

**TIMBER/FISH/WILDLIFE PROCESS  
AMBIENT MONITORING PROGRAM**

**DATA SET DIRECTORY  
& DICTIONARY**



**Northwest Indian Fisheries Commission  
June 1993**

Funded by Washington Department of Natural Resources  
Contract: NWIFC FY92-082

**TIMBER, FISH AND WILDLIFE**  
**Ambient Monitoring Program**  
**DATA SET DIRECTORY**  
**June 1993**

- 1) **TFW PROJECT IDENTIFIER, NAME, AND GEOGRAPHIC DESCRIPTION:**  
TFW-92-AM  
1992 TFW Ambient Monitoring Database
  
- 2) **DATA SET DESCRIPTION (underline key search words):**  
Stream segment summary  
Reference point survey  
Habitat unit surveys  
LWD surveys
  
- 3) **DATA COLLECTION DATES. START: 6/92**  
**END: 11/92**
  
- 4) **SOFTWARE AND/OR METHODOLOGY USED:**  
Rbase 2.0
  
- 5) **SIZE OF DATA SET (in bytes):**
  
- 6) **DATA SET STORAGE LOCATION:**  
(Organization, Address, Contact Person Name and Phone)  
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Northwest Indian Fisheries Commission  
Ambient Monitoring Program  
6730 Martin Way East  
Olympia, WA 98506  
(206) 438-1180

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

bank

**3) SINGLE LINE DESCRIPTION:**

Identifies right or left bank tributaries

**4) DETAILED DESCRIPTION:**

Describes whether unlisted tributaries enter the main channel on the left or right bank.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

text:2

**7) EXAMPLE OF DATA:**

rb

**8) CODE DESCRIPTIONS (if applicable):**

lb = left bank tributaries

rb = right bank tributaries

**9) VALID DATA RANGE (if applicable):**

lb or rb

**10) DATA SOURCE:**

Topography maps, DNR water type maps

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1, 41, 42, 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

begframe

**3) SINGLE LINE DESCRIPTION:**

Frame number of the first photograph taken in the segment.

**4) DETAILED DESCRIPTION:**

Same as above.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 2

**7) EXAMPLE OF DATA:**

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

**10) DATA SOURCE:**

Cooperator

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
begrefpt
- 3) SINGLE LINE DESCRIPTION:  
Beginning reference point number.
- 4) DETAILED DESCRIPTION:  
The number of the reference point at the beginning of the survey reach.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:  
01
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
Reference point number from reference point survey form or read from tag in field.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
begrivmi
- 3) SINGLE LINE DESCRIPTION:  
Beginning rivermile.
- 4) DETAILED DESCRIPTION:  
Rivermile location where the survey area begins.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Real
- 7) EXAMPLE OF DATA:  
12.1
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
WDF Stream catalog.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 41, 42, 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
begroll
- 3) SINGLE LINE DESCRIPTION:  
Number identifying the roll of film used to begin taking photographs in the segment.
- 4) DETAILED DESCRIPTION:  
Same as above
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 3
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
Roll numbers are assigned by the cooperator.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

bnkdepth

**3) SINGLE LINE DESCRIPTION:**

Bankfull depth

**4) DETAILED DESCRIPTION:**

Average of bankfull depth measurements made along transect across bankfull channel at the reference point, as per 1992 Ref Pt Survey Module.

**5) UNITS OF DATA MEASUREMENT:**

Meters

**6) FIELD FORMAT AND LENGTH**

Real

**7) EXAMPLE OF DATA:**

6.7

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

00-infinity

**10) DATA SOURCE:**

Measurements made by surveyors, averaged, and entered on reference point survey form by surveyors.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 2

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

bnkwidth

**3) SINGLE LINE DESCRIPTION:**

Bankfull width

**4) DETAILED DESCRIPTION:**

Bankfull width measurement made at the reference point. Bankfull channel is identified using vegetation indicators as per 1992 Ref. Point Survey Module.

**5) UNITS OF DATA MEASUREMENT:**

Meters

**6) FIELD FORMAT AND LENGTH**

Real

**7) EXAMPLE OF DATA:**

21.4

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Measurement made by survey area and recorded on reference point survey form.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 2

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
calleral
- 3) SINGLE LINE DESCRIPTION:  
Number identifying organization to which crew leader is affiliated.
- 4) DETAILED DESCRIPTION:  
Two digit number identifying the organization to which the crew leader is affiliated.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 3
- 7) EXAMPLE OF DATA:  
12
- 8) CODE DESCRIPTIONS (if applicable):  
see code sheet
- 9) VALID DATA RANGE (if applicable):  
1-99
- 10) DATA SOURCE:  
TFW Ambient Monitoring affiliation code sheet.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

callers 1

**3) SINGLE LINE DESCRIPTION:**

Initials of the lead surveyor.

**4) DETAILED DESCRIPTION:**

First name and last name initial of the beads of the survey crew.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 3

**7) EXAMPLE OF DATA:**

LK

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

n/a

**10) DATA SOURCE:**

Cooperators

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

canopy

**3) SINGLE LINE DESCRIPTION:**

Percent canopy closure

**4) DETAILED DESCRIPTION:**

The average percent canopy closure computed from measurements taken in 4 directions from center of channel at the reference point, as per 1992 Ref. Pt. Survey Module.

**5) UNITS OF DATA MEASUREMENT:**

Percentage

**6) FIELD FORMAT AND LENGTH**

integer

**7) EXAMPLE OF DATA:**

97

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

00-100

**10) DATA SOURCE:**

Measurements made by survey crew, average computed and entered on reference point survey form

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 2

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
date
- 3) SINGLE LINE DESCRIPTION:  
Survey date
- 4) DETAILED DESCRIPTION:  
Date that survey began
- 5) UNITS OF DATA MEASUREMENT:  
month/day/year
- 6) FIELD FORMAT AND LENGTH  
date: 8
- 7) EXAMPLE OF DATA:  
12/01/92
- 8) CODE DESCRIPTIONS (if applicable):
- 9) VALID DATA RANGE (if applicable):  
1/1/92-5/6/92
- 10) DATA SOURCE:  
Calendar
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1, 2, 3b, 41, 42, 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

dischg

**3) SINGLE LINE DESCRIPTION:**

Stream flow measurements.

**4) DETAILED DESCRIPTION:**

Streamflow measurement taken at the time of the survey - subsequent measurements taken through survey period if flow changes significantly.

**5) UNITS OF DATA MEASUREMENT:**

cubic meters per second.

**6) FIELD FORMAT AND LENGTH**

Real

**7) EXAMPLE OF DATA:**

0.45

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Flow measurement taken by survey crew at time of survey and recorded on habitat unit survey form.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 3b

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) **PROJECT IDENTIFIER:**  
TFW-92-am
- 2) **DATA ITEM NAME:**  
dist
- 3) **SINGLE LINE DESCRIPTION:**  
Cumulative distance.
- 4) **DETAILED DESCRIPTION:**  
Cumulative distance from beginning of segment to the reference point indicated, as measured along the center of the bankfull channel.
- 5) **UNITS OF DATA MEASUREMENT:**  
Meters
- 6) **FIELD FORMAT AND LENGTH**  
integer
- 7) **EXAMPLE OF DATA:**  
1400
- 8) **CODE DESCRIPTIONS (if applicable):**  
n/a
- 9) **VALID DATA RANGE (if applicable):**  
0000-9999
- 10) **DATA SOURCE:**  
Measurement taken by survey crew and recorded on reference point survey form.
- 11) **RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) **FORM WHERE USED:**  
Form 2

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

dwnframe

**3) SINGLE LINE DESCRIPTION:**

Frame number of downstream photo.

**4) DETAILED DESCRIPTION:**

Frame number of photograph taken in the center of the channel at each reference point in a downstream direction.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

text: 2

**7) EXAMPLE OF DATA:**

01

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

00-99

**10) DATA SOURCE:**

Frame numbers are displayed on the camera and recorded by the surveyors on the reference point survey form.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 2

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

June 1993

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

dwnrefpt

**3) SINGLE LINE DESCRIPTION:**

downstream reference point number.

**4) DETAILED DESCRIPTION:**

The number of the nearest downstream reference point to the piece of LWD being surveyed. Ref. pts. are established using the procedure in the 1992 Ref Pt. Survey Module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

01

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Noted on the level 2 LWD survey form by the survey crew from tags established during Reference Point Survey.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 42, 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
endframe
- 3) SINGLE LINE DESCRIPTION:  
Frame number of the last photograph taken in the segment.
- 4) DETAILED DESCRIPTION:  
Same as above
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 2
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
Cooperator
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

endrefpt

**3) SINGLE LINE DESCRIPTION:**

ending reference point number.

**4) DETAILED DESCRIPTION:**

Number of the reference point at the end of the survey reach, Ref. points established during the Ref.Pt. Survey.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

15

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Reference point number from reference point survey form or read from tag in field.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
endrvmi
- 3) SINGLE LINE DESCRIPTION:  
ending rivermile
- 4) DETAILED DESCRIPTION:  
Rivermile location at the end of the survey reach.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Real
- 7) EXAMPLE OF DATA:  
12.6
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
WDF Stream catalog
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 41, 42, 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

June 1993

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
endroll
- 3) SINGLE LINE DESCRIPTION:  
Number identifying the last roll of film used to take photographs in the segment.
- 4) DETAILED DESCRIPTION:  
Same as above
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 3
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
Roll numbers are assigned by the cooperator.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
fileid
- 3) SINGLE LINE DESCRIPTION:  
two letter id as in amp92AA
- 4) DETAILED DESCRIPTION:  
File.id chosen and entered at time of data entry in TFW data entry notebook.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 2
- 7) EXAMPLE OF DATA:  
AA
- 8) CODE DESCRIPTIONS (if applicable):
- 9) VALID DATA RANGE (if applicable):  
AA-DX
- 10) DATA SOURCE:  
TFW Ambient Monitoring Program
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1, 2, 3b, 41, 42, 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

June 1993

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
fldnotes
- 3) SINGLE LINE DESCRIPTION:  
Field notes and observations recorded by survey crew.
- 4) DETAILED DESCRIPTION:  
Same as above.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Note
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
Field crew, recorded on ref. pt. survey form.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
fldnote2
- 3) SINGLE LINE DESCRIPTION:  
Field notes.
- 4) DETAILED DESCRIPTION:  
Field notes recorded while conducting the reference point survey.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Note
- 7) EXAMPLE OF DATA:  
Recorded note.
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
n/a
- 10) DATA SOURCE:  
Field survey crew.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 2

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
fldnote3
- 3) SINGLE LINE DESCRIPTION:  
Field notes
- 4) DETAILED DESCRIPTION:  
Field notes recorded during habitat unit survey.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Note
- 7) EXAMPLE OF DATA:  
Field notes.
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
n/a
- 10) DATA SOURCE:  
Observation of survey crew recorded on habitat unit survey form.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 3b

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
fldnote4
- 3) SINGLE LINE DESCRIPTION:  
Level 1 LWD survey field notes.
- 4) DETAILED DESCRIPTION:  
Same as above
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Note
- 7) EXAMPLE OF DATA:  
Field notes.
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
n/a
- 10) DATA SOURCE:  
Observations of field crew recorded on Level 1 LWD survey form.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

gradcat

**3) SINGLE LINE DESCRIPTION:**

Stream gradient category

**4) DETAILED DESCRIPTION:**

Each Stream segment is placed in one of seven streams gradient categories, based on gradient measured from USGS topo maps.

**5) UNITS OF DATA MEASUREMENT:**

% gradient

**6) FIELD FORMAT AND LENGTH**

Text: 1

**7) EXAMPLE OF DATA:**

1

**8) CODE DESCRIPTIONS (if applicable):**

1 = less than 0.1% gradient

2 = 0.1-1% gradient

3 = 1.0-2% gradient

4 = 2.0-4.0% gradient

5 = 4.0-6.0% gradient

6 = 6.0-17.0% grandient

7 = >17% gradient

**9) VALID DATA RANGE (if applicable):**

1-7

**10) DATA SOURCE:**

Stream gradient measurements from USGS topography maps.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1, 41, 42, 52, 3b

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

1) PROJECT IDENTIFIER:

TFW-92-am

2) DATA ITEM NAME:

gradumc

3) SINGLE LINE DESCRIPTION:

channel confinement category

4) DETAILED DESCRIPTION:

Stream segments are placed in one of three categories based on the degree to which the lateral movement or expansion of the channel is restricted by features such as bedrock out crops or hillslopes.

5) UNITS OF DATA MEASUREMENT:

channel width

6) FIELD FORMAT AND LENGTH

Text:1

7) EXAMPLE OF DATA:

c

8) CODE DESCRIPTIONS (if applicable):

c (confined) - valley width less than 2 bankfull channel widths  
m (moderately confined) = valley width 2-4 bankfull channel widths  
u (unconfined) = valley width greater than 4 bankfull channel widths.

9) VALID DATA RANGE (if applicable):

c, m, u

10) DATA SOURCE:

Field observations

11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

12) FORM WHERE USED:

Form 1, 41, 42, 52, 3b

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
hgt52
- 3) SINGLE LINE DESCRIPTION:  
height of the large log jam
- 4) DETAILED DESCRIPTION:  
The average height of the large log jam is measured using procedures in the 1992 LWD survey module.
- 5) UNITS OF DATA MEASUREMENT:  
meters
- 6) FIELD FORMAT AND LENGTH  
Real
- 7) EXAMPLE OF DATA:  
1.5
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
Measurements are recorded on the large log jam survey form by the survey crew.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

jamno

**3) SINGLE LINE DESCRIPTION:**

Large log jam number

**4) DETAILED DESCRIPTION:**

Each large log jam is sequentially assigned a unique number by the survey crew, as described in the LWD survey module. A large log jam must have at least 10 qualifying LWD pieces.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

1

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

1-infinity

**10) DATA SOURCE:**

Numbers are recorded on large log jam survey form by the survey crew.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

lbbank

**3) SINGLE LINE DESCRIPTION:**

Describes the side of the channel on which the lower boundary reference point marker is located.

**4) DETAILED DESCRIPTION:**

Side of channel is determined by facing downstream.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 2

**7) EXAMPLE OF DATA:**

LB

**8) CODE DESCRIPTIONS (if applicable):**

LB=left bank

RB=right bank

**9) VALID DATA RANGE (if applicable):**

LB or RB

**10) DATA SOURCE:**

Reference point survey form for segment.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
lbelev
- 3) SINGLE LINE DESCRIPTION:  
Elevation of lower segment boundary.
- 4) DETAILED DESCRIPTION:  
Same as above
- 5) UNITS OF DATA MEASUREMENT:  
Feet or meters
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:  
1200
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0000-9999
- 10) DATA SOURCE:  
USGS topo maps
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
lbelevu
- 3) SINGLE LINE DESCRIPTION:  
Unites of measurement of lower segment boundary elevation.
- 4) DETAILED DESCRIPTION:  
Describes if lower boundary elevation is recorded in feet or meters.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 1
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
F=Feet  
M=Meters
- 9) VALID DATA RANGE (if applicable):  
F or M
- 10) DATA SOURCE:  
Legend of map from which elevation is taken.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

lalatdeg

**3) SINGLE LINE DESCRIPTION:**

Latitude measured in degrees of the lower segment boundary location.

**4) DETAILED DESCRIPTION:**

Same as above

**5) UNITS OF DATA MEASUREMENT:**

Degrees of latitude.

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

**10) DATA SOURCE:**

Maps showing latitude longitude and stream network or GPS.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
lplatmin
- 3) SINGLE LINE DESCRIPTION:  
Latitude measured in minutes of the lower segment boundary location.
- 4) DETAILED DESCRIPTION:  
Same as above
- 5) UNITS OF DATA MEASUREMENT:  
Minutes of latitude
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
Maps showing latitude, longitude and stream network or GPS.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
lalatsec
- 3) SINGLE LINE DESCRIPTION:  
The seconds of latitude of the lower segment boundary location
- 4) DETAILED DESCRIPTION:  
Same as above
- 5) UNITS OF DATA MEASUREMENT:  
Seconds of latitude
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
Maps showing latitude, longitude and stream network or GPS.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
lblondeg
- 3) SINGLE LINE DESCRIPTION:  
Longitude in degrees of the lower segment boundary location.
- 4) DETAILED DESCRIPTION:  
Same as above
- 5) UNITS OF DATA MEASUREMENT:  
Degrees of latitude
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
Maps showing latitude, longitude and stream network or GPS.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
lblonmin
- 3) SINGLE LINE DESCRIPTION:  
Longitude in minutes of the lower segment boundary location.
- 4) DETAILED DESCRIPTION:  
Same as above
- 5) UNITS OF DATA MEASUREMENT:  
Minutes of longitude
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
Maps showing latitude, longitude and stream network or GPS.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
lblonsec
- 3) SINGLE LINE DESCRIPTION:  
Latitude measured in seconds at the lower segment boundary
- 4) DETAILED DESCRIPTION:  
Same as above
- 5) UNITS OF DATA MEASUREMENT:  
Seconds of latitude
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
Maps showing latitude, longitude and stream network or GPS
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
lbqtr1
- 3) SINGLE LINE DESCRIPTION:  
The quarter of the quarter section in which the downstream segment boundary is located.
- 4) DETAILED DESCRIPTION:  
Same as above
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 2
- 7) EXAMPLE OF DATA:  
SW
- 8) CODE DESCRIPTIONS (if applicable):  
NW=Northwest  
NE=Northeast  
SW=Southwest  
SE=Southeast
- 9) VALID DATA RANGE (if applicable):  
n/a
- 10) DATA SOURCE:  
Maps displaying township, range, sections and the stream network.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

lbqtr2

**3) SINGLE LINE DESCRIPTION:**

The quarter of the section in which the downstream segment boundary is located.

**4) DETAILED DESCRIPTION:**

Same as above

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 2

**7) EXAMPLE OF DATA:**

SW

**8) CODE DESCRIPTIONS (if applicable):**

NW=Northwest

NE=Northeast

SW=Southwest

SE=Southeast

**9) VALID DATA RANGE (if applicable):**

n/a

**10) DATA SOURCE:**

Maps displaying township, range, section and stream network.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
lb rept
- 3) SINGLE LINE DESCRIPTION:  
The number of the reference point located at the lower boundary of the segment.
- 4) DETAILED DESCRIPTION:  
Same as above
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:  
01
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
Reference point survey forms for segment.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

lbrivmi

**3) SINGLE LINE DESCRIPTION:**

Rivermile at lower boundary of stream segment

**4) DETAILED DESCRIPTION:**

Same as above

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Real

**7) EXAMPLE OF DATA:**

14.2

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

**10) DATA SOURCE:**

WDF stream catalog, WARUS

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

lbrng

**3) SINGLE LINE DESCRIPTION:**

Range in which downstream segment boundary is located.

**4) DETAILED DESCRIPTION:**

Same as above.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 3

**7) EXAMPLE OF DATA:**

5E

**8) CODE DESCRIPTIONS (if applicable):**

E-East

W=West

**9) VALID DATA RANGE (if applicable):**

n/a

**10) DATA SOURCE:**

Maps displaying township, range, sections and streams network.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

1) PROJECT IDENTIFIER:

TFW-92-am

2) DATA ITEM NAME:

lbsec

3) SINGLE LINE DESCRIPTION:

Section in which downstream segment boundary is located.

4) DETAILED DESCRIPTION:

Same as above

5) UNITS OF DATA MEASUREMENT:

n/a

6) FIELD FORMAT AND LENGTH

Text: 2

7) EXAMPLE OF DATA:

31

8) CODE DESCRIPTIONS (if applicable):

n/a

9) VALID DATA RANGE (if applicable):

01-36

10) DATA SOURCE:

Maps displaying township, range, sections, and the stream network

11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

12) FORM WHERE USED:

Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
lbtwn
- 3) SINGLE LINE DESCRIPTION:  
Township in which downstream segment boundary is located.
- 4) DETAILED DESCRIPTION:  
Same as above
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 3
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
n=North
- 9) VALID DATA RANGE (if applicable):  
n/a
- 10) DATA SOURCE:  
Maps displaying township, range, and sections and stream network
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

lenabch

**3) SINGLE LINE DESCRIPTION:**

Length above channel

**4) DETAILED DESCRIPTION:**

The length of each LWD piece outside of the bankfull channel (Zone 3 and 4). Note: measurement of pieces that do not at least partially intrude into Zone 1 or 2 optional. Measured using procedures in 1992 LWD survey module.

**5) UNITS OF DATA MEASUREMENT:**

Meters

**6) FIELD FORMAT AND LENGTH**

Real

**7) EXAMPLE OF DATA:**

9.5

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

The length above channel is computed for each LWD piece by summing the lengths in Zone 3 and 4 during data analysis.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 42

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) **PROJECT IDENTIFIER:**  
TFW-92-am
- 2) **DATA ITEM NAME:**  
leninch
- 3) **SINGLE LINE DESCRIPTION:**  
Length of LWD in channel
- 4) **DETAILED DESCRIPTION:**  
The length of the LWD piece influencing the bankfull channel (Zone 1 or 2).  
Determined using procedures in 1992 LWD survey module.
- 5) **UNITS OF DATA MEASUREMENT:**  
Meters
- 6) **FIELD FORMAT AND LENGTH**  
Real
- 7) **EXAMPLE OF DATA:**  
3.6
- 8) **CODE DESCRIPTIONS (if applicable):**  
n/a
- 9) **VALID DATA RANGE (if applicable):**  
0-infinity
- 10) **DATA SOURCE:**  
the in-channel length of each LWD piece is computed by summing the lengths in  
Zone 1 and Zone 2 during data analysis.
- 11) **RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) **FORM WHERE USED:**  
Form 42

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
len52
- 3) SINGLE LINE DESCRIPTION:  
Length of large log jam
- 4) DETAILED DESCRIPTION:  
The length of the log jam is measured using procedures in the 1992 LWD survey module.
- 5) UNITS OF DATA MEASUREMENT:  
Meters
- 6) FIELD FORMAT AND LENGTH  
Real
- 7) EXAMPLE OF DATA:  
10.7
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
Measurements are recorded on the large log jam survey form by the survey crew
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
From 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

1) PROJECT IDENTIFIER:

TFW-92-am

2) DATA ITEM NAME:

lgpcs

3) SINGLE LINE DESCRIPTION:

Large (>50 cmdia) logs

4) DETAILED DESCRIPTION:

The number of large logs (>50 cmdia) in the large log jam that intrude into Zone 1, 2 or 3. See procedure in 1992 LWD survey module.

5) UNITS OF DATA MEASUREMENT:

n/a

6) FIELD FORMAT AND LENGTH

Integer

7) EXAMPLE OF DATA:

13

8) CODE DESCRIPTIONS (if applicable):

n/a

9) VALID DATA RANGE (if applicable):

0-infinity

10) DATA SOURCE:

Number of pieces is recorded on the large log jam survey form by the survey crew.

11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

12) FORM WHERE USED:

Form 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

logdiam

**3) SINGLE LINE DESCRIPTION:**

log diameter

**4) DETAILED DESCRIPTION:**

The diameter of the log or rootwad, measured using procedures in the 1992 LWD survey module.

**5) UNITS OF DATA MEASUREMENT:**

cm

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

95

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Data recorded on level 2 LWD survey form by survey crew.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 42

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

1) PROJECT IDENTIFIER:

TFW-92-am

2) DATA ITEM NAME:

loglen

3) SINGLE LINE DESCRIPTION:

Total length of LWD piece

4) DETAILED DESCRIPTION:

The total length of the LWD piece, computed by summing the lengths in Zones 1, 2, 3 and 4.

5) UNITS OF DATA MEASUREMENT:

Meters

6) FIELD FORMAT AND LENGTH

Real

7) EXAMPLE OF DATA:

12.3

8) CODE DESCRIPTIONS (if applicable):

n/a

9) VALID DATA RANGE (if applicable):

0-infinity

10) DATA SOURCE:

The total length is computed for each piece by summing the lengths in Zone 1-4 during data analysis.

11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

12) FORM WHERE USED:

Form 42

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

mdpcs

**3) SINGLE LINE DESCRIPTION:**

Medium (20-50 cmdia) logs

**4) DETAILED DESCRIPTION:**

The number of medium logs (10-20cmdia) in the large log jam that intrude into Zone 1,2 or 3. See procedure in 1992 LWD survey module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

25

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Number p pieces is recorded on the large log jam survey form by the survey crew.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
pcno
- 3) SINGLE LINE DESCRIPTION:  
LWD piece number
- 4) DETAILED DESCRIPTION:  
Unique number assigned to each qualifying piece of LWD during the level 2 LWD survey. Pieces numbered consecutively.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:  
12
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
Numbers assigned by survey crew and recorded on Level 2 LWD survey form
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 42

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

pctype

**3) SINGLE LINE DESCRIPTION:**

Type of LWD piece.

**4) DETAILED DESCRIPTION:**

LWD are classified as logs or rootwads, using criteria in the 1992 LWD survey module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 1

**7) EXAMPLE OF DATA:**

L, R

**8) CODE DESCRIPTIONS (if applicable):**

L=Log

R=Rootwad

**9) VALID DATA RANGE (if applicable):**

L or R

**10) DATA SOURCE:**

Data recorded on Level 2 LWD survey form by survey crew.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 42

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
poolfnc
- 3) SINGLE LINE DESCRIPTION:  
Pool forming function
- 4) DETAILED DESCRIPTION:  
Each piece of LWD is evaluated to determine if it contributes to the formation of a pool, as described in 1992 LWD survey module.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 1
- 7) EXAMPLE OF DATA:  
Y, N
- 8) CODE DESCRIPTIONS (if applicable):  
Y=Yes  
N=No
- 9) VALID DATA RANGE (if applicable):  
N, Y
- 10) DATA SOURCE:  
Observations recorded on Level 2 LWD survey form by survey crew.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 42

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

poolfnc5

**3) SINGLE LINE DESCRIPTION:**

Pool forming function

**4) DETAILED DESCRIPTION:**

Each large log jam is evaluated to determine if it contributes to formation of a pool, using the procedures in the 1992 LWD survey module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 1

**7) EXAMPLE OF DATA:**

N, Y

**8) CODE DESCRIPTIONS (if applicable):**

Y=Yes

N=No

**9) VALID DATA RANGE (if applicable):**

N, Y

**10) DATA SOURCE:**

Observations are recorded on the large log jam survey form by the survey crew.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

June 1993

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

Pool 1, Pool 2, Pool 3, Pool 4, Pool 5, Pool 6, Pool 7, Pool 8, Pool 9, Pool 10, Pool 11, Pool 12

**3) SINGLE LINE DESCRIPTION:**

Pool Forming Obstruction

**4) DETAILED DESCRIPTION:**

Code identify factors associated with formation of each pool unit. Description of codes in 1992 Habitat Unit survey module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 1

**7) EXAMPLE OF DATA:**

X

**8) CODE DESCRIPTIONS (if applicable):**

1=log(s)

2=rootwad(s)

3=debris jam

4=roots of standing trees or stumps

5=rock(s)/boulder(s)

6=bedrock outcrop

7=channel bedform

8=erosion-resistant banks

9=artificial bank protection

10=beaver dam

11=other

12=not indicated

**9) VALID DATA RANGE (if applicable):**

n/a

**10) DATA SOURCE:**

Observation of pool forming obstruction made by survey crew and recorded on habitat unit survey form.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

12) FORM WHERE USED:  
Form 3b

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
records2
- 3) SINGLE LINE DESCRIPTION:  
Initials of the data recorder
- 4) DETAILED DESCRIPTION:  
Initials of the first and last name of the data recorder.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 3
- 7) EXAMPLE OF DATA:  
BN
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
n/a
- 10) DATA SOURCE:  
Cooperators
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

refpt2

**3) SINGLE LINE DESCRIPTION:**

Number identifying the reference point.

**4) DETAILED DESCRIPTION:**

Each reference point in a segment is given a unique reference point number, assigned progressively from RPO at the segment boundary.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

integer

**7) EXAMPLE OF DATA:**

001

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

000-999

**10) DATA SOURCE:**

Reference point numbers are assigned by surveyor and recorded on the reference point survey form.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 2

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

refpt3dn

**3) SINGLE LINE DESCRIPTION:**

Downstream reference point number.

**4) DETAILED DESCRIPTION:**

The number of the nearest reference point in a downstream direction from the habitat unit.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

10

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Downstream reference point number is determined by the survey crew and recorded on Form 3b.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 3b

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
rollno
- 3) SINGLE LINE DESCRIPTION:  
Number identify roll of film being used.
- 4) DETAILED DESCRIPTION:  
Each roll of film is assigned a two digit identification number.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 3
- 7) EXAMPLE OF DATA:  
002
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
000-999
- 10) DATA SOURCE:  
Roll numbers are assigned by surveyors and recorded on reference point survey forms.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 2

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

rpt2bank

**3) SINGLE LINE DESCRIPTION:**

Indicated side of the channel the reference point is on.

**4) DETAILED DESCRIPTION:**

The side of the channel is noted as being on left bank or right bank as viewed facing downstream.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 2

**7) EXAMPLE OF DATA:**

LB

**8) CODE DESCRIPTIONS (if applicable):**

RB=Right bank

LB=Left bank

**9) VALID DATA RANGE (if applicable):**

LB, RB.

**10) DATA SOURCE:**

Determined by surveyor and entered on reference point survey form.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 2

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

rtwads

**3) SINGLE LINE DESCRIPTION:**

Qualifying rootwads

**4) DETAILED DESCRIPTION:**

The number of qualifying rootwads (>20cmdia) in the large log jam that intrude into zone 1, 2, 3. See procedure in 1992 LWD survey module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

8

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Number of rootwads is recorded on the large log jam survey form by the survey crew.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

segno

**3) SINGLE LINE DESCRIPTION:**

The stream segment identification number.

**4) DETAILED DESCRIPTION:**

Streams are divided into discrete segments based on gradient, confinement and tributary confluences. A unique three-digit number is assigned to each segment.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 3

**7) EXAMPLE OF DATA:**

001

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

001-999

**10) DATA SOURCE:**

Numbers assigned by cooperators

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1, 2 3b, 41, 42, 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
smpcs
- 3) SINGLE LINE DESCRIPTION:  
Small (10-20 cmdia) logs
- 4) DETAILED DESCRIPTION:  
The number of small logs (10-20 cmdia) in the large log jams that intrude into Zone 1, 2 and 3. See procedure in 1992 LWD survey module.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:  
25
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-99
- 10) DATA SOURCE:  
Number of pieces is recorded on the large log jam survey form by the survey crew.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

stabl

**3) SINGLE LINE DESCRIPTION:**

Stability factors for LWD

**4) DETAILED DESCRIPTION:**

Each piece of LWD is evaluated for 3 stability factors. Surveyors note if the piece is buried, pinned or has roots, as per 1992 LWD survey module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 3

**7) EXAMPLE OF DATA:**

R, B, P

**8) CODE DESCRIPTIONS (if applicable):**

B-buried

P=pinned

R=root system

U=undetermined

**9) VALID DATA RANGE (if applicable):**

B, P, R, U

**10) DATA SOURCE:**

Observations recorded on level 2 LWD survey form by survey crew.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 42

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

stname

**3) SINGLE LINE DESCRIPTION:**

stream name.

**4) DETAILED DESCRIPTION:**

Name of the stream being surveyed.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 25

**7) EXAMPLE OF DATA:**

Kennedy Cr.

**8) CODE DESCRIPTIONS (if applicable):**

Cr.=Creek

R.=River

**9) VALID DATA RANGE (if applicable):**

**10) DATA SOURCE:**

Maps, WDF Stream catalog

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1, 3b, 41, 42, 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
stord
- 3) SINGLE LINE DESCRIPTION:  
Steam order.
- 4) DETAILED DESCRIPTION:  
Streamorder based on the strahler stream ordering system.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 1
- 7) EXAMPLE OF DATA:  
04
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
01-99
- 10) DATA SOURCE:  
derived from USGS 7.5' or 15' topo maps
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

thalwlen

**3) SINGLE LINE DESCRIPTION:**

Thalweg length

**4) DETAILED DESCRIPTION:**

Length of thalweg determined by summing the individual lengths of category 1 units in the segment, using data from Habitat unit survey module.

**5) UNITS OF DATA MEASUREMENT:**

Meters

**6) FIELD FORMAT AND LENGTH**

Real

**7) EXAMPLE OF DATA:**

1141.5

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Calculation made in AMBMON database by summing the individual unit lengths of all category 1 units in the segment.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 3b

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
trib
- 3) SINGLE LINE DESCRIPTION:  
Code number for unlisted tributary
- 4) DETAILED DESCRIPTION:  
This is a three digit number assigned to unlisted tributaries that do not have an assigned WRIA number.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 3
- 7) EXAMPLE OF DATA:  
003
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
000-999
- 10) DATA SOURCE:  
Assigned by cooperator using procedures in the segment identification module.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1, 41, 42, 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

ubbank

**3) SINGLE LINE DESCRIPTION:**

Describes the side of the channel on which the upper boundary reference point is located.

**4) DETAILED DESCRIPTION:**

The side of the channel is determined by facing downstream.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 2

**7) EXAMPLE OF DATA:**

LB

**8) CODE DESCRIPTIONS (if applicable):**

LB=left bank

RB=right bank

**9) VALID DATA RANGE (if applicable):**

LB or RB

**10) DATA SOURCE:**

Reference point survey form for segment.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

June 1993

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
ubelev
- 3) SINGLE LINE DESCRIPTION:  
Elevation of the upper segment boundary.
- 4) DETAILED DESCRIPTION:  
Same as above.
- 5) UNITS OF DATA MEASUREMENT:  
Feet or meters.
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:  
1200
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0000-9999
- 10) DATA SOURCE:  
USGS Topo maps
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

ubelevu

**3) SINGLE LINE DESCRIPTION:**

Units of measurement of upper segment boundary elevation.

**4) DETAILED DESCRIPTION:**

Describes if upper boundary elevation is recorded in feet or meters.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 1

**7) EXAMPLE OF DATA:**

**8) CODE DESCRIPTIONS (if applicable):**

F=feet

M=meters

**9) VALID DATA RANGE (if applicable):**

F or M

**10) DATA SOURCE:**

Legend of maps from which elevation is taken.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
ublatdeg
- 3) SINGLE LINE DESCRIPTION:  
Latitude measured in degrees of the upper segment boundary location.
- 4) DETAILED DESCRIPTION:  
Same as above.
- 5) UNITS OF DATA MEASUREMENT:  
Degrees of latitude.
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
Maps showing latitude, longitude and the stream network or GPS.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

ublatmin

**3) SINGLE LINE DESCRIPTION:**

Latitude measured in minutes of the upper segment boundary location.

**4) DETAILED DESCRIPTION:**

Same as above.

**5) UNITS OF DATA MEASUREMENT:**

Minutes of latitude

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

**10) DATA SOURCE:**

Maps showing latitude, longitude and stream network or GPS.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
ublatsec
- 3) SINGLE LINE DESCRIPTION:  
Latitude measured in seconds of the upper segment boundary location.
- 4) DETAILED DESCRIPTION:  
Same as above.
- 5) UNITS OF DATA MEASUREMENT:  
Seconds of latitude.
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
Maps showing latitude, longitude and the stream network or GPS.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
ublondeg
- 3) SINGLE LINE DESCRIPTION:  
Longitude in degrees of the upper segment boundary.
- 4) DETAILED DESCRIPTION:  
Same as above.
- 5) UNITS OF DATA MEASUREMENT:  
Degrees of longitude
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
Maps showing latitude, longitude and stream network or GPS.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
ublonmin
- 3) SINGLE LINE DESCRIPTION:  
Longitude in minutes of the upper segment boundary.
- 4) DETAILED DESCRIPTION:  
Same as above.
- 5) UNITS OF DATA MEASUREMENT:  
Minutes of longitude.
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
Maps showing latitude, longitude and stream network or GPS.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

ublonsec

**3) SINGLE LINE DESCRIPTION:**

Longitude measured in seconds of the upper segment boundary.

**4) DETAILED DESCRIPTION:**

Same as above.

**5) UNITS OF DATA MEASUREMENT:**

Seconds of longitude.

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

**10) DATA SOURCE:**

Maps showing latitude, longitude and stream network or GPS.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
ubqtrl
- 3) SINGLE LINE DESCRIPTION:  
The quarter of the quarter section in which the upstream segment boundary is located.
- 4) DETAILED DESCRIPTION:  
Same as above.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 2
- 7) EXAMPLE OF DATA:  
SW
- 8) CODE DESCRIPTIONS (if applicable):  
NW=Northwest  
NE=Northeast  
SW=Southwest  
SE=Southeast
- 9) VALID DATA RANGE (if applicable):  
n/a
- 10) DATA SOURCE:  
Maps displaying township, range, section and the stream networks.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

June 1993

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
ubqtr2
- 3) SINGLE LINE DESCRIPTION:  
The quarter of the section in which the upstream segment boundary is located.
- 4) DETAILED DESCRIPTION:  
Same as above.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 2
- 7) EXAMPLE OF DATA:  
SW
- 8) CODE DESCRIPTIONS (if applicable):  
NW=Northwest  
NE=Northeast  
SW=Southwest  
SE=Southeast
- 9) VALID DATA RANGE (if applicable):  
n/a
- 10) DATA SOURCE:  
Maps displaying township, range, section and stream network.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
ubrefpt
- 3) SINGLE LINE DESCRIPTION:  
The number of the reference point located at the upper boundary of the segment.
- 4) DETAILED DESCRIPTION:  
Same as above.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:  
01
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
Reference point survey forms for segment.
- 10) DATA SOURCE:  
Form 1
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
ubrivmi
- 3) SINGLE LINE DESCRIPTION:  
Rivermile at the upper boundary of the stream segment.
- 4) DETAILED DESCRIPTION:  
Same as above.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Real
- 7) EXAMPLE OF DATA:  
14.2
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):
- 10) DATA SOURCE:  
WDF stream catalog.WARUS
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
ubrng
- 3) SINGLE LINE DESCRIPTION:  
Range in which upstream segment boundary is located.
- 4) DETAILED DESCRIPTION:  
Same as above.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 3
- 7) EXAMPLE OF DATA:  
5E
- 8) CODE DESCRIPTIONS (if applicable):  
E=East  
W=West
- 9) VALID DATA RANGE (if applicable):  
n/a
- 10) DATA SOURCE:  
Maps displaying township, range, sections, and stream network.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
ubsec
- 3) SINGLE LINE DESCRIPTION:  
Section in which upstream segment boundary is located.
- 4) DETAILED DESCRIPTION:  
Same as above.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 2
- 7) EXAMPLE OF DATA:  
31
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
01-36
- 10) DATA SOURCE:  
Maps displaying township, range, sections, and the stream network.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
ubtwn
- 3) SINGLE LINE DESCRIPTION:  
Township in which upstream segment boundary is located.
- 4) DETAILED DESCRIPTION:  
Same as above.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 3
- 7) EXAMPLE OF DATA:
- 8) CODE DESCRIPTIONS (if applicable):  
N=North
- 9) VALID DATA RANGE (if applicable):  
n/a
- 10) DATA SOURCE:  
Maps displaying township, range, section and stream network.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 1

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

unitcat

**3) SINGLE LINE DESCRIPTION:**

Unit Category

**4) DETAILED DESCRIPTION:**

Units are placed in one of three categories depending on their location in the channel. Primary units are 750 of channel width; secondary units are (50% and side channel are separated by islands, as described in the 1992 Habitat unit survey module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 1

**7) EXAMPLE OF DATA:**

1

**8) CODE DESCRIPTIONS (if applicable):**

1=primary unit

2=secondary unit

3=side channel

**9) VALID DATA RANGE (if applicable):**

1-3

**10) DATA SOURCE:**

Unit category determinations are made by field survey crew and recorded on Habitat unit survey form.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 3b

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

unitno

**3) SINGLE LINE DESCRIPTION:**

Habitat unit number.

**4) DETAILED DESCRIPTION:**

A unique number assigned to habitat units assigned sequentially to units as they are encountered.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

001

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Unit numbers are assigned by the survey crew and recorded on the Habitat unit survey form.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 3b

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

unttype

**3) SINGLE LINE DESCRIPTION:**

Unit type

**4) DETAILED DESCRIPTION:**

A alpha code indicating the type of habitat unit identified. Unit types identified using criteria in the 1992 Habitat survey module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 1

**7) EXAMPLE OF DATA:**

P

**8) CODE DESCRIPTIONS (if applicable):**

P=pool

R=riffle

C=cascade

T=tailcut

O=obscured

S=sub-surface flow

W=wetland

**9) VALID DATA RANGE (if applicable):**

Units are identified by field survey crew and the unit type is recorded on Form 3b.

**10) DATA SOURCE:**

Form 3b

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 3b

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
untwid
- 3) SINGLE LINE DESCRIPTION:  
Habitat unit width.
- 4) DETAILED DESCRIPTION:  
Average width of the habitat unit calculated from 1 or more measurements of unit width. Procedure assembled in 1992 Habitat unit survey module.
- 5) UNITS OF DATA MEASUREMENT:  
Meters
- 6) FIELD FORMAT AND LENGTH  
Real
- 7) EXAMPLE OF DATA:  
4.5
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
Unit width measurements made by survey crew, averaged, and entered on habitat unit survey form
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 3b

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
unt3len
- 3) SINGLE LINE DESCRIPTION:  
Habitat unit length
- 4) DETAILED DESCRIPTION:  
The measured length of the habitat unit. Measurement process described in the 1992 Habitat unit survey module.
- 5) UNITS OF DATA MEASUREMENT:  
Meters
- 6) FIELD FORMAT AND LENGTH  
Real
- 7) EXAMPLE OF DATA:  
13.6
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
Unit lengths are recorded by the survey crew and recorded on the habitat unit survey form
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 3b

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
unt3mpd
- 3) SINGLE LINE DESCRIPTION:  
Maximum pool depth.
- 4) DETAILED DESCRIPTION:  
Measurement of maximum water depth in pool units only.
- 5) UNITS OF DATA MEASUREMENT:  
Meters
- 6) FIELD FORMAT AND LENGTH  
Real
- 7) EXAMPLE OF DATA:  
1.35
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
Maximum pool depth is measured by the survey crew and recorded on the habitat unity survey form.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
From 3b

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

1) PROJECT IDENTIFIER:

TFW-92-am

2) DATA ITEM NAME:

unt3outd

3) SINGLE LINE DESCRIPTION:

Pool outlet depth

4) DETAILED DESCRIPTION:

The measured depth of the pool outlet at the downstream riffle crest or control structure. Procedure described in 1992 Habitat unit survey module.

5) UNITS OF DATA MEASUREMENT:

Meters

6) FIELD FORMAT AND LENGTH

Real

7) EXAMPLE OF DATA:

0.25

8) CODE DESCRIPTIONS (if applicable):

n/a

9) VALID DATA RANGE (if applicable):

0-infinity

10) DATA SOURCE:

Pool outlet depth is measured by survey crews and recorded on the Habitat unit survey form.

11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

12) FORM WHERE USED:

Form 3b

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

unt3rpd

**3) SINGLE LINE DESCRIPTION:**

Residual pool depth

**4) DETAILED DESCRIPTION:**

Residual pool depth is a discharge-independent measure of pool depth calculated by subtracting pool outlet depth from maximum pool depth. Procedure similar to Lisle, 1987.

**5) UNITS OF DATA MEASUREMENT:**

Meters

**6) FIELD FORMAT AND LENGTH**

Real

**7) EXAMPLE OF DATA:**

1.10

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Calculation performed in AMBMON database by subtracting pool outlet depth from maximum pool depth.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

upframe

**3) SINGLE LINE DESCRIPTION:**

Frame number of upstream photo.

**4) DETAILED DESCRIPTION:**

Frame number of photographs taken in the center of the channel at the reference point in an upstream direction.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 2

**7) EXAMPLE OF DATA:**

01

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

00-99

**10) DATA SOURCE:**

Frame numbers are displayed on camera and recorded by surveyors on reference point survey form

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 2

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

wid52

**3) SINGLE LINE DESCRIPTION:**

Width of the large log jam.

**4) DETAILED DESCRIPTION:**

The average width of the large log jam is determined using procedures in the 1992 LWD survey module.

**5) UNITS OF DATA MEASUREMENT:**

Meters

**6) FIELD FORMAT AND LENGTH**

Real

**7) EXAMPLE OF DATA:**

1.5

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Measurements are recorded on the large log jam survey form by the survey crew.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
woodtype
- 3) SINGLE LINE DESCRIPTION:  
Type of wood
- 4) DETAILED DESCRIPTION:  
Pieces are classified as coniferous, deciduous or unknown.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Text: 1
- 7) EXAMPLE OF DATA:  
C, D, U
- 8) CODE DESCRIPTIONS (if applicable):  
C=Coniferous  
D=Deciduous  
U=Unknown
- 9) VALID DATA RANGE (if applicable):  
C, D, U
- 10) DATA SOURCE:  
Wood type is recorded on the level 2 LWD survey form by the survey crew.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 42

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

wria

**3) SINGLE LINE DESCRIPTION:**

Water Resource Inventory Number

**4) DETAILED DESCRIPTION:**

The water resource inventory number is a unique six-digit number for each stream in the state. The first two digits identify the basin, the next four digits identify the stream, and an optional letter identifies sidechannels, sloughs etc.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 8

**7) EXAMPLE OF DATA:**

13-0028

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

n/a

**10) DATA SOURCE:**

WDF Stream Catalog

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 1, 2, 3b, 41, 42, 52

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
zllen
- 3) SINGLE LINE DESCRIPTION:  
length in Zone 1
- 4) DETAILED DESCRIPTION:  
The length of the LWD piece intruding into channel Zone 1 (welled channel).  
Measured according to procedures in the 1992 LWD survey module.
- 5) UNITS OF DATA MEASUREMENT:  
Meters
- 6) FIELD FORMAT AND LENGTH  
Real
- 7) EXAMPLE OF DATA:  
1.5
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
Data recorded on level 12 LWD survey form by survey crew.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 42

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
zn1logs1
- 3) SINGLE LINE DESCRIPTION:  
Zone 1 logs 10-20 cm in diameter
- 4) DETAILED DESCRIPTION:  
Number of logs with diameters from 10-20 cm that intrude into Zone 1 based on zonation in LWD module, 1992
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:  
5
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
Level 1 LWD survey recorded on Level 1 LWD survey form
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
zn1logs2
- 3) SINGLE LINE DESCRIPTION:  
Zone 1 logs 20-50 cm in diameter
- 4) DETAILED DESCRIPTION:  
Number of logs with diameters from 20-5- cm that intrude into Zone 1, based on zonation system in LWD module, 1992.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:  
6
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
Level LWD survey recorded on Level 1 LWD survey form
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
zn1logs3
- 3) SINGLE LINE DESCRIPTION:  
Zone 1 logs > 50 cm in diameter
- 4) DETAILED DESCRIPTION:  
Number of logs with diameters > 50 cm that intrude into Zone 1, based on Zonation system in LWD module, 1992.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:  
9
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
Level LWD survey, recorded on Level 1 LWD survey form.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

znlwads

**3) SINGLE LINE DESCRIPTION:**

Zone 1 rootwads

**4) DETAILED DESCRIPTION:**

Number of rootwads in channel zone 1 based on channel zone system in 1992 LWD module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

2

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Level 1 LWD survey recorded on Level 1 LWD survey form by field crew.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
zn2len
- 3) SINGLE LINE DESCRIPTION:  
Length in Zone 2
- 4) DETAILED DESCRIPTION:  
The length of the LWD piece assigned to channel Zone 2. Determined using system in 1992 LWD survey module.
- 5) UNITS OF DATA MEASUREMENT:  
Meters
- 6) FIELD FORMAT AND LENGTH  
Real
- 7) EXAMPLE OF DATA:  
2.5
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
Measurements recorded on Level 2 LWD survey form by survey crew.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 42

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

zn2logs1

**3) SINGLE LINE DESCRIPTION:**

Zone 2 logs 10-20 cm in diameter

**4) DETAILED DESCRIPTION:**

Number of logs with diameters from 10-20 cm that intrude into Zone 2 (but not Zone ) based on zonation system in LWD module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

5

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Level 1 LWD survey recorded on Level 1 LWD survey form

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

zn2logs2

**3) SINGLE LINE DESCRIPTION:**

Zone 2 logs 20-50 cm in diameter

**4) DETAILED DESCRIPTION:**

Number of logs with diameters from 20-50 cm that intrude into Zone 2 (but not Zone 1), based on zonation system in LWD module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

7

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Level 1 LWD survey, recorded on level 1 LWD survey form

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

zn2logs3

**3) SINGLE LINE DESCRIPTION:**

Zone 2 logs > 50 cm in diameter

**4) DETAILED DESCRIPTION:**

Number of logs with diameters > 50 cm that intrude into Zone 2 (but not Zone 1), based on zonation system in LWD module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

10

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Level 1 LWD survey, recorded on Level 1 LWD survey form

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
zn2wads
- 3) SINGLE LINE DESCRIPTION:  
Zone 2 rootwads
- 4) DETAILED DESCRIPTION:  
Number of rootwads in channel zone 2 based on zonation in LWD module, 1992.
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:  
3
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
Level 1 LWD survey recorded on Level 1 LWD survey form by field crew.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

zn3len

**3) SINGLE LINE DESCRIPTION:**

Length in Zone 3

**4) DETAILED DESCRIPTION:**

The length of the LWD piece assigned to channel Zone 3. Measurements of pieces that do not also intrude into Zone 1 or 2 optional length in Zone 3 determined using procedures in 1992 LWD survey module.

**5) UNITS OF DATA MEASUREMENT:**

Meters

**6) FIELD FORMAT AND LENGTH**

Real

**7) EXAMPLE OF DATA:**

7.3

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Measurements recorded on Level 2 LWD survey form by survey crew.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 42

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

zn3logs1

**3) SINGLE LINE DESCRIPTION:**

Zone 3 logs 10-20 cm in diameter

**4) DETAILED DESCRIPTION:**

Number of logs with diameters from 10-20 cm that intrude into Zone 3 (but not Zone 1 or 2), based on zonation system in LWD module, 1992

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

5

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Level 1 LWD survey recorded on level 1 LWD survey form.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

zn3logs2

**3) SINGLE LINE DESCRIPTION:**

Zone 3 logs 20-50 cm in diameter

**4) DETAILED DESCRIPTION:**

Number of logs with diameters from 20-50 cm that intrude into Zone 3 (but not Zone 1 or 2), based on zonation system in LWD module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

8

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Level 1 LWD survey, recorded on Level 1 LWD survey form

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

zn3logs3

**3) SINGLE LINE DESCRIPTION:**

Zone 3 logs > 50 cm in diameter

**4) DETAILED DESCRIPTION:**

Number of logs with diameters > 50 cm that intrude into Zone 3 (but not Zone 1 or 2), base on zonation system in LWD module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Integer

**7) EXAMPLE OF DATA:**

11

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Level 1 LWD survey, recorded on Level 1 LWD survey form.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

- 1) PROJECT IDENTIFIER:  
TFW-92-am
- 2) DATA ITEM NAME:  
zn3wads
- 3) SINGLE LINE DESCRIPTION:  
Zone 3 rootwads
- 4) DETAILED DESCRIPTION:  
Number of rootwads in channel zone 3 based on zonation in LWD module, 1992
- 5) UNITS OF DATA MEASUREMENT:  
n/a
- 6) FIELD FORMAT AND LENGTH  
Integer
- 7) EXAMPLE OF DATA:  
4
- 8) CODE DESCRIPTIONS (if applicable):  
n/a
- 9) VALID DATA RANGE (if applicable):  
0-infinity
- 10) DATA SOURCE:  
Level 1 LWD survey recorded on the level LWD survey form by the field crew.
- 11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:  
TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission
- 12) FORM WHERE USED:  
Form 41

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY  
June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

zn4len

**3) SINGLE LINE DESCRIPTION:**

Length in Zone 4.

**4) DETAILED DESCRIPTION:**

The length of the LWD piece assigned to channel zone 4. Only pieces that also intrude into Zone 1-3 are measured. Length in Zone 4 determined using procedures in 1992 LWD survey module.

**5) UNITS OF DATA MEASUREMENT:**

Meters

**6) FIELD FORMAT AND LENGTH**

Real

**7) EXAMPLE OF DATA:**

8.1

**8) CODE DESCRIPTIONS (if applicable):**

n/a

**9) VALID DATA RANGE (if applicable):**

0-infinity

**10) DATA SOURCE:**

Measurements recorded on Level 2 LWD survey form by survey crew.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 42

**TIMBER/FISH/WILDLIFE  
AMBIENT MONITORING PROGRAM  
DATA DICTIONARY**

**June 1993**

**1) PROJECT IDENTIFIER:**

TFW-92-am

**2) DATA ITEM NAME:**

zone

**3) SINGLE LINE DESCRIPTION:**

Channel zone of large log jam

**4) DETAILED DESCRIPTION:**

The furthest channel zone into which the large log jam intrudes, determined using the procedure in the 1992 LWD survey module.

**5) UNITS OF DATA MEASUREMENT:**

n/a

**6) FIELD FORMAT AND LENGTH**

Text: 1

**7) EXAMPLE OF DATA:**

1, 2, 3

**8) CODE DESCRIPTIONS (if applicable):**

1=Zone 1

2=Zone 2

3=Zone 3

**9) VALID DATA RANGE (if applicable):**

1, 2, 3

**10) DATA SOURCE:**

Observations recorded on large log jam survey form by survey crew.

**11) RESPONSIBLE PERSON/ORGANIZATION FOR DATA:**

TFW Ambient Monitoring Program - Northwest Indian Fisheries Commission

**12) FORM WHERE USED:**

Form 52



**TIMBER/FISH/WILDLIFE PROCESS  
AMBIENT MONITORING PROGRAM**

**APPENDIX A**

**Tables in Ambient Monitoring  
Database**

**Northwest Indian Fisheries Commission  
June 1993**

Table: form1  
Read Password: No  
Modify Password: No

No lock(s)

Column definitions					
#	Name	Type	Length	Key	Expression
1	fileid	TEXT	2 characters		
2	date	DATE			
3	strname	TEXT	25 characters		
4	gradumc	TEXT	1 characters		
5	gradcat	TEXT	1 characters		
6	wria	TEXT	8 characters		
7	trib	TEXT	3 characters		
8	bank	TEXT	2 characters		
9	segno	TEXT	3 characters		
10	strord	TEXT	1 characters		
11	callers1	TEXT	3 characters		
12	callera1	TEXT	3 characters		
13	records2	TEXT	3 characters		
14	recorda2	TEXT	3 characters		
15	lbtwn	TEXT	3 characters		
16	lbrng	TEXT	3 characters		
17	lbsec	TEXT	2 characters		
18	lbqtr1	TEXT	2 characters		
19	lbqtr2	TEXT	2 characters		
20	lbelevu	TEXT	1 characters		
21	lbelev	INTEGER			
22	begroll	TEXT	3 characters		
23	begframe	TEXT	2 characters		
24	lbrefpt	INTEGER			
25	lbbank	TEXT	2 characters		
26	lbrivmi	REAL			
27	lblatdeg	INTEGER			
28	lblatmin	INTEGER			
29	lblatsec	INTEGER			
30	lblondeg	INTEGER			
31	lblonmin	INTEGER			
32	lblonsec	INTEGER			
33	ubtwn	TEXT	3 characters		
34	ubrng	TEXT	3 characters		
35	ubsec	TEXT	2 characters		
36	ubqtr1	TEXT	2 characters		
37	ubqtr2	TEXT	2 characters		
38	ubelevu	TEXT	1 characters		
39	ubelev	INTEGER			
40	endroll	TEXT	3 characters		
41	endframe	TEXT	2 characters		
42	ubrefpt	INTEGER			
43	ubbank	TEXT	2 characters		
44	ubrivmi	REAL			
45	ublatdeg	INTEGER			
46	ublatmin	INTEGER			
47	ublatsec	INTEGER			
48	ublondeg	INTEGER			
49	ublonmin	INTEGER			
50	ublonsec	INTEGER			
51	fldnotes	NOTE			

Current number of rows:

5

Table: form2  
Read Password: No  
Modify Password: No

No lock(s)

Column definitions

#	Name	Type	Length	Key	Expression
1	fileid	TEXT	2 characters		
2	date	DATE			
3	wria	TEXT	8 characters		
4	segno	TEXT	3 characters		
5	refpt2	INTEGER			
6	rpt2bank	TEXT	2 characters		
7	dist	INTEGER			
8	rollno	TEXT	3 characters		
9	upframe	TEXT	2 characters		
10	dwnframe	TEXT	2 characters		
11	bnkwidth	REAL			
12	bnkdepth	REAL			
13	canopy	INTEGER			
14	fldnote2	NOTE			

Current number of rows: 34

Table: form3b                      No lock(s)  
Read Password: No  
Modify Password: No

Column definitions

#	Name	Type	Length	Key	Expression
1	fileid	TEXT	2 characters		
2	date	DATE			
3	strname	TEXT	25 characters		
4	wria	TEXT	8 characters		
5	segno	TEXT	3 characters		
6	dischg	REAL			
7	gradumc	TEXT	1 characters		
8	gradcat	TEXT	1 characters		
9	unitno	INTEGER			
10	refpt3dn	INTEGER			
11	refpt3bk	TEXT	2 characters		
12	unttype	TEXT	1 characters		
13	unitcat	TEXT	1 characters		
14	unt3len	REAL			
15	unt3wid	REAL			
16	unt3mpd	REAL			
17	unt3outd	REAL			
18	unt3rpd	REAL			
19	pool1	TEXT	1 characters		
20	pool2	TEXT	1 characters		
21	pool3	TEXT	1 characters		
22	pool4	TEXT	1 characters		
23	pool5	TEXT	1 characters		
24	pool6	TEXT	1 characters		
25	pool7	TEXT	1 characters		
26	pool8	TEXT	1 characters		
27	pool9	TEXT	1 characters		
28	pool10	TEXT	1 characters		
29	pool11	TEXT	1 characters		
30	pool12	TEXT	1 characters		
31	fldnote3	NOTE			
32	thalwlen	REAL			

Current number of rows:        212

Table: form41                      No lock(s)  
Read Password: No  
Modify Password: No

Column definitions

#	Name	Type	Length	Key	Expression
1	fileid	TEXT	2 characters		
2	date	DATE			
3	strname	TEXT	25 characters		
4	gradumc	TEXT	1 characters		
5	gradcat	TEXT	1 characters		
6	wria	TEXT	8 characters		
7	trib	TEXT	3 characters		
8	bank	TEXT	2 characters		
9	segno	TEXT	3 characters		
10	begrivm1	REAL			
11	endrivm1	REAL			
12	dischg	REAL			
13	begrefpt	INTEGER			
14	endrefpt	INTEGER			
15	zn1wads	INTEGER			
16	zn2wads	INTEGER			
17	zn3wads	INTEGER			
18	zn1logs1	INTEGER			
19	zn2logs1	INTEGER			
20	zn3logs1	INTEGER			
21	zn1logs2	INTEGER			
22	zn2logs2	INTEGER			
23	zn3logs2	INTEGER			
24	zn1logs3	INTEGER			
25	zn2logs3	INTEGER			
26	zn3logs3	INTEGER			
27	fldnote4	NOTE			

Current number of rows:            0

Table: form42                      No lock(s)  
Read Password: No  
Modify Password: No

Column definitions

#	Name	Type	Length	Key	Expression
1	fileid	TEXT	2 characters		
2	date	DATE			
3	strname	TEXT	25 characters		
4	gradumc	TEXT	1 characters		
5	gradcat	TEXT	1 characters		
6	wria	TEXT	8 characters		
7	trib	TEXT	3 characters		
8	bank	TEXT	2 characters		
9	segno	TEXT	3 characters		
10	begrivmi	REAL			
11	endrivi	REAL			
12	dischg	REAL			
13	pcno	INTEGER			
14	dwnrefpt	INTEGER			
15	dwnbank	TEXT	2 characters		
16	pctype	TEXT	1 characters		
17	logdiam	INTEGER			
18	zn1len	REAL			
19	zn2len	REAL			
20	leninch	REAL			
21	zn3len	REAL			
22	zn4len	REAL			
23	lenabch	REAL			
24	loglen	REAL			
25	woodtype	TEXT	1 characters		
26	stabl	TEXT	3 characters		
27	poolfnc	TEXT	1 characters		

Current number of rows:    199

Table: form52  
Read Password: No  
Modify Password: No

No lock(s)

Column definitions

#	Name	Type	Length	Key	Expression
1	fileid	TEXT	2 characters		
2	date	DATE			
3	strname	TEXT	25 characters		
4	gradumc	TEXT	1 characters		
5	gradcat	TEXT	1 characters		
6	wria	TEXT	8 characters		
7	trib	TEXT	3 characters		
8	bank	TEXT	2 characters		
9	segno	TEXT	3 characters		
10	begrivmi	REAL			
11	endrivmi	REAL			
12	dischg	REAL			
13	jamno	INTEGER			
14	dwnrefpt	INTEGER			
15	refptbnk	TEXT	2 characters		
16	smpcs	INTEGER			
17	mdpcs	INTEGER			
18	lgpcs	INTEGER			
19	rtwads	INTEGER			
20	lgwads	INTEGER			
21	len52	REAL			
22	wid52	REAL			
23	hgt52	REAL			
24	zone	TEXT	1 characters		
25	zone1	TEXT	1 characters		
26	zone2	TEXT	1 characters		
27	zone3	TEXT	1 characters		
28	zone4	TEXT	1 characters		
29	poolfnc5	TEXT	1 characters		

Current number of rows: 5

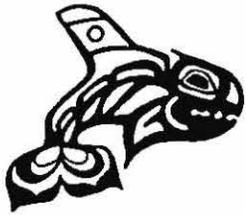
**TIMBER/FISH/WILDLIFE PROCESS  
AMBIENT MONITORING PROGRAM**

**APPENDIX B**

**Field Data Forms for 1990-91  
Forms: 1,2,3,41,& 42**

**Field Data Forms for 1993  
Forms: 1, 2, 31, 32, 4, & 5**

**Northwest Indian Fisheries Commission  
June 1993**



# VALLEY SEGMENT SUMMARY

1. Use this form once for each valley segment.
2. Note Access points in block provided.
3. Date indicates initial survey start date.
4. Refer to code reference sheet and field manual for codes and procedures.

Use a No. 2 pencil. Fill bubbles darkly and completely. Do not make stray marks. Page \_\_\_ of \_\_\_.

STREAM NAME																										
<input type="radio"/> CREEK													<input type="radio"/> RIVER													
A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J
K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z

DATE		
DAY	MONTH	
① ② ③	<input type="radio"/> MAY	
④ ⑤ ⑥	<input type="radio"/> JUNE	
⑦ ⑧ ⑨	<input type="radio"/> JULY	
⑩ ⑪ ⑫	<input type="radio"/> AUG	
⑬ ⑭ ⑮	<input type="radio"/> SEPT	
⑯ ⑰ ⑱	<input type="radio"/> OCT	
⑲ ⑳ ㉑	<input type="radio"/> NOV	
㉒ ㉓ ㉔	YEAR	
㉕ ㉖ ㉗		<input type="radio"/> 90
㉘ ㉙ ㉚		<input type="radio"/> 91
㉛		<input type="radio"/> 92
		<input type="radio"/> 93

VALLEY SEGMENT	
W ①	
V ②	
H ③	
U ④	
F ⑤	
⑥	
⑦	
⑧	
⑨	

DOW  
OZL  
MVC  
YRZ  
MVC

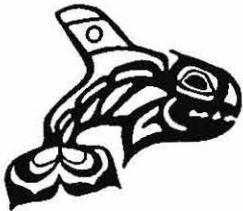
W.R.I.A NUMBER									
<input type="radio"/> UNLISTED									
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9

STREAM ORDER						
①						
②						
③						
④						
⑤						
⑥						
⑦						

SURVEYORS/AFFILIATIONS																			
CALLER																			
S1	A1	S2	A2	S3	A3														
A	A	0	0	A	A	0	0	A	A	0	0								
B	B	1	1	B	B	1	1	B	B	1	1								
C	C	2	2	C	C	2	2	C	C	2	2								
D	D	3	3	D	D	3	3	D	D	3	3								
E	E	4	4	E	E	4	4	E	E	4	4								
F	F	5	5	F	F	5	5	F	F	5	5								
G	G	6	6	G	G	6	6	G	G	6	6								
H	H	7	7	H	H	7	7	H	H	7	7								
I	I	8	8	I	I	8	8	I	I	8	8								
J	J	9	9	J	J	9	9	J	J	9	9								
K	K			K	K			K	K										
L	L			L	L			L	L										
M	M			M	M			M	M										
N	N			N	N			N	N										
O	O			O	O			O	O										
P	P			P	P			P	P										
Q	Q			Q	Q			Q	Q										
R	R			R	R			R	R										
S	S			S	S			S	S										
T	T			T	T			T	T										
U	U			U	U			U	U										
V	V			V	V			V	V										
W	W			W	W			W	W										
X	X			X	X			X	X										
Y	Y			Y	Y			Y	Y										
Z	Z			Z	Z			Z	Z										

**DESCRIPTION OF ACCESS AND REFERENCE TO TURNING POINTS:**





TFW Ambient Monitoring

# HORIZONTAL CONTROL SURVEY

1. Complete horizontal control survey (this form) and provide Mass Wasting and Substrate data (FORM 3) before starting habitat unit survey (FORM 4's).
2. Complete written header.
3. Refer to code reference sheet and field manual for codes and procedures.

FORM

Use a No. 2 pencil. Fill bubbles darkly and completely. Do not make stray marks.

Page \_\_\_ of \_\_\_.

STREAM NAME												
											(CIRCLE ONE ↓)	
												CREEK RIVER

DATE		
MO.	DAY	YR.

VALLEY SEGMENT

W.R.I.A. NUMBER
<input type="radio"/> UNLISTED

UNITS
(CIRCLE ONE)
FEET
METERS

DISCHARGE
(CIRCLE ONE ↓)
MEAS EST

TURNING POINTS			
"n"		"n + 1"	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LEFT BANK	LEFT BANK	LEFT BANK	LEFT BANK
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
RIGHT BANK	RIGHT BANK	RIGHT BANK	RIGHT BANK

AZIMUTH
(0-359)
<input type="radio"/>
MAGNETIC
<input type="radio"/>
TRUE

GRADIENT (%)
<input type="radio"/>
<.5

PHOTOGRAPHS	
ROLL	FRAME

DISTANCE			
TP n		TP n + 1	

BANKFULL			
WIDTH		DEPTH	

TURNING POINTS			
"n + 2"		"n + 3"	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LEFT BANK	LEFT BANK	LEFT BANK	LEFT BANK
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
RIGHT BANK	RIGHT BANK	RIGHT BANK	RIGHT BANK

AZIMUTH
(0-359)
<input type="radio"/>
MAGNETIC
<input type="radio"/>
TRUE

GRADIENT (%)
<input type="radio"/>
<.5

PHOTOGRAPHS	
ROLL	FRAME

DISTANCE			
TP n + 2		TP n + 3	

BANKFULL			
WIDTH		DEPTH	

USE A NO. 2 PENCIL. Fill bubbles darkly and completely. Do not make stray marks.

TURNING POINTS							
"n + 4"		"n + 5"					
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9

LEFT BANK      LEFT BANK  
RIGHT BANK      RIGHT BANK

AZIMUTH			
(0-359)			
0	0	0	MAGNETIC
1	1	1	
2	2	2	TRUE
3	3	3	
4	4	4	
5	5	5	
6	6	6	
7	7	7	
8	8	8	
9	9	9	

GRADIENT (%)			
0	0	0	<.5
1	1	5	
2	2		
3	3		
4	4		
5	5		
6	6		
7	7		
8	8		
9	9		

PHOTOGRAPHS			
ROLL		FRAME	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

DISTANCE			
TP n + 4		TP n + 5	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

BANKFULL			
WIDTH		DEPTH	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

TURNING POINTS							
"n + 6"		"n + 7"					
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9

LEFT BANK      LEFT BANK  
RIGHT BANK      RIGHT BANK

AZIMUTH			
(0-359)			
0	0	0	MAGNETIC
1	1	1	
2	2	2	TRUE
3	3	3	
4	4	4	
5	5	5	
6	6	6	
7	7	7	
8	8	8	
9	9	9	

GRADIENT (%)			
0	0	0	<.5
1	1	5	
2	2		
3	3		
4	4		
5	5		
6	6		
7	7		
8	8		
9	9		

PHOTOGRAPHS			
ROLL		FRAME	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

DISTANCE			
TP n + 6		TP n + 7	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

BANKFULL			
WIDTH		DEPTH	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

TURNING POINTS							
"n + 8"		"n + 9"					
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9

LEFT BANK      LEFT BANK  
RIGHT BANK      RIGHT BANK

AZIMUTH			
(0-359)			
0	0	0	MAGNETIC
1	1	1	
2	2	2	TRUE
3	3	3	
4	4	4	
5	5	5	
6	6	6	
7	7	7	
8	8	8	
9	9	9	

GRADIENT (%)			
0	0	0	<.5
1	1	5	
2	2		
3	3		
4	4		
5	5		
6	6		
7	7		
8	8		
9	9		

PHOTOGRAPHS			
ROLL		FRAME	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

DISTANCE			
TP n + 8		TP n + 9	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

BANKFULL			
WIDTH		DEPTH	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9





# MASS WASTING AND SUBSTRATE

1. Indicate Turning Points adjacent to each Mass Wasting site or Bank Cutting site.
2. Refer to code reference sheet and field manual for codes and procedures.
3. Continue on additional FORM 3's as needed.

Use a No. 2 pencil. Fill bubbles darkly and completely. Do not make stray marks.

Page \_\_\_\_ of \_\_\_\_.

STREAM NAME											
(CIRCLE ONE ↓)											
<input type="checkbox"/>											
											CREEK RIVER

DATE		
MO.	DAY	YR.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VALLEY SEGMENT
<input type="checkbox"/>

W.R.I.A. NUMBER					
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/> UNLISTED					

UNITS
(CIRCLE ONE)
<input type="checkbox"/> FEET
<input type="checkbox"/> METERS

DISCHARGE					
(CIRCLE ONE ↓)					
<input type="checkbox"/>					
MEAS EST					

MASS WASTING											
TURNING POINTS		LENGTH	WIDTH	TURNING POINTS		LENGTH	WIDTH	TURNING POINTS		LENGTH	WIDTH
DOWNST.	UPST.			DOWNST.	UPST.			DOWNST.	UPST.		
<input type="checkbox"/>											
<input type="checkbox"/>											
<input type="checkbox"/>											
<input type="checkbox"/>											
<input type="checkbox"/>											
<input type="checkbox"/>											
<input type="checkbox"/>											
<input type="checkbox"/>											
<input type="checkbox"/>											
<input type="checkbox"/>											
<input type="checkbox"/>											
<input type="checkbox"/>											
<input type="checkbox"/>											
<input type="checkbox"/>											
<input type="checkbox"/>											

STREAM BANK CUTTING								
TURNING POINTS		LENGTH	TURNING POINTS		LENGTH	TURNING POINTS		LENGTH
DOWNST.	UPST.		DOWNST.	UPST.		DOWNST.	UPST.	
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								
<input type="checkbox"/>								

2. Particle class codes are described on code-reference sheet.
3. Use mid-point, or B-axis, for particle class assignment.
4. Refer to code reference sheet and field manual for codes and procedures.

Use a No. 2 pencil. Fill bubbles darkly and completely. Do not make stray marks.

TURNING POINTS							
DOWNST.				UPST.			
0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9

SUBSTRATE CHARACTERIZATION (PEBBLE COUNT — 100 PARTICLES)																																																				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50			
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

RIFFLE EMBED.
<input type="radio"/> <5%
<input type="radio"/> 5-25%
<input type="radio"/> 25-50%
<input type="radio"/> 50-75%
<input type="radio"/> >75%

51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100					
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	

NOTES (Mass wasting, etc.):



TFW Ambient Monitoring  
**HABITAT UNIT DATA**

1. Use this form when beginning a survey of a new valley segment OR as the first form used each day to complete the survey of the valley segment.
2. Assign new date each day.
3. Continue recording habitat unit data on FORM 4B.
4. Measure depths to nearest 0.1 feet or 0.01 meters.
5. For paired units, the second record is used for actual measurements.
6. Refer to code reference sheet and field manual for codes and procedures.

Use a No. 2 pencil. Fill bubbles darkly and completely. Do not make stray marks.

Page \_\_\_ of \_\_\_

STREAM NAME									

DATE		SEE NOTE ABOVE
DAY	MONTH	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<input type="radio"/> MAY <input type="radio"/> JUNE <input type="radio"/> JULY <input type="radio"/> AUG <input type="radio"/> SEPT <input type="radio"/> OCT <input type="radio"/> NOV	
	YEAR	
	<input type="radio"/> 90 <input type="radio"/> 91 <input type="radio"/> 92 <input type="radio"/> 93	

VALLEY SEGMENT	
W 0 V 1 H 2 U 3 F 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9 <small>DOWN ONLY</small>

W.R.I.A. NUMBER									
<input type="radio"/> UNLISTED									
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9

UNITS
<input type="radio"/> FEET <input type="radio"/> METERS

DISCHARGE									
<input type="radio"/> MEASURED <input type="radio"/> ESTIMATED									
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9

TURNING POINTS									
DOWNST.					UPST.				
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9

UNIT NUMBER	UNIT TYPE	UNIT CAT.	LENGTH	WIDTH	DEPTH (1)	DEPTH (2)	OBS.	LOGS		ROOT WADS	WOOD LOCATION				SERIAL ST.		LAND USE		% CANOPY CLOSURE	VEG. TYPE
								SM.	LG.		A	B	C	D	LB	RB	LB	RB		
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

DEC.  
 CON.  
 MIX

Use a No. 2 pencil. Fill bubbles darkly and completely. Do not make stray marks.

UNIT NUMBER	UNIT TYPE	UNIT CAT.	LENGTH	WIDTH	DEPTH (1)	DEPTH (2)	OBS.	LOGS		ROOT WADS	WOOD LOCATION				SERAL ST. LB/RB	LAND USE LB/RB	% CANOPY CLOSURE	VEG. TYPE
								SM.	LG.		A	B	C	D				
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

MEAS.  EST.

VEG. TYPE:  DEC.  CON.  MIX

UNIT NUMBER	UNIT TYPE	UNIT CAT.	LENGTH	WIDTH	DEPTH (1)	DEPTH (2)	OBS.	LOGS		ROOT WADS	WOOD LOCATION				SERAL ST. LB/RB	LAND USE LB/RB	% CANOPY CLOSURE	VEG. TYPE
								SM.	LG.		A	B	C	D				
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

MEAS.  EST.

VEG. TYPE:  DEC.  CON.  MIX

UNIT NUMBER	UNIT TYPE	UNIT CAT.	LENGTH	WIDTH	DEPTH (1)	DEPTH (2)	OBS.	LOGS		ROOT WADS	WOOD LOCATION				SERAL ST. LB/RB	LAND USE LB/RB	% CANOPY CLOSURE	VEG. TYPE
								SM.	LG.		A	B	C	D				
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

MEAS.  EST.

VEG. TYPE:  DEC.  CON.  MIX





**HABITAT UNIT DATA (CONT'D)**

1. Date is carried over from FORM 4A.
2. Measure depths to nearest 0.1 feet or 0.01 meters.
3. For paired units, the second record is used for actual measurements.
4. Refer to code reference sheet and field manual for codes and procedures.

Use a No. 2 pencil. Fill bubbles darkly and completely. Do not make stray marks.

Page \_\_\_\_ of \_\_\_\_

<b>STREAM NAME</b> (CIRCLE ONE ↓)		<b>DATE</b> MO.   DAY   YR.	<b>VALLEY SEGMENT</b>	<b>W.R.I.A. NUMBER</b>	<b>UNITS</b> (CIRCLE ONE)	<b>DISCHARGE</b> (CIRCLE ONE ↓)	<b>TURNING POINTS</b> DOWNST.   UPST.
CREEK RIVER					FEET METERS	MEAS EST	
				<input type="radio"/> UNLISTED			

UNIT NUMBER	UNIT TYPE	UNIT CAT.	LENGTH	WIDTH	DEPTH (1)	DEPTH (2)	OBS.	LOGS		ROOT WADS	WOOD LOCATION				SERAL ST. LB RB	LAND USE LB RB	% CANOPY CLOSURE	VEG. TYPE
								SM.	LG.		A	B	C	D				
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

MEAS.  EST.

VEG. TYPE:  DEC.  CON.  MIX

UNIT NUMBER	UNIT TYPE	UNIT CAT.	LENGTH	WIDTH	DEPTH (1)	DEPTH (2)	OBS.	LOGS		ROOT WADS	WOOD LOCATION				SERAL ST. LB RB	LAND USE LB RB	% CANOPY CLOSURE	VEG. TYPE
								SM.	LG.		A	B	C	D				
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9

MEAS.  EST.

VEG. TYPE:  DEC.  CON.  MIX





# VALLEY SEGMENT SUMMARY

1. Use this form once for each valley segment.
2. Note Access points in block provided.
3. Date indicates initial survey start date.
4. Refer to code reference sheet and field manual for codes and procedures.

Use a No. 2 pencil. Fill bubbles darkly and completely. Do not make stray marks. Page \_\_\_ of \_\_\_.

STREAM NAME																										
<input type="radio"/> CREEK													<input type="radio"/> RIVER													
A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J	J
K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z

DATE	
DAY	MONTH
<input type="radio"/> 1	<input type="radio"/> MAY
<input type="radio"/> 2	<input type="radio"/> JUNE
<input type="radio"/> 3	<input type="radio"/> JULY
<input type="radio"/> 4	<input type="radio"/> AUG
<input type="radio"/> 5	<input type="radio"/> SEPT
<input type="radio"/> 6	<input type="radio"/> OCT
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<input type="radio"/> 31	
	YEAR
	<input type="radio"/> 90
	<input type="radio"/> 91
	<input type="radio"/> 92
	<input type="radio"/> 93

VALLEY SEGMENT	
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<input type="radio"/> V	<input type="radio"/> 1
<input type="radio"/> H	<input type="radio"/> 2
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<input type="radio"/> F	<input type="radio"/> 4
<input type="radio"/> 5	<input type="radio"/> 5
<input type="radio"/> 6	<input type="radio"/> 6
<input type="radio"/> 7	<input type="radio"/> 7
<input type="radio"/> 8	<input type="radio"/> 8
<input type="radio"/> 9	<input type="radio"/> 9

W.R.I.A NUMBER	
<input type="radio"/> UNLISTED	
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<input type="radio"/> 1	<input type="radio"/> 1
<input type="radio"/> 2	<input type="radio"/> 2
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<input type="radio"/> 5	<input type="radio"/> 5
<input type="radio"/> 6	<input type="radio"/> 6
<input type="radio"/> 7	<input type="radio"/> 7
<input type="radio"/> 8	<input type="radio"/> 8
<input type="radio"/> 9	<input type="radio"/> 9

STREAM ORDER
<input type="radio"/> 1
<input type="radio"/> 2
<input type="radio"/> 3
<input type="radio"/> 4
<input type="radio"/> 5
<input type="radio"/> 6
<input type="radio"/> 7

SURVEYORS/AFFILIATIONS					
CALLER					
S1	A1	S2	A2	S3	A3
<input type="radio"/> A	<input type="radio"/> A	<input type="radio"/> 0	<input type="radio"/> 0	<input type="radio"/> A	<input type="radio"/> A
<input type="radio"/> B	<input type="radio"/> B	<input type="radio"/> 1	<input type="radio"/> 1	<input type="radio"/> B	<input type="radio"/> B
<input type="radio"/> C	<input type="radio"/> C	<input type="radio"/> 2	<input type="radio"/> 2	<input type="radio"/> C	<input type="radio"/> C
<input type="radio"/> D	<input type="radio"/> D	<input type="radio"/> 3	<input type="radio"/> 3	<input type="radio"/> D	<input type="radio"/> D
<input type="radio"/> E	<input type="radio"/> E	<input type="radio"/> 4	<input type="radio"/> 4	<input type="radio"/> E	<input type="radio"/> E
<input type="radio"/> F	<input type="radio"/> F	<input type="radio"/> 5	<input type="radio"/> 5	<input type="radio"/> F	<input type="radio"/> F
<input type="radio"/> G	<input type="radio"/> G	<input type="radio"/> 6	<input type="radio"/> 6	<input type="radio"/> G	<input type="radio"/> G
<input type="radio"/> H	<input type="radio"/> H	<input type="radio"/> 7	<input type="radio"/> 7	<input type="radio"/> H	<input type="radio"/> H
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<input type="radio"/> J	<input type="radio"/> J	<input type="radio"/> 9	<input type="radio"/> 9	<input type="radio"/> J	<input type="radio"/> J
<input type="radio"/> K	<input type="radio"/> K			<input type="radio"/> K	<input type="radio"/> K
<input type="radio"/> L	<input type="radio"/> L			<input type="radio"/> L	<input type="radio"/> L
<input type="radio"/> M	<input type="radio"/> M			<input type="radio"/> M	<input type="radio"/> M
<input type="radio"/> N	<input type="radio"/> N			<input type="radio"/> N	<input type="radio"/> N
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<input type="radio"/> P	<input type="radio"/> P			<input type="radio"/> P	<input type="radio"/> P
<input type="radio"/> Q	<input type="radio"/> Q			<input type="radio"/> Q	<input type="radio"/> Q
<input type="radio"/> R	<input type="radio"/> R			<input type="radio"/> R	<input type="radio"/> R
<input type="radio"/> S	<input type="radio"/> S			<input type="radio"/> S	<input type="radio"/> S
<input type="radio"/> T	<input type="radio"/> T			<input type="radio"/> T	<input type="radio"/> T
<input type="radio"/> U	<input type="radio"/> U			<input type="radio"/> U	<input type="radio"/> U
<input type="radio"/> V	<input type="radio"/> V			<input type="radio"/> V	<input type="radio"/> V
<input type="radio"/> W	<input type="radio"/> W			<input type="radio"/> W	<input type="radio"/> W
<input type="radio"/> X	<input type="radio"/> X			<input type="radio"/> X	<input type="radio"/> X
<input type="radio"/> Y	<input type="radio"/> Y			<input type="radio"/> Y	<input type="radio"/> Y
<input type="radio"/> Z	<input type="radio"/> Z			<input type="radio"/> Z	<input type="radio"/> Z

DESCRIPTION OF ACCESS AND REFERENCE TO TURNING POINTS:

Use a No. 2 pencil. Fill bubbles darkly and completely. Do not make stray marks.

LOWER BOUNDARY LOCATION				ELEVATION	PHOTOGRAPHS				TURNING POINT	LOWER (NEXT) VALLEY SEG.	NOTES:
TOWN	RNG	SEC	¼ OF ¼		YR	AFF	C	ROLL			
0 0 N	0 0 E	0 0 N E	0 0 N E	○ FEET ○ METERS							
1 1 S	1 1 W	1 1 S W	1 1 S W		0 0 0 0 0			0 0 0	W 0	0	
2 2	2 2	2 2	2 2		1 1 1 1 1			1 1 1	V 1	1	
3 3	3 3	3 3	3 3		2 2 2 2 2			2 2 2	H 2	2	
4 4	4 4	4 4	4 4		3 3 3 3 3			3 3 3	U 3	3	
5	5	5	5		4 4 4 4 4			4 4 4	F 4	4	
6	6	6	6		5 5 5 5 5			5 5 5	5	5	
7	7	7	7		6 6 6 6 6			6 6 6	6	6	
8	8	8	8		7 7 7 7 7			7 7 7	7	7	
9	9	9	9		8 8 8 8 8			8 8 8	8	8	
					9 9 9 9 9			9 9 9	9	9	

UPPER BOUNDARY LOCATION				ELEVATION	PHOTOGRAPHS				TURNING POINT	UPPER (NEXT) VALLEY SEG.
TOWN	RNG	SEC	¼ OF ¼		YR	AFF	C	ROLL		
0 0 N	0 0 E	0 0 N E	0 0 N E	○ FEET ○ METERS						
1 1 S	1 1 W	1 1 S W	1 1 S W		0 0 0 0 0			0 0 0	W 0	0
2 2	2 2	2 2	2 2		1 1 1 1 1			1 1 1	V 1	1
3 3	3 3	3 3	3 3		2 2 2 2 2			2 2 2	H 2	2
4 4	4 4	4 4	4 4		3 3 3 3 3			3 3 3	U 3	3
5	5	5	5		4 4 4 4 4			4 4 4	F 4	4
6	6	6	6		5 5 5 5 5			5 5 5	5	5
7	7	7	7		6 6 6 6 6			6 6 6	6	6
8	8	8	8		7 7 7 7 7			7 7 7	7	7
9	9	9	9		8 8 8 8 8			8 8 8	8	8
					9 9 9 9 9			9 9 9	9	9





# REFERENCE POINT SURVEY

Use a No. 2 pencil. Fill bubbles darkly and completely. Do not make stray marks.

Page \_\_\_ of \_\_\_

STREAM NAME											
											(CIRCLE ONE ↓)
											CREEK RIVER

DATE		
MO.	DAY	YR.

CONF./GRAD.	

W.R.I.A. NUMBER	UNLISTED TRIB	SEGMENT NUMBER

BEGINNING RIVER MILE

END RIVER

UNLISTED

REFERENCE POINTS											
"n"						"n + 1"					
0	0	0	<input type="radio"/>	LEFT BANK		0	0	0	<input type="radio"/>	LEFT BANK	
1	1	1				1	1	1			
2	2	2	<input type="radio"/>	RIGHT BANK		2	2	2	<input type="radio"/>	RIGHT BANK	
3	3	3				3	3	3			
4	4	4				4	4	4			
5	5	5				5	5	5			
6	6	6				6	6	6			
7	7	7				7	7	7			
8	8	8				8	8	8			
9	9	9				9	9	9			

CUMULATIVE DISTANCE (m)			
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

PHOTOGRAPHS								
ROLL	U FRAME			D FRAME				
0	0	0		0	0		0	0
1	1	1		1	1		1	1
2	2	2		2	2		2	2
3	3	3		3	3		3	3
4	4	4		4			4	
5	5	5		5			5	
6	6	6		6			6	
7	7	7		7			7	
8	8	8		8			8	
9	9	9		9			9	

CANOPY CLOSURE		
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

BANKFULL					
WIDTH			DEPTH		
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

REFERENCE POINTS											
"n + 2"						"n + 3"					
0	0	0	<input type="radio"/>	LEFT BANK		0	0	0	<input type="radio"/>	LEFT BANK	
1	1	1				1	1	1			
2	2	2	<input type="radio"/>	RIGHT BANK		2	2	2	<input type="radio"/>	RIGHT BANK	
3	3	3				3	3	3			
4	4	4				4	4	4			
5	5	5				5	5	5			
6	6	6				6	6	6			
7	7	7				7	7	7			
8	8	8				8	8	8			
9	9	9				9	9	9			

CUMULATIVE DISTANCE (m)			
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

PHOTOGRAPHS								
ROLL	U FRAME			D FRAME				
0	0	0		0	0		0	0
1	1	1		1	1		1	1
2	2	2		2	2		2	2
3	3	3		3	3		3	3
4	4	4		4			4	
5	5	5		5			5	
6	6	6		6			6	
7	7	7		7			7	
8	8	8		8			8	
9	9	9		9			9	

CANOPY CLOSURE		
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

BANKFULL					
WIDTH			DEPTH		
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

Use a No. 2 pencil. Fill bubbles darkly and completely. Do not make stray marks.

REFERENCE POINTS					
"n + 4"			"n + 5"		
0	0	0	○	LEFT BANK	
1	1	1			
2	2	2	○	RIGHT BANK	
3	3	3			
4	4	4			
5	5	5			
6	6	6			
7	7	7			
8	8	8			
9	9	9			

CUMULATIVE DISTANCE (m)			
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

PHOTOGRAPHS					
ROLL	U FRAME		D FRAME		
0	0	0	0	0	
1	1	1	1	1	
2	2	2	2	2	
3	3	3	3	3	
4	4	4	4	4	
5	5	5	5	5	
6	6	6	6	6	
7	7	7	7	7	
8	8	8	8	8	
9	9	9	9	9	

CANOPY CLOSURE		
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

BANKFULL					
WIDTH			DEPTH		
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

REFERENCE POINTS					
"n + 6"			"n + 7"		
0	0	0	○	LEFT BANK	
1	1	1			
2	2	2	○	RIGHT BANK	
3	3	3			
4	4	4			
5	5	5			
6	6	6			
7	7	7			
8	8	8			
9	9	9			

CUMULATIVE DISTANCE (m)			
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

PHOTOGRAPHS					
ROLL	U FRAME		D FRAME		
0	0	0	0	0	
1	1	1	1	1	
2	2	2	2	2	
3	3	3	3	3	
4	4	4	4	4	
5	5	5	5	5	
6	6	6	6	6	
7	7	7	7	7	
8	8	8	8	8	
9	9	9	9	9	

CANOPY CLOSURE		
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

BANKFULL					
WIDTH			DEPTH		
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

REFERENCE POINTS					
"n + 8"			"n + 9"		
0	0	0	○	LEFT BANK	
1	1	1			
2	2	2	○	RIGHT BANK	
3	3	3			
4	4	4			
5	5	5			
6	6	6			
7	7	7			
8	8	8			
9	9	9			

CUMULATIVE DISTANCE (m)			
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

PHOTOGRAPHS					
ROLL	U FRAME		D FRAME		
0	0	0	0	0	
1	1	1	1	1	
2	2	2	2	2	
3	3	3	3	3	
4	4	4	4	4	
5	5	5	5	5	
6	6	6	6	6	
7	7	7	7	7	
8	8	8	8	8	
9	9	9	9	9	

CANOPY CLOSURE		
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

BANKFULL					
WIDTH			DEPTH		
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9





# HABITAT UNIT SURVEY

1. Use this form when beginning a survey of a new confinement/gradient segment OR as the first form used each day to complete the survey of the valley segment.
2. Assign new date each day.
3. Continue recording habitat unit data on FORM 4B.

Use a No. 2 pencil. Fill bubbles darkly and completely. Do not make stray marks.

Page \_\_\_\_ of \_\_\_\_

STREAM NAME									

DATE		
MO.	DAY	YEAR
0	0	0
1	1	1
2	2	2
3	3	3
4		4
5		5
6		6
7		7
8		8
9		9

CONF./GRAD.	
C	0
M	1
U	2
	3
	4
	5
	6
	7

W.R.I.A. NUMBER									
○ UNLISTED									
W.R.I.A. NUMBER					UNLISTED TRIB		SEGMENT NUMBER		
0	0	0	0	0	0	0	UT	RT	0
1	1	1	1	1	1	1			1
2	2	2	2	2	2	2			2
3	3	3	3	3	3	3			3
4	4	4	4	4	4	4			4
5	5	5	5	5	5	5			5
6	6	6	6	6	6	6			6
7	7	7	7	7	7	7			7
8	8	8	8	8	8	8			8
9	9	9	9	9	9	9			9

DISCHARGE (CMS)		
0	0	0
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9

BEGINNING RIVER MILE	
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

ENDING RIVER MILE	
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

UNIT NUMBER	DOWN-STREAM REF. POINT	UNIT TYPE	UNIT CAT.	LENGTH (m)	WIDTH (m)	OUTLET DEPTH POOL (m)	MAX DEPTH POOL (m)	POOL OBS	UNIT NUMBER	DOWN-STREAM REF. POINT	UNIT TYPE	UNIT CAT.	LENGTH (m)	WIDTH (m)	OUTLET DEPTH POOL (m)	MAX DEPTH POOL (m)			
0	0	P R C T S O W	1 2 3	0	0	0	0	0	0	0	P R C T S O W	1 2 3	0	0	0	0			
1	1			1	1	1	1	1	1	1			1	1	1	1	1	1	1
2	2			2	2	2	2	2	2	2			2	2	2	2	2	2	2
3	3			3	3	3	3	3	3	3			3	3	3	3	3	3	3
4	4			4	4	4	4	4	4	4			4	4	4	4	4	4	4
5	5			5	5	5	5	5	5	5			5	5	5	5	5	5	5
6	6			6	6	6	6	6	6	6			6	6	6	6	6	6	6
7	7			7	7	7	7	7	7	7			7	7	7	7	7	7	7
8	8			8	8	8	8	8	8	8			8	8	8	8	8	8	8
9	9			9	9	9	9	9	9	9			9	9	9	9	9	9	9





Use a No. 2 pencil. Fill bubbles darkly and completely. Do not make stray marks.

UNIT NUMBER	UNIT TYPE	UNIT CAT.	LENGTH	WIDTH	DEPTH (1)	DEPTH (2)	OBS.	LOGS		ROOT WADS	WOOD LOCATION				SERAL ST. LB/RB	LAND USE LB/RB	% CANOPY CLOSURE	VEG. TYPE
								SM.	LG.		A	B	C	D				
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	

MEAS.  EST.

VEG. TYPE:  DEC.  CON.  MIX

UNIT NUMBER	UNIT TYPE	UNIT CAT.	LENGTH	WIDTH	DEPTH (1)	DEPTH (2)	OBS.	LOGS		ROOT WADS	WOOD LOCATION				SERAL ST. LB/RB	LAND USE LB/RB	% CANOPY CLOSURE	VEG. TYPE
								SM.	LG.		A	B	C	D				
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	

MEAS.  EST.

VEG. TYPE:  DEC.  CON.  MIX

UNIT NUMBER	UNIT TYPE	UNIT CAT.	LENGTH	WIDTH	DEPTH (1)	DEPTH (2)	OBS.	LOGS		ROOT WADS	WOOD LOCATION				SERAL ST. LB/RB	LAND USE LB/RB	% CANOPY CLOSURE	VEG. TYPE
								SM.	LG.		A	B	C	D				
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	

MEAS.  EST.

VEG. TYPE:  DEC.  CON.  MIX







# LARGE LOG JAM SURVEY

**LEVEL II**

Use a No. 2 pencil. Fill bubbles darkly and completely. Do not make stray marks.

Page \_\_\_\_\_ of \_\_\_\_\_

STREAM NAME (CIRCLE ONE ↓) CREEK RIVER										DATE MO.   DAY   YR.			CONF/ GRAD.		W.R.I.A. NUMBER										BEGINNING RIVER MILE			ENDING RIVER MILE			DISCHARGE		

LOG JAM NUMBER	DOWNSTREAM REF. PT.	VISIBLE PIECES & ROOT WADS				LENGTH	WIDTH (METERS)	HEIGHT	ZONE	POOL FORMING FUNCTION
		10-20 CM	20-50 CM	>50 CM	>20 CM					
0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	
1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	
2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	
3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	
4 4 4	4 4 4	4 4 4	4 4 4	4 4 4	4 4 4	4 4 4	4 4 4	4 4 4	4 4 4	
5 5 5	5 5 5	5 5 5	5 5 5	5 5 5	5 5 5	5 5 5	5 5 5	5 5 5	5 5 5	
6 6 6	6 6 6	6 6 6	6 6 6	6 6 6	6 6 6	6 6 6	6 6 6	6 6 6	6 6 6	
7 7 7	7 7 7	7 7 7	7 7 7	7 7 7	7 7 7	7 7 7	7 7 7	7 7 7	7 7 7	
8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	
9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	

LOG JAM NUMBER	DOWNSTREAM REF. PT.	VISIBLE PIECES & ROOT WADS				LENGTH	WIDTH (METERS)	HEIGHT	ZONE	POOL FORMING FUNCTION
		10-20 CM	20-50 CM	>50 CM	>20 CM					
0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	
1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	
2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	2 2 2	
3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	
4 4 4	4 4 4	4 4 4	4 4 4	4 4 4	4 4 4	4 4 4	4 4 4	4 4 4	4 4 4	
5 5 5	5 5 5	5 5 5	5 5 5	5 5 5	5 5 5	5 5 5	5 5 5	5 5 5	5 5 5	
6 6 6	6 6 6	6 6 6	6 6 6	6 6 6	6 6 6	6 6 6	6 6 6	6 6 6	6 6 6	
7 7 7	7 7 7	7 7 7	7 7 7	7 7 7	7 7 7	7 7 7	7 7 7	7 7 7	7 7 7	
8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	8 8 8	
9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	9 9 9	



