



Surface Water Complexities in Washington State

**Keith Stoffel
Water Resources Program
Washington Department of Ecology**

**Palouse Basin Water Summit
October 6, 2009**

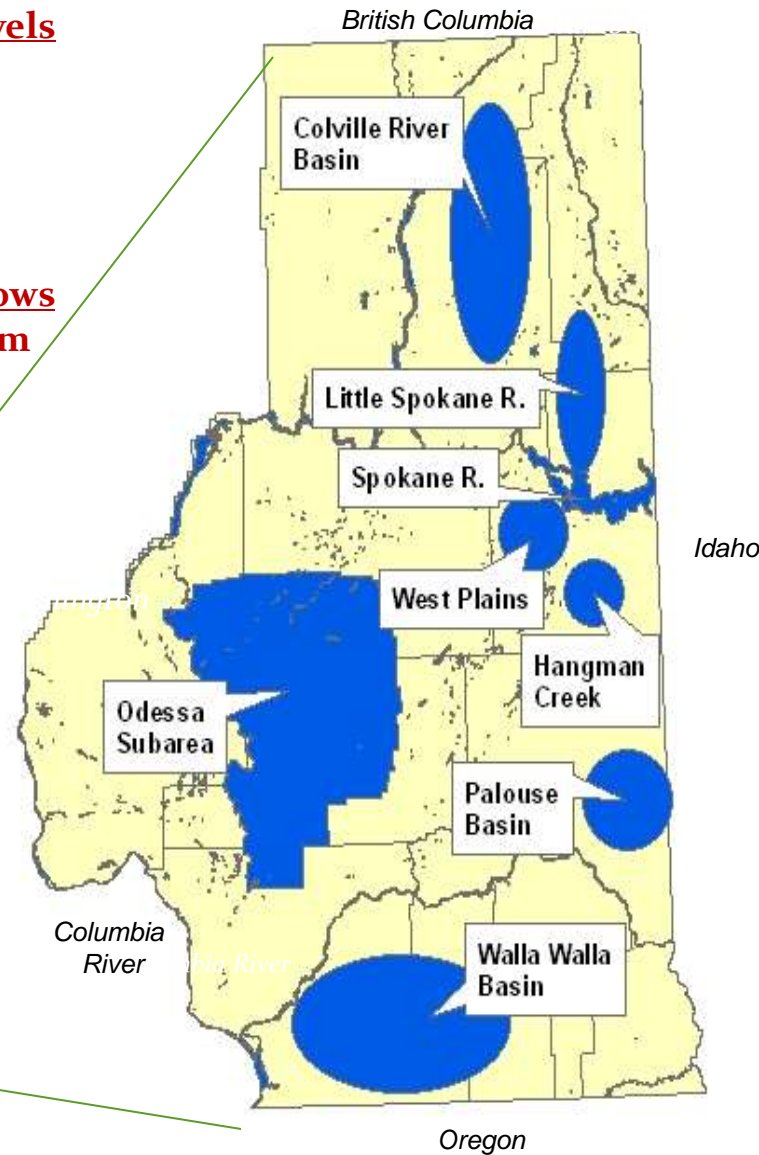
Aquifers "Of Concern" in Eastern Washington

Declining Water Levels

- Odessa
- West Plains
- Palouse Basin
- Walla Walla

Declining Streamflows

- Spokane-Rathdrum
- Little Spokane
- Hangman
- Colville
- Walla Walla



Conjunctive Management of Groundwater and Surface Waters

Washington Water Code

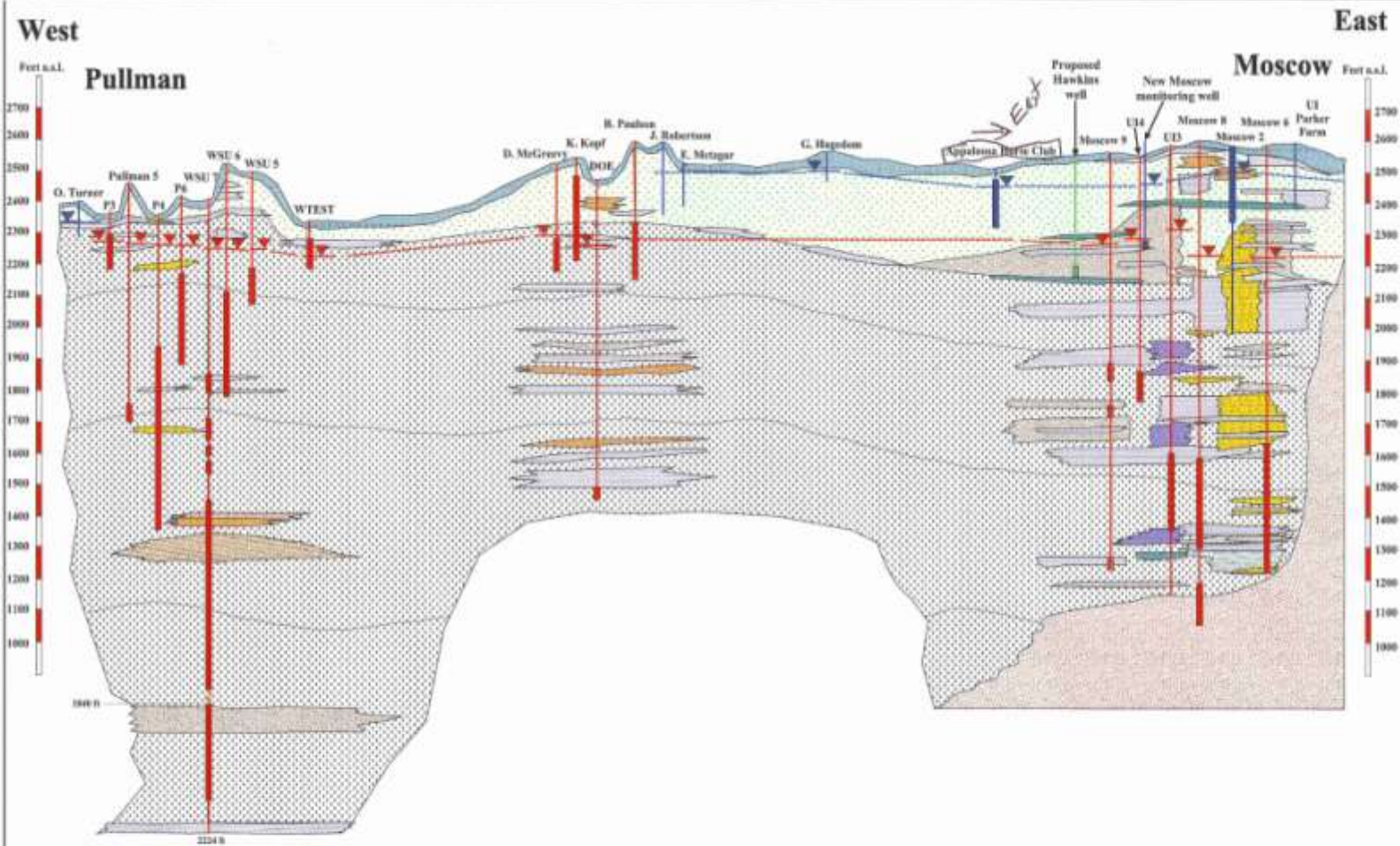
Washington's groundwater code (Chapter 90.44 RCW) is supplemental to the surface water code (Chapter 90.03 RCW) –

Taken together, these two chapters require groundwater and surface water to be managed conjunctively.

Washington Case Law

Postema v. Pollution Control Hearing Board, et al –
Washington State Supreme Court, 2000:

“When Ecology determines whether to issue a permit for appropriation of public groundwater, Ecology must consider the interrelationship of the groundwater with surface waters, and must determine whether surface water rights would be impaired or affected by groundwater withdrawals.”



- | | | | |
|--------------|------------|--------------------------------|-------------------------------|
| Clay | Sandy clay | Sand | Wanapum basalt |
| Claystone | Loess | Sandstone | Grande Ronde basalt |
| Shale | Sandy silt | Sandy gravel | Magnetostratigraphic boundary |
| Conglomerate | | Crystalline (pre-basalt) rocks | |

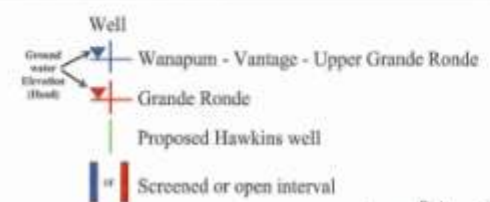


Figure 3
Geologic Cross-section:
Pullman to Moscow

Adapted from cross-section A-A' by Farida Lusk (2006)
 New University of Idaho well (TagD0044830) and proposed Hawkins well added.

0 Feet 5000

West Water Pollution
 JW0606



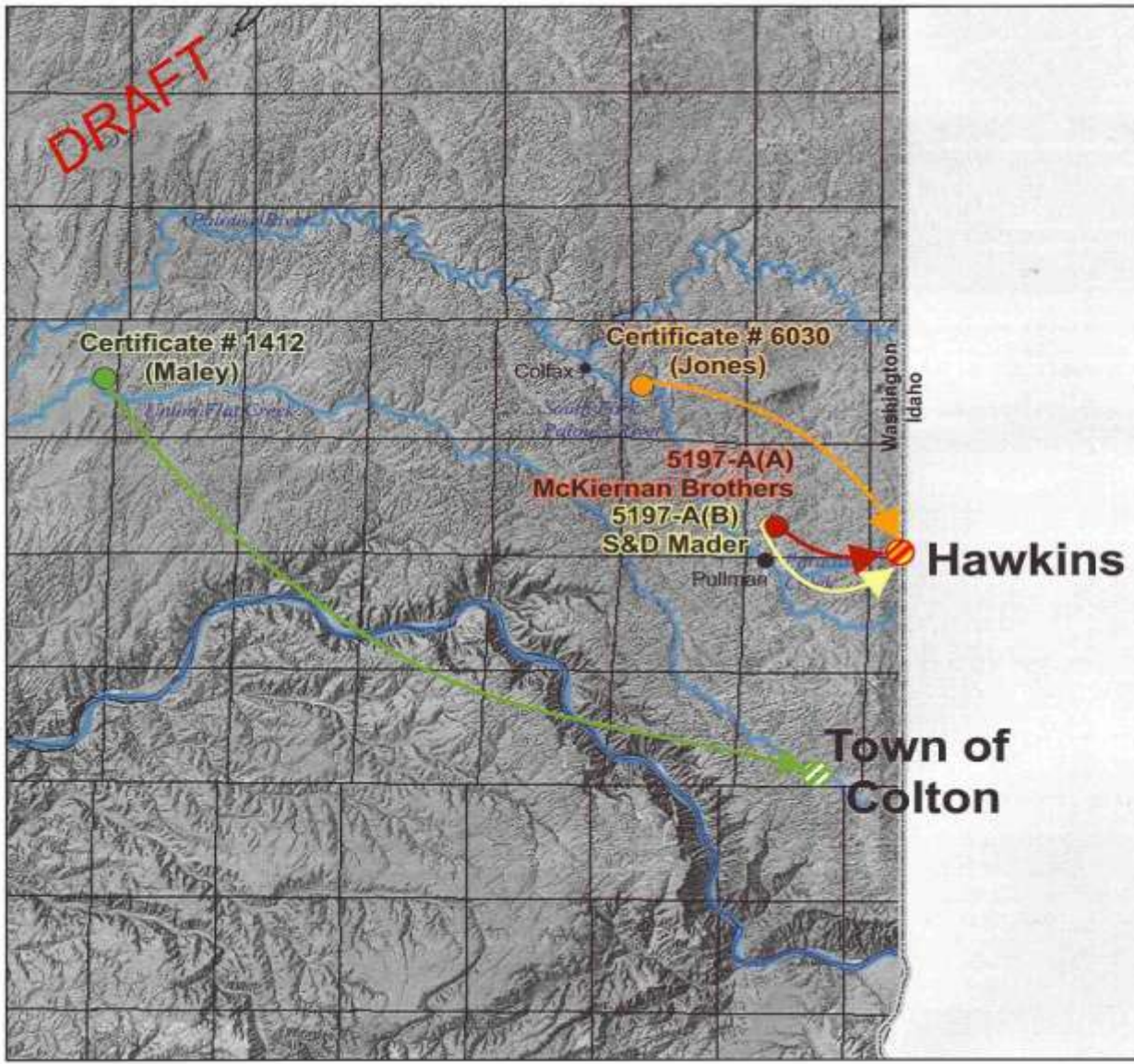


Figure 1
Hawkins Companies
Proposed Water
Rights Transfers
Overview

-  Hawkins Place of Use
-  McKiernan Place of Use
-  Jones Place of Use
-  S&D Mader Place of Use
-  Town of Colton
-  Maley Place of Use
-  Rivers and streams
-  Townships
-  State boundary



Reclaimed Water (Chapter 90.46 RCW)

RCW 90.46.130

Impairment of water rights downstream from freshwater discharge points.

“(1) ... facilities that reclaim water under this chapter shall not impair any existing water right downstream from any freshwater discharge points of such facilities unless compensation or mitigation for such impairment is agreed to by the holder of the affected water right.”

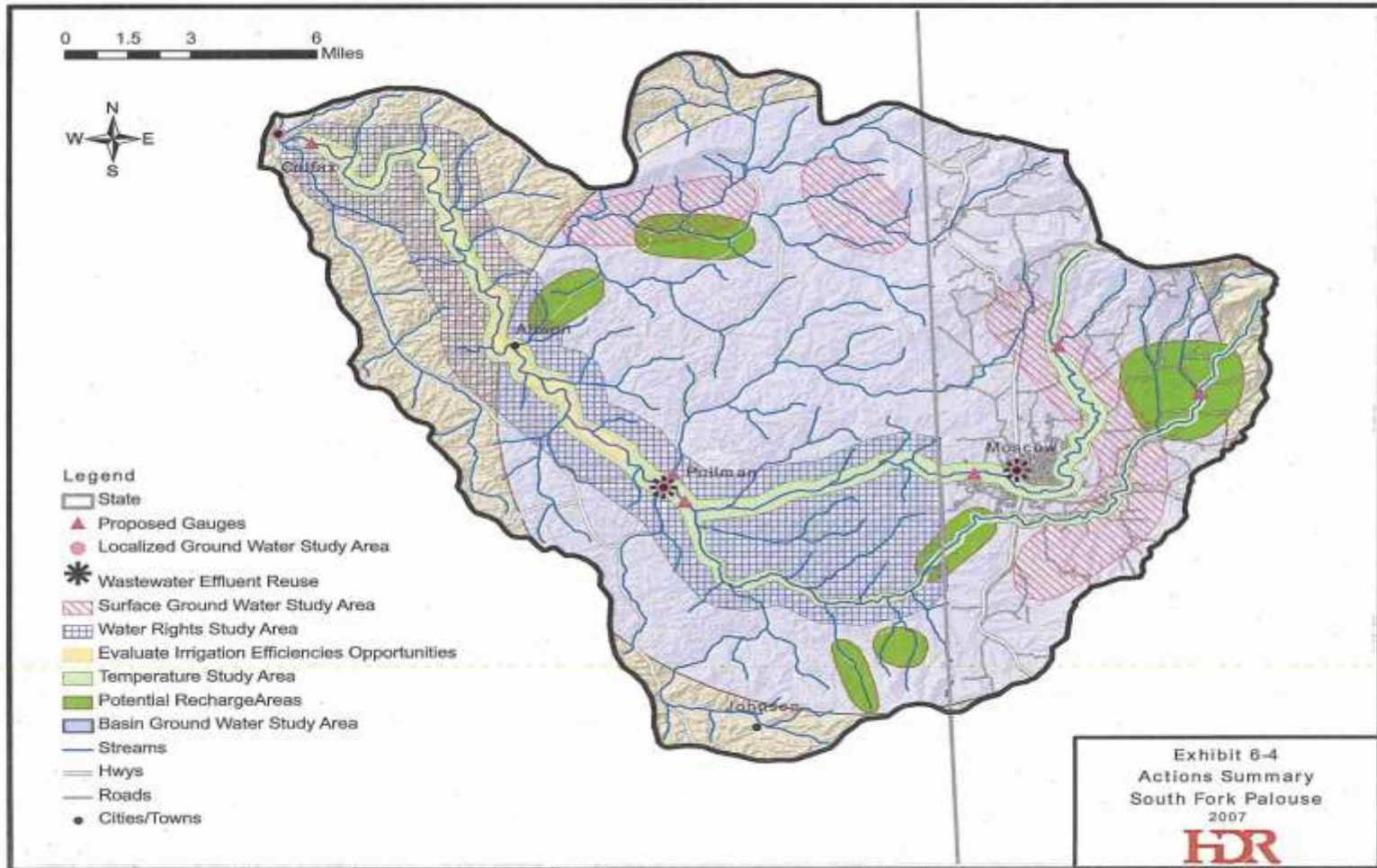


SURFACE WATER CERTIFICATES
South Fork Palouse River
Between Pullman and Colfax, WA

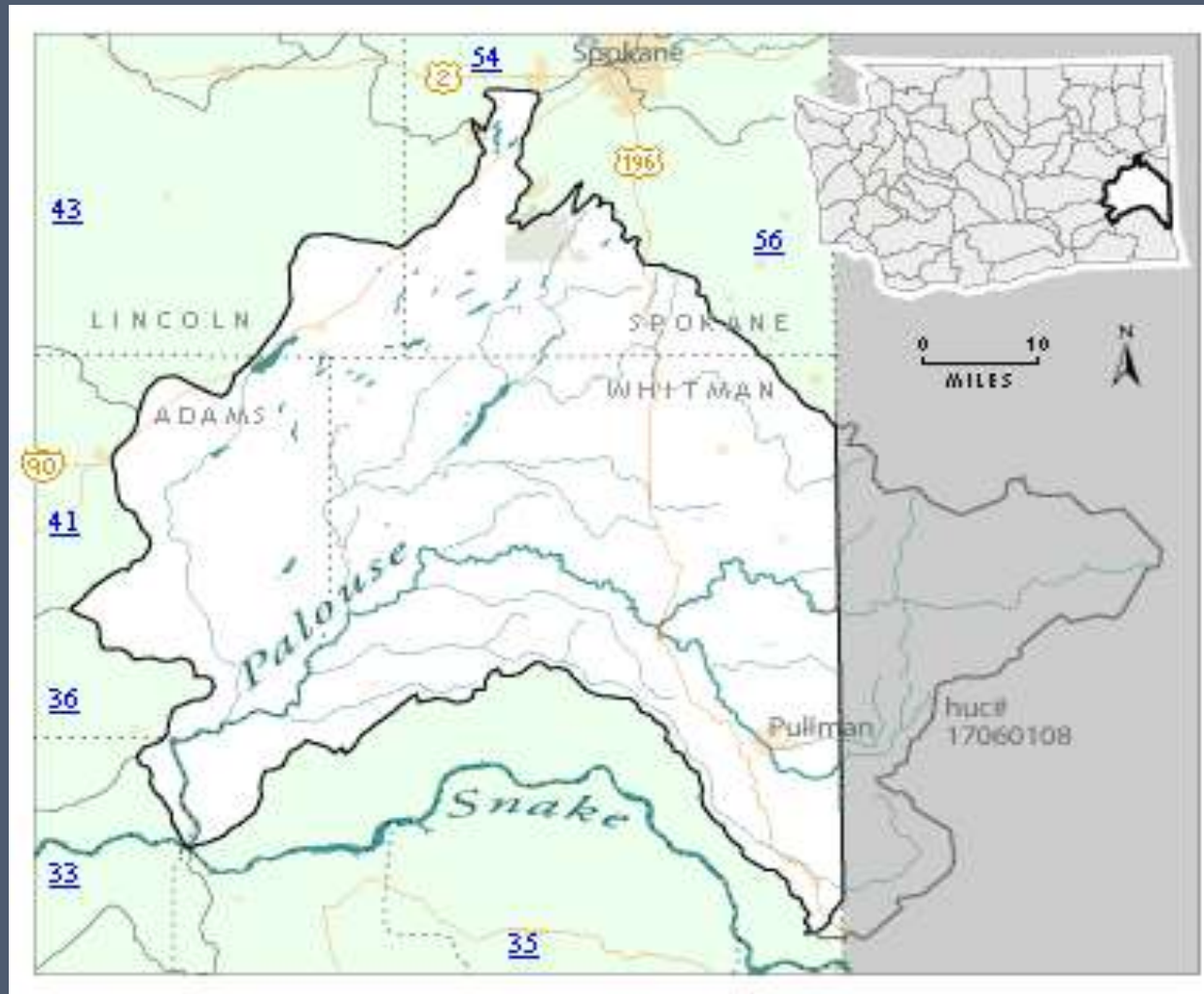
<u>CERTIFICATE NUMBER</u>	<u>NAME</u>	<u>LOCATION</u>	<u>PRIORITY DATE</u>	<u>MAXIMUM INSTANTANEOUS QUANTITY (Qi) (in cfs)</u>	<u>MAXIMUM ANNUAL QUANTITY (Qa) (in afy)</u>	<u>ACRES IRRIGATED</u>	<u>PURPOSE</u>
53-01528	Hope, Everett	SE4NW4 Sec 15 15N, 44E	8/7/69	0.02 (10 gpm)	4	---	DS, ST
53-04290	Phelps, Harold	NW4NE4SE4 Sec 15 15N, 44E	7/30/49	0.11 (55 gpm)	---	8	IR
53-04706	Schrader, D Cain, C	NW4SW4NW4 Sec 15 15N, 44E	1/9/51	0.35 (175 gpm)	---	20	IR
53-05237	Branch, Archie	SW4SE4 Sec 13 16N, 43E	8/18/52	0.46 (230 gpm)	---	35	IR
53-05746	Brannon, Harold	SW4NW4 Sec 25 15N, 44E	11/15/50	0.25 (125 gpm)	---	20	IR
53-05852	Christopher, PG	S2SW4 Sec 10 15N, 44E	5/19/52	0.18 (90 gpm)	---	18	IR
53-06030	Jones, Elbert	NE4NE4 Sec 19 16N, 44E	5/28/52	0.3 (150 gpm)	---	30	IR
53-06674	Cochran, Roy	NE4SW4 Sec 33 16N, 44E	1/28/55	0.2 (100 gpm)	60	15	IR
53-08187	McDonald, GR	Sec 31 15N, 45E	2/13/59	0.09 (45 gpm)	24	6	IR
53-08792	Harston, CB & R	SW4SW4NE4 Sec 15 15N, 44E	10/15/62	0.04 (20 gpm)	10	2.5	IR
53-08346	Pyetski, Paul	SE4NW4 Sec 15 15N, 44E	8/24/54	0.09 (45 gpm)	---	7	IR
53-09423	Umess, Vance	W2SW4 Sec 13 16N, 43E	5/21/63	0.077 (39 gpm)	20	5	DS, IR
53-10608	Morton, Ralph	NE4NE4 Sec 24 16N, 43E	5/29/68	0.05 (25 gpm)	5.66	2	ST, IR
53-10821	Lederman, Harry	SW4SE4 Sec 25 15N, 44E	1/29/62	0.4 (200 gpm)	108	27	IR
53-11316	Weber, CF & Y	W2SE4SW4 Sec 28 16N, 44E	11/13/51	1.0 (500 gpm)	---	105	IR
53-29209	McDonald, Gordon	NE4SW4 Sec 31 15N, 45E	5/27/92	0.02 (10 gpm)	2	1	IR
53-30282 Permit Only	Abion Town, Smith	SW4SE4NW4 Sec 15 15N, 44E	3/15/00	0.01 (5 gpm)	4	---	EN

TOTAL Qi = 3.647 cfs

Aquifer Recharge & Storage



Watershed Plan Implementation Strategies



Water Management Programs In Eastern Washington

Water Resource Programs

- Colville River (Chapter 173-559 WAC)
- Walla Walla River (Chapter 173-532 WAC)
- Little Spokane River (Chapter 173-555 WAC)
- Main Stem Columbia River (Chapter 173-563 WAC)
- Main Stem Snake River (Chapter 173-564 WAC)

Groundwater Management Subareas

- Odessa Subarea (Chapter 173-130A WAC)
- Quincy Subarea (Chapter 173-134A WAC)
- 508-14 Area (Chapter 508-14 WAC)

