#### Updated Moscow Action Plan

In support of the COMMITTEE goals and activities, the City of Moscow proposes to:

- Attempt to limit annual aquifer pumping increases to one percent (1.0%) of the pumping volume based on a five (5) year moving average of the pumping starting with 1986 (745 mgy). Attempt to limit the accumulated total pumping to a targeted maximum of 125% of the 1981-1985 average (increase from 700 mgy to 875 mgy).
- Continue a conservation based rate structure for single family residential customers. Promote programs to encourage conservation and sustainable water use by multi-family residential and commercial uses.
- Continue the formal Conservation Program which includes actions such as offering free water conserving devices to customers and consider adding a toilet replacement rebate program.
- Continue membership in COMMITTEE with funding for studies and research projects as authorized by the City Council.
- Continue program to update failing consumer water meters.
- Continue to participate in education programs (i.e. schools, bill stuffers, cable TV)
- Encourage water recycling at building permit level for major water users.
- Continue to make city wastewater treatment plant (WWTP) effluent available to the University of Idaho in accordance with the City's agreement with the University.
- Continue use of WWTP effluent for irrigation at WWTP in accordance with the City's agreement with the University.
- Continue 24-hour daily recordings of water levels and production.
- Continue input to the COMMITTEE of City's monitoring efforts.

<sup>\*</sup> The text of the original (1992) PLAN is presented in bold plain font; *Informational updates to the PLAN appear in italics.* Updates to plan figures contain the word "*Updated*" in the caption.

- Comply with all State and Federal regulations pertaining to hazardous materials, storm water disposal, solid waste disposal, sewage sludge disposal, non-point source, household contributions, and well construction and abandonment.
- Explore possible expansion of WWTP effluent reuse.
- Continue examination of alternate water supply options as approved by the City Council.

<sup>\*</sup> The text of the original (1992) PLAN is presented in bold plain font; *Informational updates to the PLAN appear in italics.* Updates to plan figures contain the word "*Updated*" in the caption.

#### Updated Pullman Action Plan

The following is the action plan of the City of Pullman. It specifically supports the goals of the COMMITTEE as appropriate for this ENTITY, as stated in the PLAN, and as referenced below. In no case is this action plan intended to be in conflict with the PLAN.

#### COMMITTEE Goals:

- To provide for future beneficial use of the BASIN ground water without depleting the BASIN aquifers while protecting the quality of the water.
- To promote a program of public education and awareness regarding BASIN ground water management issues.
- To promote careful monitoring and analysis of ground water level and usage data for the BASIN.
- To continue to explore possible supplemental water sources for anticipated and potential future water use in the BASIN.
- To review and make recommendations on all water use or land use applications whose anticipated impact on the ground water system potentially lies outside the stated goals of the PLAN or policies adopted by the member ENTITIES.
- To review and make recommendations relative to the development of an agreement for water transfers across the state line.

*In support of the COMMITTEE goals and activities, the City of Pullman proposes to:* 

- Attempt to limit annual aquifer pumping increases to one percent (1.0%) of the pumping volume based on a five (5) year moving average starting with 1986 (827 mgy).
- Attempt to limit the accumulated total pumping to a maximum of 125% of the 1981-1985 average (increase from 767 mgy to 959 mgy).
- Carry out its Conservation Program as outlined in its most current Water System Plan [as of March 1, 2013: Chapter 5.3 of the City of Pullman Water System Plan, Volume 1, Final, May 2008].

<sup>\*</sup> The text of the original (1992) PLAN is presented in bold plain font; *Informational updates to the PLAN appear in italics.* Updates to plan figures contain the word "*Updated*" in the caption.

- Continue to pursue future supply options as detailed in its most current Water System Plan [as of March 1, 2013: Chapter 6.3 of the City of Pullman Water System Plan, Volume 1, Final, May 2008].
- Continue membership in COMMITTEE with funding for studies and research projects.
- Continue input to the COMMITTEE of city's monitoring efforts. Develop usage data by user class ie., residential, single family, multi-family, commercial, institution, industrial.
- Comply with all State and Federal regulations pertaining to hazardous materials, storm water disposal, solid waste disposal, sewage sludge disposal, non-point source, household contributions, and well construction and abandonment.

<sup>\*</sup> The text of the original (1992) PLAN is presented in bold plain font; *Informational updates to the PLAN appear in italics.* Updates to plan figures contain the word "*Updated*" in the caption.

Updated Latah County Action Plan

The following is the action plan of Latah County. It specifically supports the goals of the COMMITTEE as appropriate for this ENTITY, as stated in the PLAN, and as referenced below. In no case is this action plan intended to be in conflict with the PLAN.

#### COMMITTEE Goals:

- To provide for future beneficial use of the BASIN ground water without depleting the BASIN aquifers while protecting the quality of the water.
- To promote a program of public education and awareness regarding BASIN ground water management issues.
- To promote careful monitoring and analysis of ground water level and usage data for the BASIN.
- To continue to explore possible supplemental water sources for anticipated and potential future water use in the BASIN.
- To review and, if appropriate, make recommendations on water use or land use applications whose anticipated impact on the ground water system potentially lies outside the stated goals of the PLAN or policies adopted by the member ENTITIES.
- To review and make recommendations relative to the development of an agreement for water transfers across the state line.

*In support of the COMMITTEE goals and activities, Latah County proposes to:* 

- Promote the perpetual viability of adequate water resources in Latah County to meet present and future needs.
- Endeavor to ensure water is used in a way that protects and enhances the public health and safety.
- Maintain sustainable groundwater resources and prevent degradation of groundwater quality.

<sup>\*</sup> The text of the original (1992) PLAN is presented in bold plain font; *Informational updates to the PLAN appear in italics.* Updates to plan figures contain the word "*Updated*" in the caption.

- Encourage water conservation through, but not limited to, the use of landscaping that does not need irrigation (xeriscaping), shared water systems, and use of water conserving technologies. Developments should use water resources as efficiently as reasonably possible.
- Encourage evidence based approaches to and scientific research of water resource issues; and when considering the impact of land uses on water resources and the effects of such uses on surrounding properties, encourage incorporating the most current scientific knowledge including, without limitation, the use of hydrologists, geologists, environmental engineers and other experts where appropriate.
- Discourage use of groundwater for irrigation consistent with the philosophy of Idaho Code 67-6537.
- Provide educational information with building permits promoting water saving fixtures, water conservation, low water use landscaping, well registration, water rights and general knowledge about water resources.
- Establish water conservation policies at all facilities and/or properties managed by Latah County. These policies shall pertain to irrigation practices and physical features of construction.
- Encourage the development and implementation of water education and conservation programs.
- Endorse and support water research projects.
- Review and, if necessary, amend the comprehensive plan, zoning policies, and the emergency management plan to address water resource concerns.
- Recognize riparian zones within the County and offer protection and protection goals.
- *Require that new developments comply with applicable regulations for ground water and surface water protection.*

<sup>\*</sup> The text of the original (1992) PLAN is presented in bold plain font; *Informational updates to the PLAN appear in italics.* Updates to plan figures contain the word "*Updated*" in the caption.

Updated Whitman County Action Plan

The following is the action plan of Whitman County. It specifically supports the goals of the CQMMITTEE as appropriate for this ENTITY, as stated in the PLAN, and as referenced below. In no case is this action plan intended to be in conflict with the PLAN.

COMMITTEE Goals:

- To provide for future beneficial use of the BASIN ground water without depleting the BASIN aquifers while protecting the quality of the water.
- To promote a program of public education and awareness regarding BASIN ground water management issues.
- To promote careful monitoring and analysis of ground water level and usage data for the BASIN.
- To continue to explore possible supplemental water sources for anticipated and potential future water use in the BASIN.
- To review and, if appropriate, make recommendations on water use or land use applications whose anticipated impact on the ground water system potentially lies outside the stated goals of the PLAN or policies adopted by the member ENTITIES.
- To review and make recommendations relative to the development of an agreement for water transfers across the state line.

In support of the COMMITTEE goals and activities, Whitman County proposes to:

- *Review and, if necessary, amend the county comprehensive plan and zoning policies to address quantity and quality concerns.*
- The Whitman County Department of Environmental Health and the Washington State Extension Service office will promote conservation practices and use of water saving devices for all water users (no matter what type of source.)
- Encourage the use of water saving devices for all new construction via hand-outs with the building permit application.

<sup>\*</sup> The text of the original (1992) PLAN is presented in bold plain font; *Informational updates to the PLAN appear in italics.* Updates to plan figures contain the word "*Updated*" in the caption.

- Continue to encourage all public water purveyors to meter all services within their systems.
- Promote wise landscaping and "water" uses through the use of "best management practices" concepts.
- Support the COMMITTEE in pursuing research projects.
- Through education, support the Washington State Department of Health requirements that all new public drinking water wells to install static level measuring devices at the time of pump installation. Encourage owners of existing public drinking water sources, if not already so equipped, to retrofit wells with such a measuring device at the time of pump/hardware removal or repair.
- Encourage the implementation of the Washington State Department of Health requirements that well owners annually report pump head measuring and monthly recording of pumping volumes as part of the annual report by well owners.
- Support the identification of critical recharge areas within the county.
- *Require that new developments comply with State agency regulations for ground water and surface water protection.*

For detail, go to: <u>www.whitmancountv.orq</u>

<sup>\*</sup> The text of the original (1992) PLAN is presented in bold plain font; *Informational updates to the PLAN appear in italics.* Updates to plan figures contain the word "*Updated*" in the caption.

### Updated University of Idaho Action Plan

- In selected areas of campus, provide demonstration sites for research and testing of xerophytes grasses, shrubs, flowers, and other landscaping which require less water.
- Financially support the COMMITTEE'S education efforts.
- Supplement the COMMITTEE's educational program with distribution of appropriate information on campus water use and conservation.
- Make public all successful University of Idaho water conservation demonstration projects which can be copied by the public or other ENTITIES.
- Continue to supply COMMITTEE with monthly data on ground water pumping and recycled water irrigation volumes.
- Comply with all State and Federal regulations pertaining to hazardous materials, storm water disposal, solid waste disposal, sewage sludge disposal, non-point sources, and well construction and abandonment.
- Any new water-cooled equipment must use chilled water from the central chilled water system.
- No domestic, deep aquifer water shall be used for cooling. Existing water-cooled equipment shall be converted as found and funds available.
- Shallow aquifer wells are now used in aquaculture research on west campus, to reduce the usage of deep aquifer well water.
- Water saving flush valves, showerheads, and faucet valves have been retrofitted and are part of our design standards for new construction.
- If allowable Irrigation will be on Reclaimed water. Move all systems onto automation as funds are available. All new systems shall be automated.

<sup>\*</sup> **The text of the original (1992) PLAN is presented in bold plain font;** *Informational updates to the PLAN appear in italics.* Updates to plan figures contain the word "*Updated*" in the caption.

Updated WSU Action Plan:

- Carry out its Conservation Program as outlined in its most current Water System Plan [as of November 21, 2013: Chapter 4.0 of the Washington State University Water System Plan, Volume 1, Final, December 30, 2008].
- This document can be accessed on the internet at <u>http://facops.wsu.edu/WSUWaterSysUpdate2008.aspx</u>
- Continue membership in COMMITTEE with funding for studies and research projects.
- Continue input to the COMMITTEE of the University efforts to monitor consumption.
- Develop usage data by building and irrigation zone as monitoring systems are installed.

<sup>\*</sup> The text of the original (1992) PLAN is presented in bold plain font; *Informational updates to the PLAN appear in italics.* Updates to plan figures contain the word "*Updated*" in the caption.

## **City of Moscow Action Plan**

- 1. Attempt to limit annual aquifer pumping increases to one percent (1%) of the pumping volume based on a five (5) year moving average starting with 1986 (745 mgy). At no time shall the accumulated total pumping exceed 125 percent of the 1981 to 1985 average (increase from 700 mgy to 875 mgy).
- 2. Continue summer/winter differential water rates.
- 3. Require developers to project water use.
- 4. Participate in programs that offer free water conserving devices to customers.
- 5. Create a conservation fund with a four cents/1,000 gallon surcharge to customers to pay for those devices, to fund research projects recommended by the Committee, and hire assistance to implement programs.
- 6. Adopt local codes requiring new water users to utilize water conserving appliances, i.e., smaller toilet tanks, etc.
- 7. Meter city use of water.
- 8. Calibrate consumer meters.
- 9. Address water issue in Comprehensive Plan.
- 10. Participate in education programs, i.e., schools, bill stuffers, cable T.V.
- 11. Encourage recycling at building permit level for major water users.
- 12. Continue to make city wastewater treatment plant (WWTP) effluent available to the University of Idaho.
- 13. Continue use of WWTP effluent for irrigation at WWTP.
- 14. Establish demonstration projects utilizing low water requirements- landscaping parks utilizing low irrigation trees and shrubs.
- 15. Continue 24-hour daily recordings of water levels and pumpage.
- 16. Continue submitting data to the Committee computer program in timely manner (monthly).
- 17. Assure the groundwater quality is protected in the Basin by :
  - a. Reviewing any project with possible recharge to the aquifers;
  - b. Complying with or exceeding State and EPA water quality standards for discharge into streams;

- c. Regulating toxic and hazardous waste storage to create strict standards to prevent contamination of aquifers;
- d. Prohibiting chemical dump site over the aquifers;
- e. Continuing compliance with EPA regulations regarding underground storage tanks.

## **City of Pullman Action Plan**

- 1. Attempt to limit annual aquifer pumping increases to one percent (1%) of the pumping volume based on a five (5) year moving average starting with 1986 (827 mgy). At no time shall the accumulated total pumping exceed 125 percent of the 1981 to 1985 average (increase from 767 mgy to 959 mgy).
- 2. Address water use in City's Comprehensive Plan and Zoning Code.
- 3. Require new development to submit projected water use.
- 4. Enact most stringent code available regarding low flow plumbing fixtures for new construction and remodel building projects
- 5. Participate in programs that offer users flow restrictors and toilet dams to reduce consumption.
- 6. Consider increasing user rates during summer irrigation periods to discourage wasteful practices.
- 7. Install low water use landscaping at all City facilities and install more efficient irrigation systems.
- 8. Require installation of low water use landscaping on all new commercial and multifamily developments.
- 9. Enact a conservation surcharge on all users with revenues dedicated to education efforts including COMMITTEE sponsored research projects.
- 10. Distribute conservation information through mailings to users, TV, radio, and newspaper advertisements.
- 11. Construct low irrigation demand landscaping demonstration projects on city owned sites.
- 12. Continue membership in COMMITTEE with funding for studies and research projects.
- 13. Continue input to the COMMITTEE of City's monitoring efforts. Develop usage data by user class, i.e., residential, single family, multi-family, commercial, institutional, industrial.
- 14. Comply with all State and Federal regulations pertaining to hazardous materials, storm water disposal, solid waste disposal, sewage sludge disposal, non-point source, household contributions, and well construction and abandonment.

# Latah County Action Plan

- 1. Estimate the dispersed/county pumping based on an average per capita use for all county residences both within the Basin boundaries and for the full County.
- 2. Latah County will attempt to limit annual aquifer pumping increases to one percent (1%) of the pumping volume based on a five (5) year moving average starting with 1986 figures. At no time shall the accumulated total pumping exceed 125 percent of the 1981 to 1985 average.
- 3. Work with the Planning and Building Department to:
  - a. Provide educational brochure with building permits promoting water conservation, low water use landscaping, and general sensitivity to the aquifer.
  - b. Encourage use of low water volume fixtures. Consider offering a financial incentive for conservation devices at the time of application for permit of new construction.
  - c. Encourage well registration for purposes of data collection.
- 4. Establish water conservation policies at all facilities and/or properties managed by Latah County. These policies shall pertain to irrigation practices and physical features of construction.
- 5. Refine the county emergency response plan to handle disasters which could affect groundwater contamination.
- 6. Encourage the development and implementation of water and power conservation programs developed by governmental agencies and private industry.
- 7. Endorse and provide funding for water research projects.
- 8. Work with the County Cooperative Extension Office and Soil Conservation Service District to develop an outreach program for water quantity and quality education.
- 9. Seek assurance of groundwater quality in conjunction with solid waste disposal sites. This will include baseline monitoring of present and future solid waste disposal sites.
- 10. Regulate development on or the drainage of wetlands not regulated by definition by the Army Corps of Engineers.
- 11. Regulate developments which could jeopardize water quality.
- 12. Use a land use procedure, for example, a "conditional use permit" for developments which propose to use water supplies in the day-to-day operation of a non-residential or commercial venture.

- 13. Use the COMMITTEE to conduct a preliminary recommended hearing prior to the above-mentioned County proceeding in the case of a land use with a dependence on Water use for successful operation of a commercial venture.
- 14. Updated Comprehensive Plan will reflect water conservation and protection goals.
- 15. Develop a local well-head protection ordinance.
- 16. Recognize riparian zones within the County and offer protection through ordinance or conditional use permit review.
- 17. Define and support programs for protection of water quality as administered by the North Latah Health District and the state agencies with local authority in this field.
- 18. Amend the Zoning Code to require Conditional Use Permits for projects with water impacts.
- 19. Apply water protection program standards to the whole county.

### Whitman County Action Plan

- 1. Estimate the dispersed County pumping based on an average per capita use for all County residences within the Basin boundaries. Whitman County Department of Environmental Health will attempt to limit significant pumping increases from the Basin aquifers.
- 2. Review and, if necessary, amend the County Comprehensive Plan and zoning policies to address quantity and quality concerns.
- 3. The Whitman County Department of Environmental Health and the Washington State Extension Service office will promote conservation practices and use of water saving devices for all water users (no matter what type of source).
- 4. Encourage the use of water saving devices for all new construction via hand-outs with the building permit application.
- 5. Continue to encourage all public water purveyors to meter all services within their systems.
- 6. Promote wise landscaping and "water" uses through the user of "best management practices" concepts.
- 7. Support the COMMITTEE in pursuing research projects.
- 8. Support the Washington State Department of Health requirements that all new public drinking water wells to install static level measuring devices at the time of pump installation. All existing public drinking water sources, if not already so equipped, will be retrofitted with such a measuring device at the time of pump/hardware removal.
- 9. Support the Washington State Department of Health requirements that pump head measuring and monthly recording of pumping volumes as part of the annual report.
- 10. Support the identification of critical recharge areas within the County.
- 11. Assure that new developments comply with State agency regulations for groundwater and surface water protection.

# The University of Idaho Action Plan

- 1. Attempt to limit annual aquifer pumping increases to one percent (1%) of the pumping volume based on a five (5) year moving average starting with 1986. This average will begin at 353 mgy plus the new allocation for Well No. 5 of 48 mgy for a total of 401 mgy. At no time shall the accumulated total pumping exceed 125 percent of the 1981 to 1985 average. (1981 to 1985 average is 301 times 125 percent equals 376 mgy plus 48 mgy from Well No. 5, for a total allocation of 424 mgy.)
- 2. Continue to switch domestic irrigation from Wells No. 3 and 4 to the recycled water irrigation system.
- 3. Submit an application to the State of Idaho for permission to switch water sources for select programs from Wells No. 3 and 4 to Well No. 5 and future shallow wells.
- 4. Continue to install best available conservation technology in new facilities and building remodels.
- 5. Increase recharge through infiltration via land application of stream runoff and recycled water at various places around the University of Idaho.
- 6. In selected areas of campus, provide demonstration sites for research and testing of xerophytic grasses, shrubs, flowers, and other landscaping which require less water.
- 7. Financially, support the Committee's education efforts.
- 8. Supplement the Committee's education program with distribution of appropriate information on campus water use and conservation.
- 9. Make public all successful University of Idaho water conservation demonstration projects which can be copied by the public or other Entities.
- 10. Continue to supply COMMITTEE with monthly data on groundwater pumping and recycled water irrigation volumes.
- 11. Comply with all State and Federal regulations pertaining to hazardous materials, storm water disposal, solid waste disposal, sewage sludge disposal, non-point sources, and well construction and abandonment.

## Washington State University Action Plan

- 1. Attempt to limit annual aquifer pumping increases to one percent (1%) of the pumping volume based on a five (5) year moving average starting with 1986 (642 mgy). At no time shall the accumulated total pumping exceed 125 percent of the 1981 to 1985 average (increase from 702 to 877 mgy).
- 2. Convert irrigation to computer controlled automatic systems on 70 to 90 percent of all turf within 10 years.
- 3. Eliminate 20 GPM of cooling water to the drain within three years.
- 4. Financially support the COMMITTEE activity.
- 5. Install water meters on its major water users.
- 6. Supplement the Committee's education program with distribution of appropriate information on campus.
- 7. Report all appropriate water data to the COMMITTEE for analysis.
- 8. Set a goal of no increase in withdrawal rate for the next two years to test the model with actual data.
- 9. Protect the groundwater quality by:
  - a. Maintaining good landscape practices and reviewing chemical use;
  - b. Monitoring and/or eliminating all underground storage tanks containing chemicals;
  - c. Continued monitoring of the old hazardous waste site;
  - d. Monitoring sewer systems and correcting any deficiencies (leaks, cross connections, ext.) noted;
  - e. Monitoring existing septic tanks systems and properly siting future systems;
  - f. Insuring that proper well construction procedures are followed;
  - g. Complying with all State and Federal regulations pertaining to groundwater and surface water quality.