods 3-15cm dbh and conifers 15-30cm dbh. The vegetation is based on one riparian transect.

Reach 2: (T9S-R6W-S17NE) Length 988 meters. Reach 2 extends to a bridge crossing. The stream is constrained by alternating hillslopes and terraces in a broad valley. The average valley width index is 4.3 (range: 1.0-10.0). Land uses are young trees (<15cm dbh) and second growth timber (15-30cm dbh). The average unit gradient is 7.2 percent. Stream habitat is mainly comprised of rapids (32%) and cascades (27%). Fine sediment (40%) and gravel (30%) dominate the stream substrate. The average residual pool depth is 43cm. Twenty-two percent of the reach length has actively eroding banks. Wood volume is 36.9m^3/100m. The trees found most frequently in the riparian zone are conifers 30-50cm dbh. The vegetation is based on one riparian transect.

Reach 3: (T9S-R6W-S8E) Length 854 meters. Reach 3 extends to a tributary junction. The stream is hillslope and terrace constrained in a broad valley. The average valley width index is 2.4 (range: 2.0-3.0). Land uses for the reach are second growth timber (15-30cm dbh) and timber harvest. The average unit gradient is 4.3 percent. Rapids (48%) and riffles (29%) dominate the stream habitat. Stream substrate is primarily comprised of gravel (30%) and fine sediment (39%). The average residual pool depth is 31cm. Twelve percent of the reach length has actively eroding banks. Wood volume is 49m^3/100m. The trees found most frequently in the riparian zone are hardwoods 3-30cm dbh. The vegetation is based on two riparian transects. Three mass failures were noted

Reach 4: (T9S-R6W-S8NE) Length 712 meters. Reach 4 extends from a tributary junction to a waterfall. The stream is hillslope constrained in a narrow valley. The average valley width index is 1.1 (range: 1.0-1.1). Land uses for the reach are large timber (30-50cm dbh). The average unit gradient is 10.8 percent. Rapids (34%) and cascades (64%) dominate the stream habitat. Stream substrate is primarily comprised of gravel (22%), cobble (28%), and fine sediment (33%). The average residual pool depth is 35cm. Twelve percent of the reach length has actively eroding banks. Wood volume is 89.5m^3/100m. The trees found most frequently in the riparian zone are conifers 15-30cm dbh. The vegetation is based on one riparian transect. Landslides and debris jams were noted.

COMMENTS:

Pedee Creek Tributary is referred to locally as Mill Creek. The crew noted newts, a dead coyote pup, frogs, crayfish, deer tracks, and beaver activity. Four potential natural barriers to upstream fish migration were recorded. Of the four, the step-over-bedrock at unit 122 (3091m and 4.5m high) had the greatest height. Fish were not noted; a fish presence/absence survey was not conducted.