NW TREATY TRIBES USE OF ELECTRONIC FISH TICKETS

Development and Implementation of EFTs in Tribal Fisheries

Presented to the Pacific Fisheries Management Council – March, 2019 Meeting

Joe Schumacker *– Marine Resources Scientist, Quinault Indian Nation*
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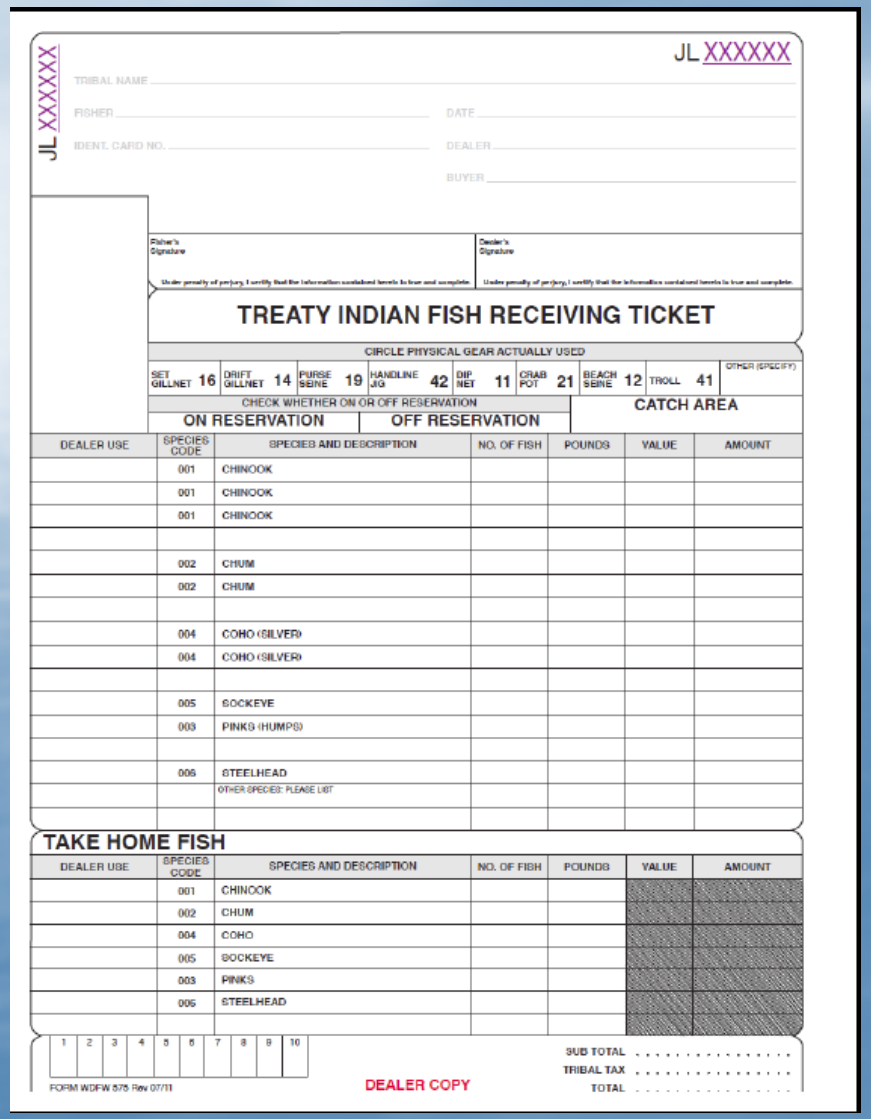
Rick Busch *– Senior Project Manager / Senior Analyst, Resource Data Inc.*

FISH TICKETS – THEN



JL XXXXXX

TRIBAL NAME
FISHER
IDENT. CARD NO.
DATE
DEALER
BUYER

Fisher's Signature — Under penalty of perjury, I certify that the information contained herein is true and complete.
Dealer's Signature — Under penalty of perjury, I certify that the information contained herein is true and complete.

TREATY INDIAN FISH RECEIVING TICKET

CIRCLE PHYSICAL GEAR ACTUALLY USED

SET GILLNET 16	DRIFT GILLNET 14	PURSE SEINE 19	HANDLINE JIG 42	DIP NET 11	CRAB POT 21	BEACH SEINE 12	TROLL 41	OTHER (SPECIFY)

CHECK WHETHER ON OR OFF RESERVATION: ON RESERVATION | OFF RESERVATION | CATCH AREA

DEALER USE	SPECIES CODE	SPECIES AND DESCRIPTION	NO. OF FISH	POUNDS	VALUE	AMOUNT
	001	CHINOOK				
	001	CHINOOK				
	001	CHINOOK				
	002	CHUM				
	002	CHUM				
	004	COHO (SILVER)				
	004	COHO (SILVER)				
	005	SOCKEYE				
	003	PINKS (HUMPS)				
	006	STEELHEAD				
		OTHER SPECIES: PLEASE LIST				

TAKE HOME FISH

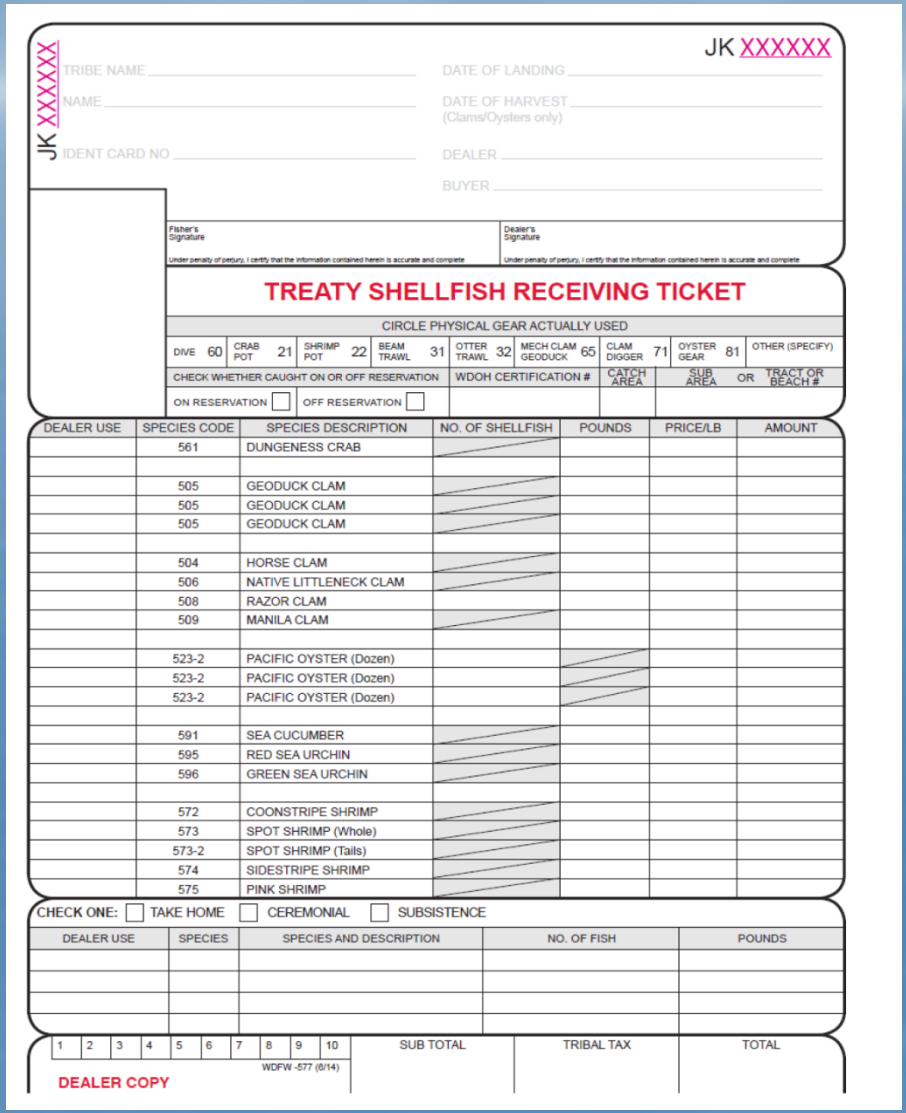
DEALER USE	SPECIES CODE	SPECIES AND DESCRIPTION	NO. OF FISH	POUNDS	VALUE	AMOUNT
	001	CHINOOK				
	002	CHUM				
	004	COHO				
	005	SOCKEYE				
	003	PINKS				
	006	STEELHEAD				

1 2 3 4 5 6 7 8 9 10

SUB TOTAL
TRIBAL TAX
TOTAL

FORM WDFW 575 Rev 07/11

DEALER COPY



JK XXXXXX

TRIBE NAME
NAME
IDENT CARD NO
DATE OF LANDING
DATE OF HARVEST (Clams/Oysters only)
DEALER
BUYER

Fisher's Signature — Under penalty of perjury, I certify that the information contained herein is accurate and complete.
Dealer's Signature — Under penalty of perjury, I certify that the information contained herein is accurate and complete.

TREATY SHELLFISH RECEIVING TICKET

CIRCLE PHYSICAL GEAR ACTUALLY USED

DIVE 60	CRAB POT 21	SHRIMP POT 22	BEAM TRAWL 31	OTTER TRAWL 32	MECH CLAM GEODUCK 65	CLAM DIGGER 71	OYSTER GEAR 81	OTHER (SPECIFY)

CHECK WHETHER CAUGHT ON OR OFF RESERVATION: ON RESERVATION ☐ OFF RESERVATION ☐ | WDOH CERTIFICATION # | CATCH AREA | SUB AREA OR TRACT OR BEACH #

DEALER USE	SPECIES CODE	SPECIES DESCRIPTION	NO. OF SHELLFISH	POUNDS	PRICE/LB	AMOUNT
	561	DUNGENESS CRAB				
	505	GEODUCK CLAM				
	505	GEODUCK CLAM				
	505	GEODUCK CLAM				
	504	HORSE CLAM				
	506	NATIVE LITTLENECK CLAM				
	508	RAZOR CLAM				
	509	MANILA CLAM				
	523-2	PACIFIC OYSTER (Dozen)				
	523-2	PACIFIC OYSTER (Dozen)				
	523-2	PACIFIC OYSTER (Dozen)				
	591	SEA CUCUMBER				
	595	RED SEA URCHIN				
	596	GREEN SEA URCHIN				
	572	COONSTRIPE SHRIMP				
	573	SPOT SHRIMP (Whole)				
	573-2	SPOT SHRIMP (Tails)				
	574	SIDESTRIPE SHRIMP				
	575	PINK SHRIMP				

CHECK ONE: ☐ TAKE HOME ☐ CEREMONIAL ☐ SUBSISTENCE

DEALER USE	SPECIES	SPECIES AND DESCRIPTION	NO. OF FISH	POUNDS

1 2 3 4 5 6 7 8 9 10 | SUB TOTAL | TRIBAL TAX | TOTAL

WDFW -577 (6/14)

DEALER COPY

- Filled out for every sale of fish or shellfish.
- Large amount of information recorded.
- Multiple “carbons” of each
- Fisher – Dealer – Tribe – Co-manager
- Human error possible at multiple points in the chain.
- Rooms full of completed tickets.

FISH TICKETS - NOW

NWIFC TEFTS Salmon Ticket

11/30/2016 10:26 AM

RECEIPT NUMBER:
98e77392-12d8-41c1-a71f-5cbefd70db21
BUYER ID: 99 DEALER ID: 9999
FISHER ID: 12345 TRIBE ID: 13

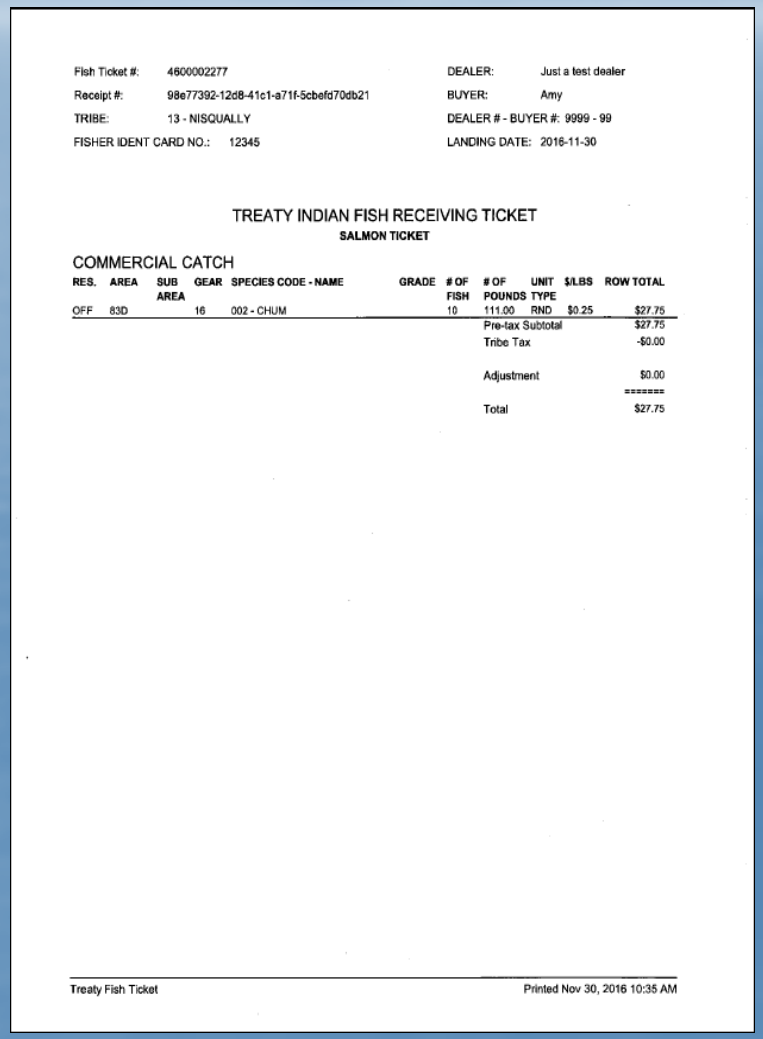
002 CHUM OFF RES COMMERCIAL FISHERY
CATCH AREA: NISQUALLY RIVER GEAR: Set Gill Net
10 Ct. 111.0 RND @ $0.25 $27.75

Subtotal $27.75

Total $27.75

Buyer Signature

Fisher Signature



Fish Ticket #: 4600002277
Receipt #: 98e77392-12d8-41c1-a71f-5cbefd70db21
TRIBE: 13 - NISQUALLY
FISHER IDENT CARD NO.: 12345

DEALER: Just a test dealer
BUYER: Amy
DEALER # - BUYER #: 9999 - 99
LANDING DATE: 2016-11-30

TREATY INDIAN FISH RECEIVING TICKET
SALMON TICKET

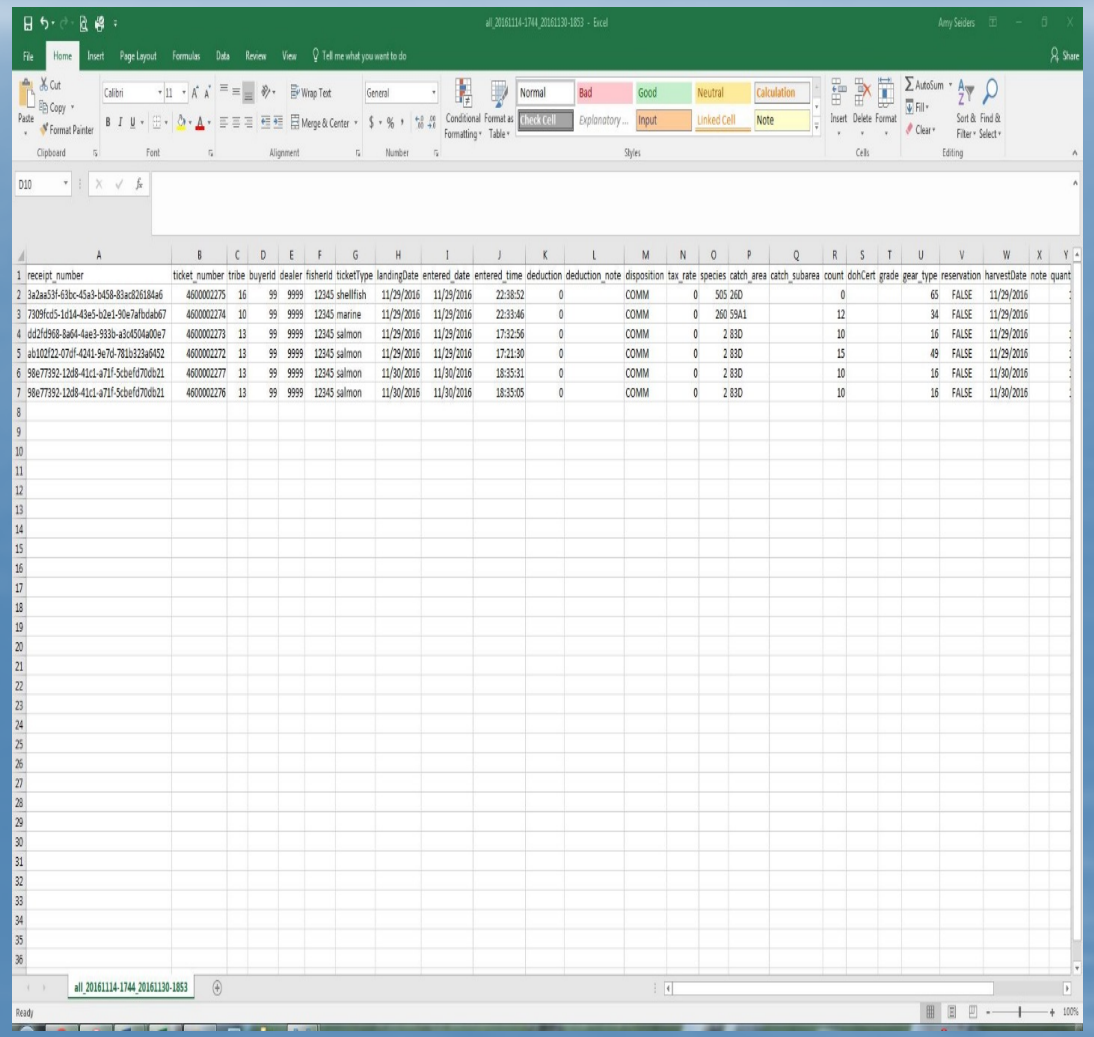
COMMERCIAL CATCH

RES.	AREA	SUB AREA	GEAR	SPECIES CODE - NAME	GRADE	# OF FISH	# OF POUNDS	UNIT TYPE	$/LBS	ROW TOTAL
OFF	83D		16	002 - CHUM		10	111.00	RND	$0.25	$27.75

Pre-tax Subtotal $27.75
Tribe Tax -$0.00

Adjustment $0.00
=======
Total $27.75

Treaty Fish Ticket Printed Nov 30, 2016 10:35 AM



all_20161114-1744_20161130-1853 - Excel

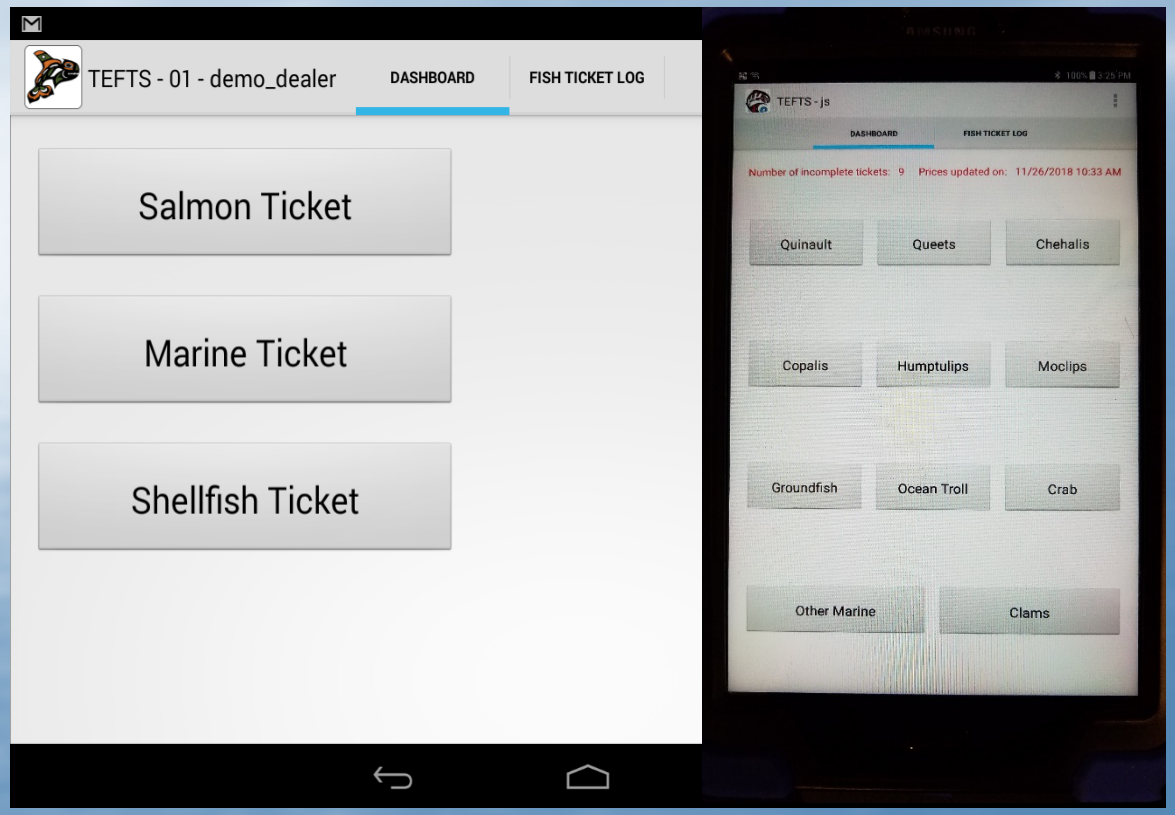
	receipt_number	ticket_number	tribe	buyerId	dealer	fisherId	ticketType	landingDate	entered_date	entered_time	deduction	deduction_note	disposition	tax_rate	species	catch_area	catch_subarea	count	dohCert	grade	gear_type	reservation	harvestDate	note	quant
2	3a2aa53f-63bc-45a3-b458-83acd32184a6	4600002275	16	99	9999	12345	shellfish	11/29/2016	11/29/2016	22:38:52	0		COMM	0	505	26D		0		65	FALSE	11/29/2016			
3	7309fcd5-1d14-43e5-b2e1-90e7afbdab67	4600002274	10	99	9999	12345	marine	11/29/2016	11/29/2016	22:33:46	0		COMM	0	260	59A1		12		34	FALSE	11/29/2016			
4	dd2fd968-8a64-4ae3-933b-a3c4504a00e7	4600002273	13	99	9999	12345	salmon	11/29/2016	11/29/2016	17:32:56	0		COMM	0	2	83D		10		16	FALSE	11/29/2016			
5	ab102f22-07df-4241-9e7d-781b323a6452	4600002272	13	99	9999	12345	salmon	11/29/2016	11/29/2016	17:21:30	0		COMM	0	2	83D		15		49	FALSE	11/29/2016			
6	98e77392-12d8-41c1-a71f-5cbefd70db21	4600002277	13	99	9999	12345	salmon	11/30/2016	11/30/2016	18:35:31	0		COMM	0	2	83D		10		16	FALSE	11/30/2016			
7	98e77392-12d8-41c1-a71f-5cbefd70db21	4600002276	13	99	9999	12345	salmon	11/30/2016	11/30/2016	18:35:05	0		COMM	0	2	83D		10		16	FALSE	11/30/2016			

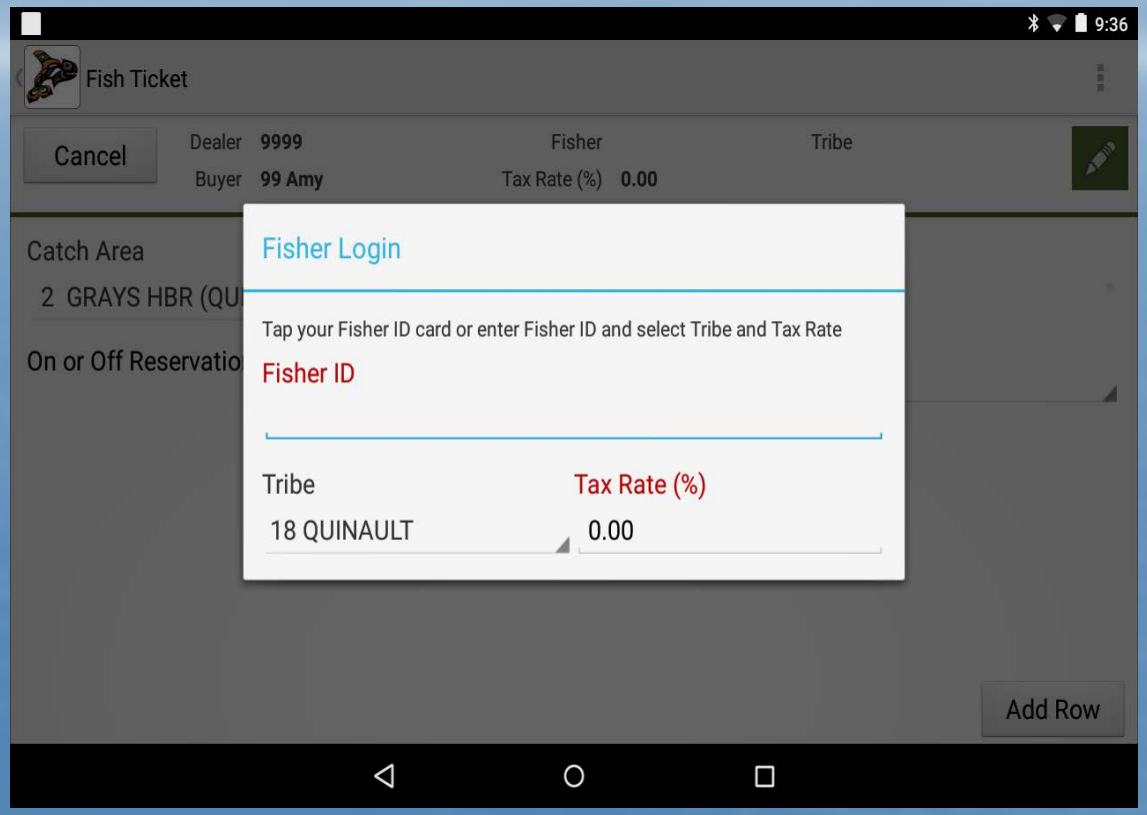
FISH TICKET HARDWARE

Android Tablet with WiFi and Portable Bluetooth Printer

Robust in the Field

FISH TICKET SOFTWARE (USER INTERFACE)

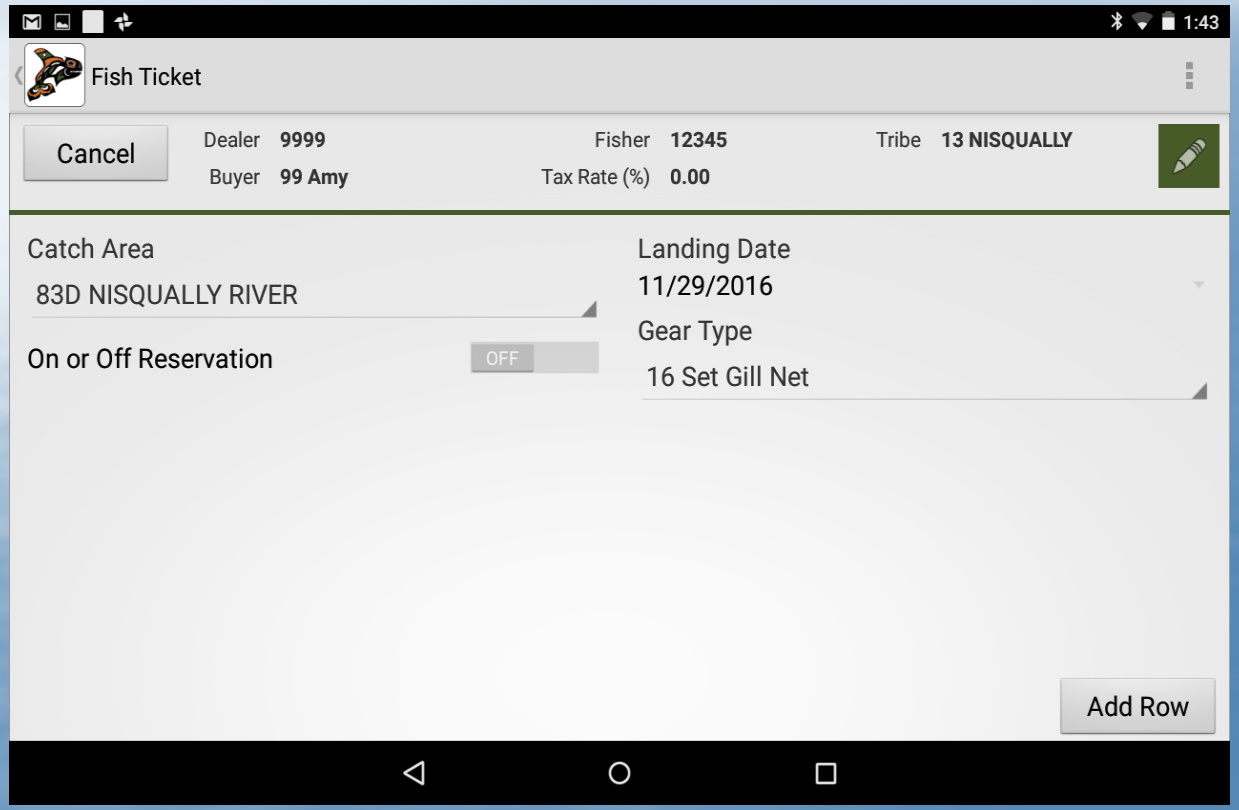




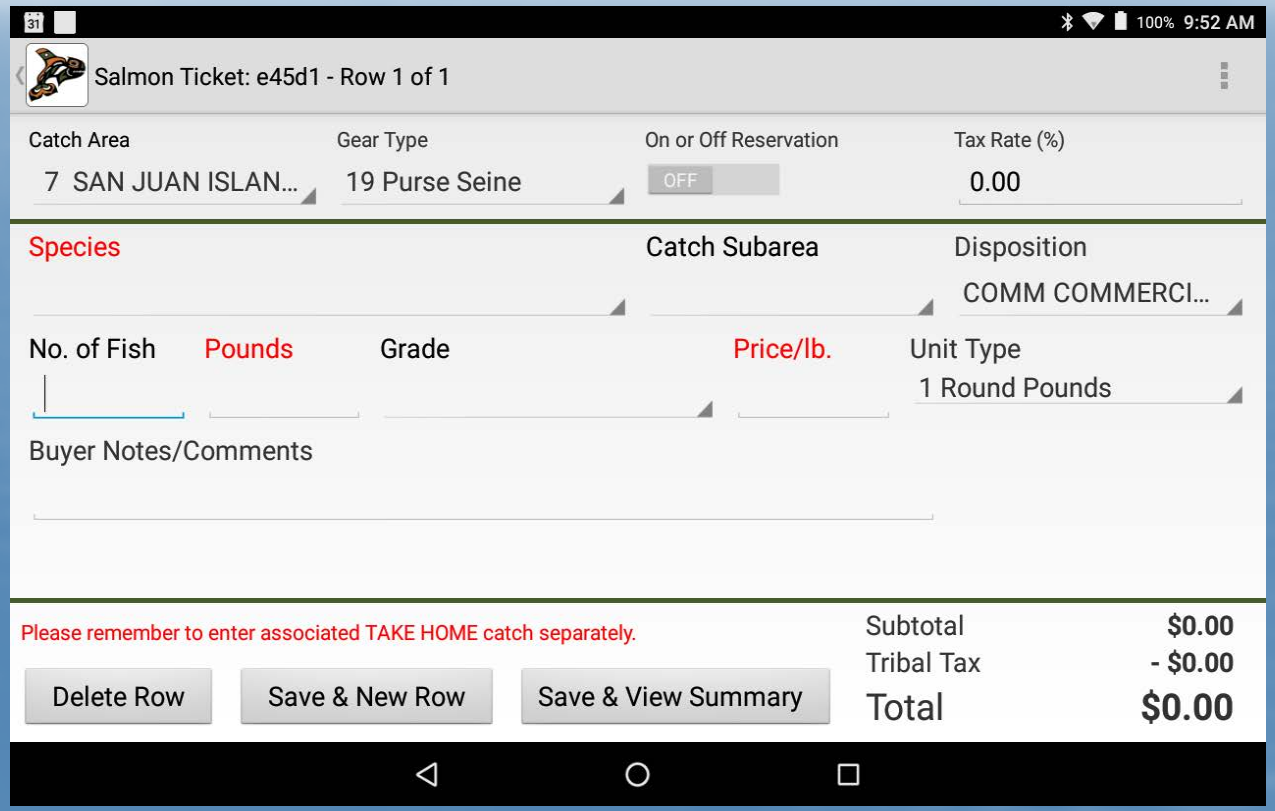
Workflows

Required information

FISH TICKET SOFTWARE (USER INTERFACE)

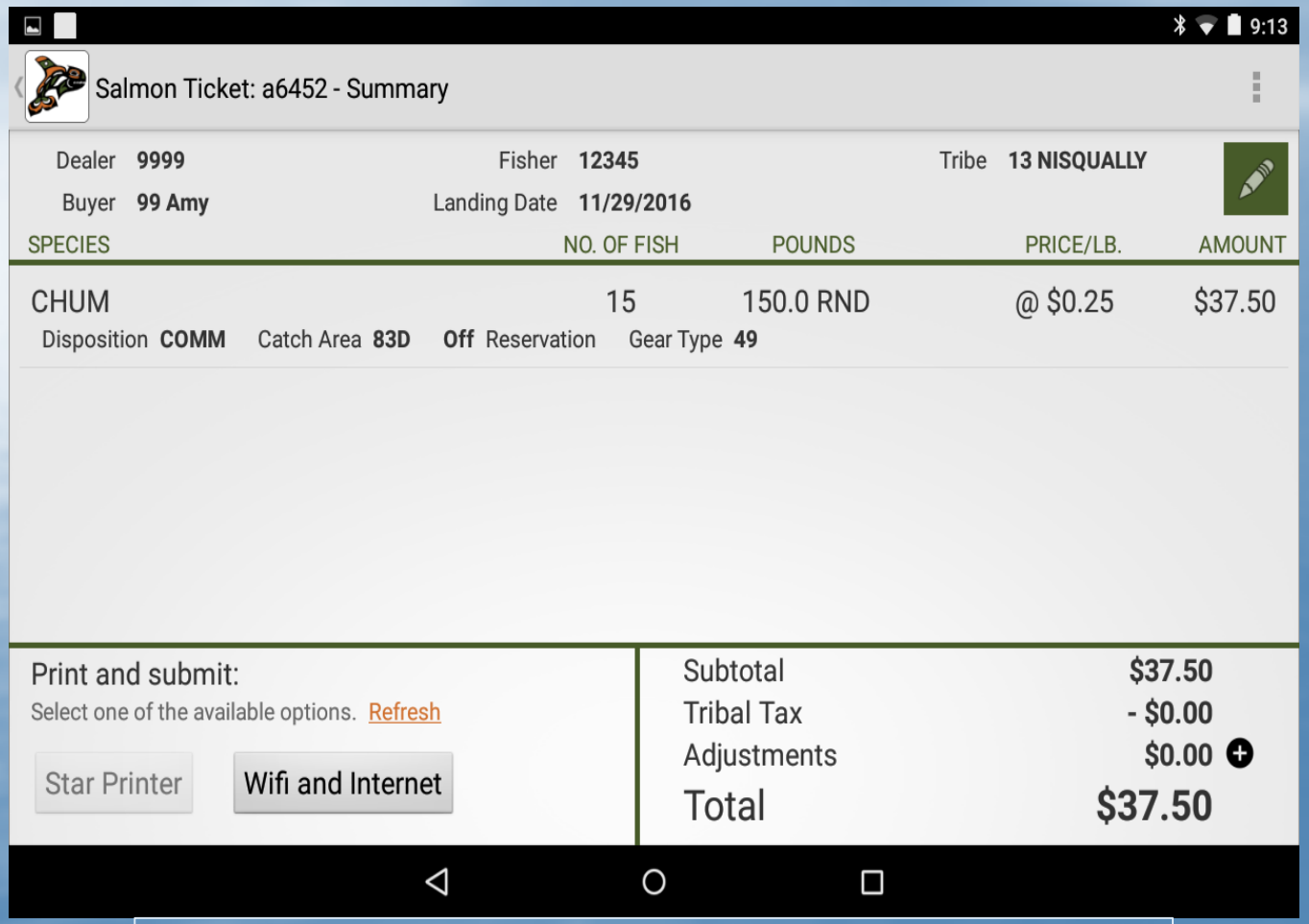


Required information



Required information

FINALIZING THE SALE – SUMMARY AND RECEIPT



Summary Transaction Screen. Can be multiple lines/species.

Summary screen totals sales including any added taxes. Transaction can be printed immediately or saved for upload later. Receipt protects seller/buyer when a transaction takes place in the field.

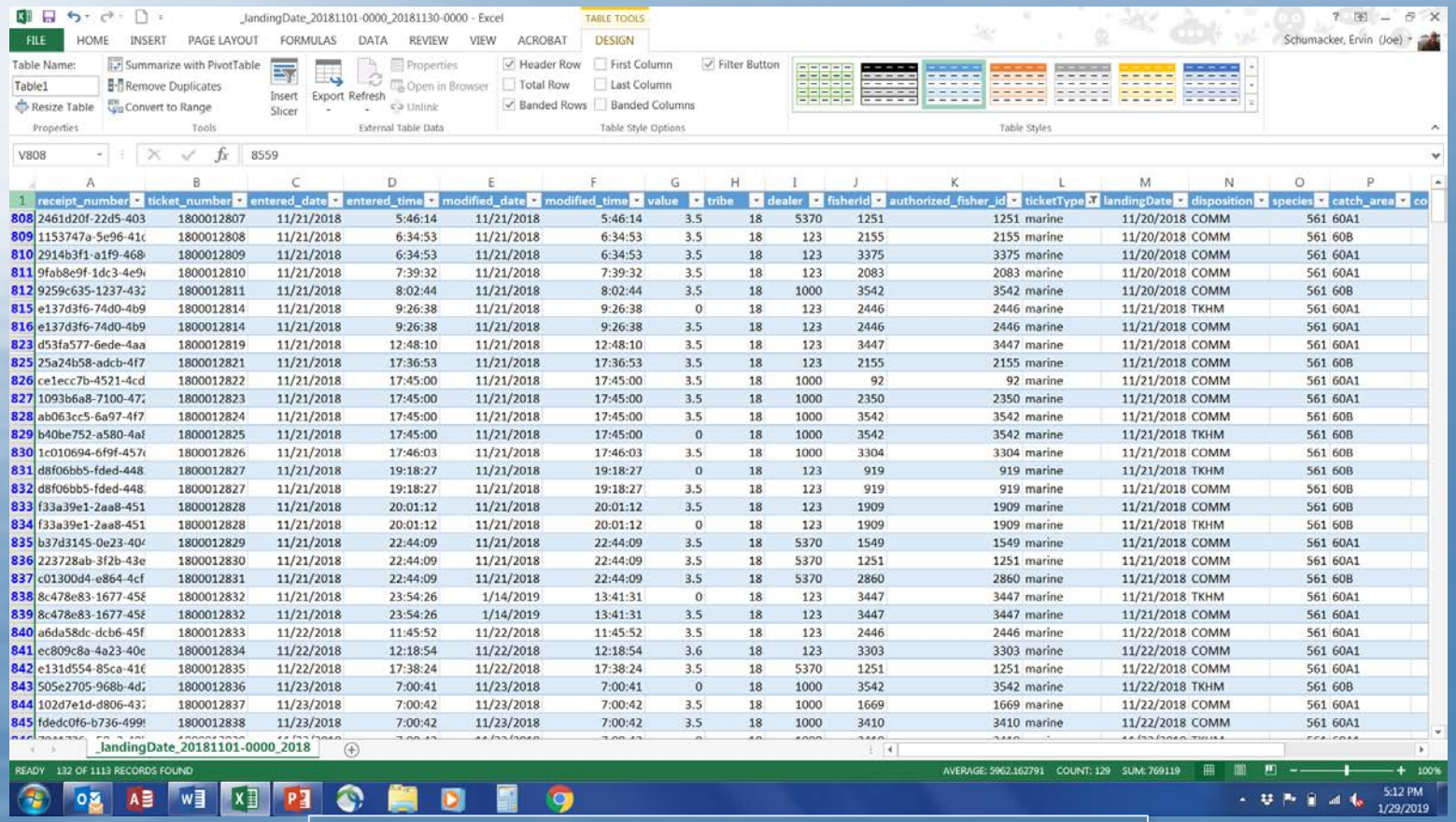
Transaction Receipt Printed on Portable Bluetooth Printer

DEMONSTRATION OF WEB DATA INTERFACE

https://Quinault Fish Ticket Site

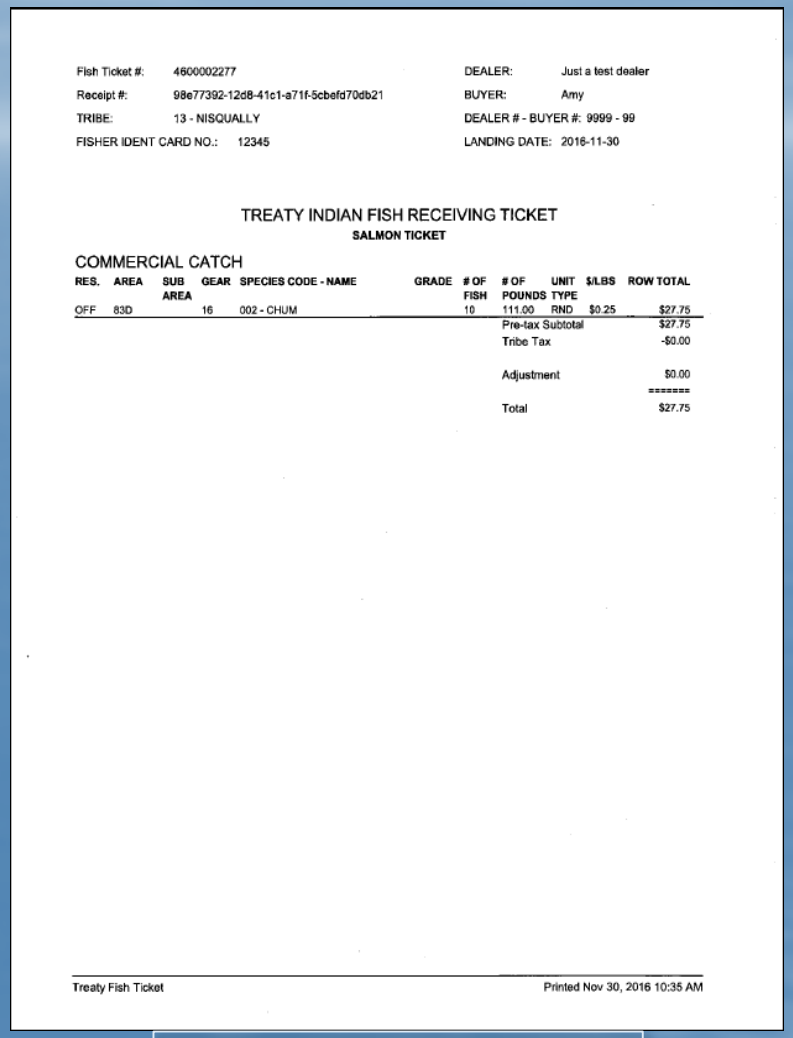
QA/QC STEPS – DATA STORAGE AND EXCHANGE

Two ways of looking at compiled fish Tickets: .csv file download or pdf version that looks similar to old style fish tickets.



	receipt_number	ticket_number	entered_date	entered_time	modified_date	modified_time	value	tribe	dealer	fisherId	authorized_fisher_id	ticketType	landingDate	disposition	species	catch_area	co
808	2461d20f-22d5-403	1800012807	11/21/2018	5:46:14	11/21/2018	5:46:14	3.5	18	5370	1251	1251	marine	11/20/2018	COMM	561	60A1	
809	1153747a-5e96-41c	1800012808	11/21/2018	6:34:53	11/21/2018	6:34:53	3.5	18	123	2155	2155	marine	11/20/2018	COMM	561	60B	
810	2914b3f1-a1f9-468	1800012809	11/21/2018	6:34:53	11/21/2018	6:34:53	3.5	18	123	3375	3375	marine	11/20/2018	COMM	561	60A1	
811	9fab8e9f-1dc3-4e9	1800012810	11/21/2018	7:39:32	11/21/2018	7:39:32	3.5	18	123	2083	2083	marine	11/20/2018	COMM	561	60A1	
812	9259c635-1237-43	1800012811	11/21/2018	8:02:44	11/21/2018	8:02:44	3.5	18	1000	3542	3542	marine	11/20/2018	COMM	561	60B	
815	e137d3f6-74d0-4b9	1800012814	11/21/2018	9:26:38	11/21/2018	9:26:38	0	18	123	2446	2446	marine	11/21/2018	TKHM	561	60A1	
816	e137d3f6-74d0-4b9	1800012814	11/21/2018	9:26:38	11/21/2018	9:26:38	3.5	18	123	2446	2446	marine	11/21/2018	COMM	561	60A1	
823	d53fa577-6ede-4aa	1800012819	11/21/2018	12:48:10	11/21/2018	12:48:10	3.5	18	123	3447	3447	marine	11/21/2018	COMM	561	60A1	
825	25a24b58-adcb-4f7	1800012821	11/21/2018	17:36:53	11/21/2018	17:36:53	3.5	18	123	2155	2155	marine	11/21/2018	COMM	561	60B	
826	ce1ecc7b-4521-4cd	1800012822	11/21/2018	17:45:00	11/21/2018	17:45:00	3.5	18	1000	92	92	marine	11/21/2018	COMM	561	60A1	
827	1093b6a8-7100-47	1800012823	11/21/2018	17:45:00	11/21/2018	17:45:00	3.5	18	1000	2350	2350	marine	11/21/2018	COMM	561	60A1	
828	ab063cc5-6a97-4f7	1800012824	11/21/2018	17:45:00	11/21/2018	17:45:00	3.5	18	1000	3542	3542	marine	11/21/2018	COMM	561	60B	
829	b40be752-a580-4a	1800012825	11/21/2018	17:45:00	11/21/2018	17:45:00	0	18	1000	3542	3542	marine	11/21/2018	TKHM	561	60B	
830	1c010694-6f9f-457	1800012826	11/21/2018	17:46:03	11/21/2018	17:46:03	3.5	18	1000	3304	3304	marine	11/21/2018	COMM	561	60B	
831	d8f06bb5-fded-448	1800012827	11/21/2018	19:18:27	11/21/2018	19:18:27	0	18	123	919	919	marine	11/21/2018	TKHM	561	60B	
832	d8f06bb5-fded-448	1800012827	11/21/2018	19:18:27	11/21/2018	19:18:27	3.5	18	123	919	919	marine	11/21/2018	COMM	561	60B	
833	f33a39e1-2aa8-451	1800012828	11/21/2018	20:01:12	11/21/2018	20:01:12	3.5	18	123	1909	1909	marine	11/21/2018	COMM	561	60B	
834	f33a39e1-2aa8-451	1800012828	11/21/2018	20:01:12	11/21/2018	20:01:12	0	18	123	1909	1909	marine	11/21/2018	TKHM	561	60B	
835	b37d3145-0e23-40	1800012829	11/21/2018	22:44:09	11/21/2018	22:44:09	3.5	18	5370	1549	1549	marine	11/21/2018	COMM	561	60A1	
836	223728ab-3f2b-43e	1800012830	11/21/2018	22:44:09	11/21/2018	22:44:09	3.5	18	5370	1251	1251	marine	11/21/2018	COMM	561	60A1	
837	c01300d4-e864-4cf	1800012831	11/21/2018	22:44:09	11/21/2018	22:44:09	3.5	18	5370	2860	2860	marine	11/21/2018	COMM	561	60B	
838	8c478e83-1677-458	1800012832	11/21/2018	23:54:26	1/14/2019	13:41:31	0	18	123	3447	3447	marine	11/21/2018	TKHM	561	60A1	
839	8c478e83-1677-458	1800012832	11/21/2018	23:54:26	1/14/2019	13:41:31	3.5	18	123	3447	3447	marine	11/21/2018	COMM	561	60A1	
840	a6da58dc-dcb6-45f	1800012833	11/22/2018	11:45:52	11/22/2018	11:45:52	3.5	18	123	2446	2446	marine	11/22/2018	COMM	561	60A1	
841	ec809c8a-4a23-40	1800012834	11/22/2018	12:18:54	11/22/2018	12:18:54	3.6	18	123	3303	3303	marine	11/22/2018	COMM	561	60A1	
842	e131d554-85ca-41	1800012835	11/22/2018	17:38:24	11/22/2018	17:38:24	3.5	18	5370	1251	1251	marine	11/22/2018	COMM	561	60A1	
843	505e2705-968b-4d	1800012836	11/23/2018	7:00:41	11/23/2018	7:00:41	0	18	1000	3542	3542	marine	11/22/2018	TKHM	561	60B	
844	102d7e1d-d806-43	1800012837	11/23/2018	7:00:42	11/23/2018	7:00:42	3.5	18	1000	1669	1669	marine	11/22/2018	COMM	561	60A1	
845	fdedc0f6-b736-499	1800012838	11/23/2018	7:00:42	11/23/2018	7:00:42	3.5	18	1000	3410	3410	marine	11/22/2018	COMM	561	60A1	

CSV File Format in Excel



Fish Ticket #: 4600002277
Receipt #: 98e77392-12d8-41c1-a71f-5cbefd70db21
TRIBE: 13 - NISQUALLY
FISHER IDENT CARD NO.: 12345

DEALER: Just a test dealer
BUYER: Amy
DEALER # - BUYER #: 9999 - 99
LANDING DATE: 2016-11-30

TREATY INDIAN FISH RECEIVING TICKET
SALMON TICKET

COMMERCIAL CATCH

RES.	AREA	SUB AREA	GEAR	SPECIES CODE - NAME	GRADE	# OF FISH	# OF POUNDS	UNIT TYPE	$/LBS	ROW TOTAL
OFF	83D		16	002 - CHUM		10	111.00	RND	$0.25	$27.75

Pre-tax Subtotal $27.75
Tribe Tax -$0.00

Adjustment $0.00
=======
Total $27.75

Treaty Fish Ticket Printed Nov 30, 2016 10:35 AM

PDF File Format

NW INDIAN FISHERIES COMMISSION DEVELOPMENT OF FISH TICKET SYSTEM

- In 2012 NWIFC Commissioners directed staff to explore electronic Treaty fish tickets.
- Working with consultants, developed dealer-based tablet app, website database.
- It captures all information currently recorded on paper Treaty fish and shellfish tickets.
- TEFTS allows Tribes to control passage of confidential information.
- Different account types include: dealer, Tribal, admin(NWIFC), and WDFW.
- Use of TEFTS is available at no charge to NWIFC 20 member Tribes.
- TEFTS fits into current data reporting system that includes both paper tickets and electronic, allowing dealers and/or Tribes to choose either method.

POTENTIAL FUTURE IMPROVEMENTS –

- Improve database reporting summarization ability for users.
- Migrate to SQL Server as desired by users.
- Use of Fisher ID cards with chips or stickers for quick scan transfer of data into app.
- Linkage to Tribal databases for fisher and dealer license information and status.
- Linkage to Tribal databases for data corrections purposes.
- Creation of fisher accounts.
- Create further data validation routines.

THANK YOU

QUESTIONS?

QUINAULT INDIAN NATION

Northwest Indian Fisheries Commission