PALOUSE BASIN AQUIFER committee

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January 20th, 2022 Meeting Minutes

Moscow, UI Facilities Management, Jacks Creek Meeting Room (Video-Conference)

Committee business conducted by motion is indicated in ** **Business Decision**
For discussion details related to other agenda items, refer to the video recording of the meeting at https://www.youtube.com/watch?v=abviVbKcX7M during the time period indicated within parentheses (HH:MM:SS)

Attendance
X: In-person attendance
V: Video attendance

V	UI: Tim Link, Professor of Hydrology	V	WSU: Jeff Lannigan, Facilities Services
X	UI: Rusty Vineyard, Director of Facilities		WSU: Jason Sampson, Assistant Director, Environmental Services
V	Moscow: Tyler Palmer (Vice-Chair), Deputy Director Operations	X	Pullman: Cara Haley (Chair), City Engineer
V	Moscow: Gina Taruscio, City Council Member	V	Pullman: Shawn Kohtz, Director of Public Works
	Moscow: Mike Parker Water Utility Manager	X	Pullman: Eileen Macoll, City Council Member
X	Latah County: Paul Kimmell, Citizen/County Representative	V	Whitman County: Mark Storey, Public Works Director/County Engineer
V	Latah County: Tom Lamar, County Commissioner	V	Whitman County: Tom Handy, County Commissioner

Visitors and Others:
(See meeting video recording beginning at 00:00:45)

Call to Order: Cara Haley called the meeting to order at 2:06 PM.

1) **Introductions (see meeting video at 00:00:45)**

2) **Approval of Meeting Minutes: December 16th, 2021 (00:03:56)**

*** * Motion passed to approve minutes with addition of presentation slides**

3) **Public Comment for Items not on Agenda - None (00:05:02)**

4) **Presentations/Discussion**
   - **Basin Boundary: Presentation (00:05:13 - 00:45:48)- slides attached**
   - **PBAC Transition Discussion: Next-steps for hiring an Executive Manager (00:45:51 - 00:51:20)**
   - **Palouse Water Alternatives Project Update: Robin Nimmer (00:51:21 - 00:59:17)**

**** Motion passed to (no cost) extend contract from March 31 to May 31, 2022**

   - **Palouse Basin Aquifer Revisioning Tool, Distribution Plan: Lauren Kirkpatrick (*note: added to agenda as separate piece of Communications Subcommittee Update*) (00:59:20 – 01:20:38) – slides attached**

5) **Unfinished Business**
   - **Subcommittee Updates**
     - **Research: Shawn Kohtz (01:20:45 – 01:21:45)**
     - **Communications: Paul Kimmell (01:21:48 – 01:24:58)**
     - **Budget Planning: Rusty Vineyard (01:25:00 – 01:26:08)**

6) **Budget (01:26:20 – 01:31:42)**

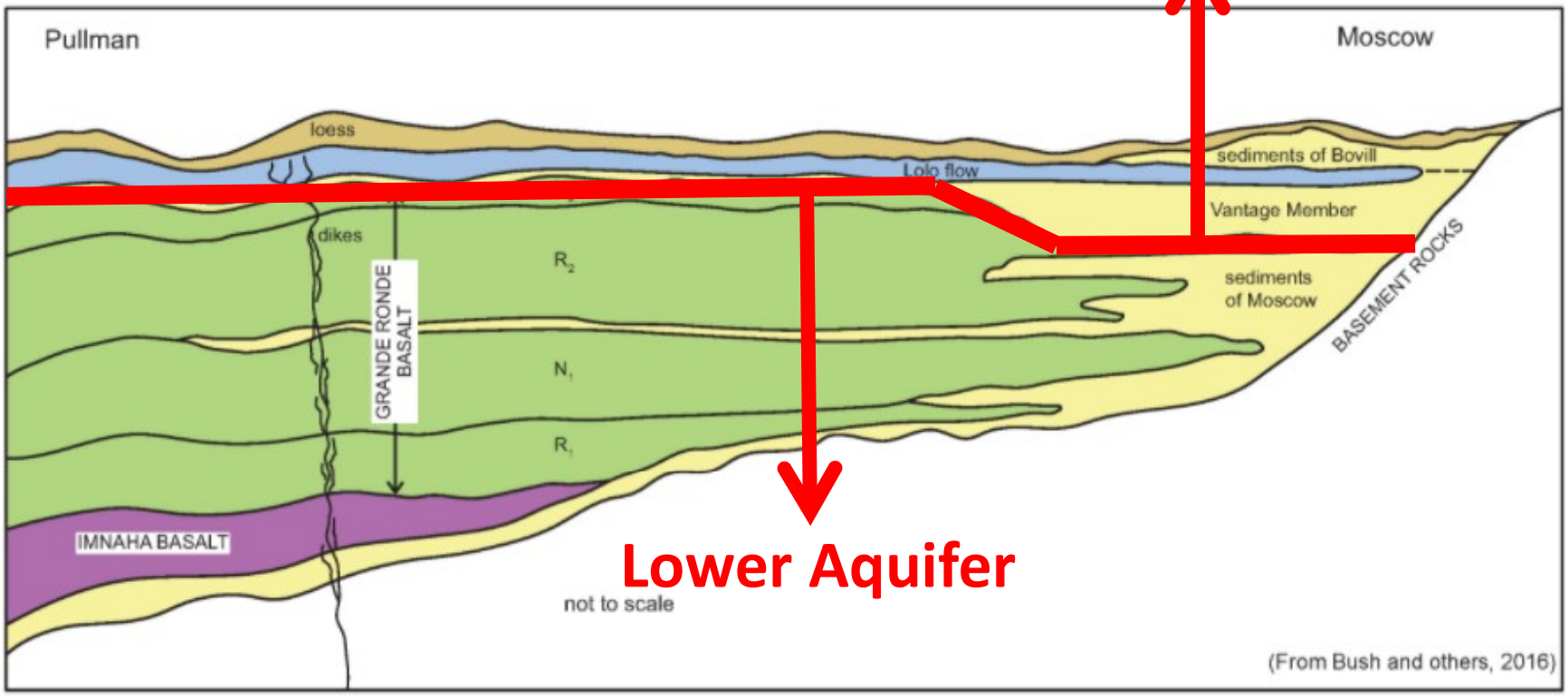
7) **Other Reports and Announcements as Time Allows**
   - **i) Preliminary 2021 Pumping Totals (01:32:25 – 01:33:56)**
   - **ii) Next PBAC Meeting – Thursday, February 17th, 2022 at 2:00 pm, Location TBD**

**** Motion passed to adjourn at 3:44 PM PST**

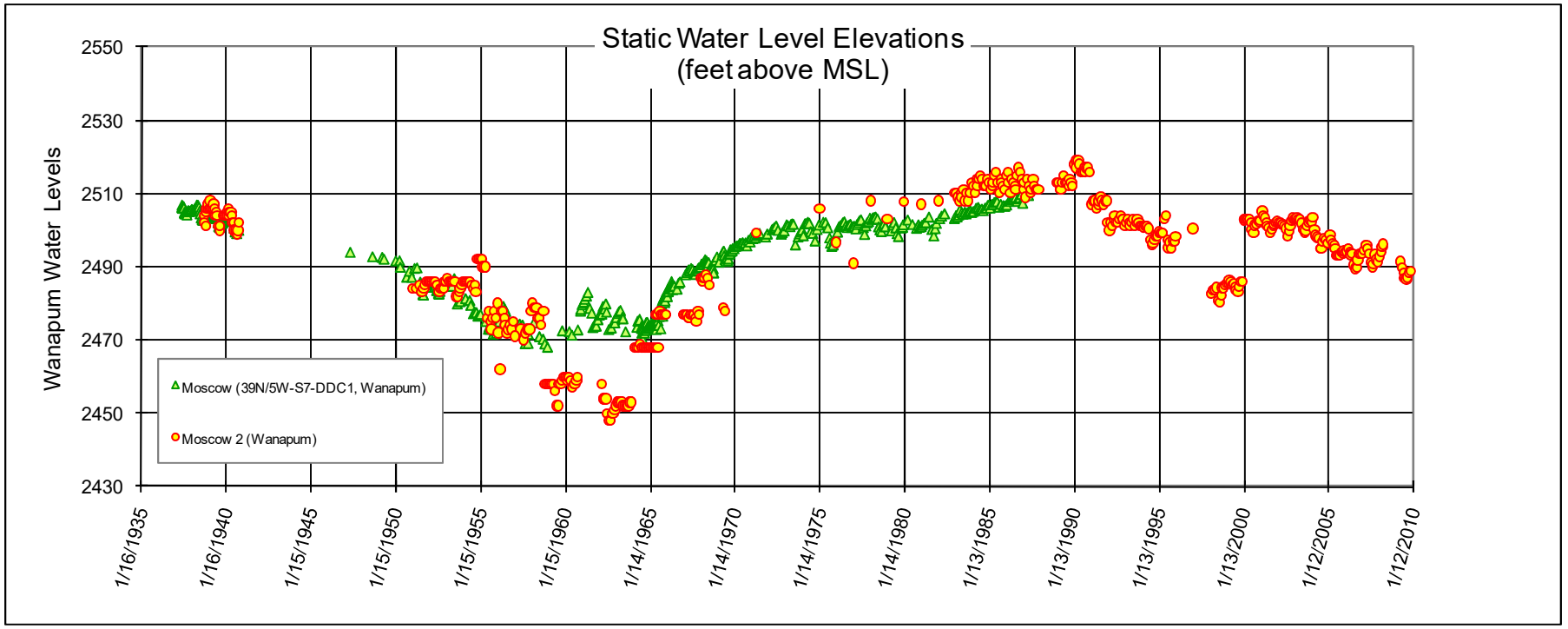
Minutes reviewed and approved at February 17, 2022 PBAC meeting.

Basin Boundaries
PBAC Meeting
Jan 20, 2022

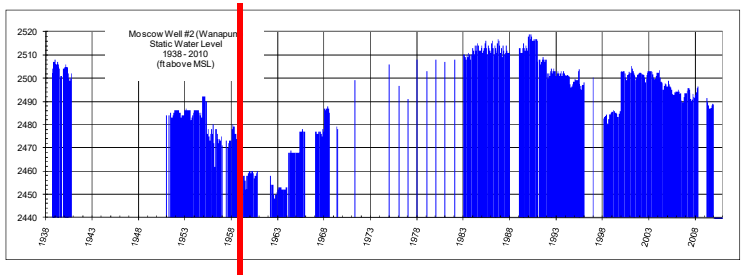
Generalized Cross Section



Upper Aquifer Water Levels (1938 – 2010)



EBASCO Moscow Water Supply Report (1958)



The Water Resources Committee of the City of Moscow, mindful of their civic responsibility and obligations to the people served by the Water Department, desire to provide a dependable water supply which is adequate to meet the growing demands of the community and provide for industrial expansion. A serious water situation has existed during the last few years because of declining ground-water levels and the necessity for abandoning several developed wells.

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The University of Idaho officials have collaborated with the City . . . to analyze the problem and locate new sources of supply which are economically feasible to develop.

The University of Idaho officials have collaborated with the City in their endeavor to analyze the problem and locate new sources of supply which are economically feasible to develop. Several of the Federal Government and State agencies have provided useful information on the water resources of the area and have suggested possible remedies consistent with their functional authority.

EBASCO Moscow Water Supply Report (1958)

The Water Resources Committee is composed of the following citizens:

Spencer Lewis, Mayor of the City of Moscow
Everett Will
George Gagon, University of Idaho
Harvey Smith, City Engineer

EBASCO Moscow Water Supply Report (1958)

B - CONCLUSIONS - PHASE ONE

1) There is a limited supply of ground water in the Moscow basin which should be conserved by joint use of supplemental surface water to take care of the future requirements of the City and University of Idaho.

2) Present data are insufficient to determine the safe yield of the artesian aquifers which are now tapped by the City and University wells, but geological indications are that considerable water remains in storage. Water levels have progressively declined,

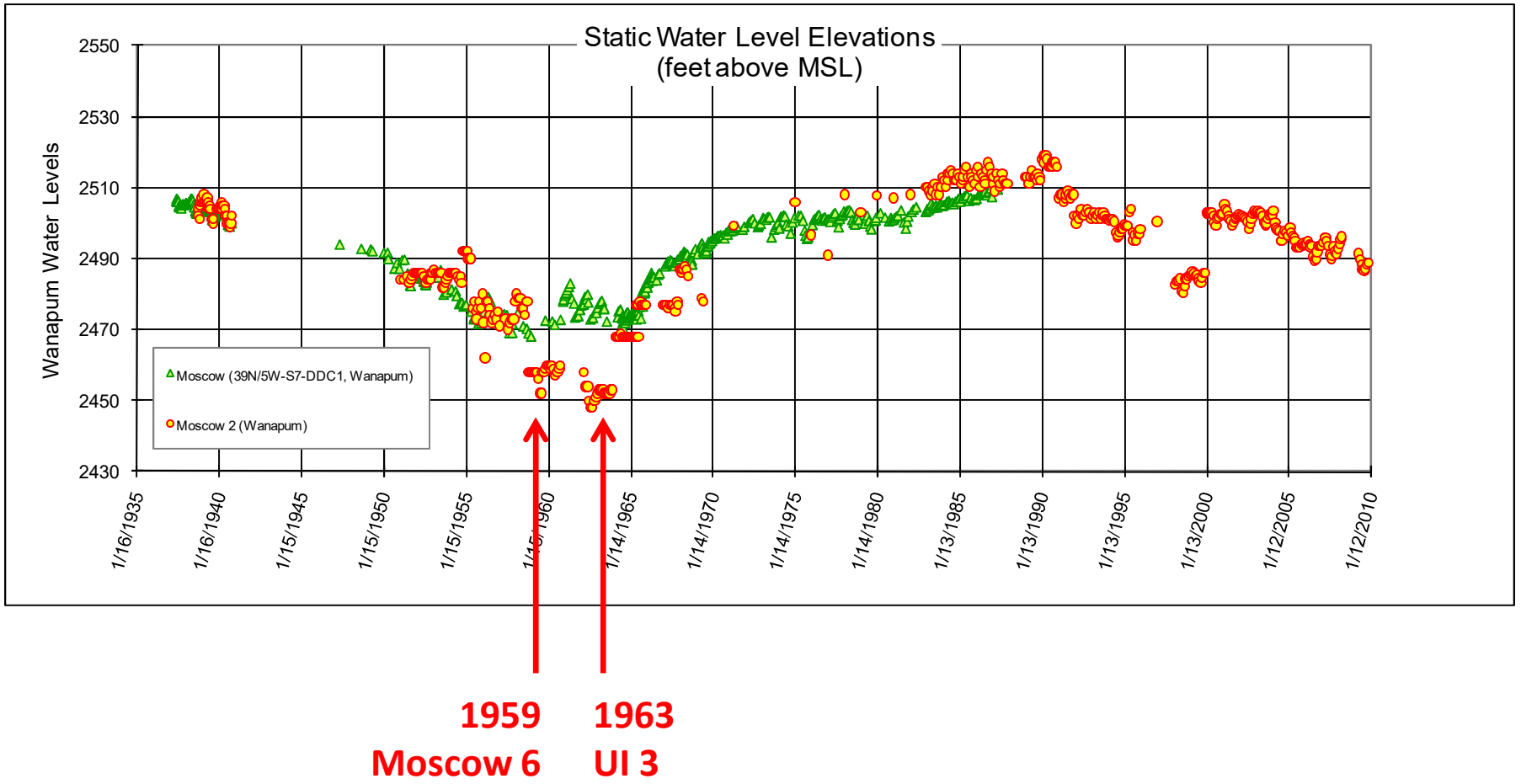
EBASCO Moscow Water Supply Report (1958)

C - RECOMMENDATIONS - PHASE TWO

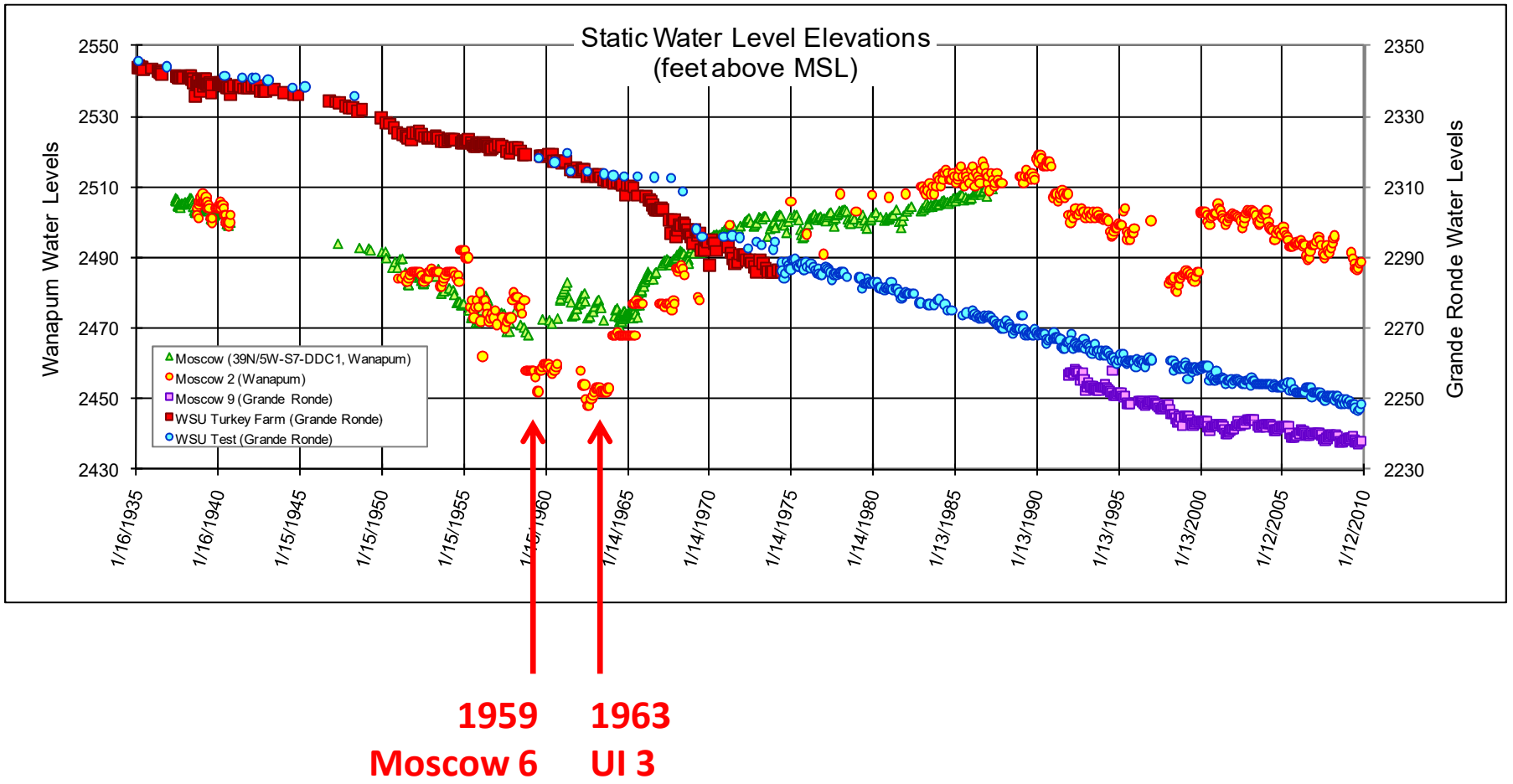
The following recommendations suggest items which should be considered and further investigated in Phase Two. These are listed in order of preference, and it is not anticipated that work on all recommended items need be started simultaneously. Included are some procedures already under way. Continuing the accumulation of data which will be needed in the long-range program of development is desirable. The expenditures for these items can be controlled by the availability of funds and the necessity of meeting the growing water demand. The assistance and cooperation of the University and Governmental agencies in securing information which is useful and beneficial to all will undoubtedly continue and should result in participation in the cost of the work.

1) The City should continue drilling No. 6 well to base rock and explore the hole by electric log to determine location and extent of water-bearing formations. If log indicates that a satisfactory well can be developed, a pumping test should be made, with careful observations of influence on nearby wells, to determine yield and hydraulic characteristics of aquifer.

Upper Aquifer Water Levels (1938 – 2010)



Upper and Lower Aquifer Water Levels (1935 – 2010)



1960 - Stevens

PREVIOUS INVESTIGATIONS

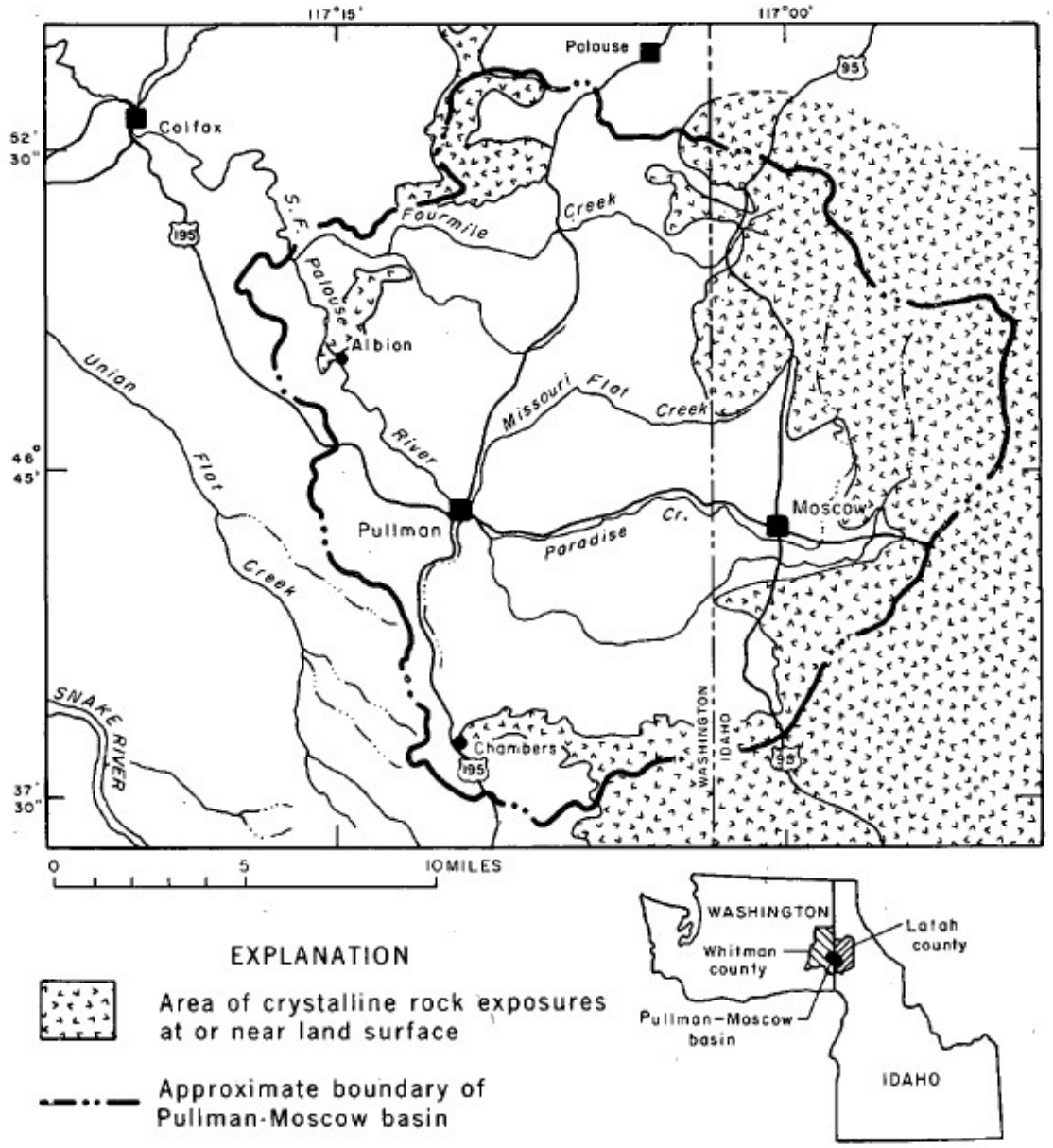
M. M. Johnson and C. F. Myrene described the geology and mineral resources of an area in the vicinity of Moscow (written communication, Nov. 1955). Laney, Kirkham, and Piper (1923) described the ground-water geology of the Moscow basin and estimated the yearly amount of potential ground-water recharge. The most detailed published geologic study of Latah County is by Tullis (1944). Ground-water conditions in the vicinity of Pullman, Wash., in the westward extension of the Moscow basin, are described by Foxworthy and Washburn (1957).

1972 - Jones

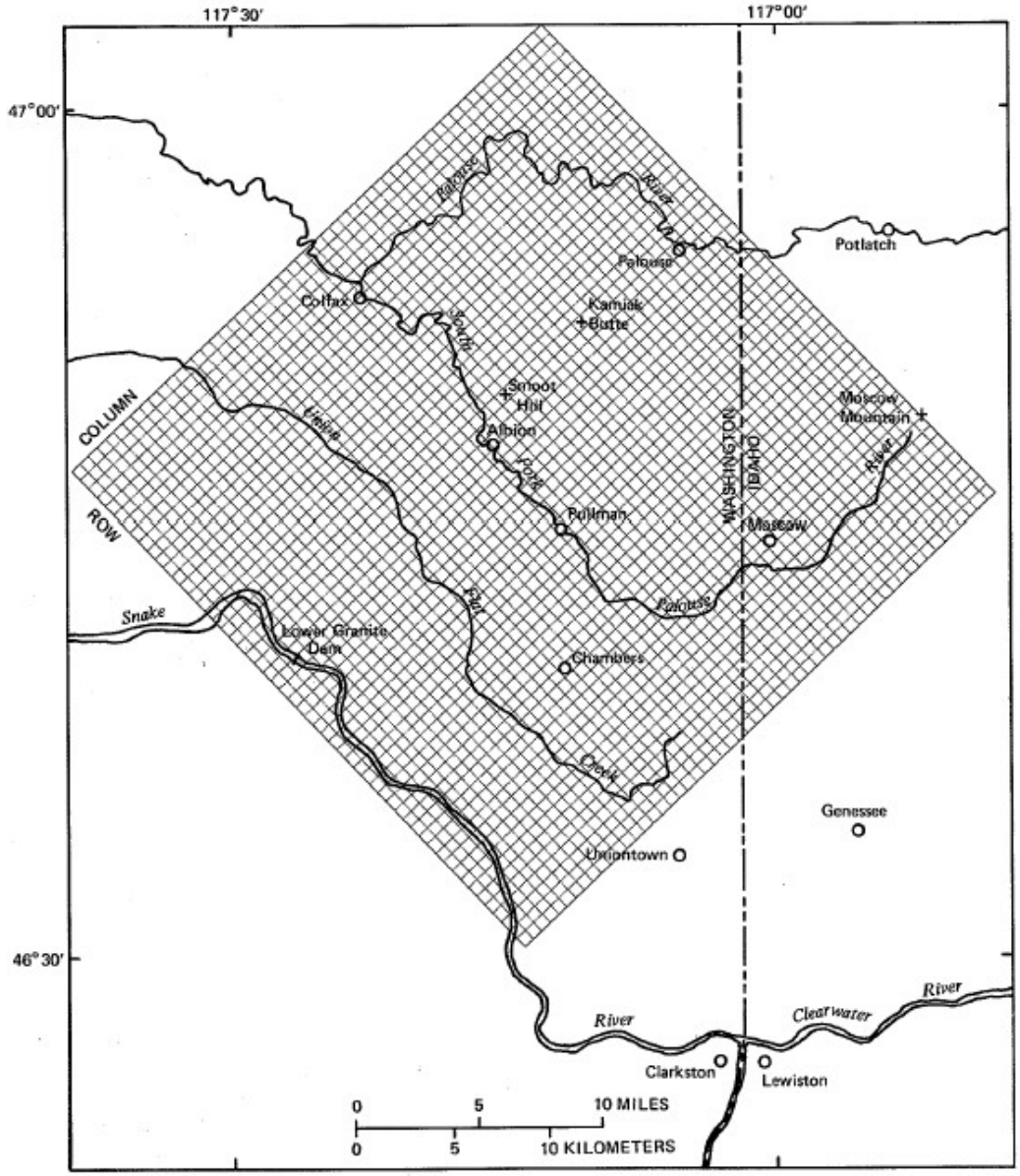
Location and Extent of the Area

Moscow basin is in west-central Latah County, in northern Idaho (Fig. 1). The amphitheater-like basin has an area of about 58 square miles. The boundaries are well defined by stream divides on the north, east, and south. The western boundary has been arbitrarily set at the Washington-Idaho state line for purposes of this report although Moscow basin is actually part of the larger Moscow-Pullman basin of Idaho and Washington. The poorly-defined southwest and northwest boundaries have been drawn to include only those tributary streams that join the main streams within Idaho. The area is approximately the same as that discussed by Stevens (1960) and Sokol (1966).

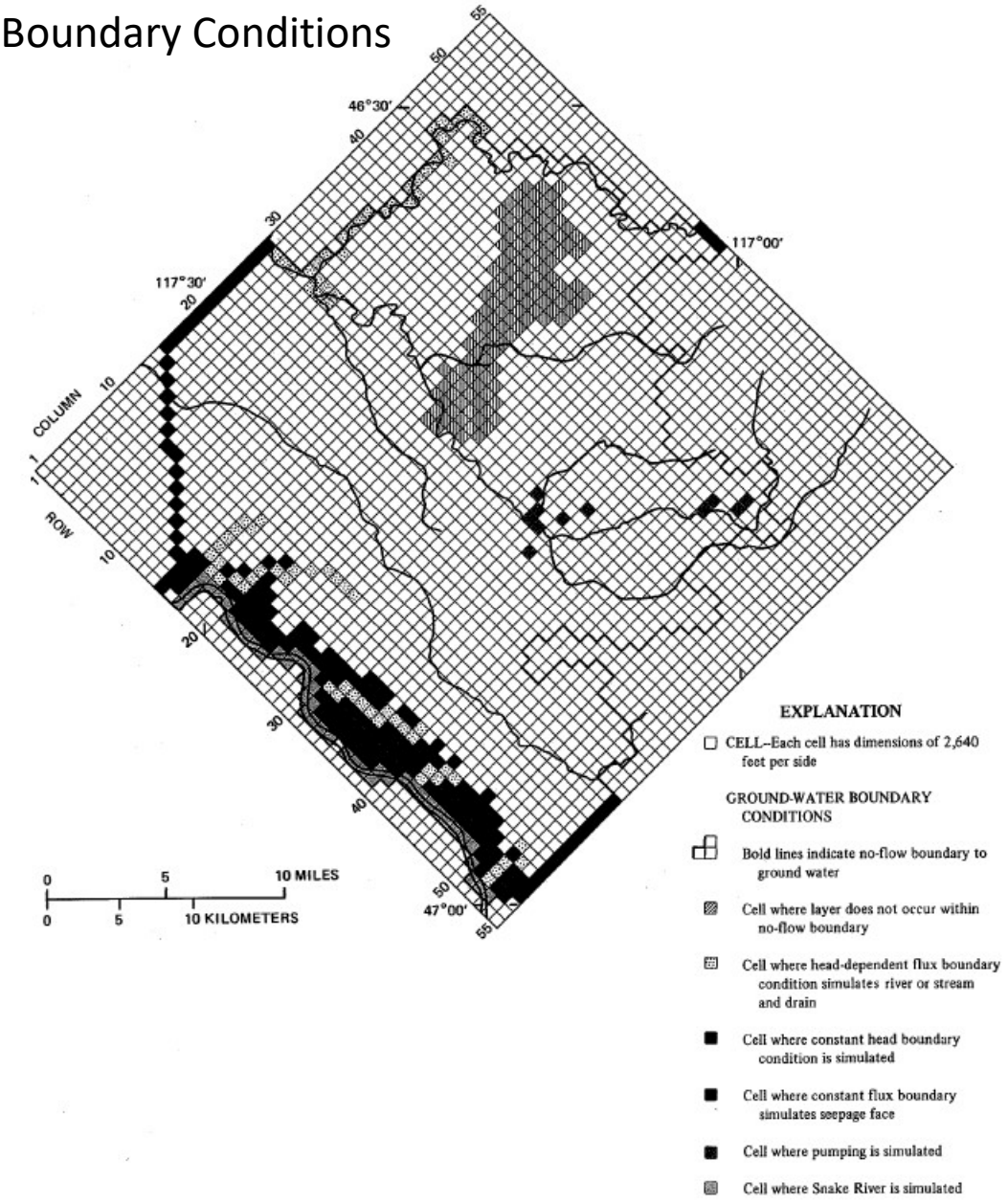
1979 - Barker Pullman-Moscow Basin



1990 - Lum Modeled Area



1990 -Lum Boundary Conditions



1992 - PMWRC Groundwater Management Plan Boundary

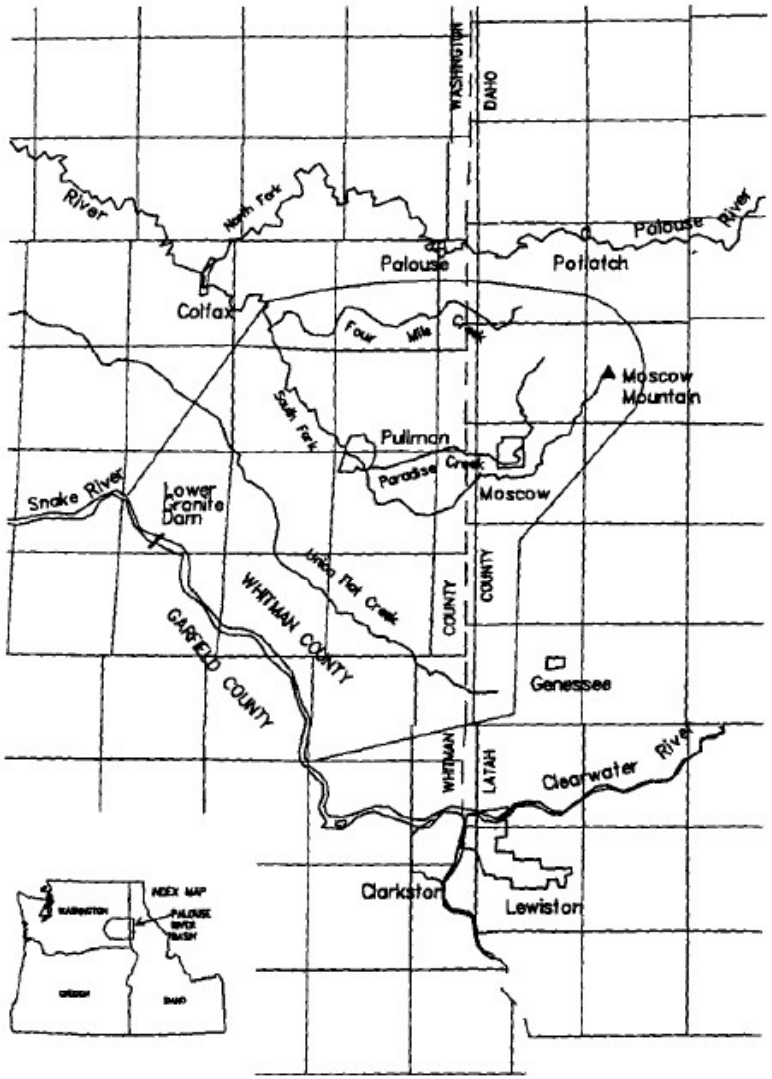
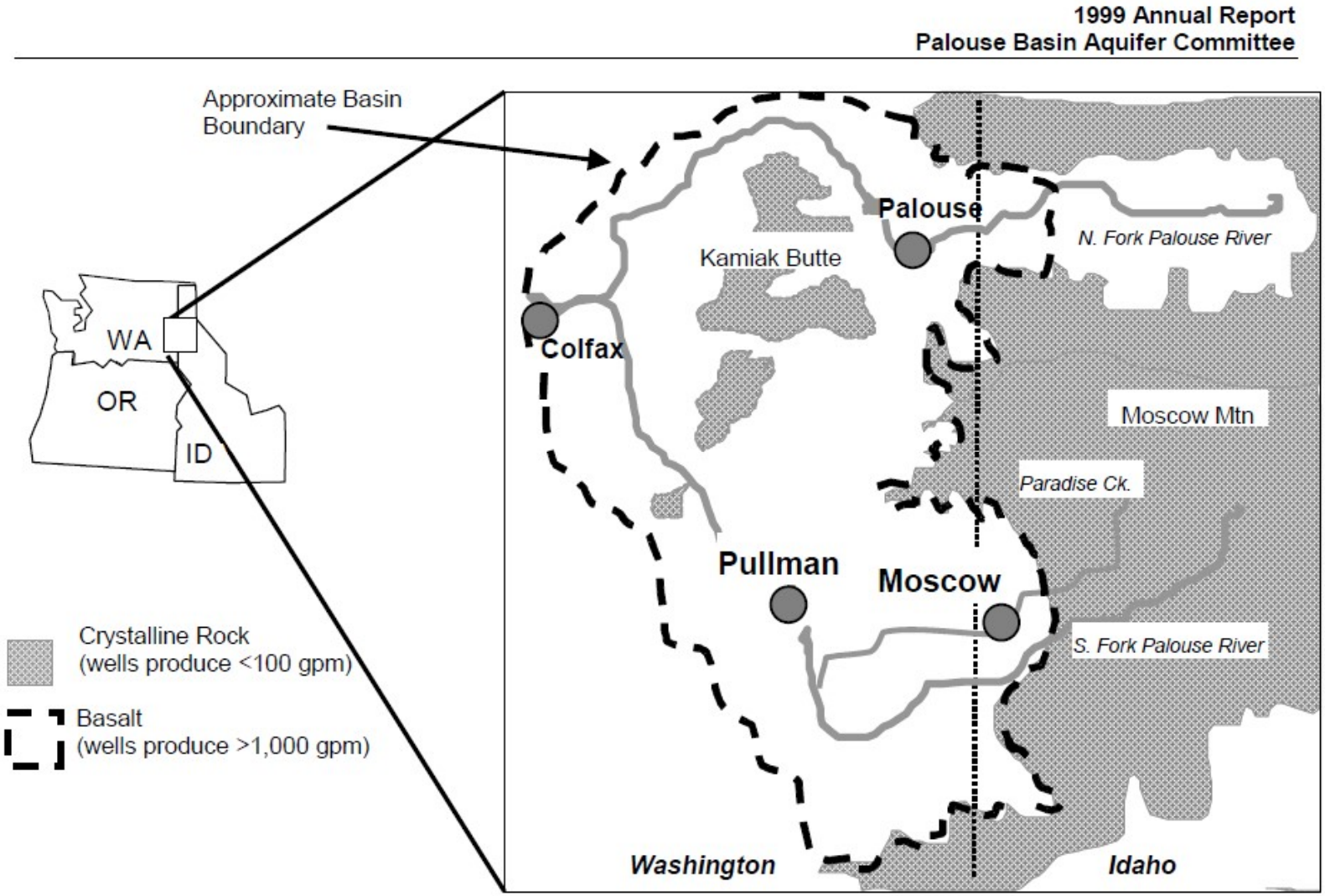
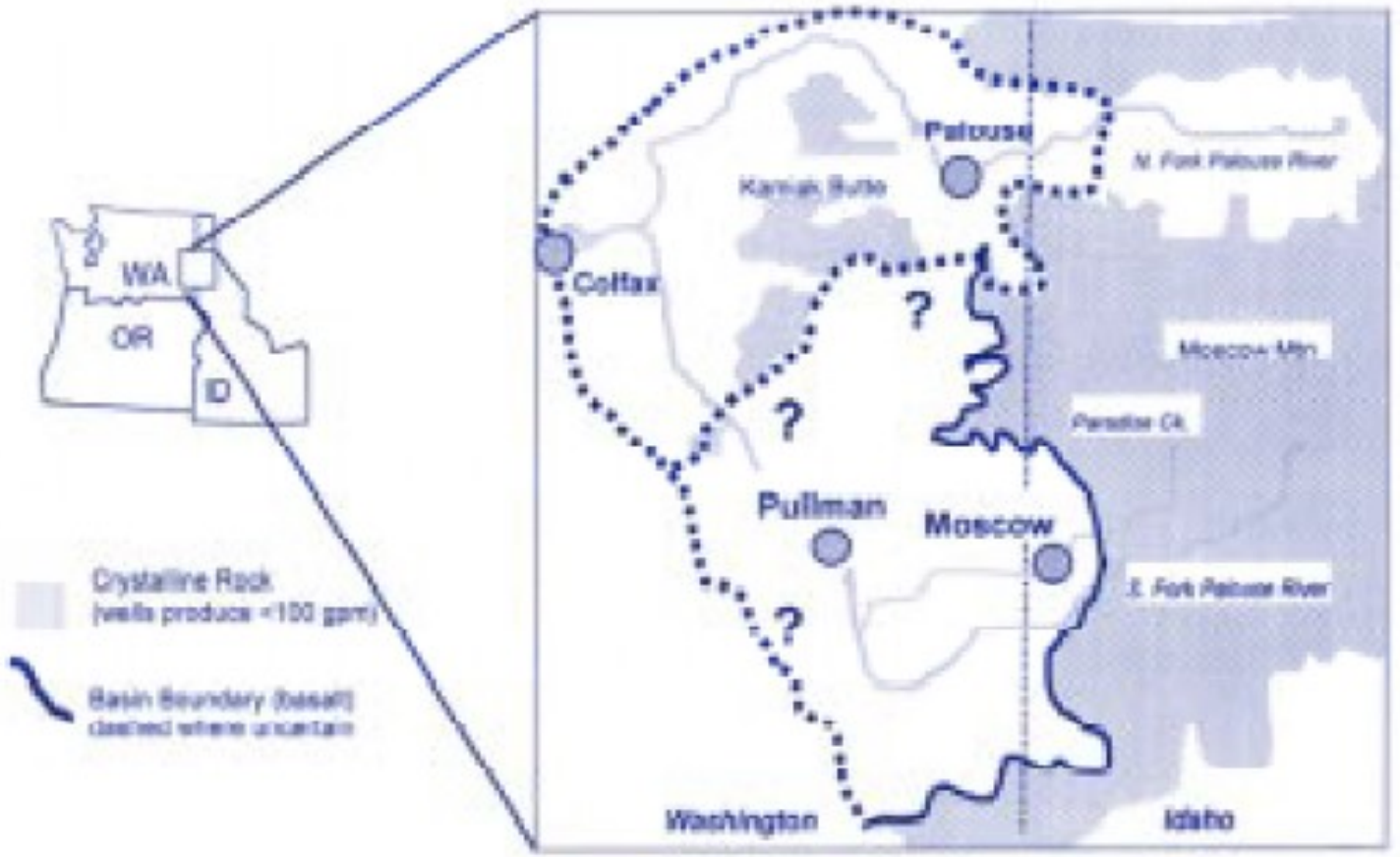


Figure 1. Pullman-Moscow Ground Water Basin (from Lum *et al.*, 1990)

1999 - PBAC Annual Report Boundary



2000 - PBAC Annual Report Boundary



Pullman, Washington; Moscow, Idaho and parts of Whitman and Latah Counties lie within the boundaries of the Palouse Groundwater Basin. To the east, the basin is bounded by the crystalline rock of Moscow Mountain and the Palouse Range. Current research is aimed at better defining the basin boundaries to the west, north, and south in Whitman County.

2001 - PBAC Annual Report Boundary

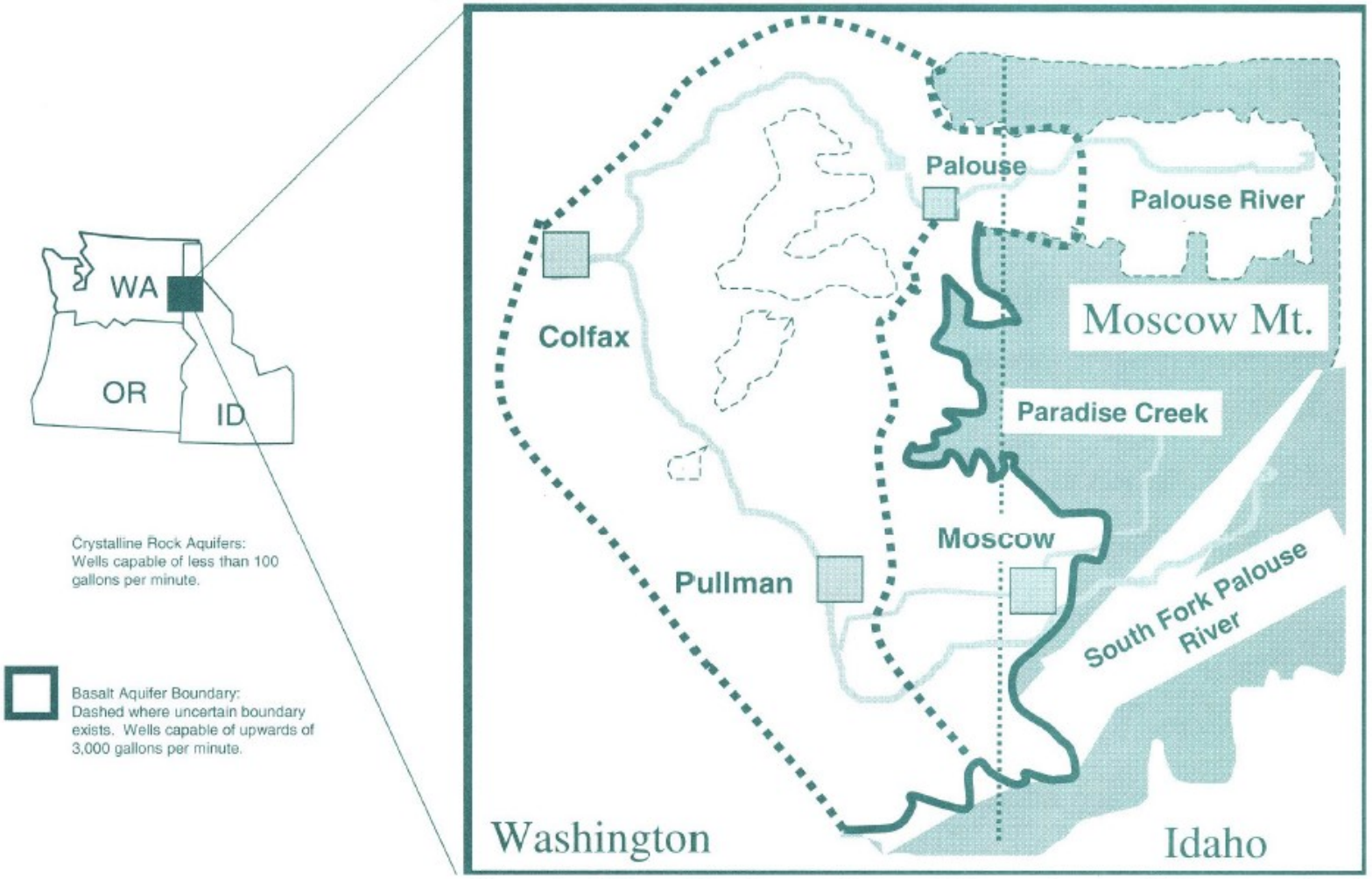
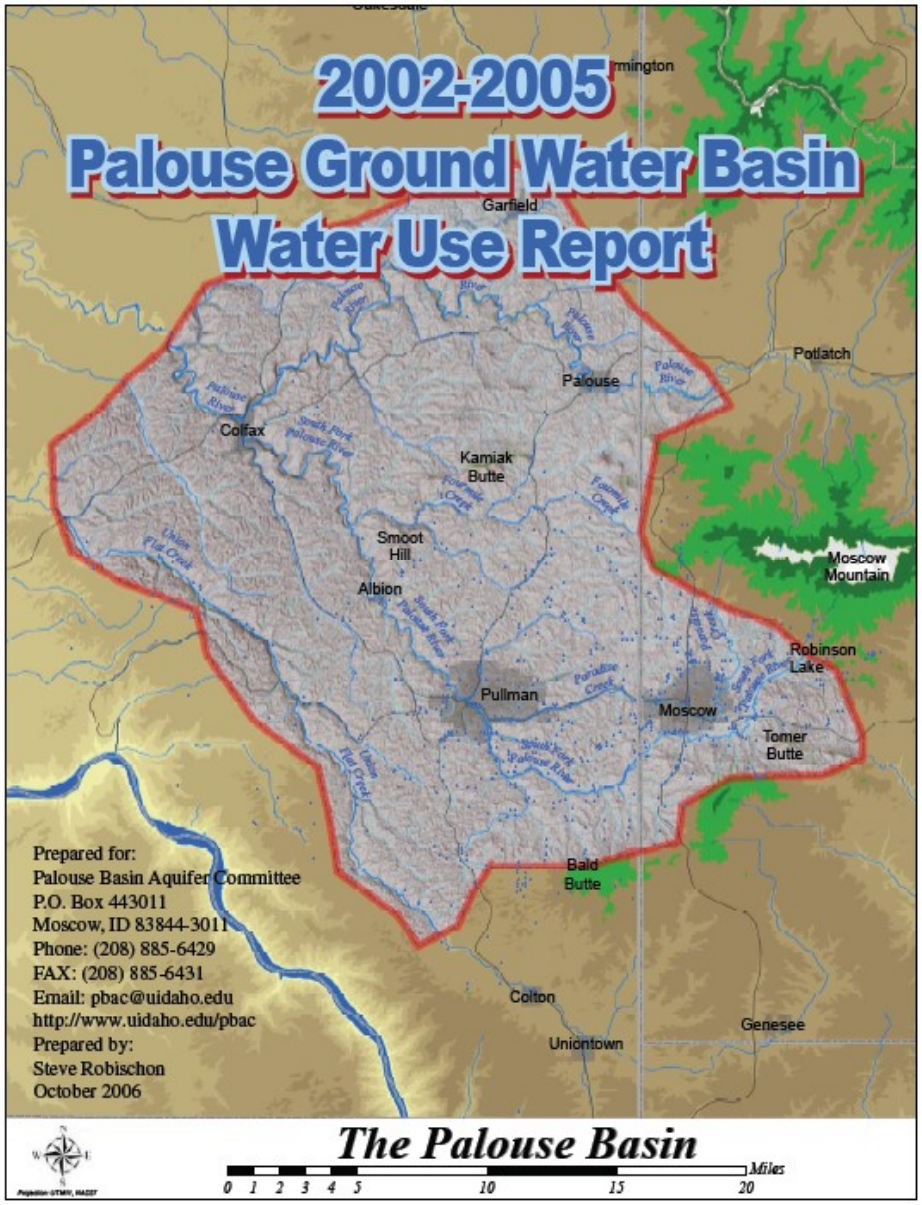


Figure 1. Pullman, Washington; Moscow, Idaho, and parts of Whitman and Latah Counties lie within the boundaries of the Palouse Ground Water Basin. To the east, the basin is bounded by the crystalline rocks of Moscow Mountain and the Palouse Range.

2005 - PBAC Annual Report Boundary



2021 – Bush Approximate Area of Significant Groundwater

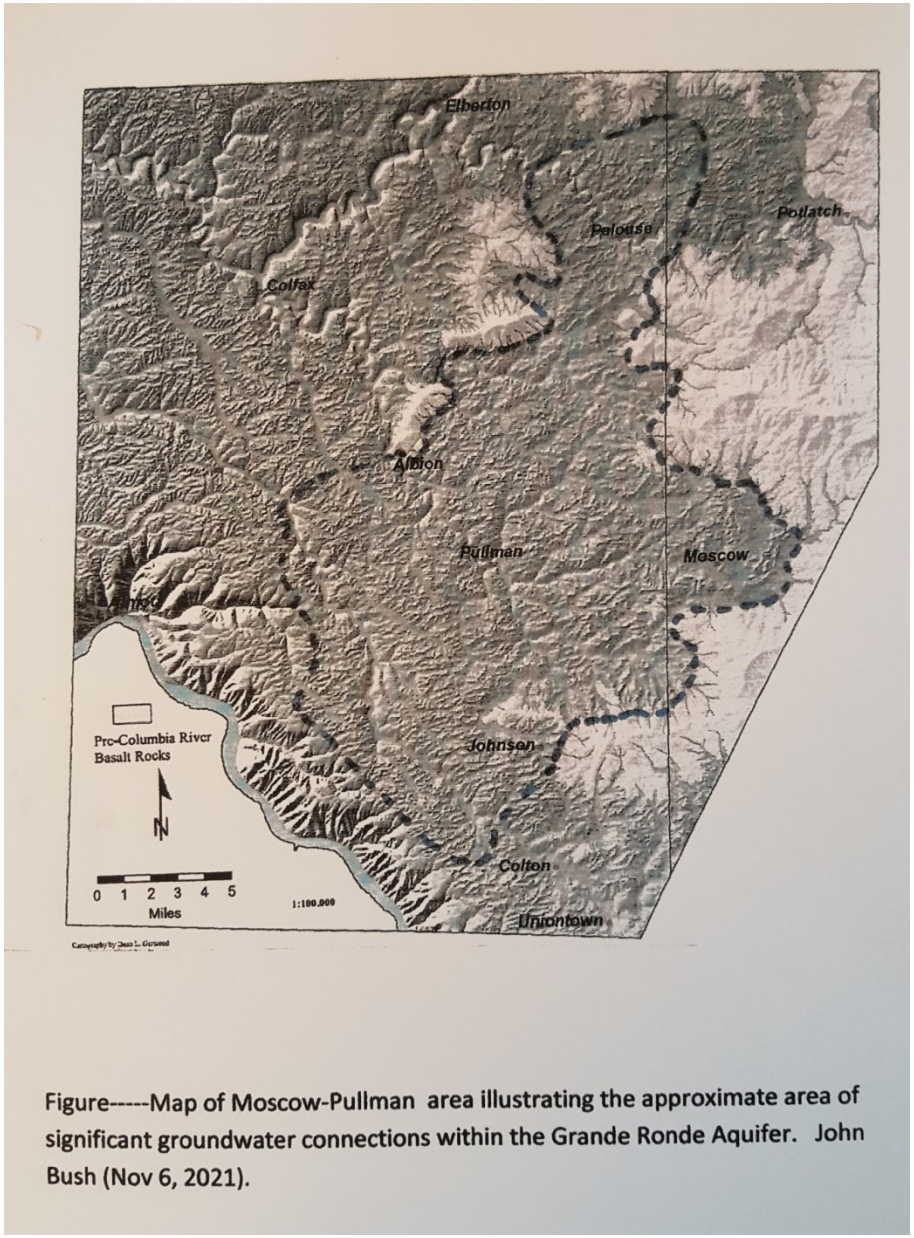
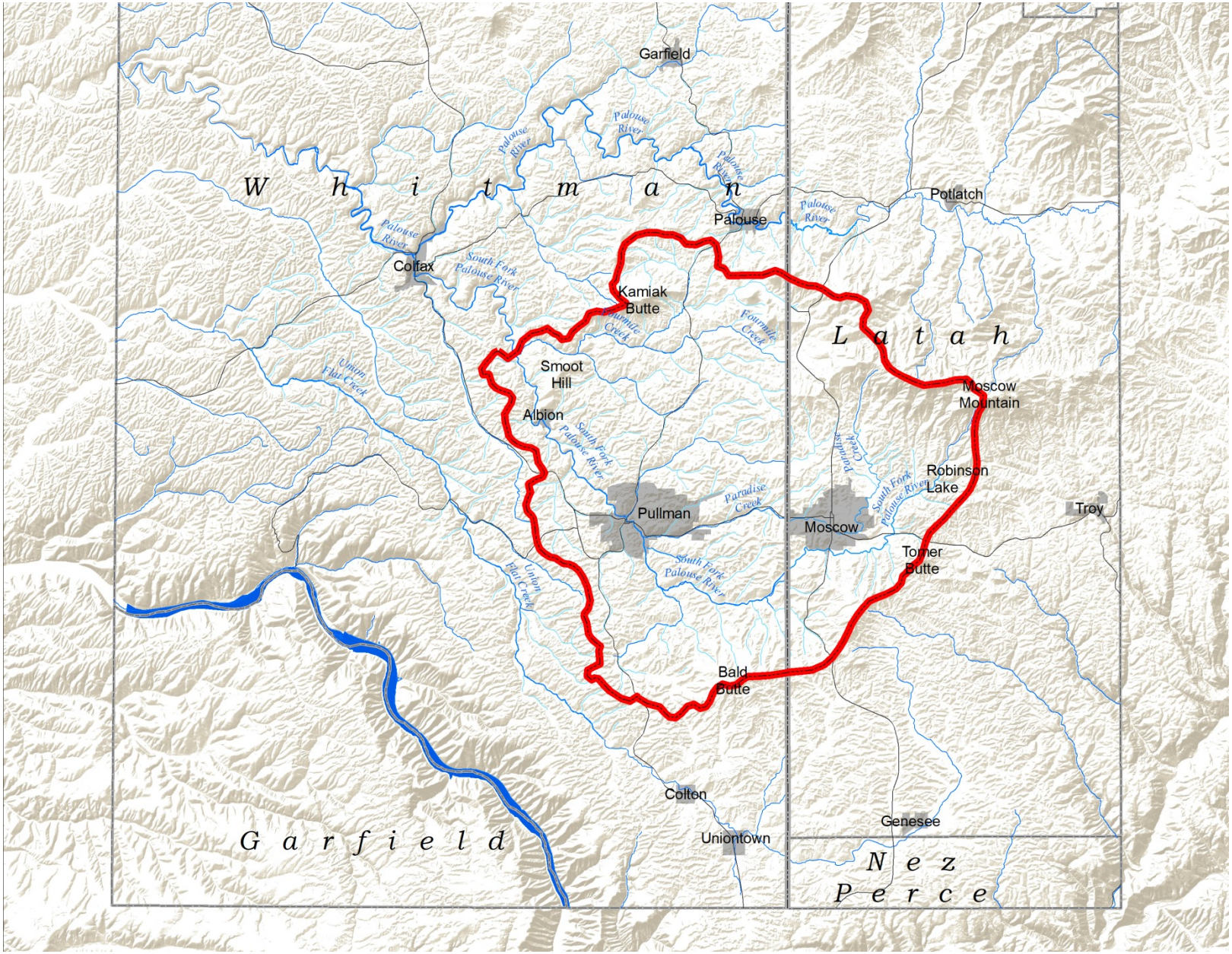
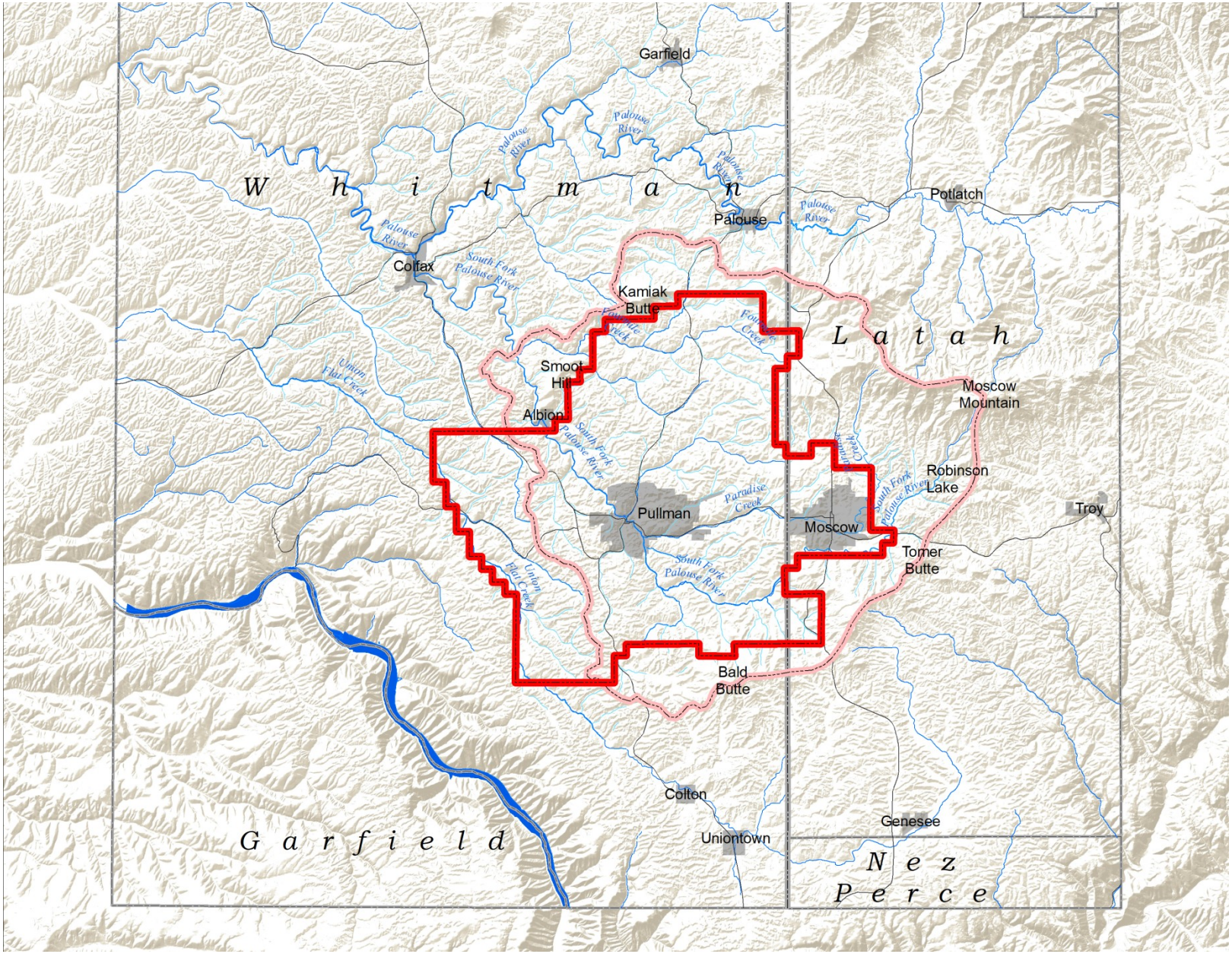


Figure-----Map of Moscow-Pullman area illustrating the approximate area of significant groundwater connections within the Grande Ronde Aquifer. John Bush (Nov 6, 2021).

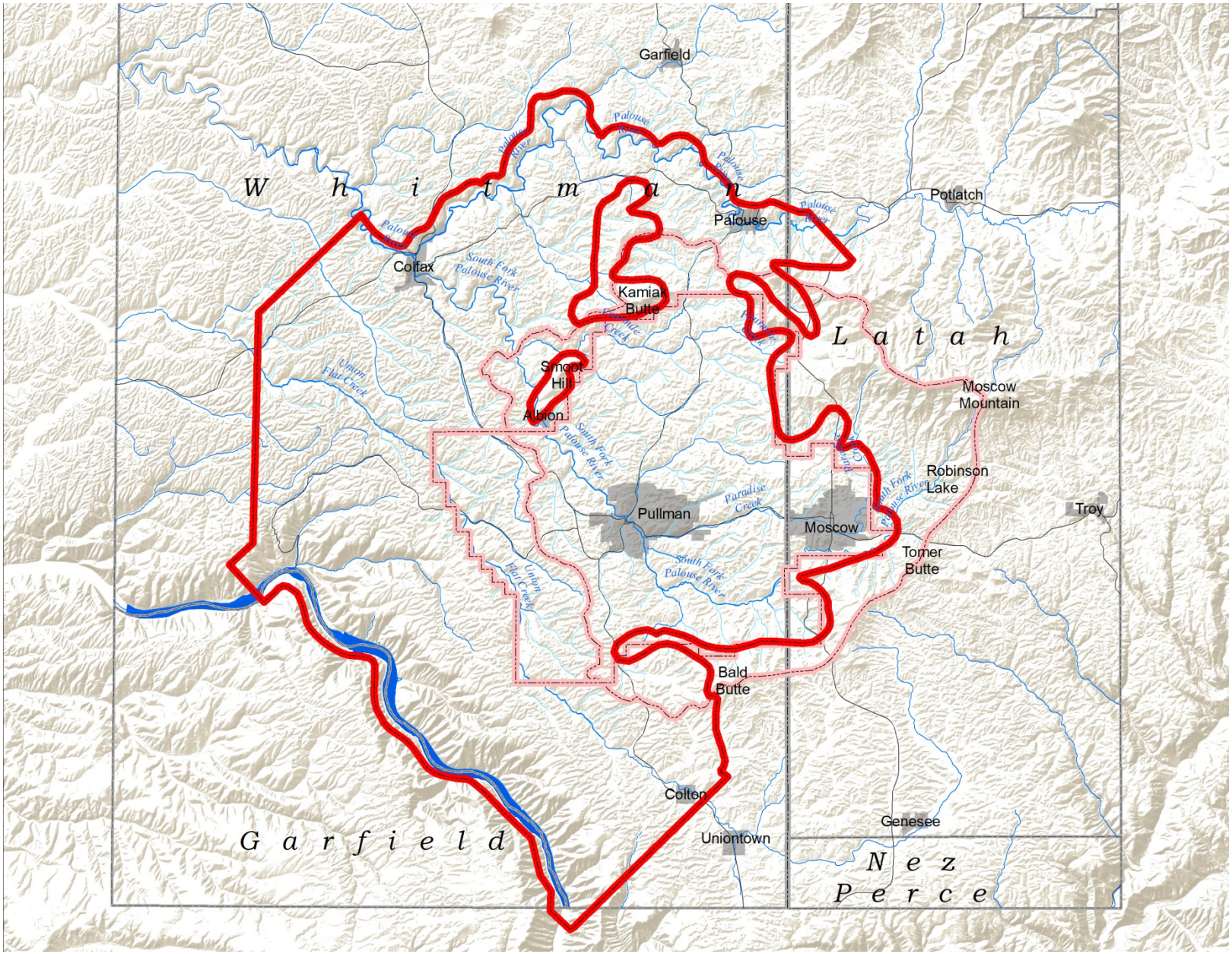
Barker Basin - 1979



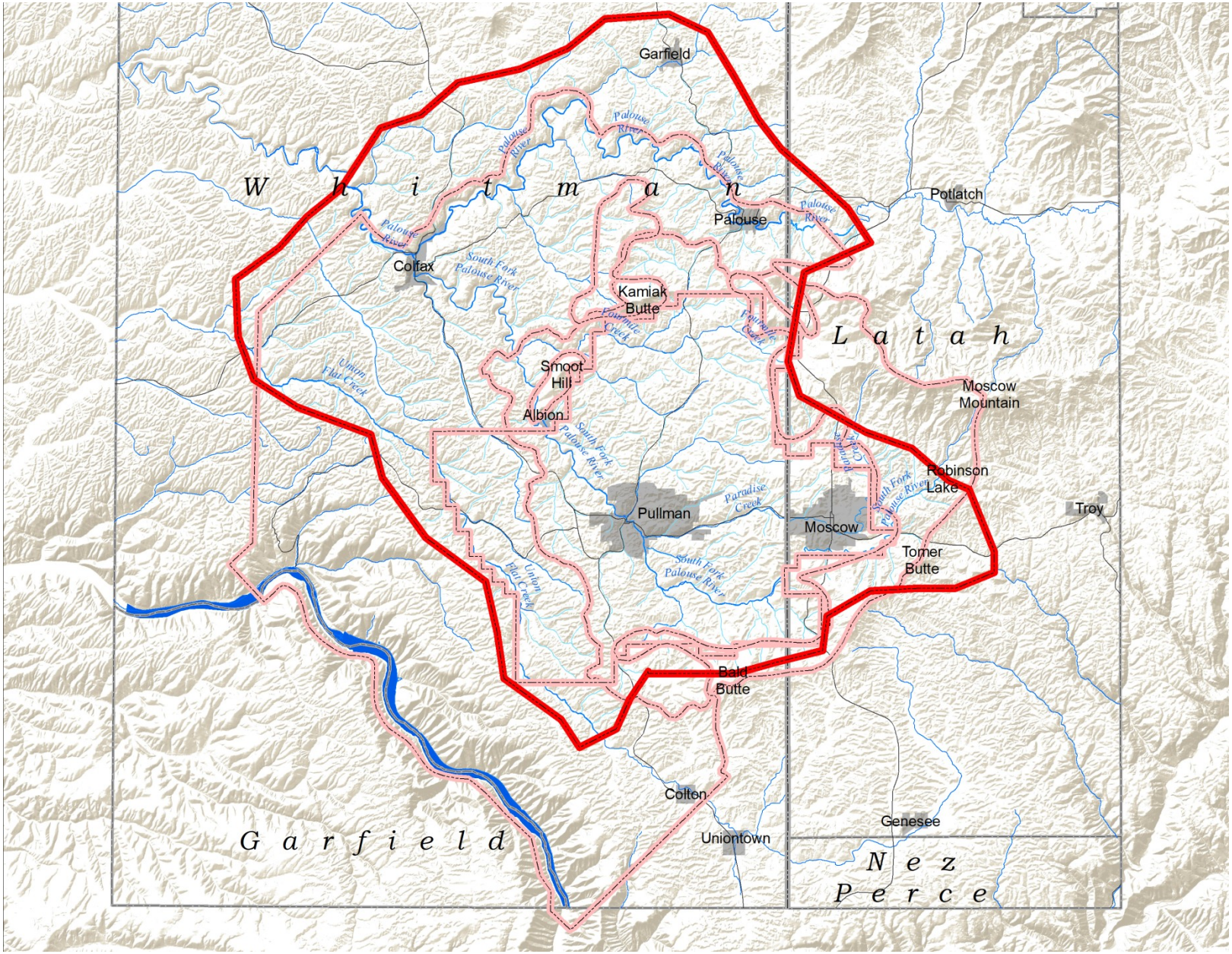
Barker Model Boundary- 1979



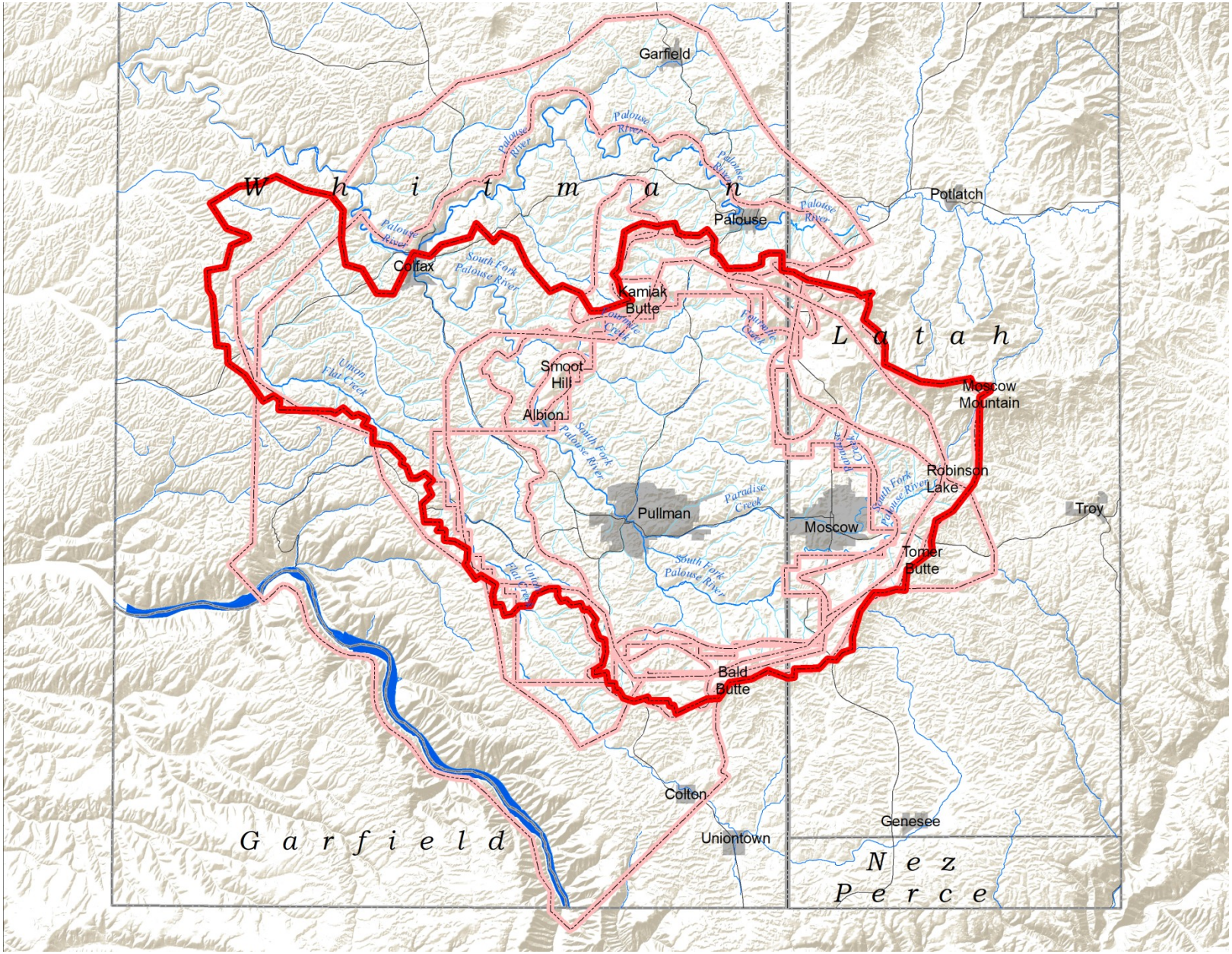
Lum Model Boundary - 1990



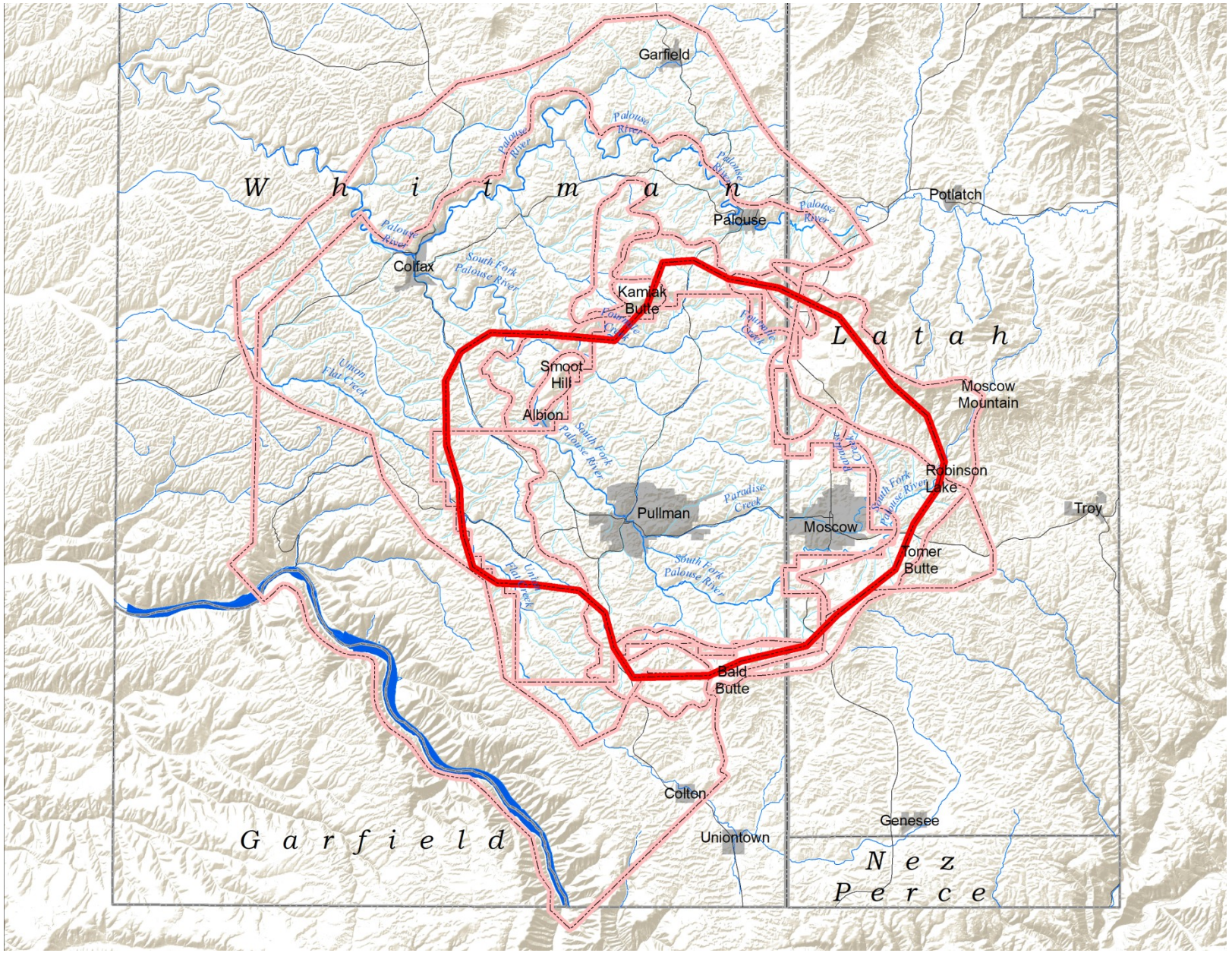
PBAC Basin - 2005



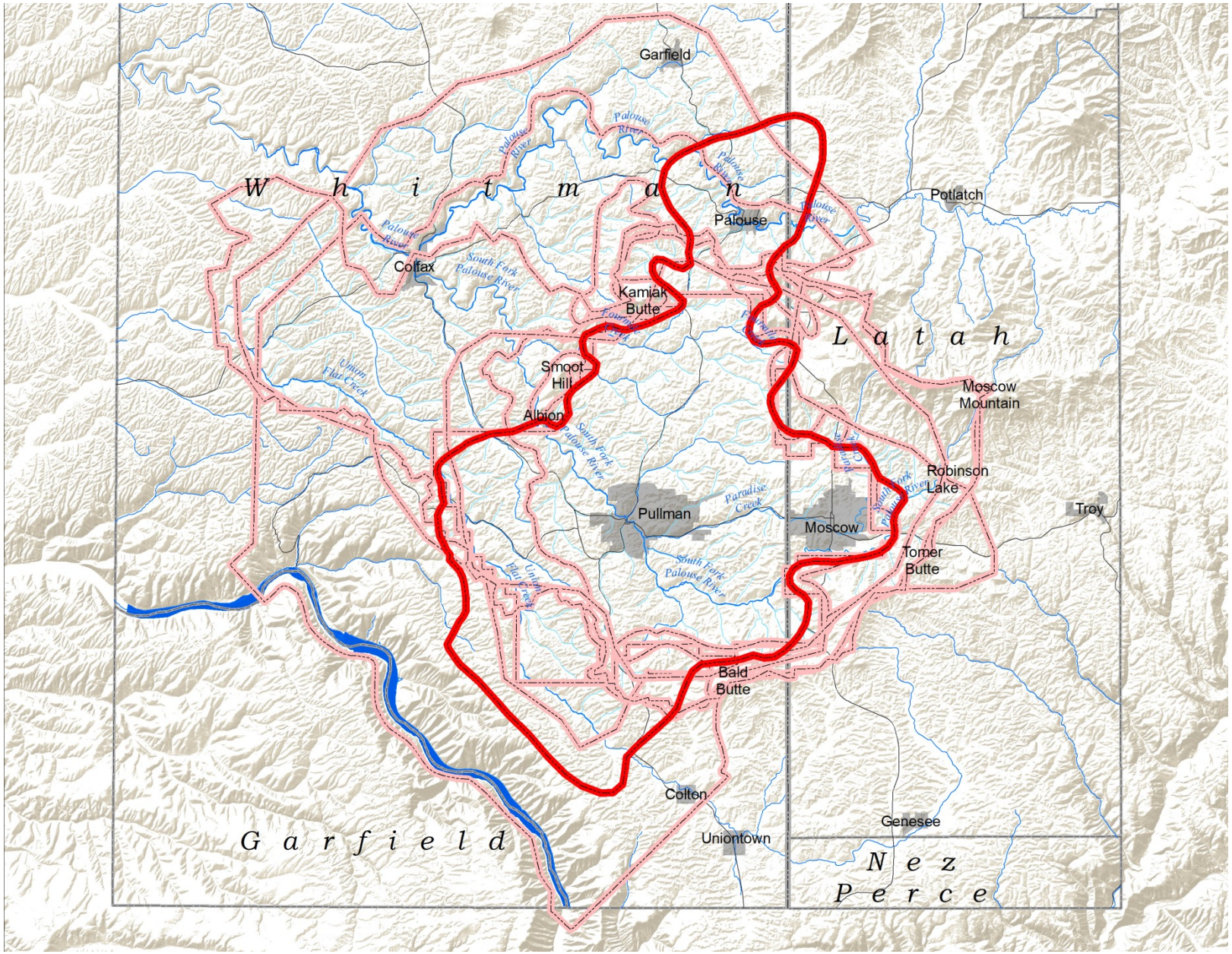
WSU Model Boundary - 2021



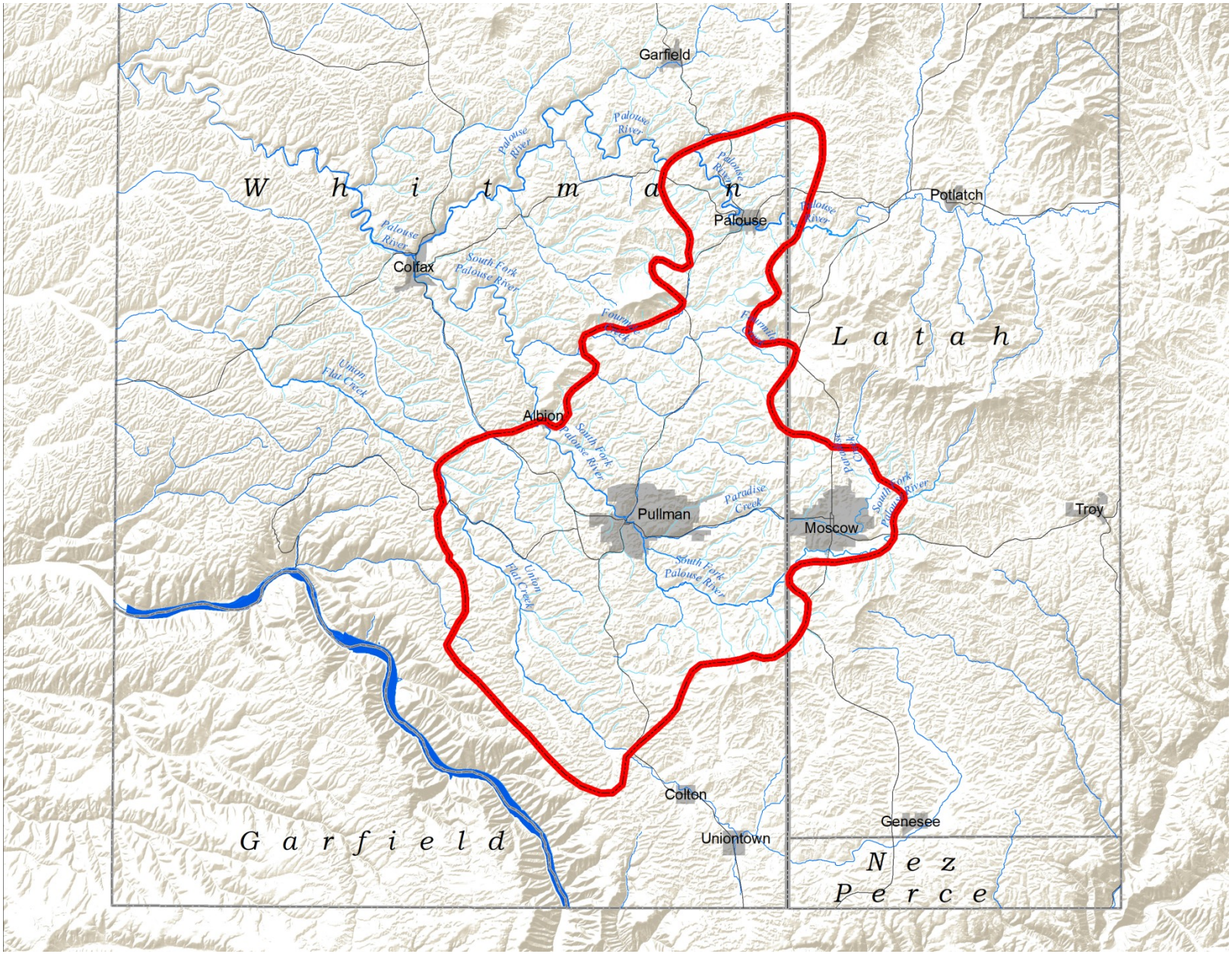
WSU Model Area of Interest - 2021



Bush Significant Groundwater Area- 2021



Boundary Recommendation - Preferred

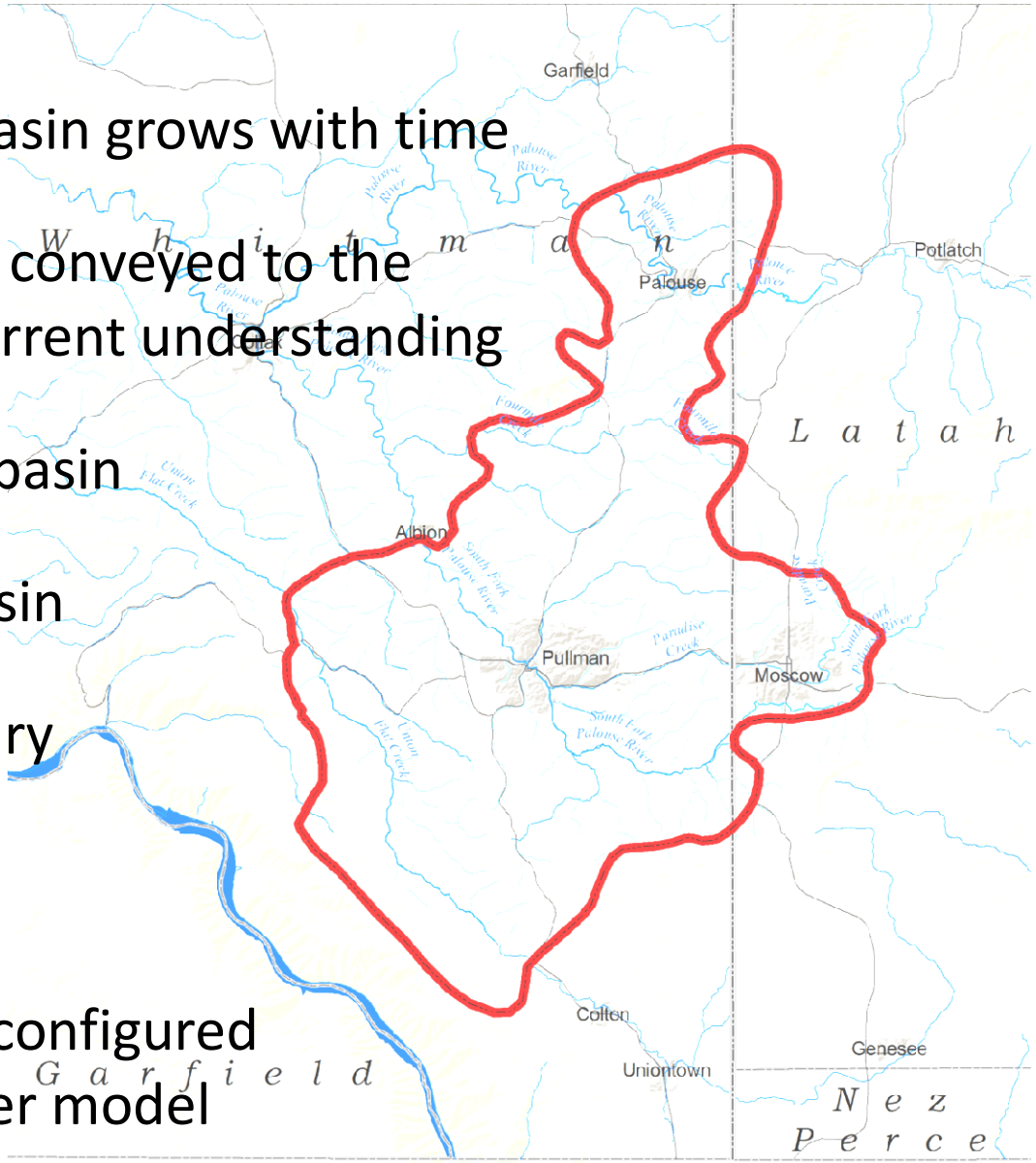


Takeaways –

- Understanding of the basin grows with time
- Information/messaging conveyed to the public should reflect current understanding
- Colfax is not inside the basin
- Palouse is inside the basin
- The PBAC basin boundary needs to be updated

Bonus Takeaway –

- The basin boundary as configured in the WSU groundwater model is incorrect



Questions?

DISTRIBUTION PLAN

PLAN OF ACTION

- Website distribution
- Work with Social Media intern to devise a campaign
- Distribute website amongst members of the public
  - *Pullman 2040*
  - *PCD*
  - *Palouse Land Trust*
  - *Sierra Club*
  - *Any other ideas?*
- Place a link to the site on City websites

PLAN OF ACTION

- Also, will be distributing it Washington State students
  - *Marketing and Design classes*
  - *Environmental Science classes*
- Any connection to University of Idaho or good classes in mind?
- Will also be distributing informational flyers around town with QR code to website as well
  - *Coffee shops*
  - *Grocery stores*
  - *Any other ideas?*

WEBSITE

- https://laurenbeckley.wixsite.com/palouse-basin-aquife
- Will have the site be active from beginning of next week to end of February or mid March.
  - *Potentially longer if not enough responses gathered*