

Kittitas County Water Bank Over-the-Counter Water Budget Neutral Program Proposal

Statement of Need: On July 16, 2009, the Department of Ecology (“Ecology”) implemented Chapter 173-539A WAC (Upper County Rule) in Upper Kittitas County withdrawing all unappropriated groundwater. The rule was implemented to prevent unmitigated new uses of groundwater in the headwaters of the Yakima River Basin. Under the Upper County Rule, an exception is allowed for those appropriations of water that demonstrate water-budget neutrality through acquisition of a pre-1905 (or senior) water right and which do not impair fish and other aquatic life in local streams.

To provide water for new uses, several private water banks have been created in Kittitas County. While transfers of water from these banks to new users have been successful, the process has proved costly and time-consuming. Each proposed new use is reviewed individually by the Water Transfer Working Group (WTWG) prior to approval by Ecology, even though many of the proposed uses are for similar new groundwater uses within defined areas where mitigation through water banks has already been established.

On May 15, 2014, Kittitas County adopted new regulations outside of the areas of the County subject to Chapter 173-539A WAC and within the Yakima River Basin. The County regulations require water budget neutral mitigation for proposed new uses of groundwater and are to be implemented over time.

The first stage, in place today, requires new groundwater uses to mitigate for Total Water Supply Available (TWSA) and may be accomplished through a County-run program that is approved internally and issued “over-the-counter” based on set criteria. The second stage is to be in place by December 1, 2015 and will require full water-budget neutrality for new groundwater uses (similar to the requirements in the Upper County Rule).

The County’s regulations requiring water budget neutral mitigation will result in a significant increase in the number of water budget neutral reviews for the WTWG and Ecology. Following the current model in place for obtaining water-budget neutrality approval, each of the individual transactions would be required to be reviewed one-by-one by the WTWG and Ecology prior to approval. This will significantly increase the workload for the WTWG and Ecology resulting in increased costs and/or additional delays for applicants.

The Yakima River Basin, the area in Kittitas County which these new regulations are imposed, is fully-appropriated and scientific evidence has shown impacts to stream flows and surface water resources from groundwater pumping. Withdrawals of groundwater have an impact on instream flows in the Yakima River and its tributaries and as such, may impact more senior users, especially during low-flow periods. Impacts to more senior users include the rights of the Yakama Nation for water to sustain anadromous and resident fish and other aquatic life.

The Yakima River Basin spans three counties – Kittitas, Yakima, and Benton. The impacts from groundwater use on stream flows and senior water rights holders occur in all three counties within the basin, not just Kittitas. It is possible that other counties may implement measures to prevent impacts to senior water rights and instream flows. If so, the workload impact on Ecology and other water resource interests will increase even further.

Summary of Proposal: Kittitas County has acquired the existing William’s water bank and portions of the existing Roth, Clennon, and Amerivest water banks. The County is seeking to have the County-owned water rights in these four water banks approved by Ecology as water budget neutral mitigation for building permit applications that will be submitted to the County in the future. The County is proposing that the County’s four water bank water rights be reviewed by Ecology in advance and pre-approved through an Ecology decision as meeting the water budget neutral requirements of Chapter 173-539A WAC and provisions of the Kittitas County Code relating to Adequate Water Supply Determinations (AWSD).

This streamlining proposal is a component of the Settlement Agreement between the County and Ecology reached in the case before the Eastern Washington Growth Management Hearings Board. It would allow the County to issue over-the-counter approvals for groundwater mitigation as part of an AWSD during its building permit process. This proposal is specific to the County’s interests in the Roth, Clennon, Williams, and Amerivest water banks. If additional water rights and water banks are acquired by the County, they would require separate review and approval by Ecology to determine if the water rights or banks would be included in the over-the-counter mitigation program. Water rights held by non-County water banks should also be eligible for over-the-counter approval by Ecology and integration into the County’s program if owners of those water banks so choose. If so, other water banks would be required to submit necessary applications to Ecology and undergo separate review for this purpose.

Proposed Program Details

1. Time Period: The County is seeking pre-approval by Ecology of water budget neutral decisions sufficient to meet projected building permit applications for a 10-year period.

2. Geographic Scope: The over-the-counter mitigation approval process will apply only for uses in areas identified in mitigation suitability maps for each of the Roth, Clennon, Williams, and Amerivest water banks as green.

3. Applicant Eligibility: Building permit applicants will be allowed to purchase an over-the-counter mitigation certificate from the County only for single domestic use that is exempt from the groundwater permit requirement in RCW 90.44.050. Mitigation may only be purchased in conjunction with the filing of an application for a residential building permit. Building permit applicants may use the over-the-counter program to obtain mitigation sufficient to meet the County’s AWSD requirements, and/or obtain additional water rights or mitigation through other water banks or through a water right transfer.

4. Water Use Limitation and Consumptive Use Estimate: New ground water uses allowed through the County’s over-the-counter program will be limited to two basic packages. The packages/limitations are as follows:

Package A: Indoor use only, limited to 275 gallons per day annual average withdrawal.

Package A is mandatory for any parcel which has access to irrigation water. This package does allow some incidental outdoor water use for washing windows, washing cars, etc.

Package B: Indoor use, limited to 275 gallons per day annual withdrawal, and up to 500 square feet of outdoor use, limited to 25 gallons per day annual withdrawal, for total maximum 300 gallons per day annual withdrawal.

Package B is mandatory for any parcel which does not have access to irrigation water.

Multiple packages may not be purchased and applied to the same parcel without a building permit requiring mitigation for a new use of ground water. Based on these withdrawals, the total consumptive use for each Equivalent Residential Unit (ERU) is estimated to be .100 AF/y for Package A and .128 AF/y for Package B.

5. Conditions of Approval: Ecology’s approval of the over-the-counter mitigation program will include the same nine (9) conditions included by Ecology in individually-reviewed water budget neutral decisions. The mitigation conditions will be a requirement of both Ecology’s approval of the over-the-counter mitigation program and by the County in all AWSD decisions. The conditions will state as follows:

1. Water use is to be made within Parcel No. [XXXXXX] located within the [XX ¼ XX ¼] of Section [XX], T. [XX] N., R. [XX] E.W.M.
2. In-home water use is [1] connection, resulting in a consumptive use of [0.100] ac-ft/yr.
3. Outdoor irrigation is 0.011478 acres (500 square feet), resulting in a consumptive use of [0.028] ac-ft/yr.¹
4. The proposed well will be located in Parcel No. [XXXXXX], located within the [XX ¼ XX ¼] of Section [XX], T. [XX] N., R. [XX] E.W.M.
5. Water use shall be recorded and reported as required under WAC 173-539A-070 and as described in the Advisory Letter enclosure for those projects subject to the Upper Kittitas

¹ Outdoor irrigation allowed in Package B only.

County Rule; and under KCC Chapter 13.35 for those properties subject to water budget neutral requirements based on the Kittitas County Code.

6. You will record with the Kittitas County Auditor a property covenant that restricts or prohibits trees or shrubs over a septic drainfield on Parcel No. [XXXXXX].

7. Kittitas County Public Health will record with the Kittitas County Auditor an appropriate conveyance instrument under which the applicant obtains an interest in Trust Water Right No. [XXXXXXXXXX] to offset consumptive use as described in this letter.

8. [If necessary] You will pay to Ecology the sum of [\$XXXX] which represents a proportionate amount of the payment due and owing to the United States for storage and delivery of water under Paragraph 15(a) of the applicable version of the Water Storage and Exchange Contract No. 09XX101700, between the USBR and Ecology, Yakima Project, Washington. The consumptive use of [XXXX acre-feet] from September 1 through March 31 is subject to the terms and conditions in the Water Storage and Exchange Contract No. 09XX101700.

9. Any valid priority calls against the Trust Water Right identified in paragraph 7 above based on local limitations in water availability and/or impairment of senior rights, shall result in temporary curtailment of the use of water under this program until the priority call for water ends. The approval of groundwater mitigation through this program does not eliminate the right or ability of any person or entity to protect senior water rights from impairment.

In addition, to further protect senior water rights and decrease the potential influence on stream flows from new ground water withdrawals, the County will impose the following conditions on well construction and location for wells drilled after the approval of the over-the-counter mitigation program:

For wells 600 feet or closer to Type 1 and Type 2 stream and rivers, and natural wetlands, creeks, lakes, and ponds, the following criteria must be met:

A. When feasible, wells must be set back 100 feet or more from the surface water body and adhere to the following:

1. Wells must be cased a minimum depth of 5 feet into the first consolidated layer or formation, or until the casing is refused by the formation (casing refusal); and
2. Wells must be drilled past the first consolidated layer or formation and into a water-bearing zone; and
3. Wells shall have a minimum bentonite or other equivalent seal of 18 feet, or be constructed in an equivalent manner consistent with Chapter 173-160 WAC.

B. In instances where the 100 foot minimum set back requirement cannot be met, in addition to A.(1) and A(2), the well shall have a bentonite or other equivalent seal down to the first consolidated layer.

The County's approval of AWSD decisions and building permits will include all conditions agreed to by the County in the Settlement Agreement and adopted in County code, and the County's building permit decision will incorporate the conditions imposed by Ecology in its decision approving the over-the-counter mitigation program.

6. In Lieu Fee Mitigation Requirement: In addition to requiring water budget neutrality to satisfy the County's AWSD requirement, the County will impose an in-lieu fee mitigation requirement as part of its water banking program. A separate fee in the amount of \$500 will be collected by the County from all applicants utilizing the county's water banking program to obtain mitigation. The proceeds will be dedicated to two in-lieu fee programs: (A) Watershed Management and (B) Water Supply Improvements.

(A) Watershed Management. The Watershed Management program will utilize the funds to (1) assist the County, Ecology, and other Yakima Basin stakeholders in data collection and other work necessary to make management determinations in yellow zone sub-basins for all existing water banks throughout the County; and (2) to invest in tributary headwaters riparian corridor projects where such projects would provide functional in-kind restoration of stream flow conditions. With regard to the data collection element of the Watershed Management Program, many areas impacted by the County's regulations and the Upper County Rule lack good information to make appropriate management decisions. In those cases, the lack of information may result in over-cautious management decisions or no decisions at all.

The sub-basins will be prioritized based on current levels for rural users and historic demand trends for new users. The funds will be utilized to determine whether stream flows in the yellow zones are detrimentally affected by a reduction in stream flow resulting from new ground water extractions. One of the objectives of this program is to gather information to potentially re-classify yellow zones for all existing water banks as red or green with regard the County's portfolio of trust water rights available for mitigation. There may be additional restrictions for any use that is subject to the "Exchange Agreement" between Reclamation and Ecology (see "Long-Term Water Storage and Exchange Agreement between the United States and the State of Washington Department of Ecology" Contract No. 09xx101700).

With regard to the riparian corridor projects element of the Watershed Management program, the County will disburse funds to the Kittitas Conservation Trust, Forterra, or other recipients agreed to by Ecology and the County, for the exclusive purpose of funding flood plain function and riparian condition improvements in the Yakima River tributaries in Kittitas County.

(B) Water Supply Improvements. The Water Supply Improvements program will allocate funding to provide water supply through mitigation programs or other

strategies in areas where no mitigation currently exists. Addressing red zones within the County for existing water banks may be prioritized in phases based on current numbers of rural users and projected demand trends for new users. Priority will be given to projects in these areas that will improve or create a water budget for new withdrawals.

7. Allocation Among Water Banks: Water bank water rights held by the County in the Roth, Clennon, Williams and Amerivest water banks will be allocated for use only in the specific green zone areas in Kittitas County for each water bank based on the expected location of building permit applications within the County, and the locations in which water bank water rights are already eligible to provide mitigation. The County’s building permit location projections are based on the County’s review of the location of building permit applications from 2008 to the present day, and the number of existing parcels eligible for rural residential development. The County is seeking allocation of the County’s Roth, Clennon, Williams and Amerivest water bank water rights for the total number of ERUs within each water bank’s green zones, as indicated below:

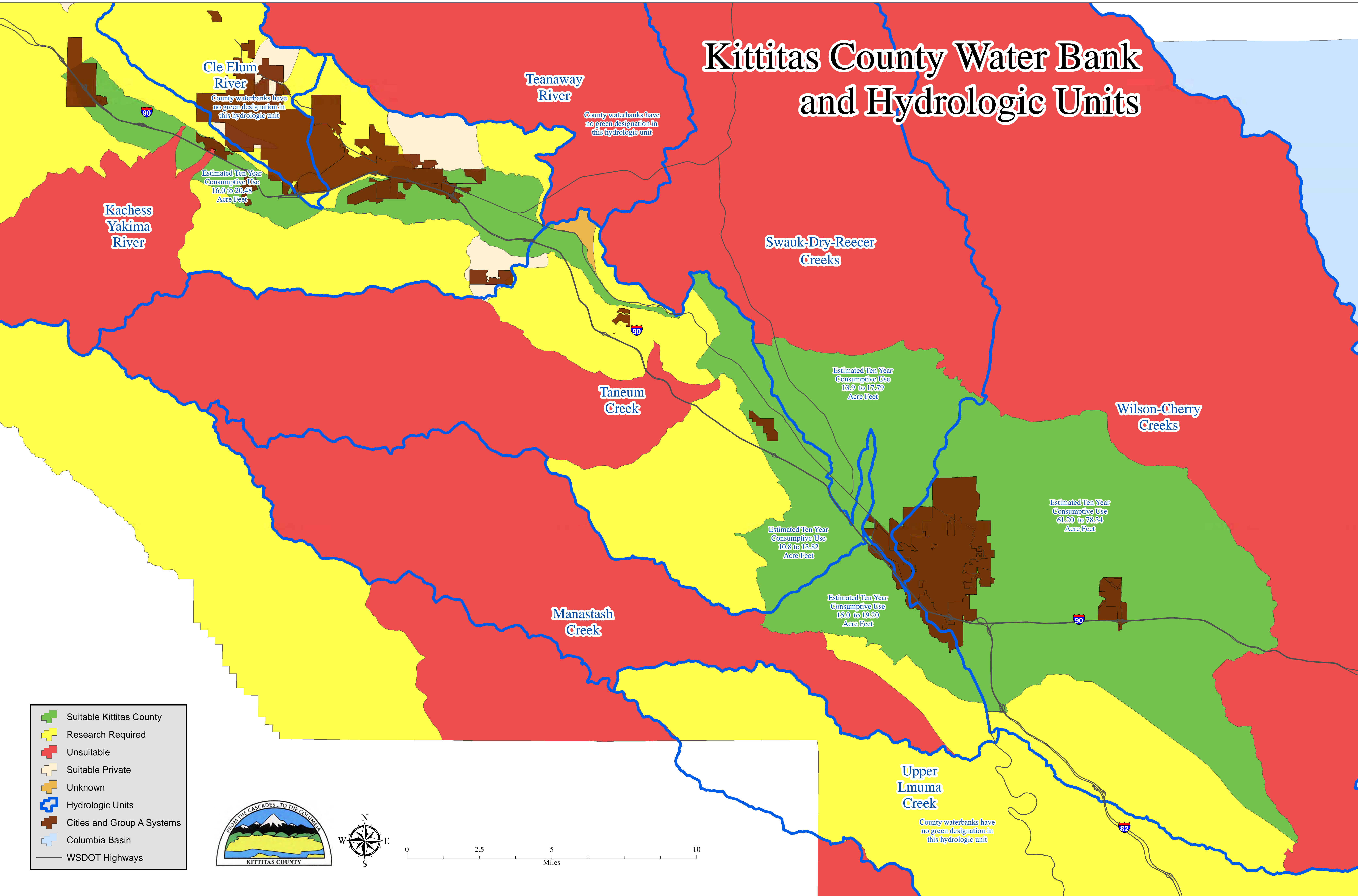
Water Bank	Number of Building Permits/ERUs Expected 2016 to 2025	Total Quantity of Mitigation (CU AF/y)	Total Quantity of County Water Currently Available (CU AF/y)
Roth & Clennon	203 (67 pkg A/ 136 pkg B)	23.776	23 .783
Williams	121 (40 pkg A/ 81 pkg B)	14.138	14 .196
Amerivest	78 (26 pkg A/ 52 pkg B)	9.263	67.203

See Attachment A for maps showing the distribution of these ERUs across the existing green zones of these water banks, divided among specific drainage areas, and a table providing 10 year development projections.

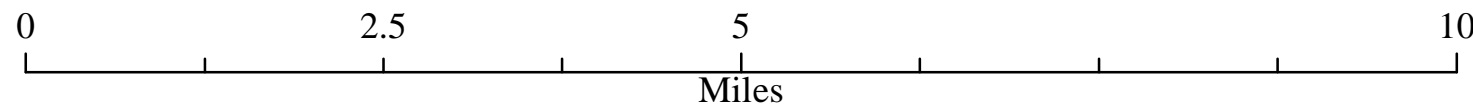
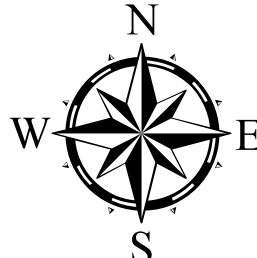
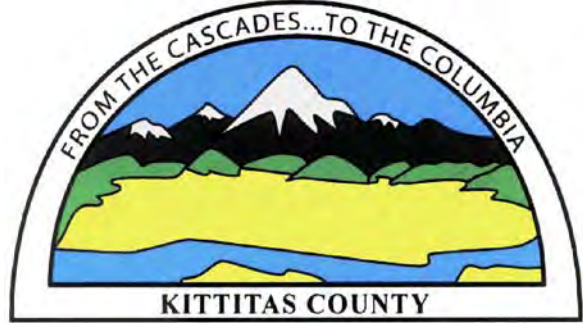
8. Reporting by County: The County’s annual report to Ecology will include information as to whether the rate and location of building permit applications are below, at, or above the projections relied upon in Ecology’s approval. In addition, the County will report to the WTWG in April and October of each year and will include the following information: number of permits issued, maps with the parcel location and number of each building permit, comparisons of projections vs. actual data, and a list of the certificate numbers authorized by the County’s program and the corresponding parcel to which each is attached.

9. Over-the-Counter Approval of Other Water Bank Water Rights: The County’s over-the-counter water mitigation program is not intended to be limited to water rights held by the County. The County welcomes having other water right holders interested in integrating the issuance of water budget neutral decisions for their water mitigation certificates in the County’s over-the-counter process. However, other water right holders must seek Ecology approval for inclusion of water budget neutral decisions that those water right holders would like to have integrated into the County’s over-the-counter process independent of this proposal.

Kittitas County Water Bank and Hydrologic Units



- Suitable Kittitas County
- Research Required
- Unsuitable
- Suitable Private
- Unknown
- Hydrologic Units
- Cities and Group A Systems
- Columbia Basin
- WSDOT Highways



Actual Data from 2012 through 2014

Year	Building Permits/Water Availability	In Green Building Permits/Water Availability	Kachess Yakima Actual	Taneum Actual	Swauk Actual	Manastash Actual	Wilson Cherry Actual	Totals
2012	182	40	5	6	8	4	17	40
2013	298	93	11	10	11	10	51	93
2014	313	59	6	6	5	8	34	59
Totals	793	192	22	22	24	22	102	192

10 Year Data Projections

Year	Building Permits/Water Availability	In Green Building Permits/Water Availability	A*	A/B**	B***	Kachess Yakima Projected	A*	A/B**	B***	Taneum Projected	A*	A/B**	B***	Swauk Projected	A*	A/B**	B***	Manastash Projected	A*	A/B**	B***	Wilson Cherry Projected	A*	A/B**	B***
2016	346	93	9.30	10.60	11.90	12	1.20	1.37	1.54	9	0.90	1.03	1.15	11	1.10	1.25	1.41	12	1.20	1.37	1.54	49	4.90	5.59	6.27
2017	363	99	9.90	11.29	12.67	14	1.40	1.60	1.79	9	0.90	1.03	1.15	12	1.20	1.37	1.54	13	1.30	1.48	1.66	51	5.10	5.81	6.53
2018	381	102	10.20	11.63	13.06	14	1.40	1.60	1.79	10	1.00	1.14	1.28	12	1.20	1.37	1.54	13	1.30	1.48	1.66	53	5.30	6.04	6.78
2019	400	106	10.60	12.08	13.57	14	1.40	1.60	1.79	10	1.00	1.14	1.28	13	1.30	1.48	1.66	13	1.30	1.48	1.66	56	5.60	6.38	7.17
2020	420	114	11.40	13.00	14.59	16	1.60	1.82	2.05	10	1.00	1.14	1.28	14	1.40	1.60	1.79	15	1.50	1.71	1.92	59	5.90	6.73	7.55
2021	440	118	11.80	13.45	15.10	16	1.60	1.82	2.05	11	1.10	1.25	1.41	14	1.40	1.60	1.79	15	1.50	1.71	1.92	62	6.20	7.07	7.94
2022	462	124	12.40	14.14	15.87	17	1.70	1.94	2.18	11	1.10	1.25	1.41	14	1.40	1.60	1.79	16	1.60	1.82	2.05	66	6.60	7.52	8.45
2023	486	132	13.20	15.05	16.90	18	1.80	2.05	2.30	12	1.20	1.37	1.54	16	1.60	1.82	2.05	17	1.70	1.94	2.18	69	6.90	7.87	8.83
2024	511	138	13.80	15.73	17.66	19	1.90	2.17	2.43	13	1.30	1.48	1.66	16	1.60	1.82	2.05	18	1.80	2.05	2.30	72	7.20	8.21	9.22
2025	536	143	14.30	16.30	18.30	20	2.00	2.28	2.56	13	1.30	1.48	1.66	17	1.70	1.94	2.18	18	1.80	2.05	2.30	75	7.50	8.55	9.60
Totals	4345	1169	116.90	133.27	149.63	160	16.00	18.24	20.48	108	10.80	12.31	13.82	139	13.90	15.85	17.79	150	15.00	17.10	19.20	612	61.20	69.77	78.34

Notes:
* - This column represents the consumptive acre feet if all mitigation is provided as package A of the county's program.
** - This column represents the consumptive acre feet if mitigation provided is half package A's and half package B's.
*** - This column represents the consumptive acre feet if all mitigation is provided as package B of the county's program.

Method for Determining and Allocating Building Permit in Green Zones 2016-2025

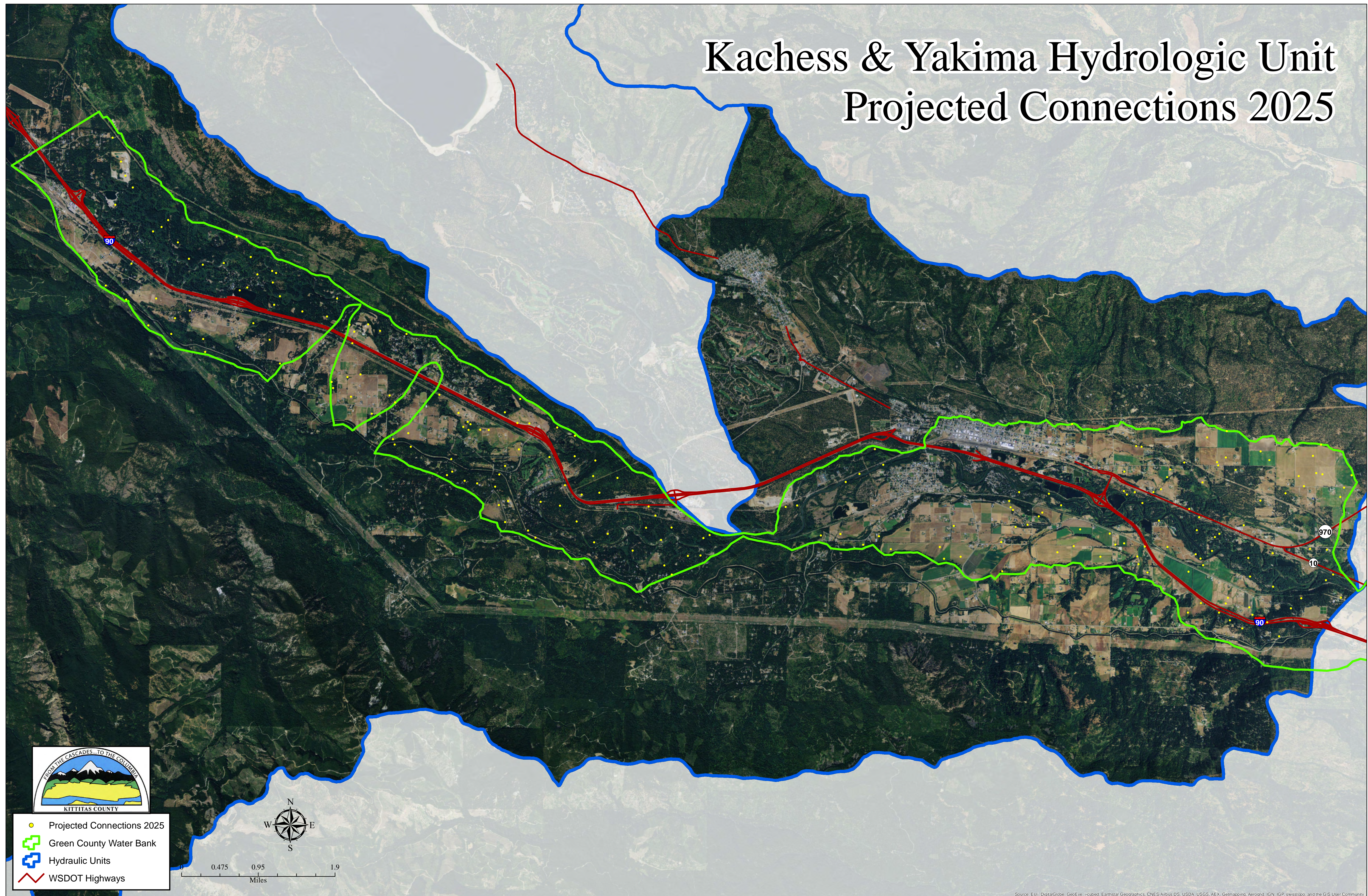
Kittitas County utilized data collected from 2002 to 2012 to develop a growth analysis for single family residence building permits. Information was also obtained from the Department of Ecology to develop a comparable analysis of exempt wells for the same time period. Due to the economic downturn, the utilization of an Excel growth analysis algorithm for these data sets rendered downward sloping curves which appear to potentially flat line somewhere around the year 2025. It was believed that a more realistic approach would be to presume that the housing market has bottomed out and that some measure of growth could be expected in the coming years. A five percent (5%) growth rate beginning in the year 2015 was selected. Data from the County's permit tracking software, which was initiated in March of 2008, was utilized for the GIS location analysis because of its structure and ease of connectivity. Data from 2015 was believed to be influenced by the pending changes to the regulatory framework and was not utilized.

A point file data set from 2012 to 2014 is derived through the GIS to establish the location of SFR building permits and associated water availability information. For the purposes of this analysis, this map is presumed to be a baseline data set and brought into the GIS as a geo-referenced image, and then utilized by staff to create a third data set to project the location of future development.

Within the GIS, additional data sets were created to reflect areas where mitigation would not be required, such as cities, water districts, and other group A systems. Simplified hydraulic units were created to provide more specific regional locations for new connections.

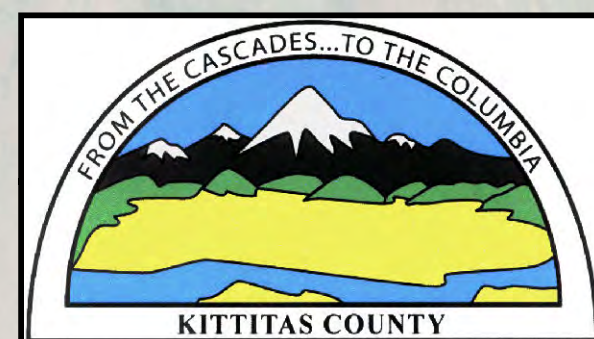
The locations of SFR projected water use building permits between 2016 and 2025 were then projected into these subareas and entered into the table provided. Projected growth figures are geographically distributed within each subarea and Mitigation Suitability Zone to produce maps to reflect the data obtained.

Kachess & Yakima Hydrologic Unit Projected Connections 2025

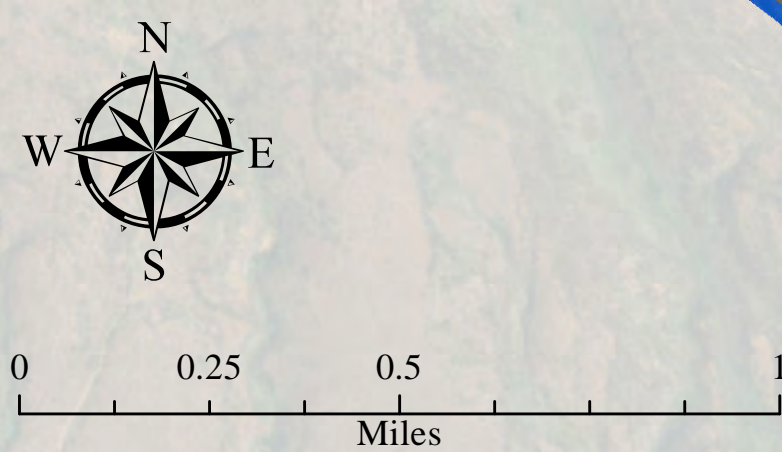


Manastash Hydrologic Unit Projected Connections 2025

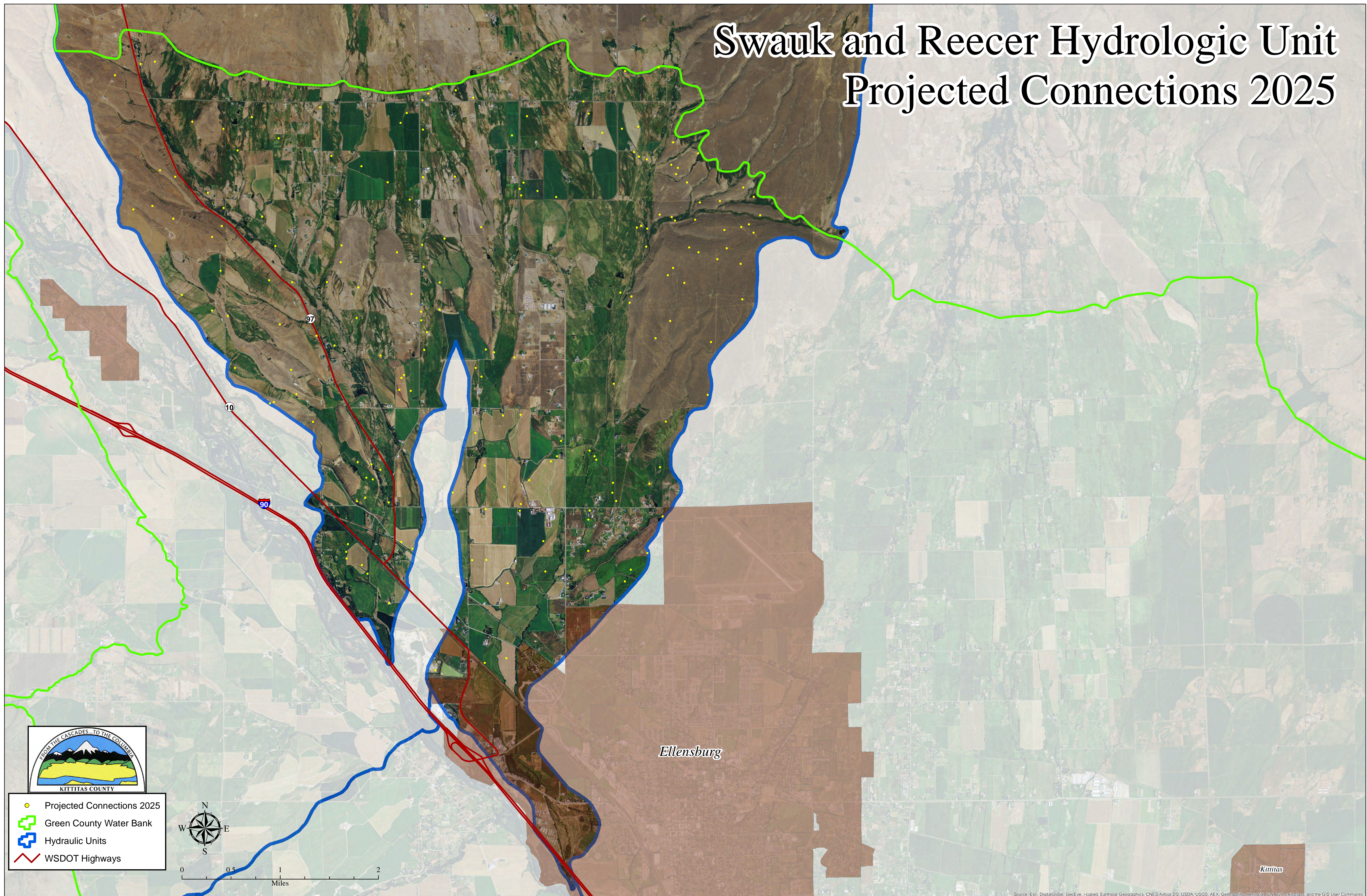
Ellensburg



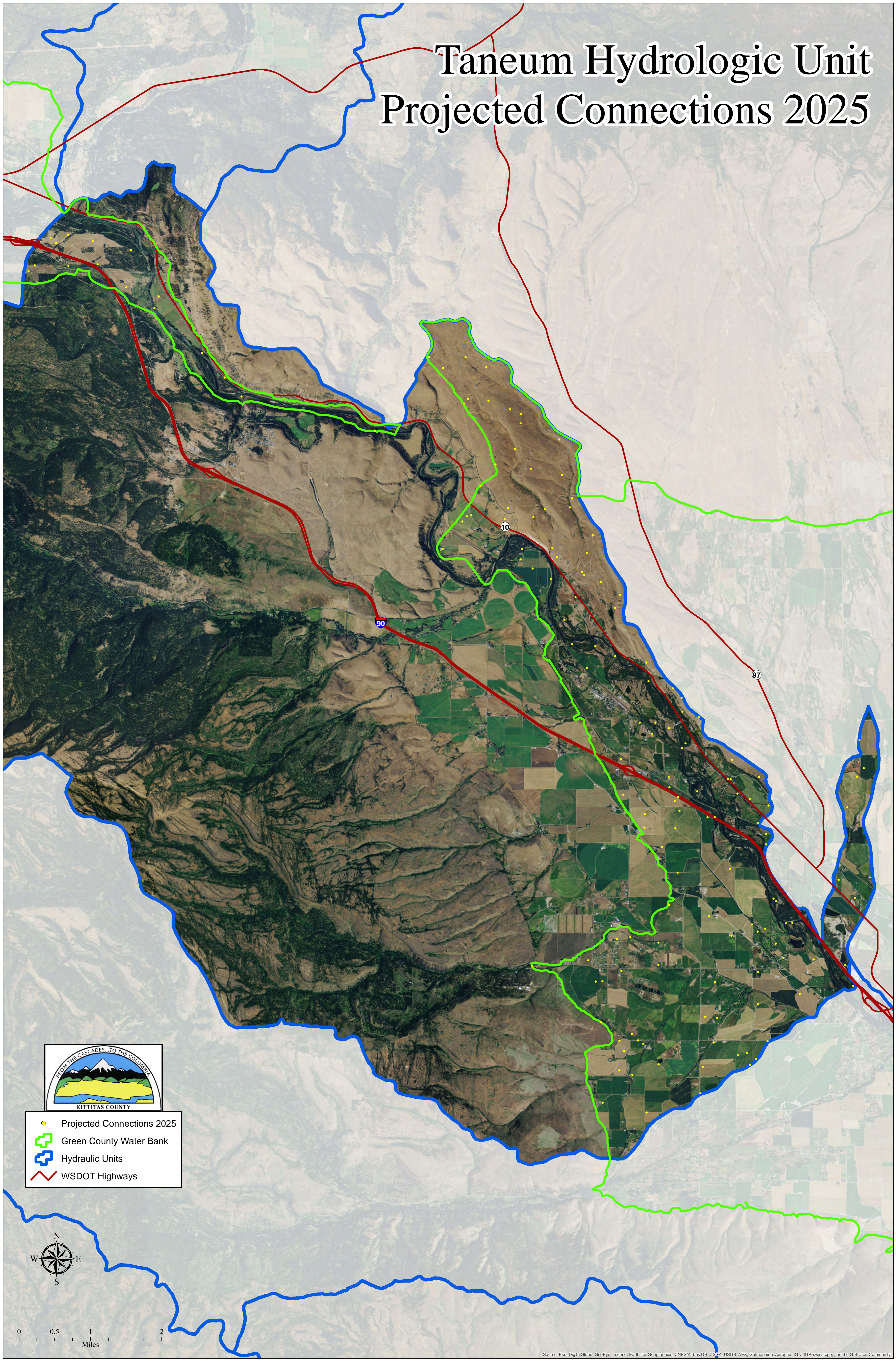
- Projected Connections 2025
- Green County Water Bank
- Hydraulic Units
- WSDOT Highways



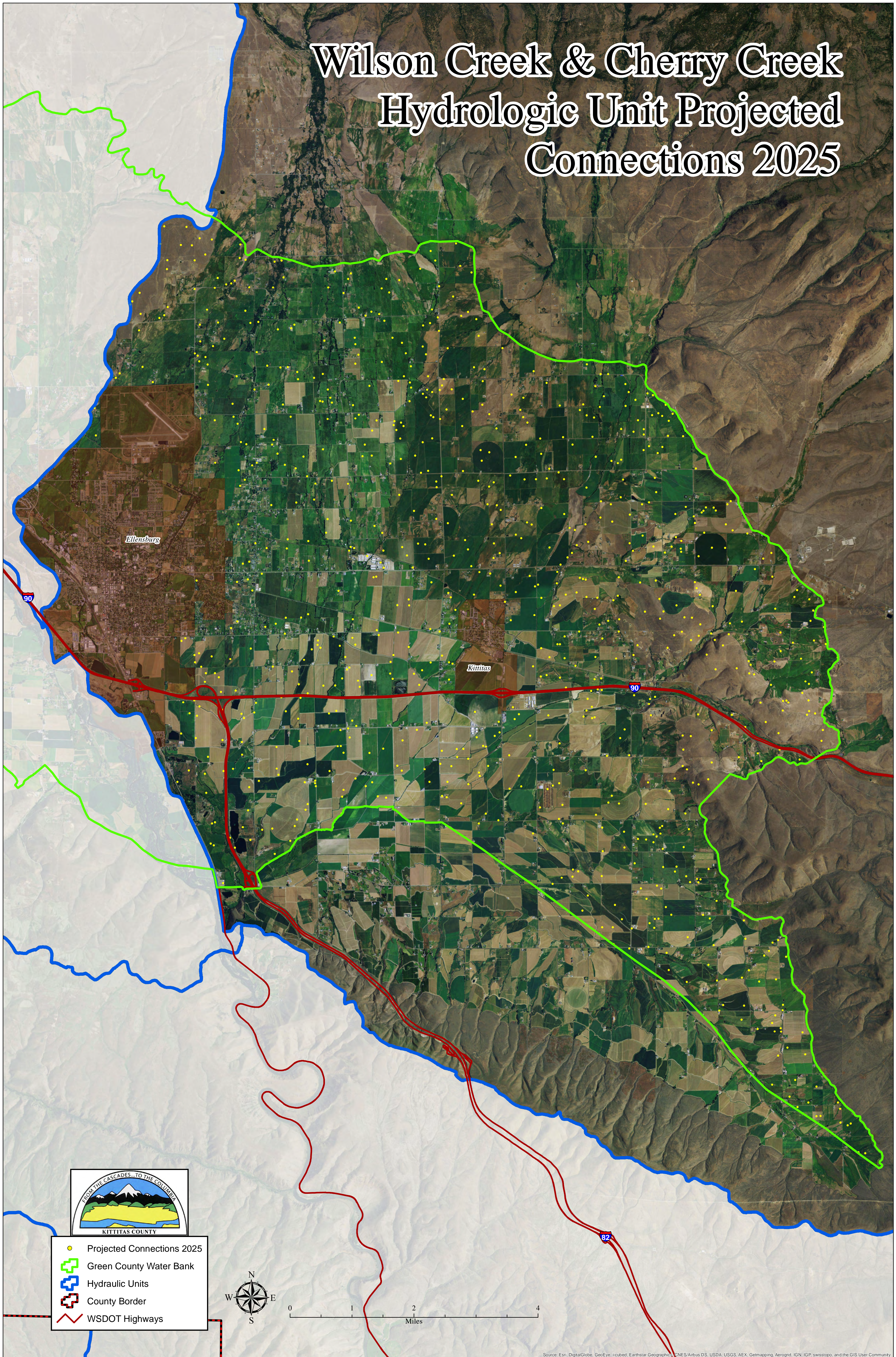
Swauk and Reecer Hydrologic Unit Projected Connections 2025



Taneum Hydrologic Unit Projected Connections 2025



Wilson Creek & Cherry Creek Hydrologic Unit Projected Connections 2025



- Projected Connections 2025
- Green County Water Bank
- Hydraulic Units
- County Border
- WSDOT Highways



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