

# Clallam Conservation District Irrigation Efficiencies Program

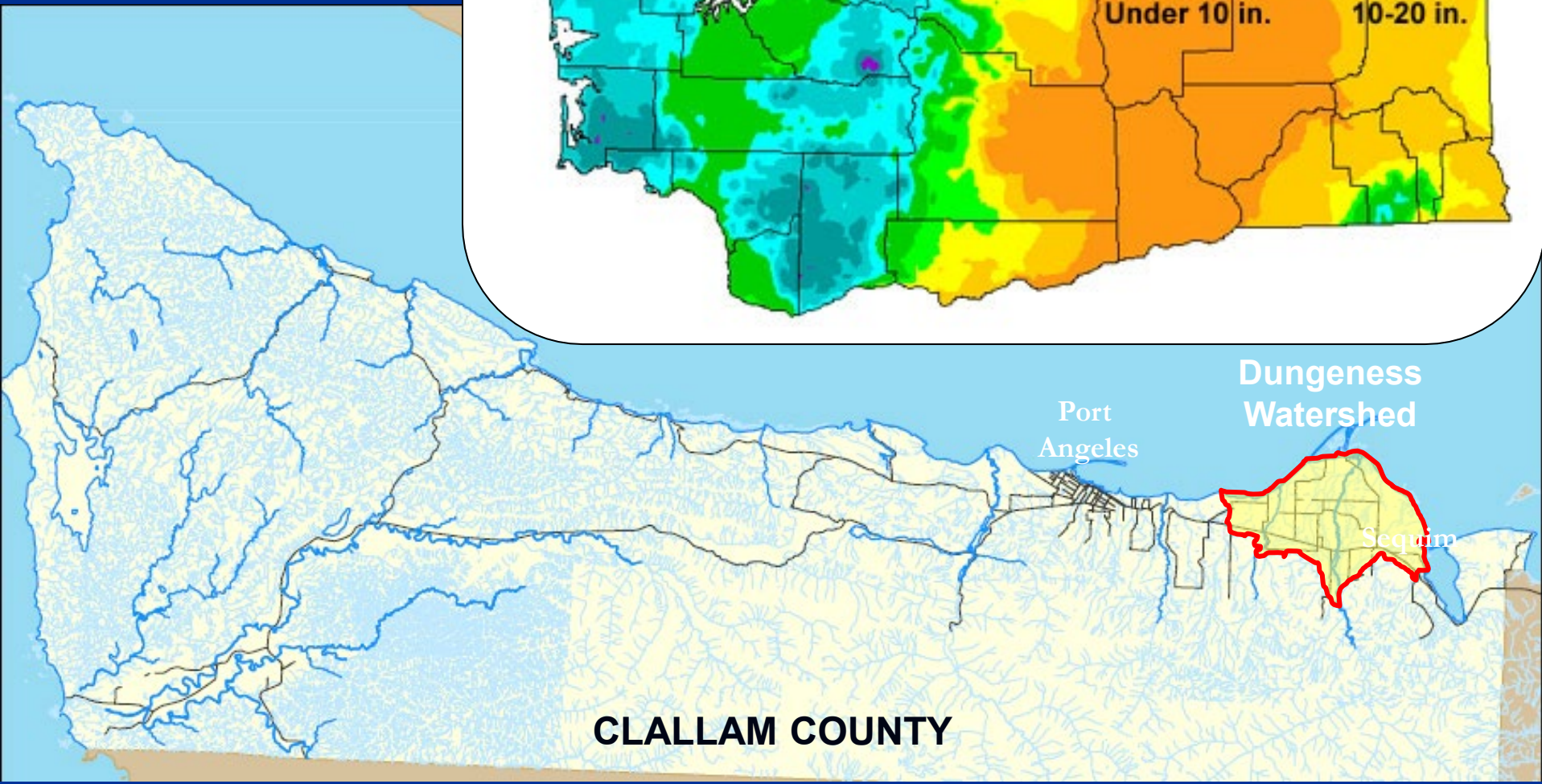
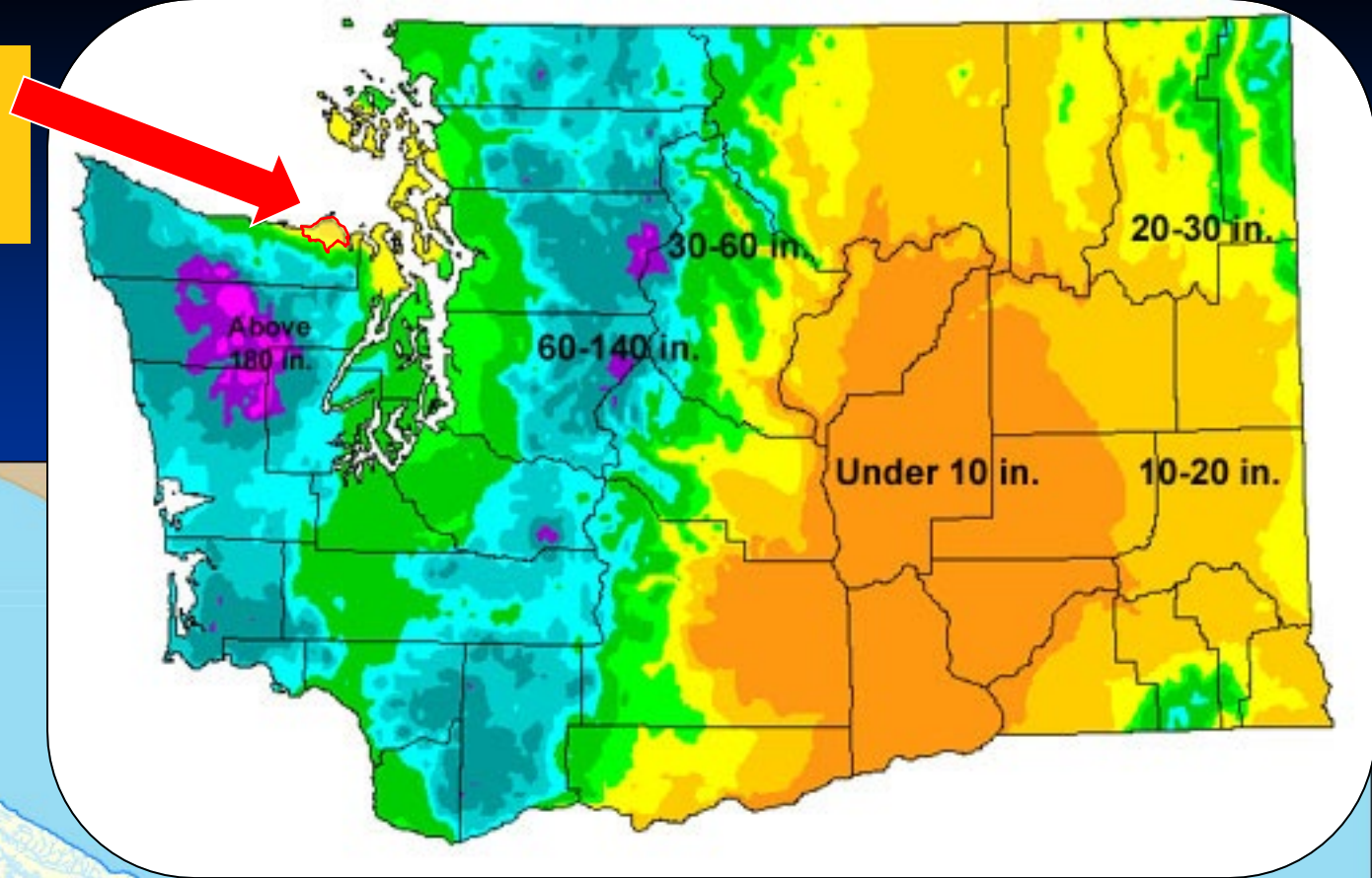
Joe Holtrop  
Manager

Jefferson County Conservation District  
Contracted to Clallam Conservation District





# Dungeness Watershed





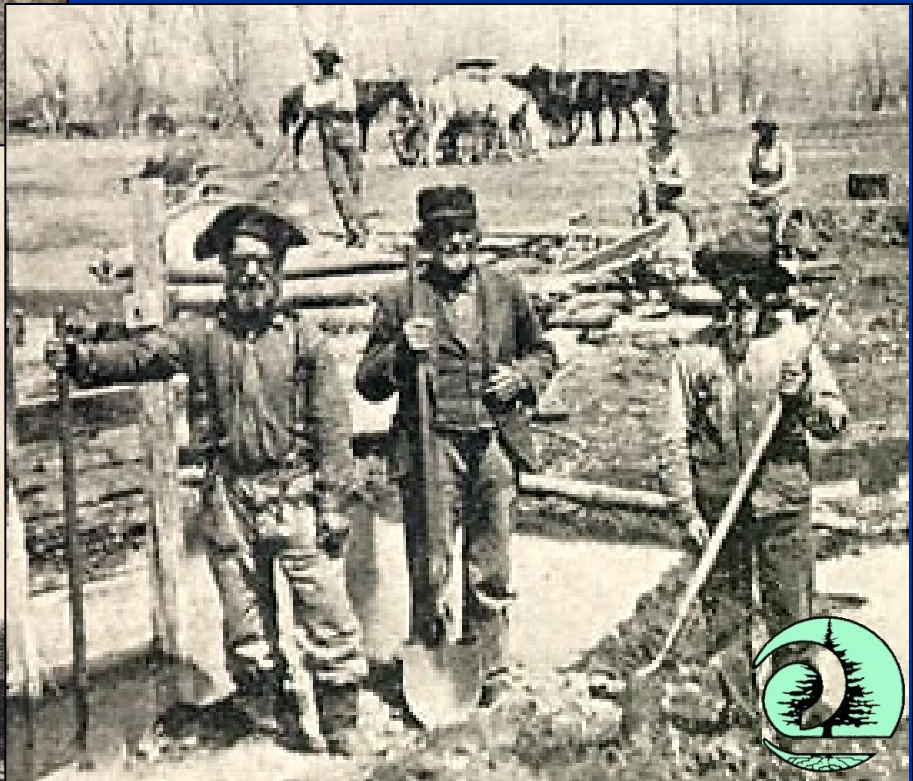
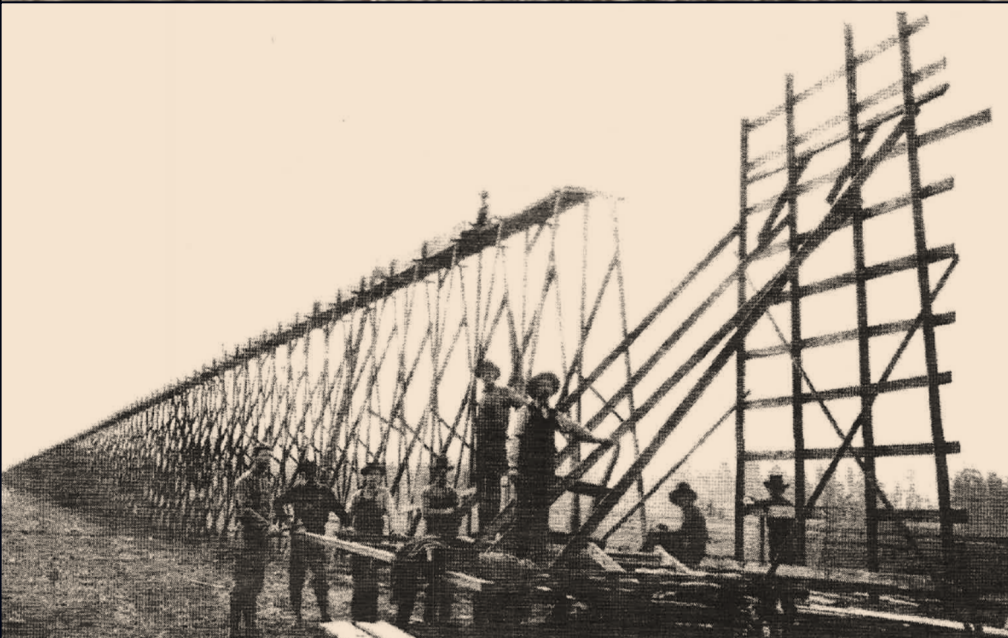
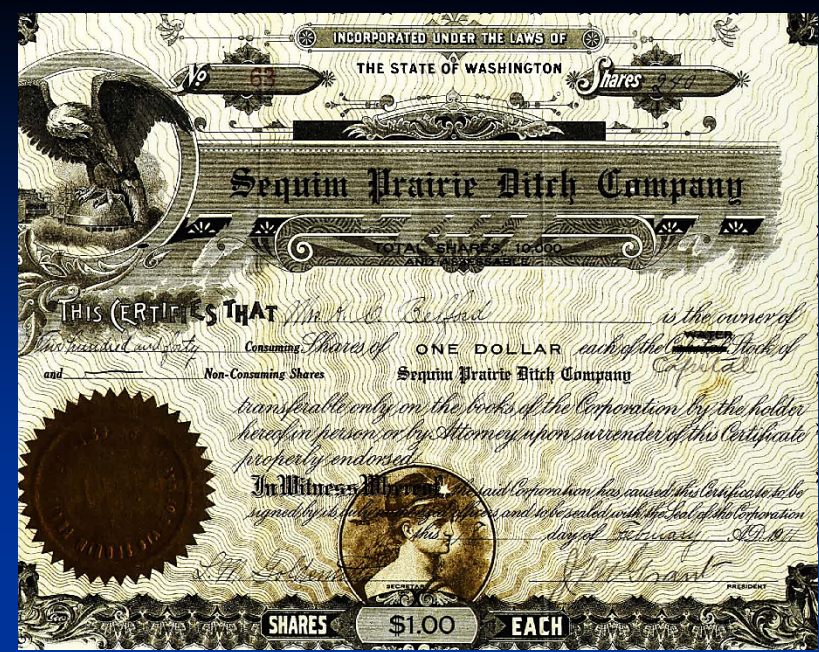






# 1895

## Sequim Prairie Ditch Company formed





# Irrigation District & Company

## 1924 Water Rights

<b>IRRIGATION ENTITY</b>	<b>Priority Date</b>	<b>Acres</b>
Sequim Prairie-Tri Association*	1895	4,500
Clallam Ditch Association	1902	3,000
Dungeness Irrigation Group	1911	3,547
Highland Irrigation District	1915	3,507
Agnew Irrigation District**	1918	7,550
Cline Irrigation District	1919	2,300
Dungeness Irrigation District	1921	2,600
<b>TOTAL</b>		<b>27,008</b>

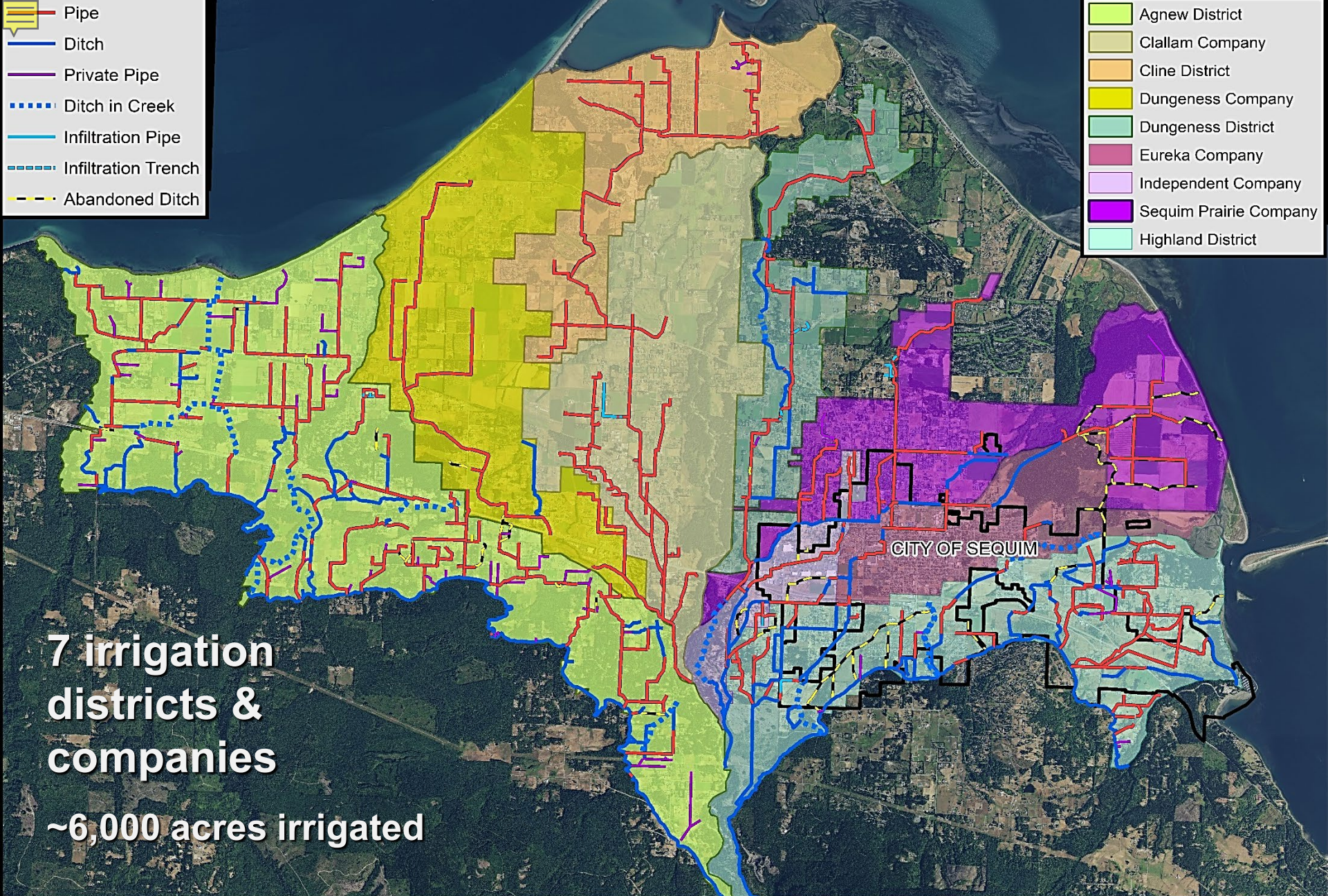
**Water Rights Totaled 540 cubic feet per second.**

\*Formerly Sequim Prairie, Eureka and Independent companies.

\*\*Includes 5 cfs right from McDonald Creek.







- Pipe
- Ditch
- Private Pipe
- Ditch in Creek
- Infiltration Pipe
- Infiltration Trench
- Abandoned Ditch

- Agnew District
- Clallam Company
- Cline District
- Dungeness Company
- Dungeness District
- Eureka Company
- Independent Company
- Sequim Prairie Company
- Highland District

**7 irrigation districts & companies**  
**~6,000 acres irrigated**

CITY OF SEQUIM



**Dungeness Irrigation Network - 2020**



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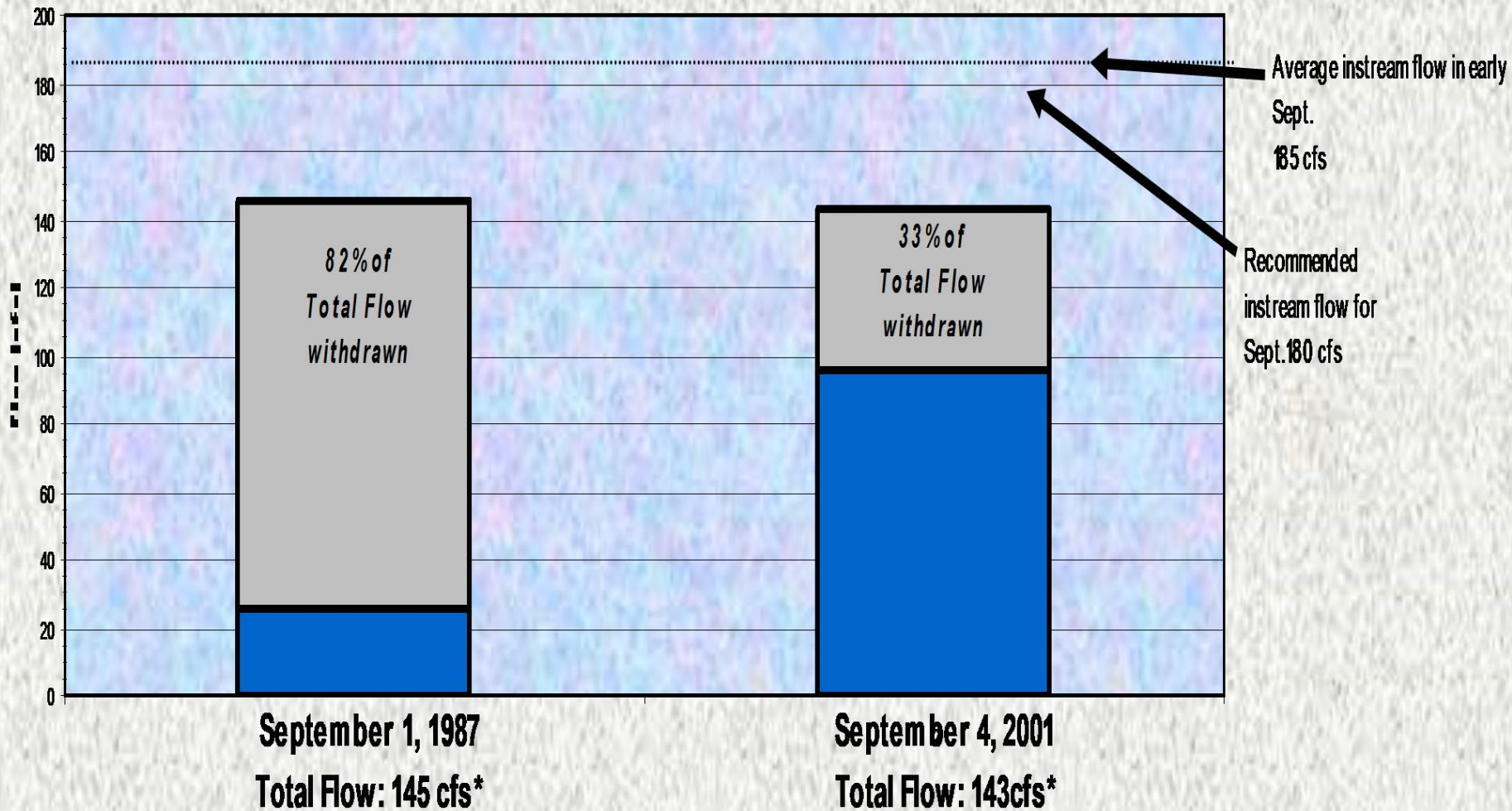
2/11/2020 Cartographer: Joe.Holtrop







# Comparison for Water Withdrawals from the Dungeness River September 1987 and 2001



**Total Flows, Withdrawals & Remaining Instream Flows**  
 (\*USGS gauging station# 1204800, above withdrawals)

- Total Water Withdrawals
- Remaining Instream Flows

# Dungeness River Habitat Limiting Factors

## Late Summer Low Flows

- Average September flow = 172 cfs
- Lowest recorded flow = 70 (2005)
- **Up to 50% of flow diverted for irrigation**





# Dungeness River ESA-Listed Salmonids

- Puget Sound Chinook - **1999**
- Hood Canal Summer Chum - **1999**
- Bull Trout - **1999**
- Puget Sound Steelhead - **2007**





# Dungeness Irrigation Conservation Milestones

1994 – Dungeness-Quilcene Plan

1998 – Trust Water Rights MOU

1999 – Salmon ESA listings

1999 – *Dungeness Comprehensive Water Conservation Plan*

**2001 – Irrigation Efficiencies Program established**

2001-present – Irrigation ditch piping projects

2012 – Superseding Water Right Certificates

- Water rights reduced from 540 to 103.5 cfs
- Must leave  $\geq 50\%$  flow
- Must maintain  $>60$  cfs in river

2013 – Dungeness Water Rule

**202? – Dungeness Off-Stream Reservoir**





# Irrigation District & Company Water Rights - 2012

<b>IRRIGATION ENTITY</b>	<b>1924</b>	<b>2012</b>	<b>change</b>
Agnew Irrigation District	151.0	29.5	-121.5
Clallam Ditch Association	60.0	7.3	-52.7
Cline Irrigation District	46.0	9.0	-37.0
Dungeness Irrigation District	52.0	12.7	-39.3
Dungeness Irrigation Group	70.94	7.0	-63.94
Highland Irrigation District	70.14	14.0	-56.14
Sequim Prairie-Tri Association	90.08	19.0	-80.78
<b>TOTAL</b>	<b>540.16</b>	<b>98.5</b>	<b>-440.78</b>

Quantities in cubic feet per second.

Total average annual diversions are about half what they were 25 years ago.











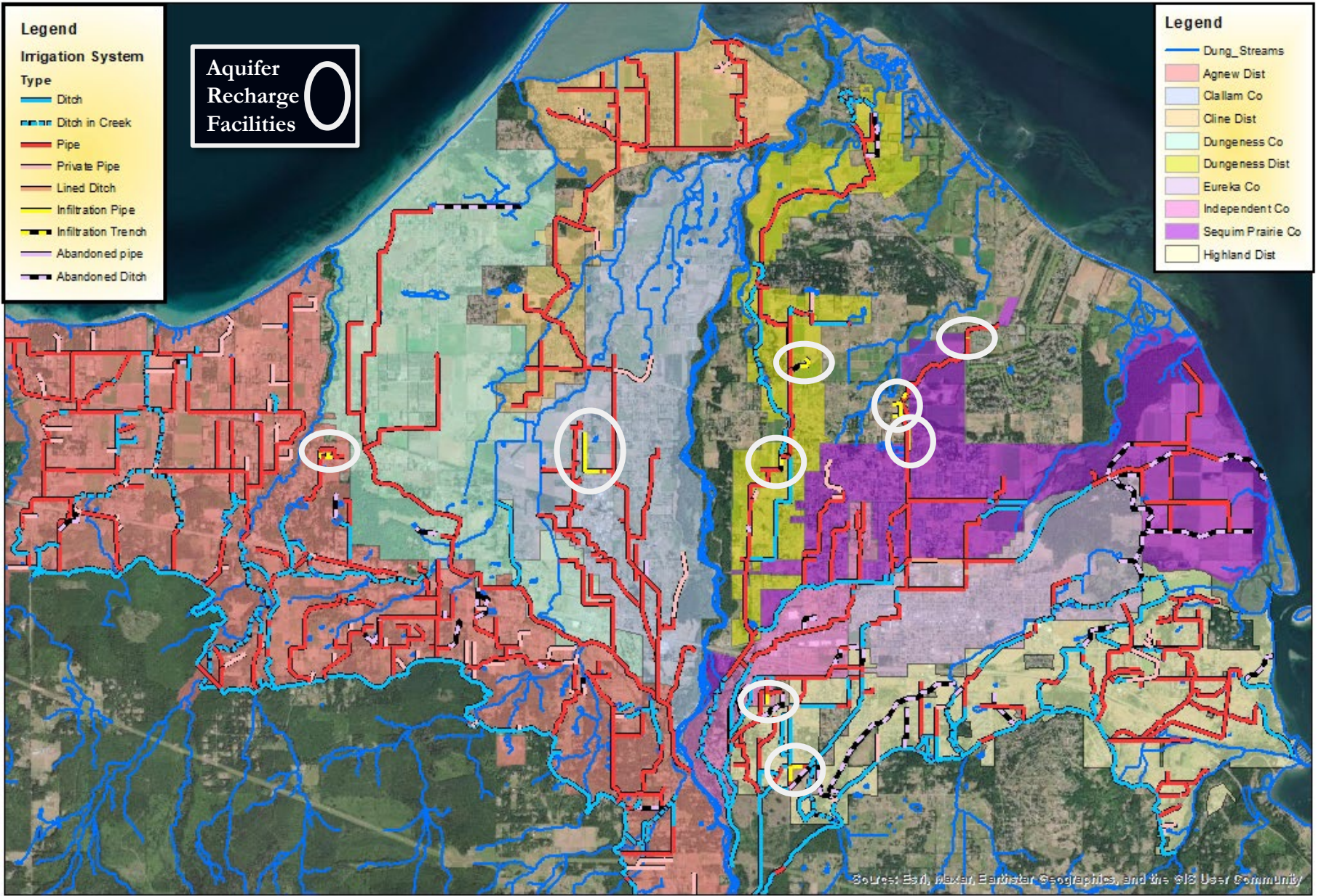
**Irrigation Ditches  
Before Piping**



**...After  
Piping**

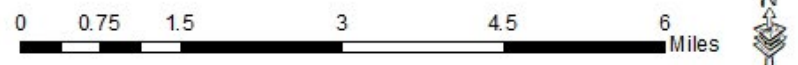






Cartographer: Joe Holtrop  
 Clallam Conservation District  
 January 2023

**Dungeness Irrigation Network**



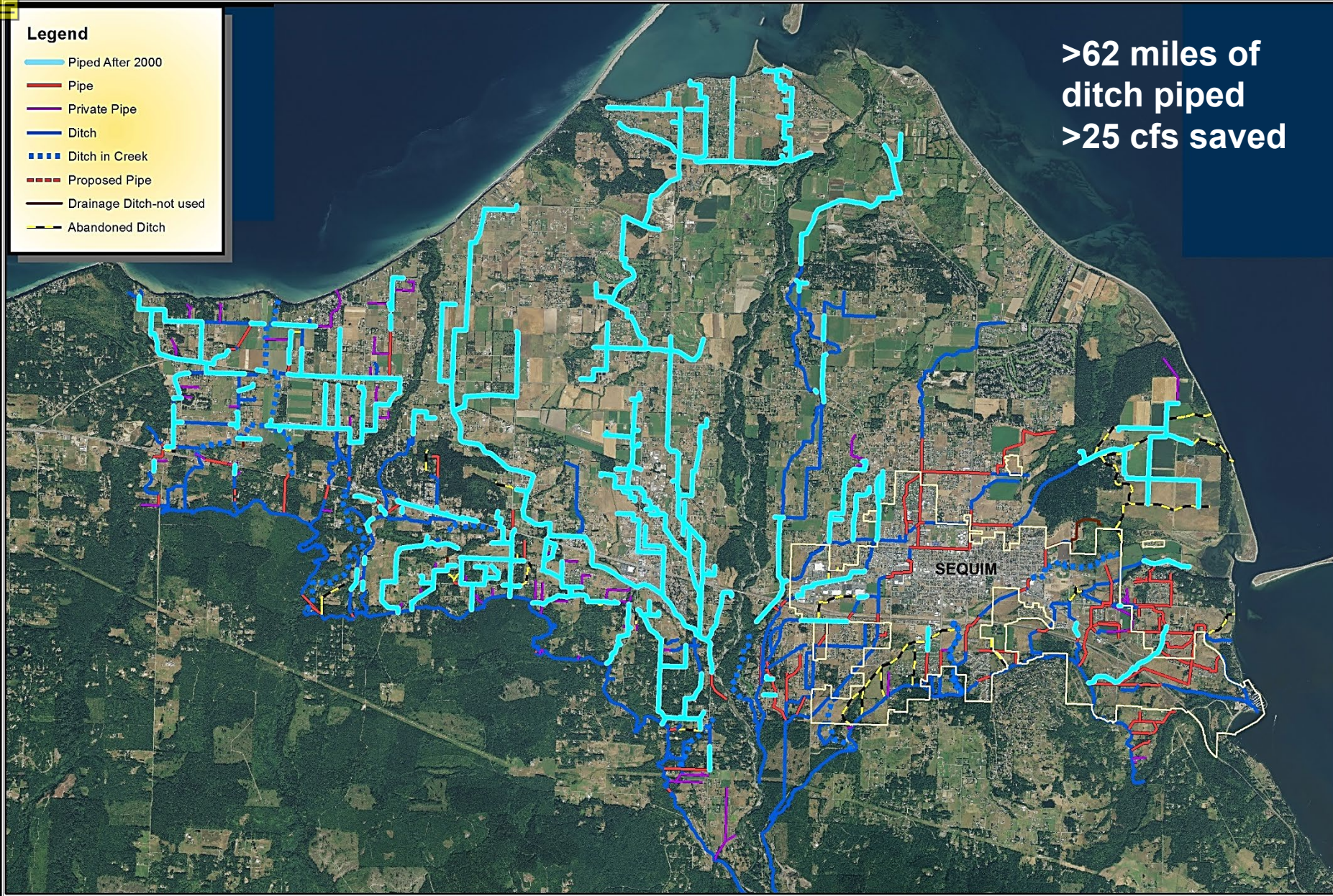
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



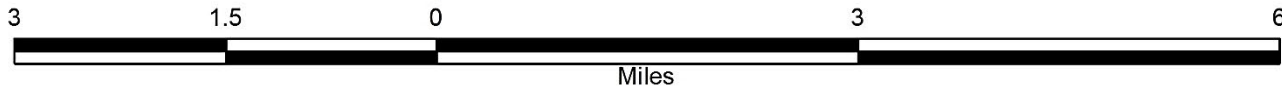
**Legend**

- Piped After 2000
- Pipe
- Private Pipe
- Ditch
- Ditch in Creek
- Proposed Pipe
- Drainage Ditch-not used
- Abandoned Ditch

**>62 miles of  
ditch piped  
>25 cfs saved**



**Pipelines Installed Since 2000**





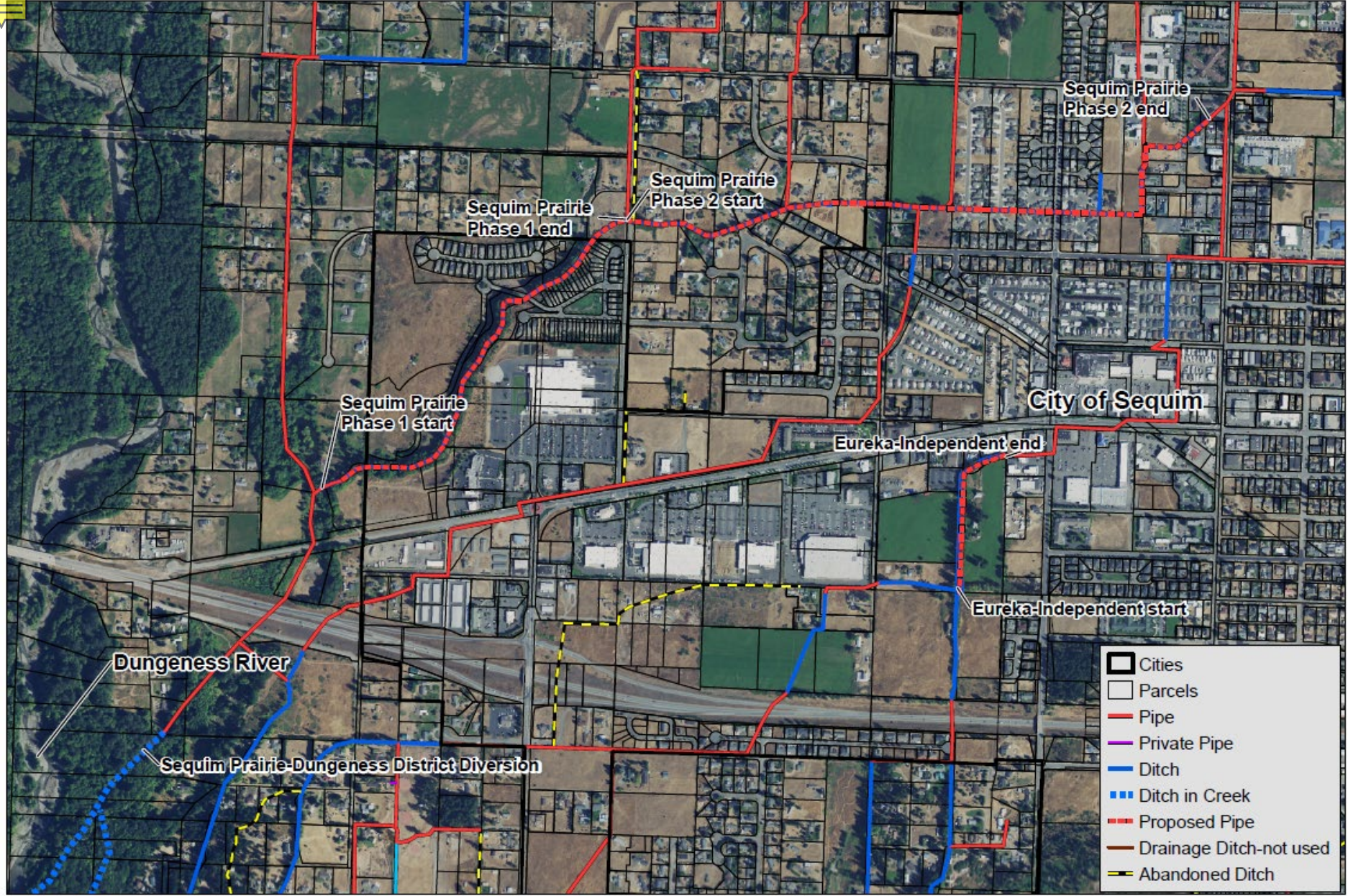
COOPERATOR	PROJECT	CODE	Feet Piped	CFS	CFS	AC FT	COST*	DATE COMPLETE	FUNDING SOURCE
Agnew Irrigation District	Foxhill siphon		1,120				\$ 25,000.00	1998	USFS
Agnew Irrigation District	Bear Creek		3,000				\$ 25,000.00	1998	USFS
Dungeness Irr. Group	Mill Road lateral	DC-1	6,500	0.57			\$ 100,000.00	Apr-00	JKT-SRFB
Agnew Irrigation District	Main - Lazy J		3,040	0.12			\$ 50,000.00	2001	JKT-SRFB
Dungeness Irr. Group	Kitchen-Dick lateral	DC-5	7,100	0.25			\$ 59,529.64	Apr-01	IWQ, SRFB
Clallam Ditch Company	Carlsborg Road lateral	C-3	14,000	0.4			\$ 227,741.10	Apr-02	IWQ, Dairy, SRFB, NFWF
Agnew Irrigation District	Old Oly north laterals		2,880	0.28			\$ 50,000.00	2002	SRFB
Agnew Irrigation District	Hooker Road lateral	A-8	5,000	0.21			\$ 14,969.41	Apr-02	WSSC IWQ
Sequim Prairie Tri-Irrg.	Independent lateral	I-4	4,725	0.9			\$ 100,000.00	Apr-03	JKT-SRFB
Clallam Ditch Company	Taylor Cutoff & Health Road lateral	C-1 & C-4	8,500	0.48	0.41	125	\$ 131,371.45	May-04	IEP
Dungeness Irr. Group	Cameron Road lateral	DC-7	5,360	0.2	0.17	51.7	\$ 67,250.48	May-04	IEP
Sequim Valley Farms (SPTIA)	Low Pressure Traveling Boom	Smith		0.35	0.3	88.8	\$ 95,514.22	Jul-04	IEPEQIP
Cline Irrigation District	Clark Road lateral	CL-13	4,300	0.14			\$ 83,389.11	Fall-04	IWQ
Cline Irr. District & CD Prop.	Wheeler Road lateral	CL-3	2,600	0.12	0.08	24.39	\$ 62,140.26	May-05	IEP, IWQ
Highland Irrigation District	Simdars lateral	H-16	3,400	0.02			\$ 80,000.00	May-05	JKT-SRFB
Agnew Irrigation District	Atterberry laterals		6,250	0.18			\$ 125,000.00	2006	SRFB
Sequim Prairie Tri-Irrg.	Port Williams Reservoir Second Contract	SP-7 & 9 SP-8	18,680	1.75	0.97	297	\$ 321,043.42	Jan-06	IEP
				1	0.25	75.7	\$ 164,953.37	Jan-06	IEP
Dungeness Irr. Group	Main Canal to Matriotti	M-4	5,500	0.65	0.55	168.9	\$ 244,075.42	Jan-06	IEP
Highland Irrigation District	Smith Ditch to Myco project	H-15	3,000	0.03			\$ 44,417.00	Aug-06	IEP, Pioneers
Sequim Prairie Tri-Irrg.	Priest/Hendrickson Rd lateral	SP-1 & 2	6,690	0.46	0.3	91.47	\$ 242,700.73	Aug-06	IEP, Pioneers
Cline Irrigation District	CCD COMBO Phase 2 - Main Canal		15,700	1	1	308	\$ 537,227.67	Aug-06	Ref 38, CIDMP
Agnew Irrigation District	Atterberry laterals		7,000	0.18			\$ 125,000.00	2007	SRFB
Agnew Irrigation District	Parrish et al laterals		12,555	0.41			\$ 126,160.00	2007	SRFB
Dungeness Irr. District	Sprinkler to Drip	How at		0.04	0.04	10.67	\$ 10,200.00	Mar-07	IEP
Clallam Ditch Company	CCD COMBO Phase 3 - DIG to Runion		3,708	1	1	244	\$ 500,000.00	May-07	IEP, CIDMP
Dungeness Irr. Group	CCD COMBO Phase 3 - intake to DIG		12,583	0.8	0.8	244	\$ 648,282.00	May-07	IEP, CIDMP
Clallam Ditch Company	CCD COMBO Phase 1		13,000	1.1	1.1	338.8	\$ 500,000.00	Dec-07	Ref 38, CIDMP, EPA
Cline Irrigation District	CCD COMBO Phase 1		30,000	2.1	2.1	646.8	\$ 1,705,503.00	Dec-07	Ref 38, CIDMP, EPA
Agnew Irrigation District	Parrish et al laterals		12,500	0.41			\$ 125,000.00	2008	SRFB
CCD	CCD COMBO Phase 4 - Skyridge lat, misc		1,230				\$ 420,000.00	Apr-08	BOR, SRFB
Cline Irrigation District	CCD COMBO Phase 5 - laterals		5,000				\$ 380,000.00	summer-08	SRFB
Dungeness Irr. District	Cameron Phase	M-1	3,700	0.02	0.1		\$ 242,337.37	May-09	IEP, EQUIP, JKT
Dungeness Irr. Dist/SPTIA	Headgate to Split	M-3	2,370	0.8			\$ 514,452.75	Apr-10	SRFB
Dungeness Irr. District	Split to Hendrickson	M-3	3,500	2	1.4	462	\$ 478,194.89	Apr-10	IEP, SRFB, DOE
Agnew Irrigation District	Old Oly Main	A-18	3,200	0.3			\$ 60,000.00	2011	BOR
Agnew Irrigation District	Abbott Road laterals	A-22	2,300	0.45		139	\$ 40,000.00	2011	BOR
Dungeness Irr. District	Towne to Tailw ater	M-1	8,664	0.9	0.68	206	\$ 515,505.00	Apr-11	SRFB, DOE, EQUIP, NFWF
Dungeness Irr. District	Low Pressure Traveling Boom	Huber	2,100	0.4	0.4	25	\$ 61,962.00	May-11	IEP, DOE
Agnew Irrigation District	Roupe Road lateral		8,100	0.23		71	\$ 150,000.00	2012	BOR
Dungeness Irr. Group	CCD COMBO Phase 2 - Main Canal		2,918	0.55	0	170	\$ 322,257.01	Apr-12	NOAA, DOE
Agnew Irrigation District	Taylor Cutoff laterals		5,000	0.4	0.2	124	\$ 98,000.00	Apr-12	WSSC
Dungeness Irr. Group	CCD COMBO Phase 3 - Main Canal		11,232	2	0	620	\$ 1,048,423.00	Mar-13	WSSC, DOE
Dungeness Irr. Group	CCD COMBO Phase 4 - Main Canal		17,845	0.5	0	155	\$ 1,196,424.00	Apr-14	WSSC, DOE
Cline Irrigation District	W. Anderson Road		3,345	0.33	0	232	\$ 188,805.50	Mar-15	DOE
Sequim Prairie Tri-Irrg.	Narrow Way-Marlo		2,364	0.11	0	34	\$ 148,869.53	Apr-15	DOE
Dungeness Irr. District	Hendrickson to McComb		6,830	0.3	0	93	\$ 525,000.00	Feb-16	DOE
Agnew Irrigation District	North Barr		1,235	0.4	0	0	\$ 36,607.00	Apr-16	WSSC
Agnew Irrigation District	Solmar Lateral		1,765	0.25	0	0	\$ 41,517.00	Apr-16	WSSC
Dungeness Irr. District	McComb to Levee		11,945	2	1.6	493	\$ 952,061.00	Apr-17	IEP, NS, DOE
Sequim Prairie Tri-Irrg.	Independent Main & Lateral		7,220	0.6	0.6	185	\$ 599,511.00	Jun-17	DOE, IEP
Sequim Prairie Tri-Irrg.	Eureka Main		1,975	0.25	0.25	77	\$ 274,652.76	Feb-19	IEP, NR, DOE
Sequim Prairie Tri-Irrg.	Evans Road Lateral		10,009	1.5	1.5	0	\$ 879,473.00	Mar-20	IEP, NR, DOE
Sequim Prairie Tri-Irrg.	Independent MAT Clinic		1,300	0.25	0.25	77	\$ 50,144.99	Feb-22	IEP
Agnew Irrigation District	Fern Road Lateral		2,075	0.15	0.15	46	\$ 110,000.00	Apr-21	IEP
Agnew Irrigation District	Firehouse Lateral		3,350	0.15	0.15	46	\$ 120,000.00	Jul-21	IEP
Sequim Prairie Tri-Irrg.	Independent-Eureka Shaw		1,300	0.25	0.25	77			IEP, BoR WS

(miles) 66.39 350,563 30 17 5,894 \$16,045,666.08

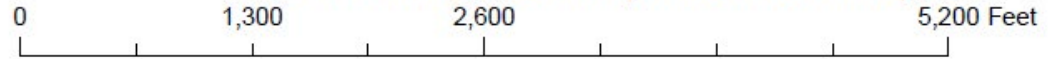
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<b>Ac-Ft Saved:</b>	<b>9,180</b>
<b>CCD:</b>	<b>7,938</b>
<b>Cost:</b>	<b>\$16 M</b>
<b>CCD:</b>	<b>\$14.7 M</b>







# SPTIA Irrigation Improvement Project



1:12,000

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# Questions?

