



**Small Business Economic Impact Statement
Amendment to Chapter 173-532 WAC
Water Resources Program for the
Walla Walla River Basin, WRIA 32**

Department of Ecology

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Small Business Economic Impact Statement
Chapter 173-532 WAC
Water Resources Program for the Walla Walla River Basin WRIA 32
July 17, 2007

The Washington State Department of Ecology is amending Chapter 173-532 WAC, Water Resources Program for the Walla Walla River Basin, Water Resources Inventory Area (WRIA)

32. The key amendments include:

- Establishing instream flow water rights.
- Modifying seasonal surface waters closures.
- Closing the gravel aquifers, which are directly connected to surface water sources.
- Limiting future withdrawals during high flow periods to projects resulting in net environmental benefits.
- Managing future permit-exempt groundwater withdrawals¹ from the gravel aquifer, in “high density” areas by:
 - Limiting the total amount of water for domestic uses and irrigation of lawn and garden to 1,250 gallons per day for one residence and 5,000 gpd for multiple residences in one development.
 - Requiring water-for-water mitigation² for outdoor watering, from May 1 to November 30.
 - Metering permit-exempt uses.
- Limiting stock watering.

The primary impact to business is the protection of businesses’ existing water rights.

This Small Business Economic Impact Statement (SBEIS) finds there are disproportionate impacts from the rule amendment. The dominant business cost impacts are the capital costs for new or expanding businesses associated with 1) accessing a permit-exempt well in the deep basalt aquifer, or 2) acquiring an existing water right. Cost minimizing features have been provided where it is legal and feasible to do so.

This Small Business Economic Impact Statement (SBEIS) is revised in response to comments received during the rule-making process.

1. Background

The Walla Walla River basin poses unique water management challenges. The basin, as a whole, covers portions of both Oregon and Washington. This rule applies to the Washington portion of the basin. Water in the basin is over-appropriated. That is, more water has been legally allocated, through existing water rights, than is naturally available.

¹ “Permit-exempt groundwater uses” or “exempt wells” refer to certain groundwater withdrawals that are exempt from the permitting process under RCW 90.44.050. These withdrawals are limited to specific uses and, in some cases, maximum quantities. Although exempt from permitting, these withdrawals must still comply with Washington Water Code.

² “Water-for-water mitigation” means that an equivalent amount of water is provided to replace the water used, such as by transfer of existing valid water rights.

Most of the summer flows in the Walla Walla have been diverted for irrigation. For the past 100 years, parts of the Walla Walla River have run dry in summer, seriously impacting salmon and other fish. In addition, during dry years, irrigators divert most of the low flows in late spring and early fall, threatening salmon in and out migration in the Walla Walla and the Touchet Rivers. The water supply is also unreliable for water users. Many holders of adjudicated³ senior water rights (some with priority as early as the 1890s) are unable to use their rights from July to October.

In 1977, Ecology adopted the Water Resources Program rule for the Walla Walla River basin, Chapter 173-532 WAC, seasonally closing most streams and rivers because of unavailability of water and limiting future groundwater withdrawals. Ecology has issued no new surface water rights under the previous rule⁴, except for uses that are non-consumptive (causes no net loss to the water source) or those limited to the non-closure periods.

The prior rule protected surface water rights from new appropriations of groundwater. Section WAC 173-532-050 stated in part: “New appropriators of ground water will be required to locate wells outside of the zone of hydraulic continuity between surface water and the ground water aquifer.” Ecology evaluates applications for groundwater appropriation using the four legal tests set in Chapter 90.03 RCW. One of the critical tests is a determination, by Ecology, that the proposed appropriation will not impair existing water rights (both surface water and groundwater).

In the early 1990s, Ecology developed methods to determine whether certain aquifers are connected to surface waters by assessing basin hydrology and historical water withdrawals. In the Walla Walla River basin, Ecology determined that the gravel aquifers are connected to surface waters in the basin. Therefore, increased use of the groundwater from those aquifers would impair existing surface water rights.

Since 1996, to protect existing water rights, Ecology has issued no new surface water or groundwater rights in the basin. However, no restrictions have been imposed on developing permit-exempt groundwater withdrawals from the gravel and basalt aquifers.

By 1999, bull trout and steelhead were listed as threatened species under the federal Endangered Species Act (ESA). In 2000, local agencies and the community created a planning unit and initiated the development of a watershed plan in accordance with the Watershed Planning Act, chapter 90.82 RCW. The plan was to address the needs of the basin, including protecting and restoring stream flow. The planning unit completed the watershed plan in May 2005, and Walla Walla and Columbia counties adopted the plan in June 2005.

For over 25 years (since the adoption of the rule in 1977), the basin has had limited growth. This has changed in the last five to seven years. The population and economic growth in Walla Walla County has significantly increased, especially in the urban growth areas and rural residential areas.

Planning unit members spent considerable time discussing the issue of permit-exempt groundwater withdrawals. The planning unit recommended that sufficient water be available for rural development, that is consistent with Columbia and Walla Walla counties’ comprehensive land use plans, in areas not served by public water supplies. The Planning Unit recommended

³ Adjudicated water rights have been confirmed by the court.

⁴ There are 119 applications for new water rights currently pending in WRIA 32. See Appendix 1.

that Ecology maintain the groundwater permit-exemption as previously implemented, with no restrictions. The recommendation did not address Ecology concerns about the increase in permit-exempt wells—especially in areas where flows are very limited. Water right holders, the local community, the Tribes, and the Department of Fish and Wildlife share these concerns about the potential cumulative impacts of permit-exempt wells on stream flows and existing water rights.

The basin has achieved some success in improving flows for ESA-listed species. Three irrigation districts have a negotiated settlement agreement with the U.S. Fish and Wildlife Service to keep portions of their respective water rights in the river for fish. In addition, significant investment (over \$5 million) has been committed to restoring flows and increasing water reliability for users. A large number of permit-exempt groundwater withdrawals from the gravel aquifers could undermine these flow protection efforts. Some members of the community are also concerned about the equity issue where existing users must often stop their diversions and no new surface water rights are issued, but permit-exempt groundwater use from sources connected to those surface sources remains unregulated.

The planning unit made recommendations to Ecology for the protection of instream flows and existing water rights, and for the proper management of future water allocations. The watershed planning unit recommended Ecology amend the prior rule to include: instream flow levels, modification of prior stream closures, and the use of winter and spring high flows for water storage projects that improve stream flows for salmon production. Unresolved issues, such as future permit-exempt groundwater use, needed further discussion. The amendments to Chapter 173-532 WAC were the result of more than a year of consultation between Ecology and the watershed planning unit.

1.1 Requirements of a Small Business Impact Analysis

Ecology is issuing this SBEIS under Chapter 19.85 RCW, as part of this rule adoption process. The objective of this SBEIS is to identify and evaluate the various requirements and costs that the proposal might impose on businesses. In particular, the SBEIS examines whether the rule amendment imposes a disproportionate impact on small businesses as compared to large businesses. The purpose and content of an SBEIS are contained in RCW 19.85.040

1.2 Baseline

An SBEIS is limited to analyzing the changes the rule amendment creates, given the prior legal setting. The prior legal structure was defined by the 1977 Walla Walla River basin rule and other applicable administrative rules and laws. Therefore, this analysis evaluates the economic impact on small businesses from changes to how water will be managed under the adopted rule amendment.

2. Brief Description of the Rule Amendment and How Changes Affect Business

The amendments to Chapter 173-532 WAC⁵ include:

- Establishing instream flow water rights, with the priority date being the effective date of this rule amendment.
- Modifying the prior seasonal surface waters closures.

⁵ Appendix 2 contains a summary of the proposed changes to Chapter 173-532 WAC.

- Closing the gravel aquifer, except for future permit-exempt withdrawals and non-consumptive uses.
- Limiting future withdrawals during non-closure periods, and at specific locations, to projects that would provide net environmental benefits with particular emphasis on salmon production.
- Limiting stock watering.
- Managing other future permit-exempt well withdrawals from the gravel aquifer in “high density” areas by:
 - Limiting the total amount of water for domestic uses and irrigation of lawn and garden to 1,250 gallons per day for one residence and 5,000 gpd for multiple residences.
 - Requiring water-for-water mitigation for outdoor use from May 1 to November 30.
 - Metering permit-exempt uses.

The rule changes that could have effects on small business are the closure of the gravel aquifers and the limits on future exempt well withdrawals. Small businesses with existing water rights will benefit greatly from these changes. The limits on exempt well use, within high density areas, could adversely impact new small businesses or existing businesses looking to expand their water use.

2.1. Establishing Instream flows

There is no impact to small businesses from establishing instream flows.

The setting of instream flows does not affect existing water rights. Instream flows will only affect new consumptive uses. With the closure of all surface sources from May 1 or June 1 to November 30, only uses allowed during the non-closure periods will have instream flow conditions. Those uses are limited to storage projects designed to benefit the environment, particularly salmon populations.

The previous regulatory framework did not allow new surface water rights. Under Chapter 90.03 RCW, proposed surface water applications would not meet the statutory tests-- water supply would not be adequate and reliable for the intended purpose; future use may impair existing water rights; and it may not be in the public interest. Therefore, setting instream flows will not have an effect on small businesses.

Once established, instream flows are water rights and protected from impairment by all future changes and transfers of senior or junior water rights. Existing businesses proposing to change or transfer their water rights are subject to this provision. However, because of the over-appropriated condition of the basin and the need to not impair any water right, their situation remains unchanged.

Businesses that provide guide services such as rafting, fishing, and bird watching, or those dependent on dilution for waste removal, would not see any changes. Setting instream flows does not put water back into the streams and rivers.

2.2. Modifying Surface Closures and Closing the Gravel Aquifer

There may be some impact to small businesses relying on exempt wells in high density areas.

The adopted rule modifies the surface water closures in the basin. Streams and rivers are closed to new consumptive uses from either May 1 to November 30, or June 1 to November 30. Overall, the closure is one to two months longer than under the previous rule.

With the prior regulatory framework, set by statutes and the 1977 rule, Ecology issued no new surface water rights for any purpose, except for storage projects. Water rights for storage projects for irrigation and commercial uses have not been issued because the water supply is unreliable. (Usable flows occur only once in ten years.) The only storage projects permitted are those that improve instream flows. Therefore, the modification of the surface waters closures does not have an effect on small businesses.

Under the adopted rule, the gravel aquifers, connected to surface waters in the basin, is closed year-round. Under the prior regulatory framework set by statutes and the 1977 rule, Ecology had not issued new groundwater rights from the gravel aquifer since 1996. Therefore, the closure of the gravel aquifer does not have an effect on small businesses that would require water right permits. However, the closure of the gravel aquifer and the limited exceptions provided in high density areas does affect future new small businesses that could previously use the groundwater permit-exemption in those areas to meet their water supply needs. There are no impacts to small businesses in low density areas.

The rule amendment provides exceptions for future non-consumptive uses (i.e., geothermal heat pump) and permit-exempt groundwater withdrawals. Section c. below, discusses how the exception applies to small businesses and how the conditions set are likely to impact them.

2.3. Future Use of Permit-Exempt Groundwater Withdrawals

Small businesses locating in high density areas (areas with zoned density equal to or more dense than one residence per ten acres) may not develop a permit-exempt groundwater withdrawal from the gravel aquifer, except for builders/owners. Builders/owners can access the exception under new conditions:

- The amount of water for domestic use and irrigation of lawn and garden cannot exceed 1,250 gallons per day.
- Water use must be metered and reported.
- Outdoor use must be mitigated water-for-water after May 1, 2008.

Previously, businesses that require a reliable water supply had the following options:

- Have an existing water right.
- Connect to a municipal water supply system, if available.
- Drill a well under the groundwater exemption.
- Obtain a water right through purchase or transfer of an existing valid water right.

Under the rule amendment, those businesses that need water can:

- Connect to a public water supply, if available.
- Drill and withdrawal water from the deep basalt aquifer.
- Obtain a water right through purchase or transfer of an existing valid water right.

The adopted rule does not affect businesses with existing water rights. These businesses may actually benefit from a more protected and reliable water supply.

As stated above, the adopted rule closes the gravel aquifer and provides an exception to the closure under certain strict conditions.

a). Hook-ups

The rule does not change local requirements in areas with timely water hook-ups to a municipal water supplier.

The City of Walla Walla requires hook-up to the public water system if the system is located within 300 feet of the structure property line. Any land division in the urban growth area⁶ which results in parcels less than five acres must connect to the city water supply. The City of College Place has similar hook-up requirements in place. The requirement to hook-up to a municipal water supply has no effect in these areas. Therefore, this requirement imposes no additional cost on small business.

The rule does not require the hook-up to a municipal water supplier unless the hook-up can be provided in a timely and reasonable manner. Where small business is not required but chooses to connect to a municipal supplier, additional costs from the connection or the delay cannot be attributed to the adopted rule. If a small business cannot access public water supply it will either need to drill to the basalt aquifer or purchase and transfer an existing water right.

b). High density areas

In areas with zoned density equal to or denser than one residence per ten acres (referred to as high density areas)⁷ the exception is limited to residences for domestic use and irrigation of lawn and garden (this outdoor use must be fully mitigated). The exception is not available to small businesses. In those areas, new small businesses will need to use one of these options:

- Connect to a public water supply, if available.
- Drill and withdrawal water from the deep basalt aquifer.
- Obtain a water right through purchase or transfer of an existing valid water right.

County and city zoning ordinances, within the WRIA, generally prohibit business activities outside commercially zoned areas. With some small exceptions, commercially zoned areas fall within the city limits of Walla Walla and College Place. The municipal water service area currently covers the city limits and most of the urban growth areas. Additionally, the water suppliers plan to provide service to the entire urban growth area within the next twenty years.

c). Low density areas

In areas where the zoned density is less than one residence per ten acres, the use of permit-exempt groundwater by small businesses is unchanged from the previous regulatory framework. Therefore, there are no additional costs incurred from this adopted rule to any future businesses, in low density areas, wishing to use an exempt well.

3. Affected Industries

Ecology developed a list of permitted businesses in the high density areas based on data provided by the Washington State Employment Security Department, the Walla Walla County Zoning Codes⁸, and others. New business development is likely to be similar.

⁶ An “Urban Growth Area” is an area designated by a city for future urban expansion.

⁷ Appendix 3 shows a map of the high density areas within WRIA 32.

⁸ LexisNexis Walla Walla County, Title 17 Zoning, Chapter 17.16 Permitted Uses

Table 1. List of Potential Small Businesses in High Density Areas

County zoning in high density areas	North American Industry Classification System⁹
Storage/packing agricultural produce	Code 1151
Horticulture nurseries	Code 1114
Produce stands	Code 1113
Commercial greenhouses	Code 1114
Hatcheries	Code 1129
Rock crushers	Code 21
Bed and Breakfasts	Code 7211
Residential building construction	Code 2361
Nonresidential building construction	Code 2362
Produce Market	Code 445230
Kennels, pet care	Code 812910
Kennels, animal production	Code 112990
Grape Vineyards	Code 111332
Wineries	Code 312130
Golf facility	Code 713910
Stables	Code 713990
Livestock	Code 112990

Produce stands and produce markets: These businesses generally do not require water. Therefore, the rule amendment does not affect them.

Storage/packing agricultural produce: While these types of business do not require water for storage or packing, there may be a need to have water for employees and for fire protection. The effects of the rule are limited to those uses.

Hatcheries: Water use in hatcheries is non-consumptive. Future hatcheries, therefore, qualify under the exemption for non-consumptive water uses. Hatcheries may, however, require water for their employees.

Bed and breakfasts: Businesses are usually remodeled homes or transformed existing structures. As long as the existing structure has a valid water right (permitted or permit-exempt) and the water use does not exceed the amount previously put to beneficial use, the future business is not affected by the rule amendment. However, construction of a new structure for this type of business in a high density area may be affected, unless a municipal water supply is available.

Livestock: This use, if it is limited to stock watering is allowed under the exception provided for stock watering. However, there is not an exception for feedlots and other associated businesses.

⁹ Ecology has used NAICS codes rather than Standard Industrial Codes (SIC). It is a comparable system being used at the federal and state level and has replaced SIC codes in common use.

Horticulture nurseries, commercial greenhouses, kennels, wineries, golf facilities, stables, and rock crushers: Those proposed in the future are not allowed to use permit-exempt groundwater from the gravel aquifer, if located in high density areas.

Residential and nonresidential building construction: Construction businesses are impacted only if they are builders/owners— meaning they own the land, build homes, and sell them (as distinguished from those who build for a homeowner or a business). *Builders/owners* are allowed to use the permit-exemption from the gravel aquifer under some restrictions. The amount of water is limited to 1,250 gallons per day, a water meter must be installed, and mitigation for outdoor use must be obtained.

Those businesses that need water can:

- Connect to a public water supply, if available.
- Drill and withdraw water from the deep basalt aquifer.
- Obtain a water right through purchase or transfer of an existing valid water right.

4. Calculation of Business Benefits and Compliance Costs

Costs

Costs of the different options listed below generally include costs for: reporting and recordkeeping, professional services, equipment, supplies, labor, and any increased administrative costs.

Previously, small businesses were able to drill a well in the gravel aquifer. The average cost of drilling is \$35 per foot.¹⁰ The gravel aquifer depth varies. Recently drilled wells had a depth of 100 to 300 feet¹¹, with an average of 200 feet.

Average total costs for a gravel well is \$ 10,000, with \$7,000 for drilling (200 feet x \$35), and \$3,000 for the pump and other associated costs (e.g., electrical, connection to the home).

a). Cost of drilling a basalt well

The cost of drilling a well in the basalt aquifer is higher than drilling a well in the gravel aquifer. The depth to the basalt aquifer in the high density areas averages 600 feet (based on Ecology’s well logs and a USGS study). According to well drillers in the basin, the average cost of drilling in the basalt in high density areas is about \$50 a foot.

The average total cost of a new well in the basalt is about \$40,000, with \$30,000 for the drilling (\$50 x 600 feet) and \$10,000 for a pump and other equipment¹². Additional costs to businesses would be \$30,000 (calculated by subtracting the cost of a gravel well from the cost of a basalt well—or \$40,000 less \$10,000).

b). Cost of purchasing existing water rights

Businesses can purchase surface water or groundwater rights in the high density areas. Businesses purchasing surface water rights may be able to transfer those rights to groundwater or

¹⁰ Based on a survey of well drillers and home owners in the Basin.

¹¹ Ecology well logs.

¹² Survey of costs from drillers in the Walla Walla area.

transfer them to the trust water right program to mitigate for their groundwater withdrawals from the gravel aquifer.

Businesses were previously allowed up to 5,000 gallons a day from a permit-exempt well. This totals to 1,825,000 gallons or 5.6 acre feet per year¹³.

Based on WestWater Research (a consultant specializing in water valuation and marketing) and Ecology's valuation from past sales, water rights can be permanently purchased for \$600 to \$1000 an acre foot.¹⁴ On average, the total cost of purchasing 5.6 acre feet could be \$6,000 (\$800 x 5.6 acre feet coming to \$4,480 and adding about \$1,520 for recording fees and professional services).

If the water right needs to be transferred, the water transfer processing cost needs to be included. This ranges from \$10 to \$500¹⁵. In addition, the business may have other cost associated with the transfer of a water right, such as for research, or consultant and legal service fees. Based on discussion with consultants providing these services the cost could range from few hundred dollars to few thousand dollars, with an average of \$1,500. These costs are added to the purchase cost. The total cost for purchasing and transferring a water right is about \$7,500.

A health requirement prohibits the use of surface water for domestic purposes unless it is extensively treated. Therefore, most, if not all, purchased surface water rights will have to be transferred to a groundwater right and the business will have to drill a well for domestic use. Purchasing and transferring a water right, and drilling a well has an average total cost of \$17,500. So the additional cost to businesses is \$7,500 (\$17,500 less the cost of a gravel aquifer well-- \$10,000).

5. Calculation of Disproportionate Impacts

In this SBEIS, Employment Security's database for NAICS codes was used to find out the number of industries and number of employees per business that may be impacted by the adopted rule such as *horticulture nurseries, commercial greenhouses, rock crushers, bed and breakfasts, wineries, kennels, and residential and commercial construction*. There were 94 small businesses in the potentially affected industries in the WRIA. For small businesses in these industries, the average number of employees is 3.5. For the top ten percent of potentially affected businesses the average number of employees is 13.7.

Ecology estimates the highest cost to businesses is the additional cost of drilling basalt well, which is \$30,000. The lowest cost is the cost of purchasing and transferring water rights, which is \$7,500.

The highest and lowest cost figures was calculated by using the cost per employee for small businesses, and for the top ten percent of the large businesses.

¹³ 1 acre foot = 325,851 gallons, the amount of water required to cover one acre with water one foot deep.

¹⁴ Past permanent purchases average between \$500 to \$650. \$800 will be used for calculations of future sales.

¹⁵ \$10 Ecology's application fee. \$500 Walla Walla Conservancy Board processing fee (includes all costs associated with a water transfer)

The lowest cost per employee for small business is \$2,143, and the smallest cost per employee for the top ten percent large businesses is \$550, see table 2.

The highest cost per employee for small business is \$8,571, and for the top ten percent of large businesses is \$2,189, see table 2.

Table 2. Proportional Costs to Businesses

Options	Estimated additional Costs	Average # of Employees		Cost Per Employee	
		Small Business	10% Largest	Small Business	10% Largest
Lowest (water right)	\$7,500	3.5	13.7	\$2,143	\$550
Highest (Basalt well)	\$30,000	3.5	13.7	\$8,571	\$2,189

These high and low costs per employee demonstrate that the adopted rule has a disproportionate impact on small business. The primary impact is to protect existing water rights held by businesses in the basin.

6. Cost Reducing Features

Ecology has reduced costs imposed on small businesses to the extent required by Chapter 19.85 RCW. Ecology considered many methods to reduce costs:

Reducing, modifying, or eliminating substantive regulatory requirements

- Eliminating substantive requirements is not legally acceptable. Statute requires Ecology to protect existing water rights. Protection of those rights provides a benefit to businesses that own existing water rights. The adopted rule reduces and limits the impacts to small businesses located in low-density areas and in areas where the gravel aquifer does not exist and the basalt aquifer is the source of supply (i.e., Columbia County and a large portion of Walla Walla County). In addition, the adopted rule exempts the Burbank area (ground water in the area drains toward the Snake and Columbia Rivers) from the restriction on small businesses in high density areas.

Simplifying, reducing, or eliminating recordkeeping and reporting requirements

- Businesses in low density areas are not required to meter and report their water use. Ecology is responsible for keeping a record of all future permit-exempt groundwater withdrawals from the gravel and the basalt aquifers. The agency will use the best available information on water use per sector, including metering information, where it is available. For those required to meter and report their water use, this requirement was limited to the critical months in the basin—May 1 to November 30.

Reducing the frequency of inspections

- The rule does not impose any additional requirements for inspections.

Delaying compliance timetables

- Since 1977, no efforts have been made to limit permit-exempt groundwater withdrawals. Recent population growth and development threaten existing water rights and efforts to

restore stream flows for ESA listed species. Protection of existing water rights is a mandatory requirement that cannot be ignored or postponed. Protection of those rights provides a benefit to businesses that own existing water rights.

Reducing or modifying fine schedules for noncompliance

- The adopted rule does not impose any penalties that are not already in statutes.

Other mitigation techniques

- Ecology will be working with the local community to assist future water users mitigate the impacts of their proposed uses.

7. Small Business Involvement in Developing the Adopted Rule

Small business representatives were involved throughout the development of this rule. Ecology worked closely with the Walla Walla Watershed Planning Unit and its Water Quantity/Instream Flow Subcommittee to draft the rule revisions. The local planning unit comprises a wide cross-section of the Walla Walla River basin population, including small businesses. Representatives from sellers of produce, small real estate companies, professional partnerships, farm operators, and other small business were members of the planning unit and were involved at every stage of rule development. Ecology held public workshops in November 2006. Local chambers of commerce, drillers, developers, real estate companies and others received notice of the workshops and many small business owners participated.

8. Conclusions

The cost impacts of the adopted rule are disproportionate for small businesses. Therefore, Ecology has provided cost minimizing features where it is legal and feasible to do so. The primary impact to business is the protection of existing businesses water rights.

This rule amendment would affect very few businesses. Affected businesses, unable to access water via a permit-exempt well drilled in the gravel aquifer, may experience additional costs associated with drilling and operating a basalt well, or purchasing and transferring an existing water right.

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Appendix 1

WRIA 32 Pending Water Right Applications

Report Date: 12/6/2006

Walla Walla Water Right Applications

File #	Doc	Priority Dt	Purpose	Qi	UOM	Qa	Ir Acres	WRIA	1stSrc
G3-28962	NewApp	3/5/1991	IR,DM	1325	GPM	426		32	WELL
G3-29010	NewApp	5/20/1991	IR	2250	GPM	2600	690	32	INFILTRATION TREN
G3-29138	NewApp	1/13/1992	HP,FP	2000	GPM		160	32	WELL
S3-29151	NewApp	2/10/1992	IR	4.84	CFS		235	32	COLUMBIA RIVER
S3-29148	NewApp	2/18/1992	IR	2.8	CFS		126	32	WALLA WALLA RIVER
G3-29161	NewApp	3/6/1992	IR	8000	GPM		1280	32	WELL
G3-29230	NewApp	6/16/1992	IR,DS	80	GPM		9.5	32	WELL
G3-29234	NewApp	6/26/1992	IR	200	GPM		160	32	WELL
S3-29335	NewApp	11/17/1992	IR	6.94	CFS		520	32	WALLA WALLA RIVER
G3-29342	NewApp	12/21/1992	IR	1800	GPM		180	32	WELL
G3-29343	NewApp	12/28/1992	IR	1000	GPM	450	100	32	WELL
G3-29421	NewApp	2/8/1993	IR,FP	4000	GPM		450	32	WELL
S3-29512	NewApp	7/27/1993	DS	0.011	CFS			32	UNNAMED SPRING
G3-29549	NewApp	9/20/1993	ST,IR	100	GPM		29.5	32	WELL
G3-29577	NewApp	11/16/1993	IR,DS	112	GPM		6.33	32	WELL
R3-29616	NewApp	1/3/1994	IR,FP		CFS	32	135	32	WELL
S3-29635	NewApp	1/21/1994	DS	0.01	CFS			32	UNNAMED SPRING (T
G3-29709	NewApp	7/6/1994	IR	10000	GPM		1000	32	WELL
G3-29757	NewApp	11/15/1994	IR	300	GPM		30	32	WELL
G3-29765	NewApp	12/19/1994	IR	2000	GPM		291	32	WELL
G3-29844	NewApp	12/29/1994	IR,DS	300	GPM		160	32	WELL
S3-29797	NewApp	2/20/1995	IR	2	CFS		124.9	32	DRY CREEK
G3-29798	NewApp	2/20/1995	IR	2000	GPM		200	32	WELL
G3-29801	NewApp	2/22/1995	IR	1600	GPM		192	32	WELL
G3-29817	NewApp	3/8/1995	IR,DS	900	GPM		100	32	WELL
G3-29816	NewApp	3/8/1995	IR,DS	800	GPM		112	32	WELL
G3-29810	NewApp	3/17/1995	IR,FP	1500	GPM		363	32	WELL
G3-29818	NewApp	4/10/1995	IR,DS	60	GPM		10	32	WELL
G3-29856	NewApp	6/21/1995	IR	600	GPM		160	32	WELL
G3-29869	NewApp	8/7/1995	DS	10	GPM			32	WELL
G3-29870	NewApp	8/10/1995	IR,DS	50	GPM		15	32	WELL
S3-29868	NewApp	8/22/1995	DS	0.02	CFS			32	UNNAMED SPRING
S3-29871	NewApp	9/22/1995	DS	0.01	CFS			32	UNNAMED SPRING
G3-29914	NewApp	10/31/1995	MU	500	GPM			32	WELL
G3-29901	NewApp	11/14/1995	ST,IR	300	GPM		29.5	32	WELL
G3-29904	NewApp	11/20/1995	IR	1500	GPM		300	32	WELL
G3-29912	NewApp	12/15/1995	RE,IR	20	GPM		2.47	32	WELL
G3-29906	NewApp	12/28/1995	IR,DM	300	GPM		14	32	WELL
G3-29907	NewApp	12/28/1995	IR,DS	300	GPM		10	32	WELL
G3-29908	NewApp	12/28/1995	IR,DS	300	GPM		20	32	WELL
G3-29909	NewApp	12/28/1995	IR,DS	1000	GPM		120	32	WELL
G3-29910	NewApp	12/29/1995	IR,DS	300	GPM		10	32	WELL
S3-29916	NewApp	1/8/1996	DS	0.1	CFS			32	UNNAMED STREAM

File #	Doc	Priority Dt	Purpose	Qi	UOM	Qa	Ir Acres	WRIA	1stSrc
S3-29917	NewApp	1/8/1996	WL	0.5	CFS			32	SOUTH FORK TOUCHET
G3-29950	NewApp	3/18/1996	IR,DS	50	GPM		8.5	32	WELL
G3-29951	NewApp	3/19/1996	IR	600	GPM		53	32	WELL
S3-29946	NewApp	4/30/1996	ST,DS	0.013	CFS			32	UNNAMED SPRING
G3-29961	NewApp	5/29/1996	IR	2000	GPM		212	32	WELL
G3-29962	NewApp	6/3/1996	IR	6000	GPM		800	32	WELL
G3-29964	NewApp	6/6/1996	IR,DS	100	GPM		10.13	32	WELL
G3-29971	NewApp	7/1/1996	IR,DM	2000	GPM		268	32	WELL
G3-29987	NewApp	7/8/1996	IR,DS	70	GPM		10	32	WELL
G3-29983	NewApp	7/22/1996	IR	150	GPM		22	32	WELL
G3-29988	NewApp	8/19/1996	IR	300	GPM		40	32	WELL
G3-29991	NewApp	8/30/1996	MU	4350	GPM			32	WELL
G3-30004	NewApp	11/27/1996	ST,IR	30	GPM		2.16	32	WELL
G3-30005	NewApp	12/5/1996	IR,DS	100	GPM		10	32	WELL
G3-30010	NewApp	12/17/1996	IR	200	GPM		60	32	WELL
G3-30011	NewApp	12/20/1996	ST,IR	500	GPM		10.42	32	WELL
G3-30012	NewApp	1/10/1997	IR,DS	60	GPM		4.5	32	WELL
G3-30033	NewApp	3/17/1997	IR	2200	GPM		400	32	WELL
G3-30063	NewApp	6/20/1997	ST	2000	GPM			32	WELL
G3-30064	NewApp	7/15/1997	IR,CI	280	GPM		280	32	WELL
G3-30066	NewApp	7/17/1997	ST,IR	50	GPM		10	32	WELL
G3-30074	NewApp	7/23/1997	IR	500	GPM		275	32	WELL
S3-30045	NewApp	8/14/1997	FR,CI	20	CFS			32	LAKE WALLULA
G3-30071	NewApp	8/28/1997	ST,IR	30	GPM		18	32	WELL
G3-30072	NewApp	9/16/1997	IR,FP	4500	GPM		399.4	32	WELL
G3-30114	NewApp	9/25/1997	IR,DM	150	GPM		9	32	WELL
G3-30128	NewApp	10/27/1997	IR,DM	5200	GPM		766	32	WELL
G3-30104	NewApp	11/3/1997	MI	750	GPM			32	INFILTRATION TREN
G3-30075	NewApp	11/14/1997	IR,DS	250	GPM		23	32	WELL
G3-30129	NewApp	12/16/1997	CI	750	GPM			32	INFILTRATION TREN
G3-30133	NewApp	1/23/1998	IR	210	GPM		21.09	32	WELL
G3-30134	NewApp	1/23/1998	IR	1090	GPM		109	32	WELL
S3-30156	NewApp	3/24/1998	IR	0.02	CFS		2	32	Irrigation Ditch
G3-30172	NewApp	5/14/1998	CI	1200	GPM			32	WELL
G3-30180	NewApp	5/19/1998	ST,IR	50	GPM		33	32	WELL
G3-30185	NewApp	5/29/1998	IR,DS	40	GPM		1	32	WELL
G3-30222	NewApp	6/1/1998	ST,IR	60	GPM		9	32	WELL
S3-30186	NewApp	6/5/1998	IR	0.18	CFS			32	BLUE CREEK
G3-30202	NewApp	6/15/1998	IR	750	GPM		120	32	WELL
G3-30233	NewApp	6/30/1998	ST,IR	17	GPM		2.16	32	WELL
G3-30255	NewApp	12/31/1998	FP,DM	2200	GPM		440	32	WELL
G3-30254	NewApp	12/31/1998	FP,DM	2200	GPM		440	32	WELL
G3-30253	NewApp	12/31/1998	IR,HP	2200	GPM		400	32	WELL
G3-30257	NewApp	2/1/1999	CI	44	GPM			32	WELL
G3-30274	NewApp	11/30/1999	IR	150	GPM		21	32	WELL
G3-30324	NewApp	11/30/1999	IR	100	GPM		11	32	WELL
S3-30304	NewApp	5/3/2000	IR	3	CFS		40	32	WALLA WALLA RIVER
G3-30306	NewApp	5/19/2000	IR	2250	GPM		1130	32	WELL
G3-30305	NewApp	5/19/2000	IR	1000	GPM		40	32	WELL
G3-30290	NewApp	6/27/2000	IR,DM	150	GPM		12	32	WELL
G3-30300	NewApp	8/16/2000	IR	1200	GPM		80	32	WELL
G3-30307	NewApp	11/29/2000	IR,FP	150	GPM		9.5	32	WELL

File #	Doc	Priority Dt	Purpose	Qi	UOM	Qa	Ir Acres	WRIA	1stSrc
S3-30321	NewApp	3/28/2001	IR	1	CFS		40	32	WALLA WALLA RIVER
S3-30322	NewApp	3/28/2001	IR	5	CFS		680	32	WALLA WALLA RIVER
G3-30343	NewApp	12/17/2001	IR	1000	GPM		308	32	WELL
G3-30348	NewApp	1/24/2002	ST,IR	750	GPM		140.3	32	WELL
G3-30364	NewApp	5/7/2002	IR,DG	30	GPM		3.5	32	WELL
G3-30358	NewApp	5/16/2002	CI	1200	GPM			32	WELL
G3-30372	NewApp	5/16/2002	IR,DS	120	GPM		12	32	
G3-30374	NewApp	6/20/2002	IR	190	GPM	76	19	32	
G3-30400	NewApp	7/22/2002	ST,IR	2250	GPM		16	32	
G3-30396	NewApp	8/5/2002	IR	1000	GPM	2736	684	32	
G3-30377	NewApp	11/18/2002	IR	500	GPM		57	32	
G3-30383	NewApp	3/10/2003	IR	275	GPM	46	24	32	
G3-30388	NewApp	6/12/2003	ST,IR	100	GPM	79.57	7.25	32	
G3-30382	NewApp	7/20/2003	DG	100	GPM	160		32	
G3-30408	NewApp	11/6/2003	IR,DS	5	GPM		0.17	32	
G3-30409	NewApp	11/12/2003	ST,IR	1000	GPM	500	100	32	
G3-30423	NewApp	6/7/2004	IR	2500	GPM	650	309	32	
G3-30424	NewApp	6/7/2004	IR	2500	GPM	1450	723.5	32	
S3-30437	NewApp	12/7/2004	UN	20	CFS	4000		32	COLUMBIA RIVER
G3-30496	NewApp	9/28/2005	IR	200	GPM	50	10	32	
G3-30499	NewApp	10/31/2005	IR	70	GPM	50	50	32	
G3-30511	NewApp	3/20/2006	IR	100	GPM		4.5	32	
G3-30524	NewApp	6/7/2006	CI	449	GPM	722.7		32	
G3-30518	NewApp	7/3/2006	MU,IR	300	GPM		100	32	Well 3

Water Right Tracking System—Purposes of Use

Purpose Type Name	Purpose Type Code	Purpose Type Name	Purpose Type Code
Commercial & industrial	CI	Instream Flow	IFlow
Cooling for industrial process	CO	Irrigation	IR
Dairy	DY	Mining	MI
Domestic general	DG	Municipal	MU
Domestic multiple	DM	Municipal inter-tie system	IT
Domestic single	DS	Power	PO
Dust Control	DC	Recreation - beautification	RE
Environmental quality	EN	Railway	RW
Frost protection	FP	Storage	SR
Fire protection	FR	Stock water	ST
Fish propagation	FS	Trust water, Permanent	TW-P
Heat exchange	HE	Trust water, Temporary	TW-T
Heat protection for crops	HP	Wildlife refuge	WL
Highway	HW	Other	UN

Appendix 2
Summary of the Changes to Chapter 173-532 WAC

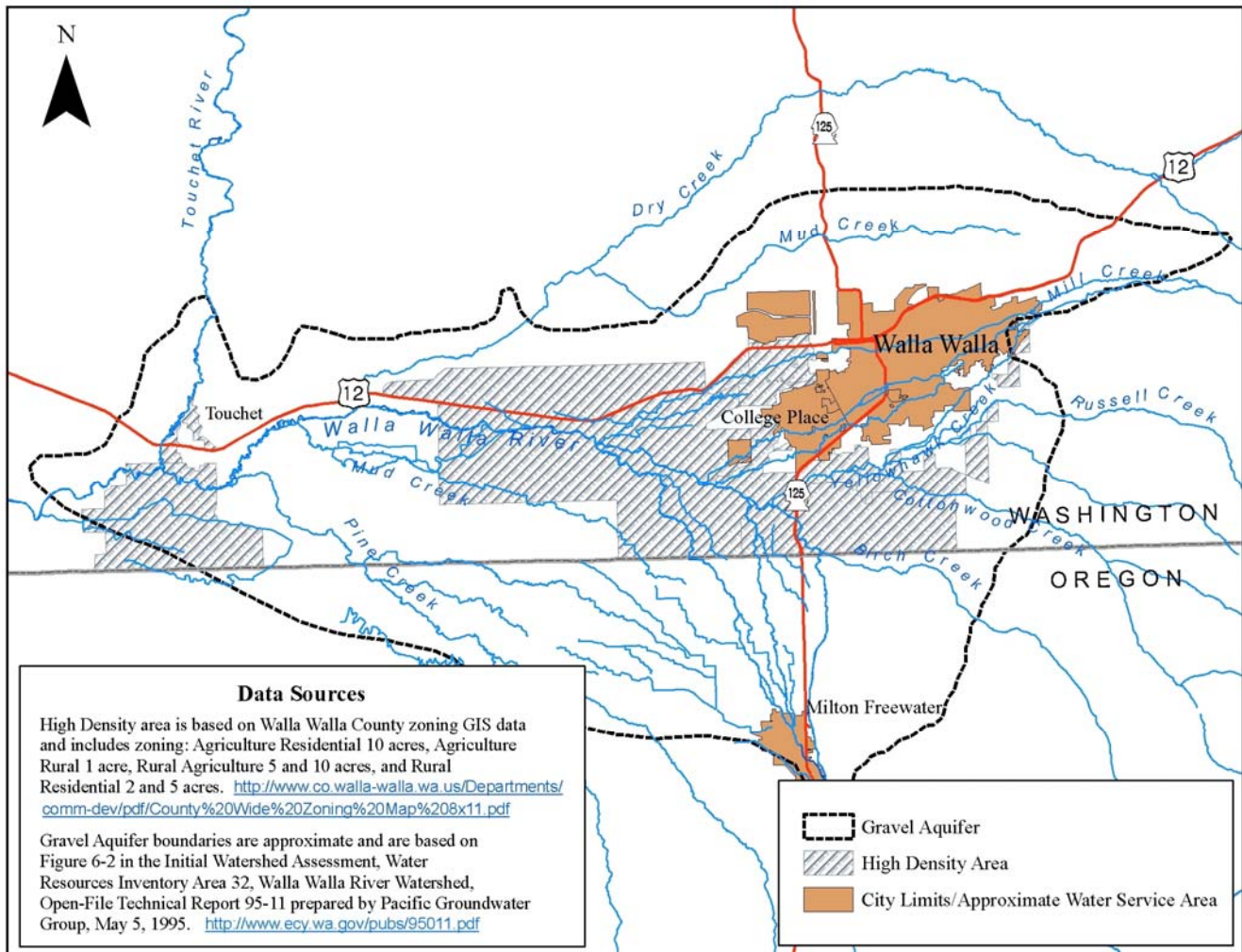
Section	Summary of Change	Net Effect Requiring Analysis
Amendatory Section 010	Amended to add reference to Chapter 90.82 RCW	<i>N/A</i> , change made for consistency with existing statute.
	Clarified geographical boundary of basin	<i>N/A</i> , change made to clarify language in rule.
	Moved Section 110, Regulation review, to the beginning of text	<i>N/A</i> , change made to clarify language in rule.
Amendatory Section 020	Replaced definition of "baseflow" to "instream flow"	<i>N/A</i> , change made for consistency with existing statute.
	Amended definitions of "consumptive use" and "Nonconsumptive use"	<i>N/A</i> , change made for consistency with court cases.
	Modified portion of the definition for "Domestic use."	<i>N/A</i> , change made for consistency with 2005 Attorney General Opinion, interpreting RCW 90.44.050.
	Added definition of "Environmental enhancement project"	<i>See</i> analysis for new Section 055, where term is used.
	Deleted definition of zone of direct hydraulic continuity	<i>N/A</i> , change made for consistency with existing law and court cases.
	Deleted definition for "Municipal water supply system" and replaced it with the statutory definition of "Municipal water supplier." RCW 90.03.015.	<i>N/A</i> , change made for consistency with RCW 90.03.015.
	Added term and definition of "planning unit"	<i>N/A</i> , identify who is referred to in Sections 030, 050, and 055
	Amended definition of "Water right."	<i>N/A</i> , changed to clearly state that instream flows are defined by statute as water rights.
	Added term and definition of "Withdrawal"	<i>N/A</i> , added to clarify its use in adopted rule
New Section 025	Established stream management units for four stream management points	<i>See</i> analysis for Section 030
Amendatory Section 030	Changed title from "Base flows" to "Establishment of instream flows."	<i>N/A</i> , change made for consistency with existing statutory law.
	Original rule deferred establishment of base flows (instream flows) until later time. Adopted rule establishes monthly instream flow values for four management units in basin established in 025.	Under the previous and new regulatory framework, only appropriations for above and below ground storage projects that benefit salmon population are allowed and subject to protection of instream flows. This is consistent with the purpose of these storage projects.
Amendatory Section 040	Original rule seasonally closed most rivers and streams in the basin and future well withdrawals within the "zone of direct hydraulic continuity" (see original Section 050 for groundwater restrictions).	Consistent with the previous legal framework, no new water rights were issued. Also transfers and changes are limited to those actions that would not impair existing senior and junior water rights. The adoption of instream flows as a junior water right does not change prior requirements, which could result in denial of changes and transfers whenever existing water rights, including instream flows would be affected.
	Adopted rule seasonally closes tributaries of the Walla Walla (between Stateline and Detour Road at MP5) and Mill Creek (between confluence with the Walla Walla to the headwaters) from June 1 to November 30. All other surface waters in the basin are closed from May 1 to November 30	Overall the closure is extended one month from under the previous rule.
	Adopted rule closes the gravel aquifer from future appropriations. Exceptions are provided for non-consumptive uses and future permit-exempt groundwater withdrawals under conditions spelled out in 050.	Consistent with the prior regulatory framework set by statutes and the 1977 rule, and the determination by Ecology that gravel aquifer is connected to surface water sources, no groundwater rights have been issued from the gravel aquifer. No additional impact is expected. This adopted rule has an impact on future permit-exempt groundwater in high density areas. See 050.

Section	Summary of Change	Net Effect Requiring Analysis
	Adopted rule limits surface withdrawal during non-closure period to actions described in WAC 173-532-045—non-consumptive and environmental enhancement storage projects	This does not change the prior restrictions on issuance of new water rights and allowing only non-consumptive projects and storage projects during the non-closure periods and in certain locations.
New Section 045	Added Section to specify permissible permitting actions.	<i>See</i> analysis done for Section 040, regarding limitations on future withdrawals made during non-closure period. <i>See</i> analysis done for Section 055, regarding restriction and procedural requirements for environmental enhancement projects.
Amendatory Section 050	Deleted all original text in this section, pertaining to future groundwater permitting. Section in proposal addresses future permit-exempt well uses in the gravel aquifer.	<i>See</i> analysis of Section 040 for effects on future groundwater permits.
	Adopted rule distinguishes areas between high density and low density areas based on the Walla Walla County zoning code. - Use of exempt wells in areas that have a zoned density of one residence per ten acres or more—high density-- is limited to future domestic use and watering of lawn and noncommercial garden. The total amount of water is limited to a daily use of 1,250 gallons per residence. Four and more residences are limited to 5,000gpd	Future permit-exempt groundwater for industrial purposes in high-density area will need to connect to a municipal water supply, acquire a new right, drill a well in the basalt, or locate in low density areas. <i>See</i> outdoor use mitigation requirement below.
	Adopted rule provides an exception to the closure for future stockwatering from the gravel aquifer. Water use limits are based on the capacity of the land: --700 gpd on a tax parcel size of 10 acres or less, --2,500 gpd on a tax parcel size between 10 and 20 acres, and --5,000 gpd on a tax parcel size 20 acres and greater.	N/A, No real measurable effect due to low likelihood of significant future stockwatering from the gravel aquifer, especially in high density areas. The quantities, proposed by a local stock water user, are adequate for the size of the parcel. Feedlots and other activities not related to normal grazing land uses are not allowed under this exception.
	Adopted rule requires metering and reporting of all future exempt wells in the high-density area.	Cost of meter installation, maintenance and reporting – residences and stockwatering
	Adopted rule requires water-for-water mitigation from may 1 to November 30 (effective May 1, 2008), for any outdoor water use from the gravel aquifer in high density areas.	Administrative cost and acquisition cost of mitigation.
New Section 055	Adopted rule outlines process for approval of future Environmental Enhancement Projects (EEP).	Administrative cost of additional procedural safeguards.
	In addition to existing statutory requirements, future permits for EEP must satisfy conditions listed in this section, including review and recommendation by other entities.	Resulting benefit of increased protection of existing water rights.
060	Deleted in adopted rule	N/A, original section expired—on October 1, 1984.
070	Deleted in adopted rule. No specific restrictions on basalt aquifer are included in rule. Original rule limited cumulative withdrawals from the basalt aquifer to 125,000 acre-feet.	N/A, not enough is known about the basalt aquifer to determine whether 125,000 acf is reasonable limit to protect the aquifer from being depleted. This is a concern expressed by the cities and Ecology. Better protection needs to be put in place, once more is known.
080	Evaluation of new groundwater applications	N/A duplicate what is in statute under 90.03.290 RCW.
Amendatory Section 090	Original enforcement terms were deleted and replaced with new terms	N/A, modified for consistency with statutory changes made since original rule was adopted
110	Section moved to WAC 173-532-010, Purpose.	N/A, moved to front of document to provide clarity.
New Section 120	Adopted rule adds map with WRIA boundary and four stream management points	N/A, provided for visual purpose

Appendix 3

Map of Areas of Water Source Availability in WRIA 32

Map identifying the boundaries of the gravel aquifer, the cities of Walla Walla and College Place, the Touchet area, and high density areas (areas zoned one residence in ten acres or denser).



Appendix 4. WestWater Research Water Valuation of Walla Walla River Basin
Previous Water Right Sales in the Walla Walla River basin

Year	State	Transaction Type	Total Price	Acre-Feet	\$/AFT
1999	WA	Purchase	\$9,000	14	\$667
2000	WA	Purchase	\$1,026,000	1,541	\$666
2004	WA	Purchase	\$65,405	131	\$500