

# ADF&G TAPS Fish Stream Inspections Using Survey 123



**Lee McKinley**

Habitat Biologist

ADF&G Division of Habitat

State Pipeline Coordinator's Section









# Fishway Act



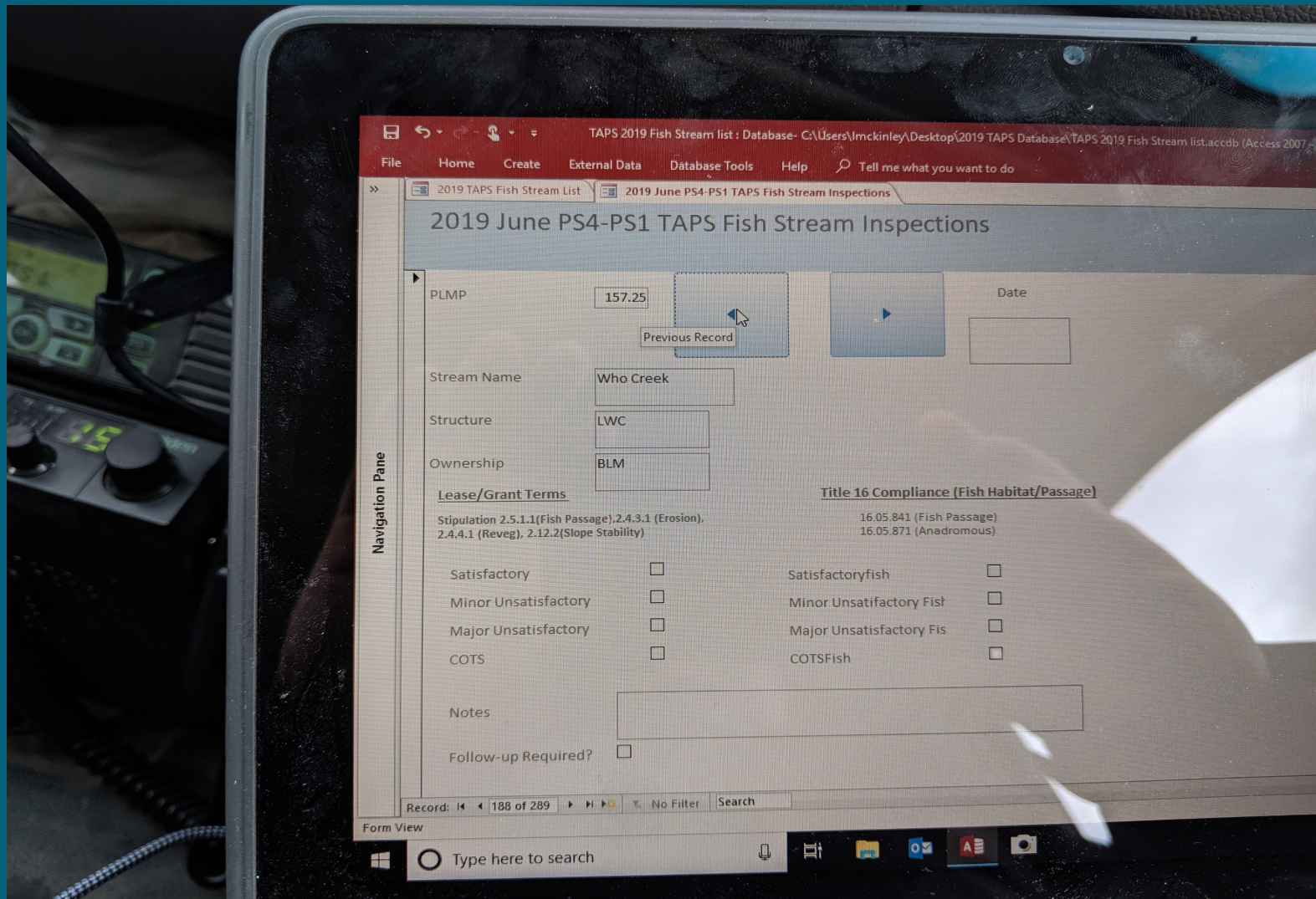
AS 16.05.841 requires that any obstruction built across fish-bearing waters will provide for fish passage

# *TAPS Grant and Lease Stipulations*



- 2.4.1 Erosion
- 2.5 Fish and Wildlife Protection
- 2.5.1 Fish Passage
- 2.8.1 Disturbance of Natural Waters
- 2.12 Restoration

# Field Inspections with MS Access





# Taps Master Fish Stream MS Access Table

Undo Views Clipboard Sort & Filter Records Find Text Formatting

Filter  Ascending  Selection  New  Totals  Replace  
 Descending  Advanced  Save  Spelling  Find  
 Remove Sort  Toggle Filter  All  Delete  More  Select

Calibri 11 B I U A

Copy Of 2022 TAPS Fish Stream List

PLMP	GPS Waypoi	GPS Waypoi	Anadromou	Anadromou	Anadromou	On_Drivelar	Other_Locati	Stream Nam	Structure	Ownership	Access Road	Access Road	Closest Acce	Highway Mil	Highway Mil	Access Verif	BLM Origina	APSC Fish Li	ZC
0.02	70.25601	148.62401				<input checked="" type="checkbox"/>		Put River Trib	CMP	SOA	PS1	135-APL-3	N	PS1	Dalton 403.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
0.18	70.25511	148.62457				<input checked="" type="checkbox"/>		Put River Wate	LWC	SOA	PS1	135-APL-3	N	PS1	Dalton 403.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EC
0.99	70.24526	148.64195				<input checked="" type="checkbox"/>		Unnamed	LWC	SOA	PS1	135-APL-3	N	PS1	Dalton 403.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
1.59	70.23783	148.65535				<input checked="" type="checkbox"/>		Stickleback Slo	LWC	SOA	PS1	135-APL-3	N	PS1	Dalton 403.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Ok
1.94	70.23340	148.66113				<input checked="" type="checkbox"/>		Unnamed	CMP x 2	SOA	PS1	135-APL-3	N	PS1	Dalton 403.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Nc
3.9	70.20580	148.66173				<input checked="" type="checkbox"/>		Edge Lakes	LWC	SOA	PS1	135-APL-3	N	PS1	Dalton 403.5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
4.12	70.20278	148.66005				<input checked="" type="checkbox"/>		Edge Lakes	LWC	SOA	PS1	135-APL-3	N	PS1	Dalton 403.5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
5.19	70.18888	148.65202				<input checked="" type="checkbox"/>		Grayling Gulch	Bridge	SOA	PS1	135-APL-3	N	PS1	Dalton 403.5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
6.36	70.17115	148.64267				<input checked="" type="checkbox"/>		Unnamed	LWC	SOA	PS1	135-APL-3	N	PS1	Dalton 403.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7.17	70.15966	148.63658				<input checked="" type="checkbox"/>		Unnamed	LWC	SOA	PS1	135-APL-3	S	PS1	Dalton 403.5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Ok
8.44	70.14186	148.62563				<input checked="" type="checkbox"/>		Unnamed	LWC	SOA	PS1	135-APL-3	S	PS1	Dalton 403.5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Ok
11.08	70.10543	148.59770				<input checked="" type="checkbox"/>		Unnamed	LWC	SOA	PS1	135-APL-3	S	PS1	Dalton 403.5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
12.51	70.08377	148.56006				<input type="checkbox"/>		12.54E	LWC	SOA	135-APL-3	135-APL-3				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ne
12.512	70.08400	148.56285				<input type="checkbox"/>		12.53E	CMP	SOA	135-APL-3	135-APL-3				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ne
12.513	70.08430	148.56616				<input type="checkbox"/>		12.52E	CMP x 2	SOA	135-APL-3	135-APL-3				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ne
12.514	70.08543	148.58006				<input type="checkbox"/>		12.51E	CMP x 2	SOA	135-APL-3	135-APL-3				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ne
12.8	70.08214	148.58722				<input checked="" type="checkbox"/>		To Be Named	LWC	SOA						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ne
16.5	70.03306	148.64471				<input type="checkbox"/>		16.51E	LWC	SOA	135-APL/AMS-	135 APL/AMS-1				<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ne
17.62	70.01760	148.66248				<input type="checkbox"/>		To Be Named	LWC	SOA						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ne
17.99	70.01244	148.66685				<input checked="" type="checkbox"/>		Low Life Creek	LWC	SOA	135-APL/AMS-	Dalton 398.7	S	Dalton 400.8	Dalton 398.7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Ne
18.5	70.00572	148.67259				<input type="checkbox"/>		To Be Named	LWC	SOA						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Ne
20.55			<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input checked="" type="checkbox"/>		Sagavanirktok	LWC	SOA	134-APL/ AMS-	134-APL-1	N	Dalton 397.7	Dalton 395.5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
20.94	69.97275	148.70602	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input checked="" type="checkbox"/>		Sagavanirktok	LWC	SOA	134-APL/ AMS-	134-APL-1	N	Dalton 397.7	Dalton 395.5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
21.14	69.97031	148.71030	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input type="checkbox"/>	spur dike	Sagavanirktok	CMP	SOA	134-APL/ AMS-	134-APL-1	N	Dalton 397.7	Dalton 395.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
21.17	69.97019	148.71120	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input checked="" type="checkbox"/>		Sagavanirktok	LWC	SOA	134-APL/ AMS-	134-APL-1	N	Dalton 397.7	Dalton 395.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
21.32	69.96841	148.71440	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input checked="" type="checkbox"/>		Sagavanirktok	LWC	SOA	134-APL/ AMS-	134-APL-1	N	Dalton 397.7	Dalton 395.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
21.43	69.96700	148.71690	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input checked="" type="checkbox"/>		Sagavanirktok	CMP	SOA	134-APL/ AMS-	134-APL-1	N	Dalton 397.7	Dalton 395.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
21.56	69.96545	148.72023	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input checked="" type="checkbox"/>		Sagavanirktok	LWC	SOA	134-APL/ AMS-	134-APL-1	N	Dalton 397.7	Dalton 395.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
21.69	69.96448	148.72365	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input type="checkbox"/>	spur dike	Sagavanirktok	CMP	SOA						<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
21.78	69.96262	148.72325	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input checked="" type="checkbox"/>		Sagavanirktok	LWC	SOA						<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
21.9	69.96122	148.72289	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input type="checkbox"/>	spur dike	Sagavanirktok	CMP	SOA						<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
21.91	69.96066	148.72462	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input checked="" type="checkbox"/>		Sagavanirktok	LWC	SOA						<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
22.21	69.95632	148.72603	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input checked="" type="checkbox"/>		Sagavanirktok	LWC	SOA						<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
22.32	69.95480	148.72665	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input checked="" type="checkbox"/>		Sagavanirktok	LWC	SOA						<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
22.41			<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input checked="" type="checkbox"/>		Sagavanirktok	LWC	SOA	134-APL-1	133-APL-4	N	Dalton 397.7	Dalton 392.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
24.03	69.93026	148.73752	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input checked="" type="checkbox"/>		Sagavanirktok	LWC	SOA	134-APL-1	133-APL-4	S	Dalton 397.7	Dalton 392.0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
24.91	69.91878	148.74794	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input checked="" type="checkbox"/>		Sagavanirktok	LWC	SOA	134-APL-1	133-APL-4	S	Dalton 397.7	Dalton 392.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
25.01	69.91695	148.75005	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input checked="" type="checkbox"/>		Sagavanirktok	LWC	SOA	134-APL-1	133-APL-4	S	Dalton 397.7	Dalton 392.0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
25.11	69.91638	148.75233	<input checked="" type="checkbox"/>	330-00-10360	Chp,Ps,BCp,DV	<input type="checkbox"/>	Access Road	Sagavanirktok	LWC	SOA	133-APL-4	133-APL-4	S	Dalton 397.7	Dalton 392.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

# Inspection Field Forms

TAPS 2022 Fish Stream Database 091822 : Database- S:\Pipelines\Secure\1\_Liaisons\Lmckinley\TAPS Fish Stream Database\TAPS 2022 Fish Stream Database 091822.accdb (Access 2007 - 2016 file format) - Access

McKinley, Lee (DFG)

File Home Create External Data Database Tools Help Tell me what you want to do

Undo Views Clipboard Sort & Filter Records Find Text Formatting

2022 TAPS PS1-PS4 Fish Stream Inspections x 2022 TAPS Fish Stream Inspections x 2022 July PS1-PS4 TAPS Fish Stream Inspections x

## 2022 July PS1-PS 4 Fish Stream Inspections

Navigation Pane

PLMP    Date

Stream Name

Structure

Ownership

Lease/Grant Terms Title 16 Compliance (Fish Habitat/Passage)

Stipulation 2.5.1.1(Fish Passage),2.4.3.1 (Erosion),  
2.4.4.1 (Reveg), 2.12.2(Slope Stability) 16.05.841 (Fish Passage)  
16.05.871 (Anadromous)

Satisfactory	<input type="checkbox"/>	Satisfactoryfish	<input type="checkbox"/>
Minor Unsatisfactory	<input type="checkbox"/>	Minor Unsatisfactory Fis	<input type="checkbox"/>
Major Unsatisfactory	<input type="checkbox"/>	Major Unsatisfactory Fis	<input type="checkbox"/>
COTS	<input checked="" type="checkbox"/>	COTSFish	<input checked="" type="checkbox"/>

Notes

Follow-up Required?

Record: 3 of 61 No Filter Search

Form View Num Lock

# Inspection Field Reports

2022 July PS1-PS4 Survey123.pdf - Adobe Acrobat Pro DC (32-bit)


File Edit View E-Sign Window Help

Home Tools 2022 July PS1-PS4 ... x

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## PS1-PS4 Preliminary Drainage Structure Inspection Report

Lee McKinley-ADFG, Sara Sjostrom-APSC, Tawna Beer-Burns-APSC, Scott Thomas-APSC, Brad Perkins-APSC



Date	PLMP	Stream Name	Structure	Ownership	Rating				Notes	Follow-up
					Satisfactory	Minor Unsat	Major Unsat	COTS*		
7/26/2022	0.18	Put River Watershed	LWC	SOA					Looks good. Still finishing up nearby cathodic protection work.	<input type="checkbox"/>
				<u>Grant/Lease 2.5.1.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
				<u>2.4.3.1</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
				<u>Title 16 Fish Habitat</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
7/26/2022	0.99	Unnamed	LWC	SOA					Needs routine maintenance establish a low flow channel to improve fish passage	<input checked="" type="checkbox"/>
				<u>Grant/Lease 2.5.1.1</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
				<u>2.4.3.1</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
				<u>Title 16 Fish Habitat</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

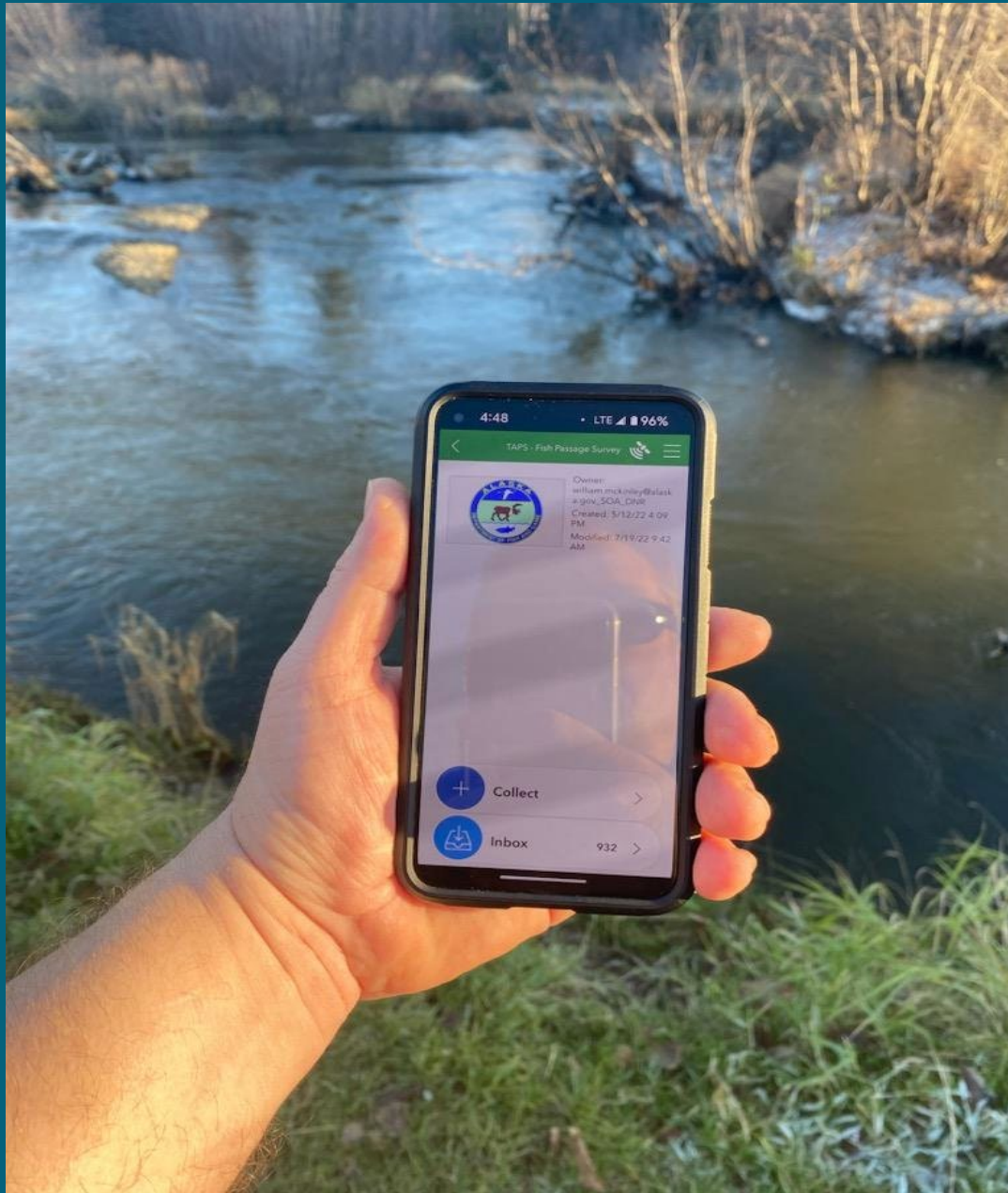
PLMP=Pipeline Milepost      CMP=Corrugated Metal Pipe      SOA=State of Alaska      COTS= Corrected on the Spot  
 APSC=Alyeska Pipeline Service Company      LWC=Low Water Crossing      BLM=Bureau of Land Management

Page 1 of 31

# MS Access Limitations

- Can only run on a Windows laptop.
- Requires separate preparation prior to each inspection trip to set up a new form.
- Requires table editing post inspection to generate report.
- No built-in location information- I must manually choose the corresponding stream PLMP from the form.
- Access database cannot take pictures and very limited in storing them.
- No continuity data from past inspections. Each inspection treated as separate event.
- Field data vulnerable until it is brought back to the office.
- Generates very simple report

# Field Inspections with Survey123





Owner:  
william.mckinley@alaska.gov\_SOA\_DNR  
Created: 5/12/22 4:09 PM  
Modified: 7/19/22 9:42 AM

 **Collect** >

 **Inbox** 932 >



# Inbox



Search



E 799.74 Allison Creek ...  
118 mi Modified 5/12/22

E 798.05 Solomon Lake Outlet ...  
120 mi Modified 5/12/22

E 797.02 Trickle Creek ...  
121 mi Modified 5/12/22

E 795.87 Abercrombie Gulch ...  
122 mi Modified 5/12/22

E 795.6 No name creek ...  
122 mi Modified 5/12/22

E 795.27 Abercrombie Slough ...  
123 mi Modified 5/12/22

E 794.7 Abercrombie Slough ...  
123 mi Modified 5/12/22



List



Map



Refresh



Template for Fish Stream Field Inspections

Inspection Date



Date

Stream Name

Abercrombie Slough



PLMP - Pipeline Milepost

795.27



Structure

CMP



Ownership

SOA



Title 16 Compliance (Fish Passage)

AS 16.05.841 (Fish Passage)

AS 16.05871 (Anadromous)










Template for Fish Stream Field Inspections

Inspection Date

 Tuesday, November 15, 2022 

November						
2022						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
30	31	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	1	2	3
4	5	6	7	8	9	10

Stream Name

Abercrombie Slough 

PLMP - Pipeline Milepost

795.27 





### Title 16 Compliance (Fish Passage)

AS 16.05.841 (Fish Passage)

AS 16.05871 (Anadromous)

#### Rating

Satisfactory



Minor  
Unsatisfactor  
y



Major  
Unsatisfactor  
y



Corrected on  
the Spot  
(COTS)



N/A



#### Lease/Grant Terms

Stipulations:





## Lease/Grant Terms

Stipulations:

- 2.5.1.1 (Fish Passage)
- 2.4.3.1 (Erosion)
- 2.4.4.1 (Re-vegetation)
- 2.12.2 (Slope Stability)

Rating

Satisfactory



Minor  
Unsatisfactor  
y



Major  
Unsatisfactor  
y



Corrected on  
the Spot  
(COTS)



N/A





TAPS Fish Stream  
Drainage Structure Ins...



### Follow-up Required?

Follow up field inspection



Follow-up

### Notes

Comments on Observations

255



Tap to speak

Tap to try again



Google





Follow-up required:

Follow up field inspection



Follow-up

Notes

Comments on Observations

Properly seated CMP. Good fish  
passage.



216



1 2 3 4 5 6 7 8 9 0

q w e r t y u i o p

a s d f g h j k l

↑ z x c v b n m ↵

?123

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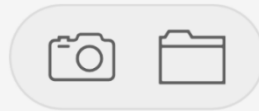
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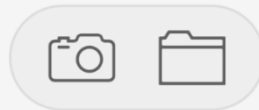


remove

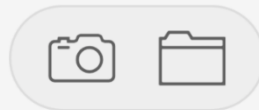
Picture of Drainage Structure - Centered  
Centered Picture



Picture of Drainage Structure - Upstream  
Upstream Picture



Picture of Drainage Structure -  
Downstream  
Downstream Picture



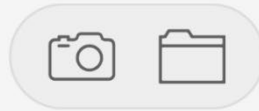
Picture of Drainage Structure - Repair





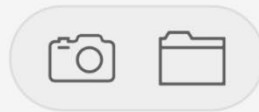
### Downstream

Downstream Picture



### Picture of Drainage Structure - Repair

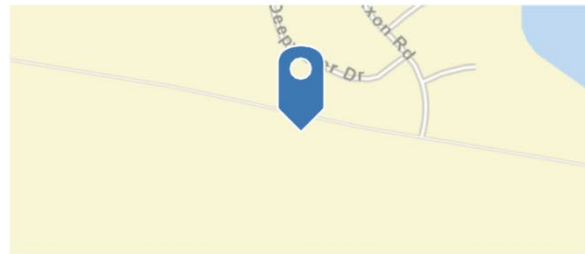
(if applicable)



### Location

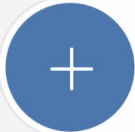




61°5'N 146°14'W





Owner:  
william.mckinley@alaska.gov\_SOA\_DNR  
Created: 5/12/22 4:09 PM  
Modified: 7/19/22 9:42 AM

-  **Collect** >
-  **Inbox** 932 >
-  **Outbox** 1 >



## Preliminary TAPS ADF&G Drainage Inspection

**Stream Name:** Nugget Creek

**Date of Inspection:** 06/22/2022

**Follow-up  
Required?:**

**Pipeline Milepost:** 217.49

**Surveillant:** Lee McKinley

**Structure:** LWC  
**Land Owner:** private

**APSC Personnel:** Ken Wilson, Anne Beasley

**Title 16 ADF&G Fish Habitat Compliance** Grant/Lease Compliance 2.5.1.1 and 2.4.3.1

Satisfactory

Satisfactory

**Observations:** Looks great. Low flow.

Upstream View



Centered View



Downstream View



Picture of Needed Repair Area (if applicable)

# Survey123 Benefits

- Can run on a multitude of platforms i.e., smartphone, laptop, iPad. etc.
- No prep needed prior to going into the field.
- Easy to generate a report post inspection. Just need to choose appropriate filters such as date range, “follow-ups” etc.
- App automatically recognizes when one is near the stream to be inspected. Will also automatically store GPS data for new streams I discover.
- Can take and store pictures.
- Continuity of data from past inspections.
- Data can be uploaded to the cloud whenever in cell phone range or online.

**Inspections are now Faster, Easier, & a Better Final Product**

# Questions?

