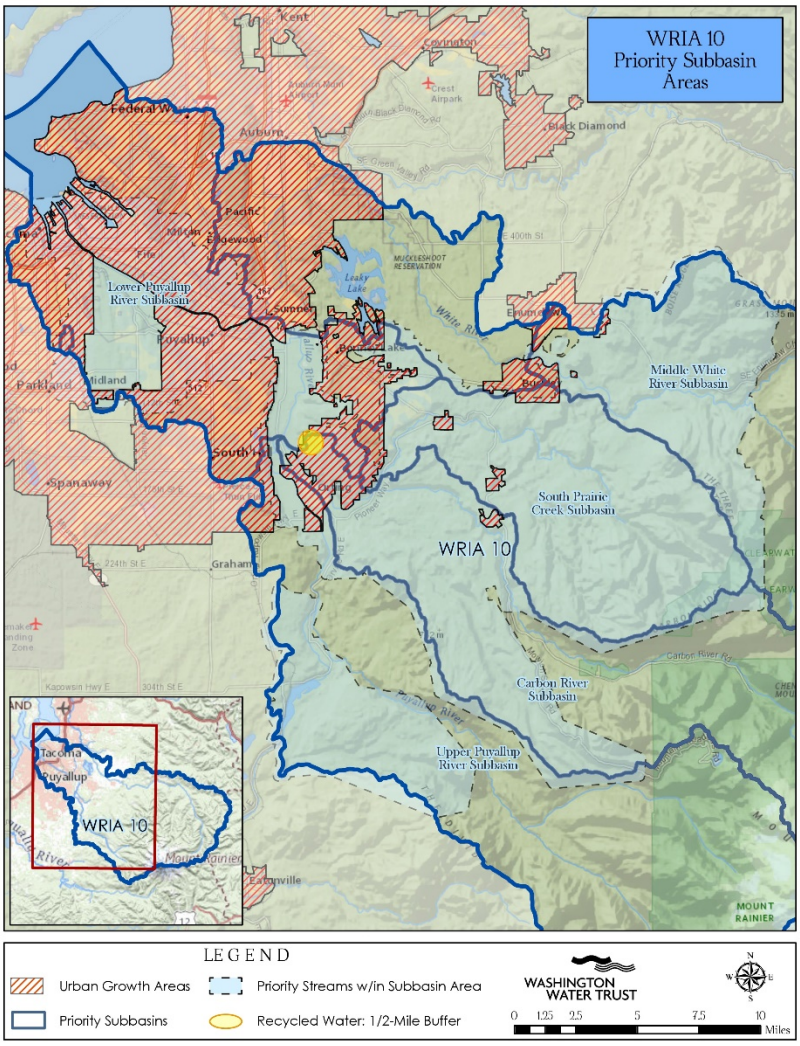
WRIA 10 Puyallup-White Priority Water Right Projects Report



WASHINGTON WATER TRUST

MWS

Blue Water GIS

Prepared for WRIA 10 Water Resources Enhancement Committee

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GIS Data Credits:
Washington State Department of Ecology Water Rights Tracking System, King County Parcel Data, and National Agricultural Imagery Program.

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1 Introduction

The Washington State Legislature passed the Streamflow Restoration Act, Chapter 90.94 RCW, in January 2018. This legislation required 15 different Water Resource Inventory Areas (WRIA), including WRIA 10 Puyallup-White, to update or adopt watershed plans with projects identified to offset the impact of new rural well development over a 20-year period from 2018 to 2038. The legislation directed the formation of Water Resources Enhancement Committees (WREC) to oversee the watershed plans as well as the identification of consumptive use offset projects. One potential source of these projects is water rights acquisition.

The Washington State Department of Ecology (Ecology) tasked Washington Water Trust (WWT) to undertake a water rights assessment in WRIA 10 utilizing prioritization criteria adopted by the WREC in order to identify at least 10 potential water right projects. The WREC is to identify potential projects to achieve a consumptive use offset of 277.4 acre-feet per year (afy).

The WWT project team, including BlueWater GIS (BWGIS) and McCormick Water Strategies (MWS), consulted with Ecology staff and the WREC to produce the following products in support of project development:

- WRIA 10 Preliminary Water Rights Analysis-Update[1];
- WRIA 10 Irrigation Assessment Dashboard[2];
- WRIA 10 Water Rights Assessment Due Diligence Technical Memo[3]; and
- WRIA 10 Puyallup-White Priority Water Right Projects Report.

Each product listed above has subsequently informed the product that follows. The first product, WRIA 10 Preliminary Water Rights Analysis-Update, shared the specific categories of water rights the WWT team was to analyze, provided initial irrigation analysis results, and presented water right selection criteria for WREC approval. The second product, WRIA 10 Irrigation Assessment Dashboard (Dashboard), is an ArcGIS tool that expedites water rights review and prioritization, while providing a visual display of the spatial distribution of potential projects. In total, the Dashboard identified 50 water right projects, with 11 recommended to WREC for development of Project Opportunity Profiles. The third product, WRIA 10 Water Rights Assessment Due Diligence Technical Memo (Technical Memo), demonstrated how selection criteria was applied, shared brief summaries of potential water right projects, and recommended water right projects on which to conduct additional due diligence to develop Project Opportunity Profiles. The final product, WRIA 10 Puyallup-White Priority Water Right Projects Report (Report), provides a summary of due diligence details in Project Opportunity Profiles (Profiles) for the selected priority projects.

This Report provides an overview of the project objective, methodology, project profiles, outreach discussion, and includes the first three products listed above as attachments. The project profiles summarize estimated beneficial use and review the water rights record. This summary and review

[1] Attachment 1: WRIA 10 Preliminary Water Rights Analysis-Update
[2] Attachment 2: WRIA 10 Irrigation Assessment Dashboard
[3] Attachment 3: WRIA 10 Water Rights Assessment Due Diligence Technical Memo

will inform water right holder outreach and project development. The outreach section reports any outreach to date, as well as general guidelines for engaging water right holders to develop a project.

2 Assessment

The Technical Memo reviewed several sources of water rights as selected by Ecology and the WREC, delineated potential irrigation, and performed preliminary water right record review to recommend potential projects for further due diligence. The water right sources include:

- *Trust Water*: Assess up to 7 trust water temporary donations in the WRIA that could be changed to permanent donations.
- *Other Water Rights*: Assess up to 10 water right acquisition opportunities per WRIA as identified by Ecology.
- *Recycled Water/Irrigation Analysis*: Within 1/2 mile of a recycled water facility in WRIA 10, identifying up to 10 properties that could change to recycled water service.
- *Irrigation Analysis*: Assess water rights in priority sub-basin Areas. Identify private properties of 5 acres or greater of irrigation with beneficially used water rights within the Fennel Creek, Lower Greenwater River, Hylebos Creek, Fiske Creek, Voight Creek, Kapowsin Creek, Wilkeson Creek, Boise Creek, Puyallup River, Upper Greenwater River, and South Prairie Creek, drainages; and
- *Golf Course and Tree Farm Irrigation Analysis*: Identify golf courses or tree farms inside Urban Growth Area Boundaries, within priority subbasins, that are utilizing surface or groundwater rights.

In addition, based on input from the WREC, Ecology requested to exclude from consideration those water right projects that were fully or partially within Pierce County Agricultural Resource Land and Rural Farm Land zoning.

Additionally, the assessment included an analysis of aerial photos to identify if irrigation was likely occurring and if an underlying water right document supported that use. Ecology's Water Right Tracking System database includes nearly 3,900 water right documents within WRIA 10, which are certificates, claims, or change record of examinations (ROE's). The water rights were pared down by focusing on documents where irrigation is a purpose of use and where there is likely beneficial use as assessed through review of aerial photography from the National Agricultural Imagery Photography (NAIP).

2.1 Water Right Selection Criteria

Selection criteria approved by the WREC prioritized due diligence review for water rights most likely to have been beneficially used and potentially contribute to the offset portfolio.

The criteria includes:

- **Water Right Document Type:** Certificates and claims receive preference.
- **Irrigated Acreage:** Water rights with less than 5 acres of authorized or asserted use are excluded from further consideration as they would not offer enough water to be viable offset projects. Water rights with more identified irrigated acreage receive preference.

- **Confidence of Irrigated Acreage:** Water rights with places of use seeing higher and more frequent (2013 and 2017) irrigation confidence receive preference.
- **Priority Date:** Water rights with more senior priority dates receive preference. (Puyallup/White Instream Flow Rule – March 1980).
- **Distance Upstream:** Water rights higher in the sub-basin receive preference.
- **Purpose of Use:** Irrigation water rights receive preference due to ability to demonstrate beneficial use.
- **Qa/Qi Annual and Instantaneous Quantity on Water Right:** Water rights with greater quantities receive preference.[4]

2.2 Irrigation Analysis Methods

The GIS based irrigation analysis first involved identifying irrigated areas through review of aerial photography for the years 2013 and 2017 from United States Department of Agriculture (USDA) NAIP imagery. Potential irrigation areas were delineated into polygons, which were reviewed by utilizing publicly available GIS data to correlate ownership and water right records.

2.2.1 Data

The following types of data were used in WRIA 10 water rights analysis:

- Geographical Water Rights Information System Place of Use Polygons (Ecology)
- Water Rights Tracking System (Ecology)
- USGS Topographic Data
- National Agriculture Imagery Program Aerial Orthophotography (2013 and 2017 only; 2015 NAIP imagery was not used due to drought year conditions.)
- King and Snohomish County Parcel and Ownership Information
- WRIA 10 WREC Subbasins (Ecology)
- Washington State National Hydrography Dataset (Ecology)
- GIS analysis used ArcGIS Pro 2.4.0 and a coordinate system of AD_1983_StatePlane_Washington_South_FIPS_4602_Feet

2.2.2 Target Areas

The WREC and Ecology instructed WWT to focus on the following target areas for irrigation analysis:

- Fennel Creek – Puyallup River sub-basin
- Lower Greenwater River sub-basin
- Hylebos Creek – Frontal Commencement Bay (includes Wapato/Simon Creek) sub-basin
- Fiske Creek – Puyallup River (includes Horsehaven Creek) sub-basin
- Voight Creek sub-basin
- Kapowsin Creek sub-basin

[4] Quantities asserted in water right documents may overestimate water need or provide no quantities at all (claims). Ecology may apply a tentative determination to claim, but formal confirmation of a claim can only be determined in an adjudication, a formal process to evaluate all water rights within a specific watershed and provide legal determination of those water rights.

- Wilkeson Creek sub-basin
- Boise Creek – White River sub-basin
- Puyallup River (includes Clear Creek and Rody) sub-basin
- Upper Greenwater River sub-basin
- South Prairie Creek sub-basin
- Within ½ mile of the Tehaleh Wastewater Treatment Plant

2.2.3 BWGIS Assessment

To assess water rights within the identified project area, BWGIS:

- Identified the water rights within the priority subbasins with at least 5 acres of irrigation.
- Reviewed the attributes of those water rights.
- Estimated the amount of irrigation associated with each water right with aerial photos (2013 and 2017).

2.2.4 Selections and Ranking

This methodology resulted in 51 candidates for priority projects. The 51 candidates met the subbasin irrigation analysis and recycled water selection criteria. Additional selections included 2 water right projects pre-identified by Ecology. In total, the selections and rankings resulted in 53 candidates. These candidates are displayed in the Dashboard.

The projects reviewed in the irrigation analysis consisted of the 51 candidates. These were ranked in the following tiers:

Tier 1 - Priority Water Right Acquisition

- Water right document type listed as Certificate.
- Water right purpose of use of irrigation.
- Water right documents with more than 5 acres irrigation listed.
- More than 5 acres of delineated acreage.
- Priority date senior to the March 1980 Puyallup River Instream Flow Rule.
- Located higher in the sub-watershed.

Tier 2 - Non-Priority Water Right Acquisition

- Water right document type listed as Certificate
- Water right purpose of use of irrigation.
- Water right documents with *more* than 5 acres irrigation listed.
- *More* than 5 acres of delineated acreage.
- Generally located lower in the sub-watershed.

Tier 3 – Undesirable Water Right Acquisition

- Water right purpose of use of irrigation.
- *More* than 5 acres of delineated acreage, but a smaller acreage relative to other delineations in the same sub-watershed.
- Generally located lower in the sub-watershed.

In summary, the Technical Memo presented an overview of the selection process and recommended water right projects to pursue for further due diligence. These recommended water rights were further refined in consultation with the WREC and Ecology, as well as some initial outreach to some pre-identified water right projects, resulting in the final list of 11 water right project opportunities.

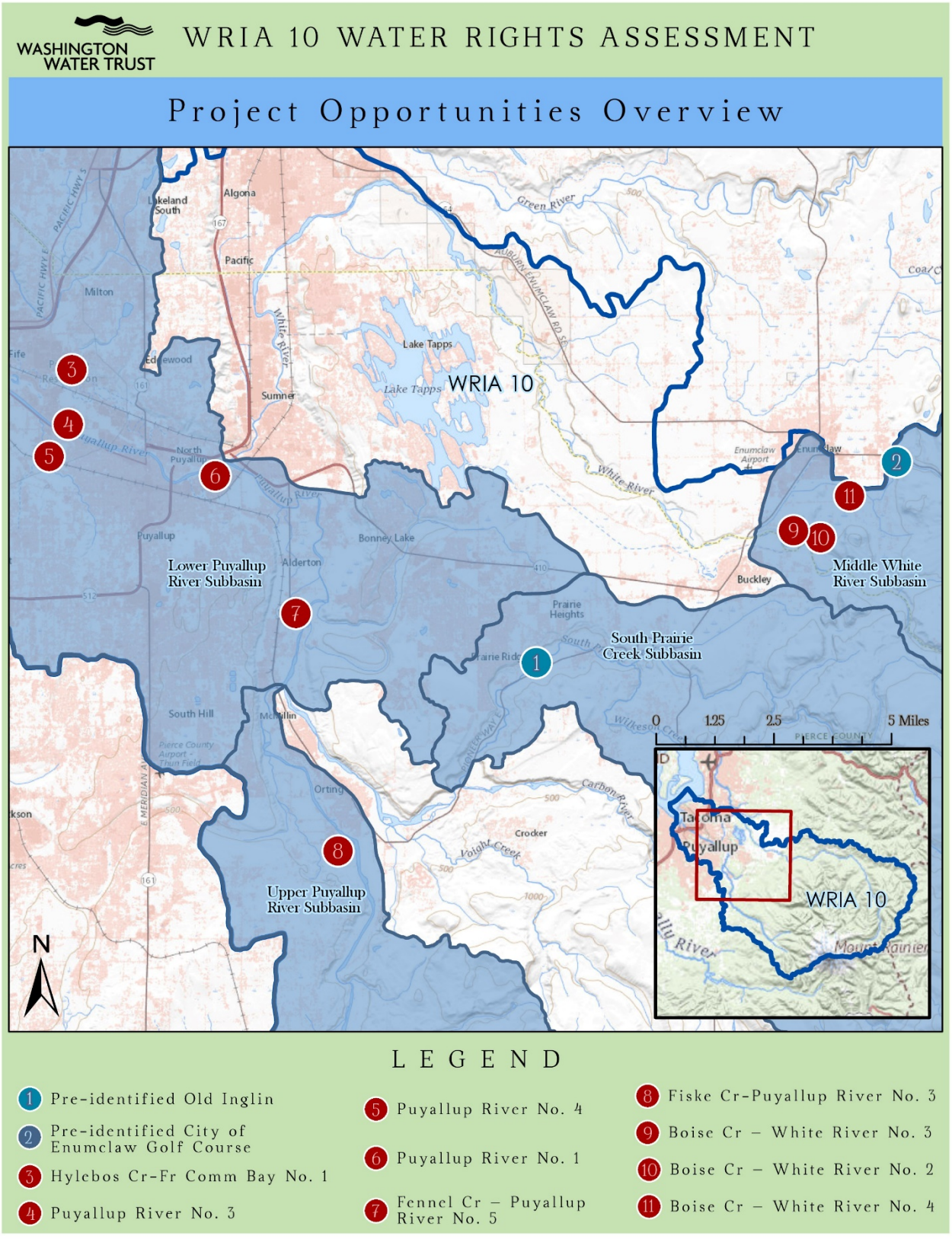
3 Project Opportunity Profiles and Findings

The Project Opportunity Profile (Profile) is a document that aids the development of a potential water right project. The Profile presents a summary of information related to the recent historic use of a water right, a review of the Ecology water right record, land use underlying the water right, an estimate of consumptive use, and a project assessment. An entity seeking to engage a water right holder in a transaction may utilize the Profile as a foundation of information.

The 11 Profiles for WRIA 10 are shown in Figure 1, on the following page. In the development of these 11 Profiles, two additional years of delineations were added, 2015 and 2019. The Profiles do not include water right holder, landowner names, or water right numbers for confidentiality. The projects are named by their subbasin location with a number indicating their location relative to the headwaters of the stream/river. Those water right opportunities identified by means other than irrigation analysis are referred to as "Pre-Identified #X".[5]

[5] Attachment 4: Project Opportunity Profiles

Figure 1: Project Opportunity Profile Areas.



3.1 Profile Information

Each Profile contains specific information related to the opportunity it represents, as listed below:

- *Flow Benefit*: estimated flow benefit by quantity and river mile
- *Priority Subbasin:* project location
- *Estimated Offset:* estimated consumptive use of project
- *Water Right Priority Date:* priority date of certificate or claim
- *Instream Flow Rule:* whether and where instream flow is established
- *ESA Listed Fish:* species and ESA listing status
- *Outreach Per Level of Landowner Engagement*: None, Initial, Interested, or Uninterested
- *Project Description*: summary of project opportunity including potential barriers
- *Watershed Context*: watershed conditions including limiting factors to salmonid recovery
- *Land Use and Ownership:* zoning and land use, summary history of recent ownership, and observed use
- *Delineation Irrigation Table*: estimated irrigation within water right places of use (2013, 2015, 2017, and 2019)
- *Water Rights:* summary of water right characteristics (certificate/claim, priority date, purpose, Qa, Qi, and source)
- *Water Right History:* summary review of Ecology water right record and decisions
- *Metering Records:* confirmation of meter records availability and for what period
- *Conclusion:* summary of the Profile and opportunity
- *Project Map:* display water right(s), estimated irrigation, point(s) of diversion, and location within WRIA

3.2 Profile Next Steps

This Report is largely a desktop process, which has not involved significant outreach to water right holders. Outreach could provide important corroborating information related to water use or non-use. The data sources that could confirm water use include: pump records, meter readings, electrical records, photographs, and affidavits.[6] There may be information or irrigation delineation within these profiles, which suggest non-use of all or a portion of a water right or potential relinquishment. Again, with direct landowner engagement, potential gaps in beneficial use may be explained as resulting from the timing of the aerial photograph, a lack of understanding of the water management practices on the ground, or if there is non-use, a circumstance among the sufficient causes for non-use.[7]

In the estimation of consumptive use for the Profiles, calculations are made using the highest year of delineated acreage (2013, 2015, 2017, and 2019) or the water right document authorization, whichever is most appropriate. These calculations utilize the pasture/turf crop irrigation requirement duty from the Washington Irrigation Guide from the Kent, Washington station.

The information provided in the Profiles is a reasonable start to finding potential water rights to serve project needs. It is up to the WREC to determine the level of corroboration and investigation needed for a water offset project included in a plan under RCW 90.94. The authority for determining (or

[6] *Changing or Transferring an Existing Water Right*, Department of Ecology, 98-1802-WR, 2008.
[7] RCW 90.14.140

adjudicating) the extent and validity of water rights is the purview of Superior Courts, Ecology, or other entities with jurisdiction under Washington State law.

3.3 Profile Findings

As a result of assessing many attributes, delineations, and data sources specific to the properties and water rights associated with a Profile, WWT validated water right record data from Ecology's Water Right Tracking System, and developed a consumptive use estimate for each Profile, Table 1. In total, WWT estimates 480.73 afy of consumptive use associated with the 11 Profiles. This finding is an estimate; additional due diligence is required, and despite conservative estimates, our experience has proven that this number is likely to further decrease following administrative review.

Table 1: Profile Summary

Project Name	Document Source	Priority Date	Qa CU (estimate)	Qi CFS	Subbasin
Boise Cr – White R No. 2	Groundwater	2/19/1971	52.86	0.22	Middle White River
Boise Cr – White R No. 3	Cyclone Creek	4/29/1952	48.15	0.30	Middle White River
Boise Cr – White R No. 4	Boise Creek	4/20/1948	49.25	0.30	Middle White River
Fennel Cr – Puyallup R No. 5	Groundwater	6/22/1950	23.55	0.22	Lower Puyallup River
Fiske Cr - Puyallup R No. 3	Groundwater	3/27/1968	72.15	0.45	Upper Puyallup River
Hylebos Cr – Fr Comm Bay No. 1	Groundwater	11/23/1949	34.35	0.67	Lower Puyallup River
Puyallup R No. 1	Groundwater	11/6/1951	0.75	0.45	Lower Puyallup River
	Puyallup River	3/18/1963		0.30	Lower Puyallup River
Puyallup R No. 3	Puyallup River	2/7/1950	36.23	0.30	Lower Puyallup River
Puyallup R No. 4	Groundwater	9/29/1952	19.92	0.38	Lower Puyallup River
Pre-Identified Old Inglin	South Prairie Creek	10/9/1944	89.09	0.40	South Prairie Creek
	South Prairie Creek	6/27/1974		0.36	South Prairie Creek
Pre-Identified City of Enumclaw Golf Course	Chappel Spring of Boise Creek	9/3/1940	54.43	0.2	Middle White River
Tier Selection Totals	**-**	**-**	***480.73***	***4.55***	**-**

4 Project Types

The following are flow restoration project types available to use with willing landowners. Selecting a project type will derive from existing water and land management practices, history of beneficial use, and landowner interest. There are non-permanent project types identified which may not provide a permanent offset immediately, but may serve as an introduction to water saving projects and result in permanent acquisition.

The objective with these water rights projects is a partial or full acquisition to provide permanent water offset. In some cases, there may be other unique opportunities, such as surface water source switches, groundwater source switches, conservation and efficiency upgrades associated with water rights, or temporary transactions. Source switches, unless to an alternative source (i.e. recycled or municipal water), are not prioritized to secure an offset.

4.1 Purchase/Lease

A water right purchase may include a whole water right or portion of a water right acquisition from a willing seller. There are firms who can conduct valuations to estimate the price range of the potential purchase with pricing based on cost/acre-foot. A lease, while not a permanent solution to support the offset target, often serves as a first step towards a permanent acquisition. A lease may be partial or full season for a duration determined by the agreement.

4.2 Irrigation Efficiency

Irrigation efficiency projects are generally developed in partnership with Conservation Districts and landowners, relying on funding from either Natural Resources Conservation Service programs (Environmental Quality Incentive Program)[8] or Washington Conservation Commission (Irrigation Efficiencies Grant Program).[9] The Washington Conservation Commission program operates within the 16 fish critical basins, provides up to 85% cost sharing, and requires that saved water be placed in the Trust Water Rights Program.

Irrigation efficiency may reduce consumptive use by improving conveyance of water and reducing evaporative loss. The majority of water savings in irrigation efficiency projects tend to be non-consumptive use.[10] The WREC should evaluate whether the consumptive gains of an irrigation efficiency project merit the project costs.

4.3 Change in Crop Type

A change in crop type may directly result in a reduction in the consumptive use of water (i.e. switching from turf grass to vegetable row crops). This saved water could be placed in trust and a superseding certificate issued, constraining the new Qa available under the water right.

[8] https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/
[9] https://scc.wa.gov/iegp/
[10] Attachment 5: Water Rights 101

4.4 Source Switch

The change of water sources on a water right is a flow tool used to lessen the flow impact on a small stream by moving to a larger stream. Changing to a source of new water, i.e. recycled water, can replace existing water needs, thus making existing water rights available for transaction and the consumptive portion available for an offset.

5 Outreach and Next Steps

5.1 Overview

Engagement with a water right holder is the essential component to understand landowner willingness, cultivate project partnership relationships, and successfully implement streamflow restoration projects. Outreach includes several strategic steps leading up to securing signed agreements with willing project partners and working with them to document the extent of beneficial use available for transfer to instream flows or offset. Executing a water right transaction is often the result of a multi-year process of reaching the landowner, cultivating trust, providing confidentiality, and establishing what types of project fit their needs/interest. Landowner agreements form with a thorough understanding of existing water use practices and identification of the project type which meets both landowner and restoration objectives. Permanent acquisition of water is typically built on mid-range steps such as letters of intent, short-term leases, or donations that ensure that both the landowner's and the stream's needs are best captured in the final project.

In some basins, water right transactions are a new tool, where long-term projects build on incremental steps. For example, short-term agreements afford the landowner an opportunity to evaluate the costs and benefits of how reduced water use affects operations and consequently, bottom line. Short-term agreements provide the funder information on stream impacts before making larger capital investments. Incremental steps towards a transaction include short-term leases, option agreements, and participation in dry year leasing programs or irrigation efficiency projects. Trust and relationship building is required in the realm of water right transactions, because water rights are generally closely held as valuable, critical to agricultural production, and subject to loss if unused.

This combination of conditions and vulnerability around water rights can make some landowners understandably concerned about initiating a conversation about water rights. In order to navigate these concerns, it remains important to identify the entity best suited to build trust with and engage this conversation in a confidential manner. Further, any conversation is an opportunity to share and learn information about the user and their water needs, information about the water right beneficial use, as well as the risks and opportunities of engaging in a project. Confidential and transparent communication builds trust and increases the likelihood of developing a viable project.

This WRIA 10 Puyallup-White Priority Water Rights Projects Report and the Project Opportunity Profiles provide a foundation of information to understand how the paper water right quantities compare to beneficially used water right quantities available for transaction. To make best use of the Project Opportunity Profiles, this report provides guidance on engaging landowners.

5.2 Guidelines

The following are general guidelines to develop an outreach program.

5.2.1 Who Knows Who?

- *Network:* Knowing or having an existing relationship, or knowing someone who does, enables the best opportunity to secure a first meeting or call with a water right holder. Share the Profiles with a WREC workgroup, share landowner names, and identify if there is someone who can either directly engage or make an introduction.

- *Conservation History:* A water right holder who has participated in other conservation programs with local agency representatives, an NGO or a conservation district, may be more willing to discuss a water right transaction. Confirm with your local Conservation District, NGO partners, or local government responsible for conservation programs as to whether they are familiar with the water right holders. The CD or local government may be willing to make an introduction or facilitate a meeting.

- *No Contact Information:* In the absence of an introduction through a mutual contact, the entity may need to rely on a cold contact. Cold contact can take the form of either phone call, email, or a direct mailing to the address available on the assessor's website.[11]

- *Local Meeting:* If there are sufficient (more than 5) landowners within a priority area, an entity may choose to invite them to a meeting to learn more about the watershed planning effort, water rights in general and conservation programs. While this is a less direct appeal, it may offer an opportunity for the most interested of the landowners to participate. Targeting outreach efforts more narrowly to pre-selected water rights holders allows project implementation tailored to the audience most likely to see the benefits of the program to their individual needs.

5.2.2 Meeting

- *Call:* If you can reach out to a water right holder via phone, introduce the larger project and your interest in discussing water rights. The purpose of the call is to schedule an in-person meeting. The call and the in-person meeting necessitate a baseline understanding of water rights and guided towards sharing information and learning about the interests, concerns, and questions of the landowner.

- *Meeting:* When you schedule and attend the meeting, bring the project map from the Project Opportunity Profile. The project map provides a valuable and accessible way for the project proponents and prospective landowners to discuss important details of how the project will match up with their existing farm management objectives.

- *The Follow-Up:* Landowners are often not ready to sell their water rights or engage in a transaction after the first meeting. Successive follow-up meetings should be oriented toward building the relationship and making valuable use of time to orient towards water right transactional opportunities, funding, and transactional benefits. It is important to clarify and communicate actionable steps that are likely to lead up to that goal and incorporate those

[11] Attachment 6: Sample Letter

milestones into the project development strategy. This could include a landowner letter of intent, a short-term agreement, or a feasibility study or alternatives analysis frequently used in larger irrigation efficiency projects. These milestones allow project proponents to establish realistic timelines for implementation of permanent acquisitions, and keep the landowner engaged in the project development process.

5.2.3 Additional Due Diligence-Formal Quantification of Water Right

- *Information:* The Profile will provide desktop estimates of irrigated acres, crop type, and irrigation method. Confirm these estimates and assumptions with the water right holder. While the aerial maps may provide some evidence of beneficial use, additional corroborating information may include crop receipts, pump records, electrical records, and diversion records, affidavits by water user/neighbors, or historic photos. If aerial photographs indicate potential non-use, work with the landowner to understand if that non-use may fit into the Sufficient Causes for Non-Use. The estimation of consumptive use follows Ecology Guidance Document 1210.

- *Project Selection:* Once the water use is better understood, begin a general discussion to identify which project type to develop and how the landowner may be willing to participate. *See Section 4. Project Types*

- *Letter of Intent:* If the water right use is documented and a project type has been selected, a project can be further secured by requesting that the landowner sign off on a letter of intent (LOI). This LOI will be a form of commitment and be necessary in many funding requests to support the project development. [12]

As with each phase along the way, it is important to provide clear information to the water right holder and manage expectations on funding and timelines. Following the above guidelines as best practices will increase the likelihood of successful project development. Additional on-line resources are available to support landowner engagement and project development.[13]

5.3 WRIA 10 Outreach Update and Next Steps

Outreach to water right holders is an important next step in project development. Initial outreach by WWT has already occurred on 4 of the 11 Profiles discussed in this Report. Below is a status update and WWT's recommended next steps.

5.3.1 WWT Outreach Log

Pre-Identified Old Inglin: WWT has conducted initial outreach to this water right holder. The water right holder has expressed interest in a water right transaction in the next three-five years when they will no longer require use of the water rights. There may be as much as 89.09 afy consumptive use.

Next Steps: If the WREC selects this project, Ecology or assigns would meet with the water right holder to clarify water use, secure data to confirm water use, identify the consumptive use portion, and begin project development.

[12] Attachment 7: Letter of Intent
[13] Attachment 8: Additional Resources

Pre-Identified City of Enumclaw Golf Course: WWT has contacted this water right holder. The water right holder is in the process of switching sources to municipal water and it is anticipated this will be completed in 2020. Once the source switch has occurred, the water right holder has indicated that will no long require use of the water right and are interested in a water right transaction.

Next Steps: If the WREC selects this project, Ecology or assigns would meet with the water right holder to clarify water use, secure data to confirm water use, identify the consumptive use portion, and begin project development.

5.3.2 Outreach Conclusion

For all other water rights where outreach has not yet occurred, we recommend following the outreach guidelines as included in this Report and consulting the network or WREC committee as to who might know or be best suited to engage with the water right holder. Under the current contract, Washington Water Trust is available for further consultation through July 31, 2020.

Attachment 1: WRIA 10 Preliminary Water Rights Analysis-Update

TO: Rebecca Brown, Ecology

FR: Jason Hatch, Washington Water Trust

DT: April 1, 2020

RE: WRIA 10 Preliminary Water Rights Analysis-Update

WASHINGTON WATER TRUST

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Washington Water Trust (WWT) is nearing completion of the irrigation assessment for WRIA 9 as the first step in their Preliminary Water Rights Analysis.

WWT was enlisted to undertake a water rights assessment in WRIA 10. The assessment was to identify water right acquisition opportunities that could serve in a rural well offset portfolio for new uses through 2038. The source of water right opportunities would include: irrigation analysis in specific subbasins; water rights currently held in temporary trust with DOE; pre-identified water rights (some held by local jurisdictions); water rights/water use within 1 mile of the distribution line of the Cascadia Treatment Plant (recycled water facility) and other water rights identified through the course of the assessment.

Specifically, WWT was asked to evaluate:

- *Trust Water:* Assess Up to 15 trust water temporary donations in WRIA that could be changed to permanent donation;
- *Water Rights:* Assess up to 10 water right acquisition opportunities per WRIA as identified by Ecology;
- *Recycled Water:* Irrigation Analysis-Within 1 mile from distribution line of the Cascadia Wastewater Treatment Plant for WRIA 10, identify up to 10 properties with water rights that could change to recycled water service; and
- *Irrigation Analysis:* Up to 20 water right opportunities through identifying private properties of 5 acres or greater with beneficially used water rights within: Boise Creek, Fennel Creek, Greenwater River, South Prairie Creek-Wilkeson Creek, Voights Creek, Kapowsin Creek/Ohop Creek, Rody Creek, Wapato/Simons Creek, and Horsehaven Creek drainages.

This assessment would include aerial photo analysis and underlying preliminary records review. WWT would in coordination with the DOE Watershed Planner, share findings and solicit feedback, resulting in 10 project profiles of water rights which could contribute to the offset portfolio if the water rights holder (s) were willing sellers.

Water Rights

An irrigation analysis helps identify through aerial photo analysis where irrigation is likely occurring and where an underlying water right document supports that use. The Department of Ecology's WRTS database provides for **675 water right documents** within WRIA 10 priority basin, which are certificates, claims, or change record of examinations (ROE's). This number will be significantly pared down by focusing on documents which include irrigation as a purpose of use and demonstrate likely beneficial use through analysis of aerial photography from NAIP (National Agricultural Imagery Photography).

WWT is nearing completion of an irrigation analysis, which involves utilizing ArcGIS and measuring (delineating) areas of water use in 2013 and 2017. 2015 NAIP imagery was not used due to drought conditions that year. The irrigation analysis identifies water rights places of use with aerial imagery which aligns with the water use. The GIS analyst will assign high, medium, and low irrigation confidence. After water use and water right place of use is matched, the next phase of the water rights analysis is to use irrigation analysis results to prioritize and select water rights in each area to undergo a due diligence review.

Recommended and conventionally used selection criteria include:

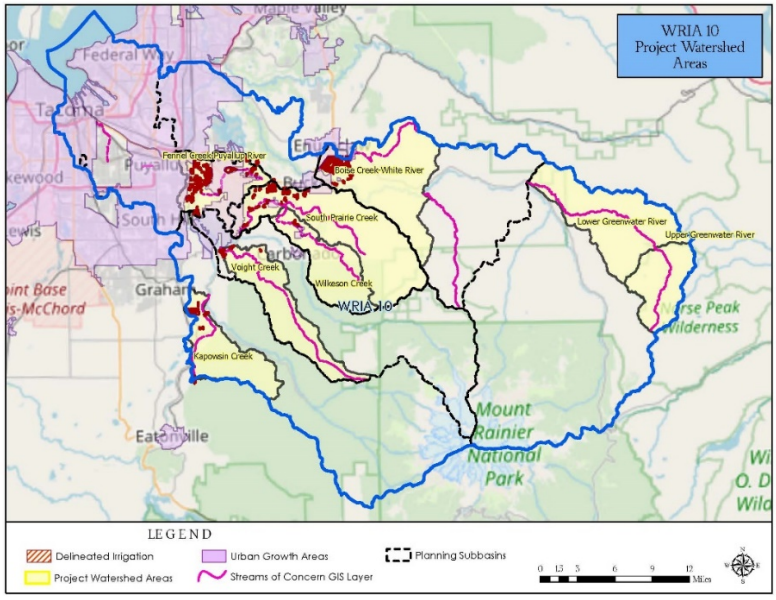
- Water Right Document Type- Certificates and claims receive preference.
- Irrigated Acreage- Water rights with less than 5 acres of authorized or asserted use should be excluded from further consideration as they would not offer enough water to be viable offset projects. Water rights with more irrigated acreage identified receive preference.
- Confidence of Irrigated Acreage- Water rights with places of use seeing higher and more frequent (2013 and 2017) irrigation confidence receive preference.
- Priority Date- Water rights with more senior priority dates receive preference. (Puyallup-White Instream Flow Rule-3/21/80).
- Distance Upstream- Water rights higher in the sub-basin receive preference.
- Purpose of Use- Irrigation water rights receive preference due to ability to demonstrate beneficial use.
- Qa/Qi Annual and Instantaneous Quantity on Water Right- Water rights with greater quantities receive preference.

Geography Area Initial Findings

WRIA	Name	Number of Total Water Rights	Sum of Irrigated Acres on WR	Delineated Irrigation Count	Delineated Irrigation Acres
10	Boise Creek-White River	38	686	71	972
10	Fennel Creek-Puyallup River	106	1,213	106	1,208
10	Kapowsin Creek	5	-	10	264
10	Lower Greenwater River	18	-	0	0
10	South Prairie Creek	44	417	73	469
10	Upper Greenwater River	17	-	0	0
10	Voight Creek	15	355	7	119
10	Wilkeson Creek	3	44	3	38
	TOTAL	**246**	**2715**	**270**	**3070**

WRIA	PENDING
10	Rody Creek
10	Clear Creek
10	Wapato/Simon Creek
10	Horsehaven Creek

The findings above identify water rights within the basin, the authorized acres allowed with those water rights as well as the number of areas of delineated irrigation and the corresponding likely beneficially used acres. The next step is to align these irrigated acres with a water right (s) which authorizes this use.



Trust Water and Pre-identified Water Rights

At the direction of DOE, WWT was provided a list of 10 water right opportunities along with 15 water rights in temporary trust. WWT has conducted preliminary due diligence on the 10 water right opportunities, 3 of which have insufficient recent irrigation history, 1 meets recent irrigation history of 5 acres or great, 5 require further review and potential outreach to project contacts. Continued review is being conducted on the 15 water rights identified in temporary trust, one of which overlaps and is within the 10 water right opportunities as well. WWT will follow up with other water right holders as directed.

Recycled Water Source Substitute

WWT was instructed to identify up to 10 properties within a 0.5 mile radius of the service line for Cascadia Wastewater Treatment plant. Cascadia WTP currently produces upwards of 300,000 gallons per day (336 AFY) to a Class B standard and is discharged into a drain field east of the plant. There is future potential to serve landscaping needs for adjacent subdivision. In addition there may be potential if plant is upgraded and sufficient output to produce Class A for agricultural properties to the west and adjacent to the Carbon River.

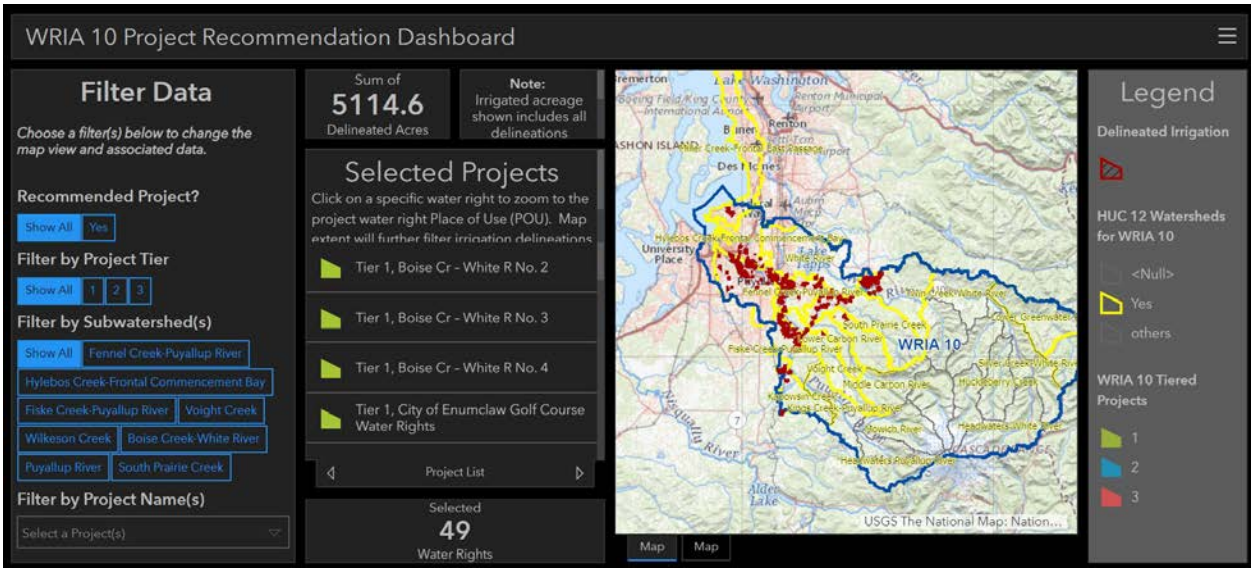
Next Steps

- The irrigation analysis will be complete in the subbasins identified including those pending, prioritizing up to 20 water rights for consideration of further due diligence. Water rights and their corresponding places of use (POU) will be evaluated with water use.
- Water right opportunities which require further review will continue.
- Trust water right opportunities will be reviewed and initial letters of inquiry may be sent at the direction of watershed planner.

WWT will screen and provide a recommended prioritization of up to 10 water rights to pursue more substantial due diligence upon. At direction of DOE and WREC, WWT will proceed with this water right record review and develop project profiles of the 10 water rights which highlight opportunity, water rights and estimated consumptive use.

Attachment 2: WRIA 10 Irrigation Assessment Dashboard

WRIA 10 IRRIGATION ASSESSMENT DASHBOARD



Weblink: https://bit.ly/WRIA10-Project-Rec-Dashboard

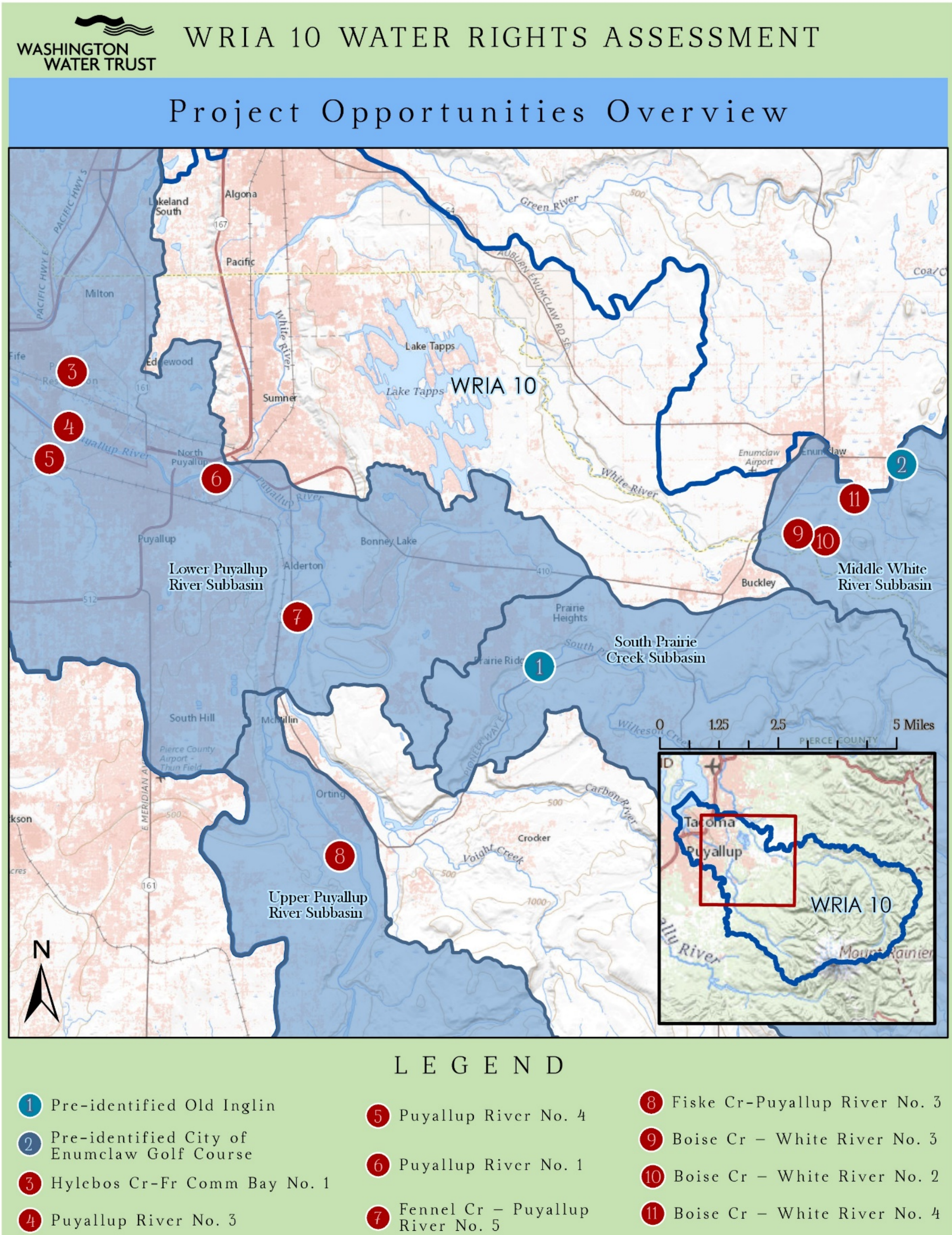
NOTE: Login information is available from Ecology.

Attachment 3: WRIA 10 Water Rights Assessment Due Diligence Technical Memo

WRIA 10 WATER RIGHTS ASSESSMENT DUE DILIGENCE TECHNICAL MEMO

This document is available through Ecology.

Attachment 4: Project Opportunity Profiles


WASHINGTON WATER TRUST
WRIA 10 WATER RIGHTS ASSESSMENT
Project Opportunities Overview
WRIA 10
Lower Puyallup River Subbasin
Middle White River Subbasin
South Prairie Creek Subbasin
Upper Puyallup River Subbasin
0 1.25 2.5 5 Miles
N
LEGEND
1 Pre-identified Old Inglin
2 Pre-identified City of Enumclaw Golf Course
3 Hylebos Cr-Fr Comm Bay No. 1
4 Puyallup River No. 3
5 Puyallup River No. 4
6 Puyallup River No. 1
7 Fennel Cr – Puyallup River No. 5
8 Fiske Cr-Puyallup River No. 3
9 Boise Cr – White River No. 3
10 Boise Cr – White River No. 2
11 Boise Cr – White River No. 4

Project Opportunity Profiles

Table of Contents:

WRIA 10 Project Opportunity Profile –

Pre-Identified Old Inglin

Project Summary

FLOW BENEFIT: Additional 0.76 cfs in 5 miles of South Prairie Creek, 6 miles of Carbon River, and 18 miles of Puyallup River.

PRIORITY SUBBASIN: South Prairie Creek

ESTIMATED OFFSET: 89.09 afy consumptive

SUBBASIN CONSUMPTIVE USE ESTIMATE: 67.3 afy

PRIORITY DATE(S): 10/9/1944 and 6/27/1974

INSTREAM FLOW RULE (1980): Puyallup River Basin Instream Resources Protection Program, established in 1980.[1]

ESA LISTED FISH: Spring, Summer, and Fall Chinook (Threatened), Coho (Species of Concern), Winter and Summer Steelhead (Threatened), Bull Trout (Threatened)

OUTREACH STATUS: Interested

Project Description

The Pre-Identified Old Inglin was included in the WRIA 10 water rights analysis by Ecology Request. The water rights and underlying land, had historically been used for the Inglin dairy. The project is located west of South Prairie, WA on the north side of Pioneer Way East. In 2005, the former dairy farm known as Inglin Farm was sold with the fee and title held by the Pierce Conservation District (PCD) and the development rights held by Cascade Land Conservancy (CLC), now known as Forterra. Since the purchase, PCD has begun site restoration overseen by the South Puget Sound Salmon Enhancement Group with the project site now called the South Prairie Creek Preserve.

When the property was sold to PCD, Inglin withheld the two irrigation water rights appurtenant to the property from the sale with priority years of 1974 and 1944. PCD sought funding through multiple sources to purchase the two irrigation water rights.

Shortly after the property sale, it appears that PCD acquired the 1974 water right in a separate transaction with a Salmon Recovery Funding Board (SRFB) grant. Inglin retained the 1944 water right and put the

[1] WAC 173-510-030

full water right in trust from 2005-2009. In 2008, PCD planned to purchase this water right in the near future using funds from the Interagency Committee for Outdoor Recreation (IAC), now Recreation and Conservation Office (RCO). WWT has engaged with PCD to confirm water rights purchase and use history.

As part of restoration of the project site South Prairie Creek Reserve, the conservation district will require partial use of water right(s) for the next three to five years to establish plantings and trees. After this time period, the conservation district is interested in selling the water rights.

Watershed

Pre-Identified Old Inglin are part of the South Prairie Creek sub-basin and the water right diversions are located in South Prairie Creek. The project is located at approximately river mile (RM) 5 of South Prairie Creek. South Prairie Creek flows in to the Carbon River at RM 6 and the Carbon River joins the Puyallup River at RM 18 before flowing into Commencement Bay. The Puyallup River has an instream flow established in this downstream reach, and "loss of natural habit-forming flow regimes" is a limiting factor cited for the Puyallup Watershed in the 2018 Salmon Habitat Protection and Restoration Strategy for Puyallup and Chambers Watersheds.[2]

Land Use & Ownership

According to the Pierce County Assessor, the current land use designation is Agricultural Resource Land with the present use 9100-Vacant Land Undeveloped and 1101-Single Family Dwelling. Pierce Conservation District purchased the land underlying the Pre-Identified Old Inglin water right (s) from the Inglin family on 2/10/2005. The conservation district owns three adjacent parcels totaling 104.32 acres that are part of the South Prairie Creek Preserve.

A review of the WSDA 2019 Agricultural Land Use map identifies a total of 39.93 acres of hay/silage. Irrigation delineation indicates that as much as 56.8 acres were irrigated in 2013. It is possible that the difference of estimated irrigated acres between years analyzed maybe explained based the result of the timing of the aerial photograph, specific water use practices or from sufficient causes for non-use (RCW 90.14.140). These details would be better understood through direct conversation with the water user.

[2] https://www.co.pierce.wa.us/ArchiveCenter/ViewFile/Item/6075, page 5-40

Table 1: Delineated irrigation in each year (2013, 2015, 2017, 2019)

Year	Total Irrigated Acres (Med/High Confidence)
2013	56.8
2015	0.0
2017	13.3
2019	21.5

Water Right

Table 2: Current Water Rights

Document Type	Qa	Qi	Priority Date	Purpose of Use	WR Acres	Source
Certificate	-	0.4 cfs	10/9/1944	Irrigation	40	South Prairie Creek
Certificate	80 af	0.36 cfs	6/27/1974	Irrigation	40	South Prairie Creek

These quantities only reflect what is shown on the water right document, and do not represent any beneficial use assessment by Ecology.

Water Right History:

Pre-Identified Old Inglin is comprised of two water rights with adjacent non-overlapping places of use.

The first water right was issued for the irrigation of 40 acres. This water right has a priority date of 10/9/1944, listed purpose of use irrigation, with a Qi of 0.4 CFS and an unquantified Qa. The water right authorizes diversion from South Prairie Creek. This water right was placed in temporary trust from 1/1/2005 – 12/31/2009.

The second water right certificate was issued for the irrigation of 40 acres with a priority date of 6/27/1974, listed purpose of use irrigation, a Qi of 0.36 CFS and 80 acre feet identified as the Qa. The water right authorizes diversion from South Prairie Creek.

Metering Records:

Metering records were not available in the Ecology Water Resources Explorer database and a request to Ecology found no records.

Conclusion

This project was identified by Ecology as a potential acquisition opportunity. No metering records exist for this water right. From 2004 to current, a complete accounting of beneficial use and periods of non-use would be necessary for each water right if this project was selected.

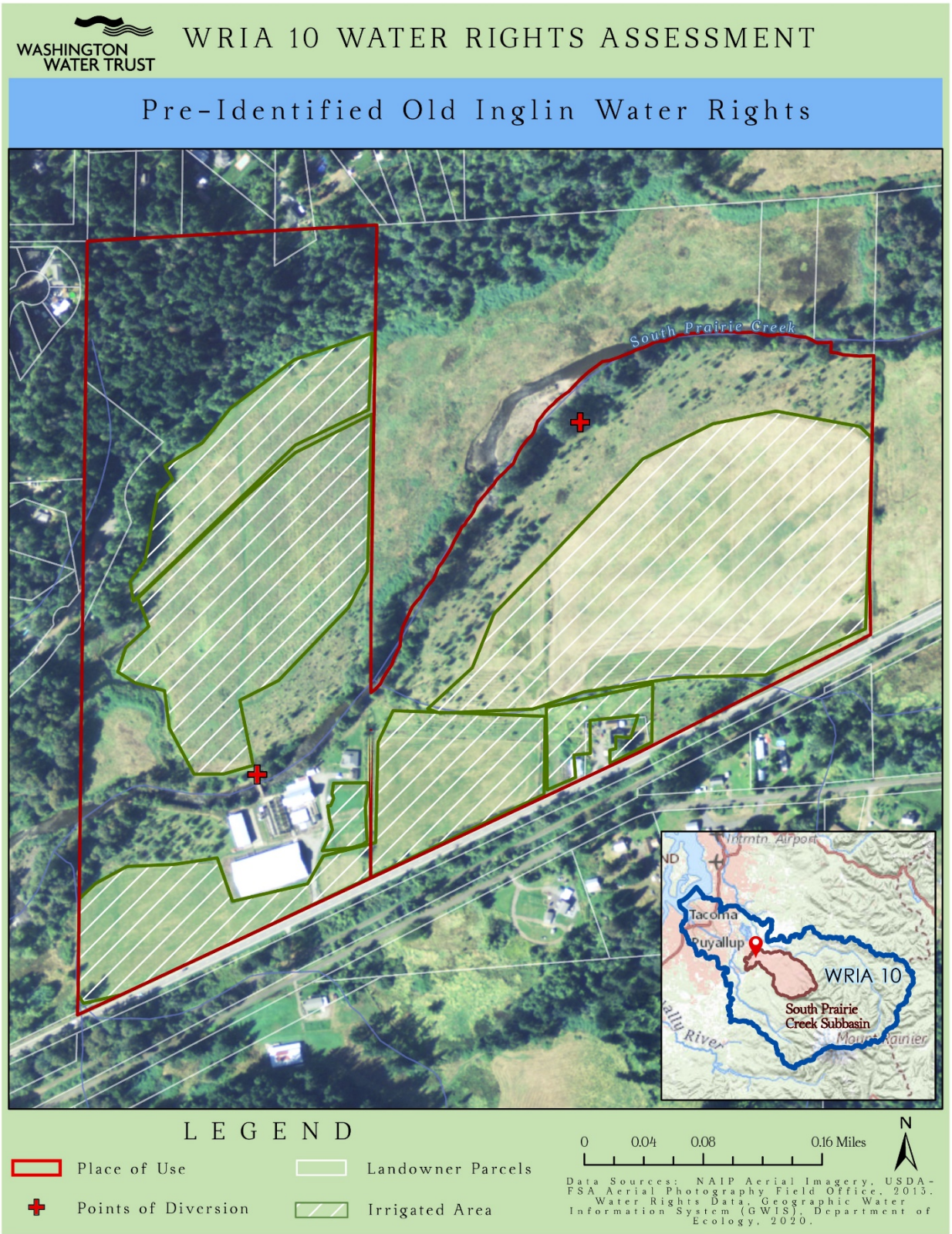
Four years of irrigation delineations were undertaken (2013, 2015, 2017, 2019) which estimate as much as 56.8 irrigated acres. WWT utilized the delineated acreage to estimate the potential consumptive use quantity that may be available to serve as an offset. An estimate is developed based on the pasture water duty (16.6 inches) found in the Washington Irrigation Guide (Puyallup station, Appendix A) and irrigation method assumed to be sprinkler (75% irrigation efficiency, 10% application efficiency).

- Based on the 56.8 delineated acres and assuming pasture and sprinkler irrigation, 89.09 afy consumptive is the estimated quantity available for trust water transaction.[3]

The Pre-Identified Old Inglin water rights have priority dates of 10/9/1944 and 6/27/1974, which are senior to the establishment of the Puyallup Basin Instream Resources Protection Program in 1980. These water right certificates do not have instream flow provisions.

[3] This is only an estimate of consumptive use quantity. An extent and validity determination by Ecology would be required to determine the actual quantity available for acquisition.

Figure 1: Project Map



WWT, MWS, and BWGIS, 2020

WRIA 10 Project Opportunity Profile –

Pre-Identified City of Enumclaw Golf Course Water Right

Project Summary

FLOW BENEFIT: Additional 0.2 cfs in flow in 4.5 miles of White River tributaries (Chapel Springs and Boise Creek), 23.4 miles of White River, and 10.5 miles of Puyallup River.

PRIORITY SUBBASIN: Middle White River

ESTIMATED OFFSET: 47.06 afy

SUBBASIN CONSUMPTIVE USE ESTIMATE: 23 afy

PRIORITY DATE(S): 9/3/1940

INSTREAM FLOW RULE (1980): Puyallup River Basin Instream Resources Protection Program, established in 1980.[1]

ESA LISTED FISH: Spring, Summer, and Fall Chinook (Threatened), Coho (Species of Concern), Winter and Summer Steelhead (Threatened), Bull Trout (Threatened)

OUTREACH STATUS: Interested

Project Description

The Pre-Identified City of Enumclaw Golf Course water right was included in the WRIA 10 water rights analysis by Ecology request. The land, and underlying water rights, have been used for the 18-hole Enumclaw Golf Course. The property is located just off State High 410 east of the City of Enumclaw. The Enumclaw Golf Course front nine holes were developed in the 1950s and the back nine holes in the 1970s. In 2003 the golf course was transferred from King County ownership to the City of Enumclaw. Since 2003, the golf course has been in continual operation by the City or by a contracted operator. From 2005 to 2012, the City invested close to $150,000 in irrigation system and other improvements at the Golf Course, and in 2018 the City replaced the irrigation controller.

The City of Enumclaw, as of 6/2020, is in the process of switching their source of irrigation for the front nine of the Golf Course from their surface water right to municipal water which is anticipated to be completed in July 2020. Once the connection to the municipal water supply is completed, the City has stated that they will no longer need this surface water right. The City of Enumclaw Public Works department has expressed interest in this water right being transacted to serve as part of the WRIA 10

[1] WAC 173-510-030

offset portfolio. Public works indicated that the water right has been the source of irrigation for the front nine of the golf course during its operation and while pump records associated with this water right are not available electrical records should be available which can be used to calculate consumptive use.

Irrigation on the entire City of Enumclaw Golf Course occurs under multiple water rights, however this project profile is constrained to reviewing the surface water right which the City anticipates making available for a water transaction.

Watershed

This project is located in the Middle White River Subbasin and the water right diversion is located on Chappel Springs that feeds into Boise Creek. Boise Creek flows into the White River at river mile (RM) 23.4 and the White River joins the Puyallup River at RM 10.5 before flowing into Commencement Bay. The Puyallup River has an instream flow established in this downstream reach, and "loss of natural habit-forming flow regimes" is a limiting factor cited for the Puyallup Watershed in the 2018 Salmon Habitat Protection and Restoration Strategy for Puyallup and Chambers Watersheds.[2] The White River and all tributaries are closed to new surface water appropriations but do not have an instream flows established in Chapter 173-510 WAC.

Land Use & Ownership

According to the King County Assessor, the current land use designation is Incorporated City (City of Enumclaw Public) with the present use as a golf course. The land and the subject water right are owned by the City of Enumclaw. The City owns two adjacent parcels totaling 187 acres which comprise the golf course and adjacent sports fields.

A review of the WSDA 2019 Agricultural Land Use map identifies a total of 69.71 acres of turfgrass under sprinkler irrigation for the entire golf course and 35 acres in the target water right's place of use. Irrigation delineation estimates as much as 34.7 acres were irrigated in 2013**.** It is possible that the difference of estimated irrigated acres between years analyzed maybe explained as the result of the timing of the aerial photograph, specific water use practices or from sufficient causes for non-use (RCW 90.14.140), which would be best understood through direct conversation with the water user. These details would be better understood through direct conversation with the water user.

[2] https://www.co.pierce.wa.us/ArchiveCenter/ViewFile/Item/6075, page 5-40

Table 3: Delineated irrigation in each year (2013, 2015, 2017, 2019)

Year	Total Irrigated Acres (Med/High Confidence)
2013	34.7
2015	18.7
2017	22.5
2019	24.2

Water Right

Table 4: Current Water Rights

Document Type	Qa	Qi	Priority Date	Purpose of Use	WR Acres	Source
Certificate	-	0.2 cfs	9/3/1940	Domestic Multiple, Irrigation	30	Chappel Springs of Boise Creek

These quantities only reflect what is shown on the water right document, and do not represent any beneficial use assessment by Ecology.

Water Right History:

The original water right certificate was issued for domestic supply and irrigation of 30 acres with the water right application listing water application for a golf course, baseball park, football field, tennis courts, surrounding grounds, and field house. This water right has a priority date of 9/3/1940, Qi of 0.2 cfs and an unquantified Qa. The water right holder submitted a change application with Ecology to move the point of diversion from Boise Creek to Chappel Spring in 1951 that was approved. The water is diverted from Chappel Springs.

Further, there is a second irrigation water right that has two places of use, one of which overlaps the place of use of the above City of Enumclaw water right. Given the underlying land ownership and communication with the City of Enumclaw, there is no evidence that there is irrigation occurring on the golf course under a water right that the city does not own.

Metering Records:

Metering records were not available in the Ecology Water Resources Explorer database and a request to Ecology found no records.

Conclusion

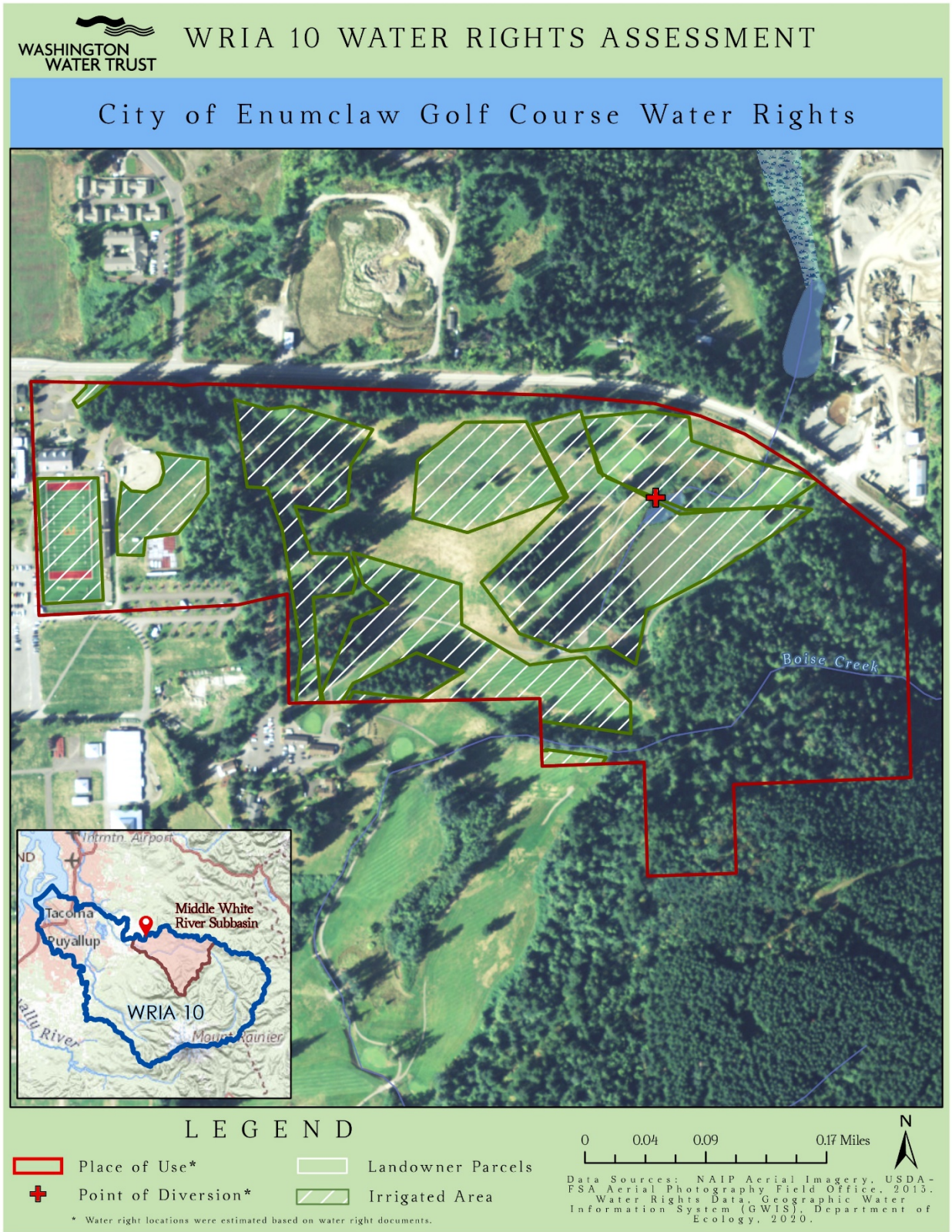
This project was identified by Ecology as a potential acquisition opportunity and the City of Enumclaw has expressed interest in a transaction for the water right with a priority date of 9/3/1940. The water right original application included the irrigation of a golf course as one of its purpose of uses and it appears that this water right has been put to beneficial use since this time for the irrigation of the front nine of the City of Enumclaw Golf Course. No metering records exist for this water right. Four years of irrigation delineations were undertaken (2013, 2015, 2017, 2019) which indicate areas as great as 34.7 acres irrigated. The subject water right authorizes 30 acres of irrigation. WWT utilized the authorized acreage to estimate the potential consumptive use quantity that may be available to serve as an offset. An estimate is developed based on the pasture water duty (16.6 inches) found in the Washington Irrigation Guide (Puyallup station, Appendix A) and irrigation method assumed to be sprinkler (75% irrigation efficiency, 10% application efficiency).

- Based on the authorized irrigation of 30 acres on the water right, 47.06 afy consumptive is the estimated quantity available for trust water transaction.[3]

The Pre-Identified City of Enumclaw Golf Course Water Right has a priority date of 9/3/1940, which is senior to the establishment of the Puyallup Basin Instream Resources Protection Program in 1980. This water right certificate does not have instream flow provision.

[3] This is only an estimate of consumptive use quantity. An extent and validity determination by Ecology would be required to determine the actual quantity available for acquisition.

Figure 2: Project Map



WWT, MWS, and BWGIS, 2020

WRIA 10 Project Opportunity Profile –

Hylebos Creek - Frontal Commencement Bay No. 1

Project Summary

FLOW BENEFIT: Additional 0.67 cfs in 6 miles of Wapato Creek.[1]

PRIORITY SUBBASIN: Lower Puyallup River

ESTIMATED OFFSET: 34.35 afy consumptive

SUBBASIN CONSUMPTIVE USE ESTIMATE: 41.1 afy

PRIORITY DATE(S): 11/23/1949

INSTREAM FLOW RULE (1980): Puyallup River Basin Instream Resources Protection Program, established in 1980.[2]

ESA LISTED FISH: Spring, Summer, and Fall Chinook (Threatened), Coho (Species of Concern), Winter and Summer Steelhead (Threatened), Bull Trout (Threatened)

OUTREACH STATUS: None

Project Description

Hylebos Creek - Frontal Commencement Bay No. 1 (Hylebos Cr - Fr Comm Bay No. 1) was included in the WRIA 10 water rights analysis due to the prioritization factors utilized in the Irrigation Analysis (e.g. priority sub-basin, acres of irrigation, etc). Hylebos Cr - Fr Comm Bay No. 1 is located north of Puyallup off Valley Ave East. Based on aerial imagery review there is strong evidence of irrigation occurring and there appears to be beneficial use related to this water right. A barrier to acquisition may be the ability for the owner to change their land use, multiple landowners within the place of use or viable alternative source of water. The project included two parcels, both in public ownership. To our knowledge, there has been no outreach to the water right holders by any entity at this time.

[1] Dependent on hydraulic continuity
[2] WAC 173-510-030

Watershed

This project is located in the Lower Puyallup River Subbasin at approximately river mile (RM) 6 of Wapato Creek that flows into Commencement Bay. Wapato Creek is highly channelized and straightened in its lower reach and the Port of Tacoma and Puyallup Tribe of Indians are working to restore multiple sites including the downstream Lower Wapato Creek Habitat. Water quantity is an identified habitat limiting factor for Wapato Creek in salmon recovery plans. Wapato Creek is closed to new surface water appropriations as are new groundwater appropriations that show a direct, and measurable, impact on stream flows. Wapato Creek does not have an instream flow established in Chapter 173-510 WAC.

Land Use & Ownership

According to the Pierce County Assessor, the current land use is Commercial Land with Single Family Residential and is zoned as Municipal (City of Fife Community Commercial). The land underlying Hylebos Cr - Fr Comm Bay No. 1 is two parcels under public ownership. The first Pierce County parcel is 16 acres and was transferred between public entities to its current owner on 9/13/2004. The second Pierce County parcel is 15.15 acres and was transferred between public entities to its current owner on 9/13/2004.

A review of the WSDA 2019 Agricultural Land Use map identifies 21.86 acres of vegetables with sprinkler irrigation. Irrigation delineation indicates that as much as 21.9 acres were irrigated in 2013, 2015, and 2017. Details related to water use practice and actually irrigated acres would be better understood through direct conversation with the water user.

Table 5: Delineated irrigation in each year (2013, 2015, 2017, 2019)

Year	Total Irrigated Acres (Med/High Confidence)
2013	21.9
2015	21.9
2017	21.9
2019	0.0

Water Right

Table 6: Current Water Right

Document Type	Qa	Qi	Priority Date	Purpose of Use	WR Acres	Source
Certificate	32 afy	0.67 cfs	11/23/1949	Irrigation	32	Groundwater

These quantities only reflect what is shown on the water right document, and do not represent any beneficial use assessment by Ecology.

Water Right History:

The original certificate was issued for the irrigation of 32 acres. This water right has priority date of 11/23/1949, listed purpose of irrigation, with a Qi of 0.67 cfs (300 GPM) and 32 acre feet annually identified as the Qa. The water is pumped out of a well.

Well Information:

Using a map search on Ecology's well database, one well log was identified as potentially related to this project, by correlating the names on the well logs which reflected current ownership and names on water rights documents. The identified well was drilled August 1950 and is a 10 inch diameter 500 foot deep well.

Metering Records:

Metering records were not available in the Ecology Water Resources Explorer database and a request to Ecology found no records.

Conclusion

This project was identified as a potential acquisition opportunity using the Irrigation Analysis prioritization factors. No metering records exist for this water right. Current land use is as Commercial Land with Single Family Residential. Four years of irrigation delineations were undertaken (2013, 2015, 2017, 2019) which indicate areas as great as 21.9 acres irrigated. WWT utilized the delineated acreage to estimate the potential consumptive use quantity that may be available to serve as an offset. An estimate is developed based on the pasture water duty (16.6 inches) found in the Washington Irrigation Guide (Puyallup station, Appendix A) and irrigation method assumed to be sprinkler (75% irrigation efficiency, 10% application efficiency).

- Based on the 21.9 delineated acres and assuming pasture and sprinkler irrigation, 34.35 afy consumptive is the estimated quantity available for trust water transaction.[3]

The Hylebos Cr - Fr Comm Bay No. 1 water right has a priority date of 11/23/1949, which is senior to the establishment of the Puyallup Basin Instream Resources Protection Program (Instream Flow Rule) in 1980. This water right certificate does not have instream flow provisions.

[3] This is only an estimate of consumptive use quantity. An extent and validity determination by Ecology would be required to determine the actual quantity available for acquisition.

Figure 3: Project Map

WRIA 10 Project Opportunity Profile –

Puyallup River No. 3

Project Summary

FLOW BENEFIT: Additional 0.3 cfs in 6.5 miles of the Puyallup River.

PRIORITY SUBBASIN: Lower Puyallup River

ESTIMATED OFFSET: 36.23 afy consumptive

SUBBASIN CONSUMPTIVE USE ESTIMATE: 41.1 afy

PRIORITY DATE(S): 2/7/1950

INSTREAM FLOW RULE (1980): Puyallup River Basin Instream Resources Protection Program, established in 1980.[1]

ESA LISTED FISH: Spring, Summer, and Fall Chinook (Threatened), Coho (Species of Concern), Winter and Summer Steelhead (Threatened), Bull Trout (Threatened)

OUTREACH STATUS: None

Project Description

The Puyallup River No. 3 (Puyallup R No. 3) was included in the WRIA 10 water rights analysis due to the prioritization factors utilized in the irrigation analysis (e.g. priority sub-basin, acres of irrigation, etc). Puyallup R No. 3 is located in southeastern extent of the City of Fife on the north side of the Puyallup River adjacent to the City of Fife Levee Pond Park. The current land use, based on aerial imagery review, appears to be irrigated row cropping and there appears to be beneficial use related to this water right. A barrier to acquisition may be the ability for the owner to change their land use, multiple landowners within the place of use or viable alternative source of water. The project includes five parcels under common public ownership. To our knowledge, there has been no outreach to the water right holders by any entity at this time.

[1] WAC 173-510-030

Watershed

This project is located in the Puyallup River Subbasin and the property is located at approximately river mile (RM) 6.5 of the Puyallup River that flows in Commencement Bay. The Puyallup River has an instream flow established in this downstream reach, and "loss of natural habit-forming flow regimes" is a limiting factor cited for the Puyallup Watershed in the 2018 Salmon Habitat Protection and Restoration Strategy for Puyallup and Chambers Watersheds.[2]

Land Use & Ownership

According to the Pierce County Assessor, the current land use code is 7600-Parks and is zoned as Single Family Residential. The land underlying Puyallup R No. 3 is five parcels totaling 42.32 acres under common public ownership.

A review of the WSDA 2019 Agricultural Land Use map estimates 18.3 acres of vegetable crops. Irrigation delineation estimates as much as 23.1 irrigated acres in 2015 and 2019. Details related to water use practices and actual irrigated acres would be better understood through direct conversation with the water user.

Table 7: Delineated irrigation in each year (2013, 2015, 2017, 2019)

Year	Total Irrigated Acres (Med/High Confidence)
2013	20.3
2015	23.1
2017	23.0
2019	23.1

Water Right

Table 8: Current Water Right

Document Type	Qa	Qi	Priority Date	Purpose of Use	WR Acres	Source
Certificate	-	0.3 cfs	2/7/1950	Irrigation	28.76	Puyallup River

These quantities only reflect what is shown on the water right document, and do not represent any beneficial use assessment by Ecology.

[2] https://www.co.pierce.wa.us/ArchiveCenter/ViewFile/Item/6075, page 5-40

Water Right History:

The original certificate authorized the irrigation of 28.76 acres. This water right has priority date of 2/7/1950, listed purpose of irrigation, with a Qi of 0.3 cfs and an unspecified Qa. The authorized diversion is from the Puyallup River.

Metering Records:

Metering records were not available in the Ecology Water Resources Explorer database and a request to Ecology found no records.

Conclusion

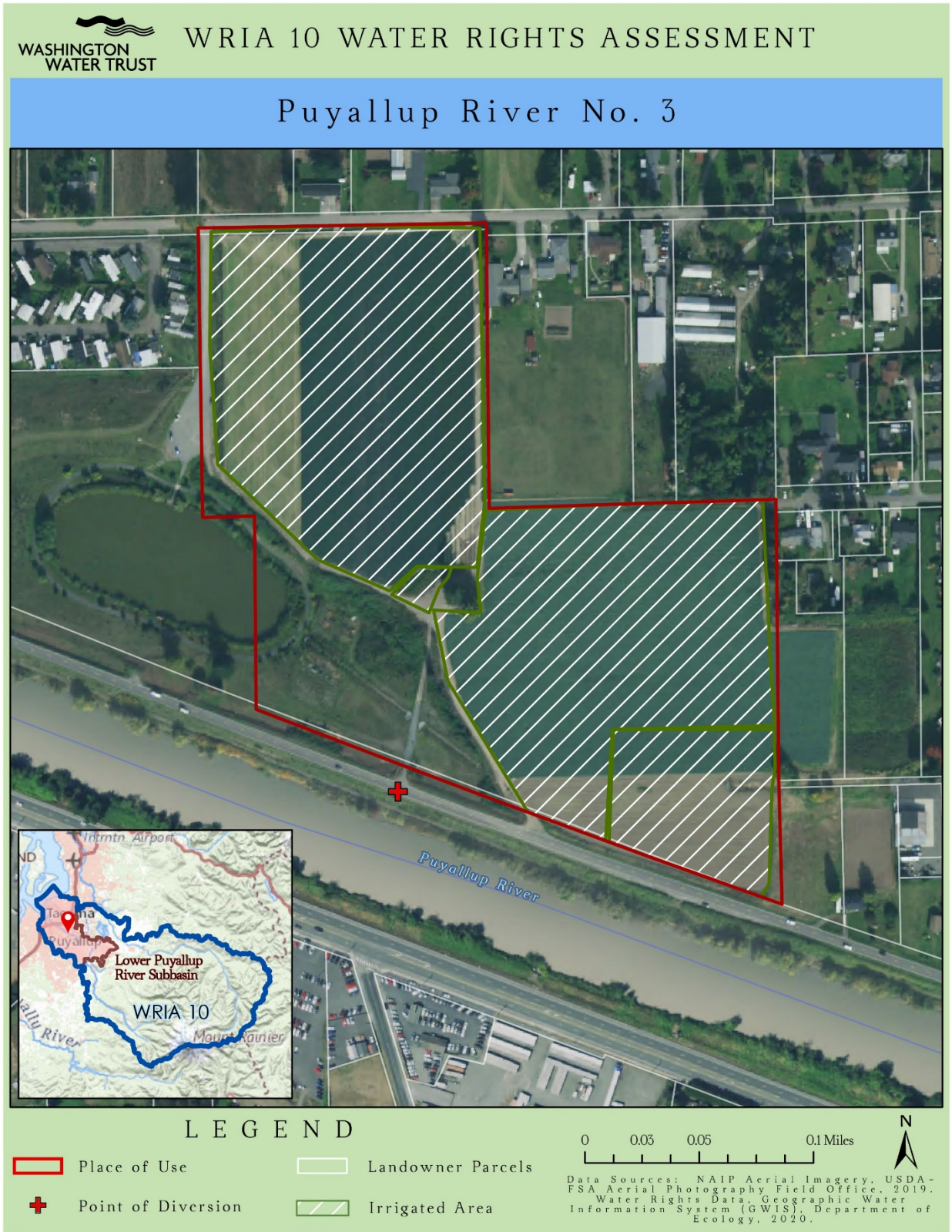
This project was identified as a potential acquisition opportunity using the irrigation analysis prioritization factors. No metering records exist for this water right. While the current land use code is park it appears as if irrigation is occurring in the water right place of use. Four years of irrigation delineations were undertaken (2013, 2015, 2017, 2019) which estimate as much as 23.1 acres irrigated. WWT utilized the delineated acreage to estimate the potential consumptive use quantity that may be available to serve as an offset. An estimate is developed based on the pasture water duty (16.6 inches) found in the Washington Irrigation Guide (Puyallup station, Appendix A) and irrigation method assumed to be sprinkler (75% irrigation efficiency, 10% application efficiency).

- Based on the 23.1 delineated acres and assuming pasture and sprinkler irrigation, 36.23 afy consumptive is the estimated quantity available for trust water transaction.[3]

The Puyallup R No. 3 water right has a priority date of 2/7/1950, which is senior to the establishment of the Puyallup Basin Instream Resources Protection Program in 1980. This water right certificate does not have instream flow provisions.

[3] This is only an estimate of consumptive use quantity. An extent and validity determination by Ecology would be required to determine the actual quantity available for acquisition.

Figure 4: Project Map



WWT, MWS, and BWGIS, 2020

WRIA 10 Project Opportunity Profile –

Puyallup River No. 4

Project Summary

FLOW BENEFIT: Additional 0.38 cfs in 1.5 miles of Clarks Creek and 6.7 miles of Puyallup River.[1]

PRIORITY SUBBASIN: Lower Puyallup River

ESTIMATED OFFSET: 19.92 afy consumptive

SUBBASIN CONSUMPTIVE USE ESTIMATE: 41.1 afy

PRIORITY DATE(S): 9/29/1952

INSTREAM FLOW RULE (1980): Puyallup River Basin Instream Resources Protection Program, established in 1980.[2]

ESA LISTED FISH: Spring, Summer, and Fall Chinook (Threatened), Coho (Species of Concern), Winter and Summer Steelhead (Threatened), Bull Trout (Threatened)

OUTREACH STATUS: None

Project Description

Puyallup River No. 4 (Puyallup R No. 4) was included in the WRIA 10 water rights analysis due to the prioritization factors utilized in the irrigation analysis (e.g. priority sub-basin, acres of irrigation, etc). Puyallup R No. 4 is located south of the City of Fife between W Stewart Ave and the Puyallup River. The current land use, based on aerial imagery review, appears to be pasture with a small amount of other crops and there appears to be beneficial use related to this water right. A barrier to acquisition may be the ability for the owner to change their land use, a viable alternative water source or multiple landowners within the place of use. The project includes eight parcels all with irrigation. To our knowledge, there has been no outreach to the water right holders by any entity at this time.

[1] Dependent on hydraulic continuity
[2] WAC 173-510-030

Watershed

This project is located in the Lower Puyallup River Subbasin and the property is located at approximately river mile (RM) 1.5 of Clark Creek that flows into the Puyallup River at RM 6.7 before flowing into Commencement Bay. The Puyallup River has an instream flow established in this downstream reach, and "loss of natural habit-forming flow regimes" is a limiting factor cited for the Puyallup Watershed in the 2018 Salmon Habitat Protection and Restoration Strategy for Puyallup and Chambers Watersheds.[3] Clark Creek is closed to new surface water appropriations and new groundwater appropriations that show a direct, and measurable, impact on stream flows. Clark Creek does not have an instream flow established in Chapter 173-510 WAC.

6 Land Use & Ownership

According to the Pierce County Assessor, the current land zoning is Moderate Density Single-Family (MSF). The land underlying Puyallup R No. 4 is eights parcels. The largest parcel is 10.38 acres with current use of 8300-CU Farm and Agriculture and this is where the majority of irrigation occurs. The remaining parcels have a current use of 1101-Single Family Dwelling, 1155-Mobile Home Title Elimination, or 9100-Vacant Land Undeveloped and are under individual ownership. Irrigation of residential landscaping on these parcels may not be occurring under this water right, a deed review for these parcels would indicate if the water right is included.

A review of the WSDA 2019 Agricultural Land Use map identifies 9.3 acres of unspecified crops. Irrigation delineation estimates as much as 12.7 irrigated acres in 2017. It is possible that the difference of estimated irrigated acres between years analyzed maybe explained as the result of the timing of the aerial photograph, specific water use practices or from sufficient causes for non-use (RCW 90.14.140), which would be best understood through direct conversation with the water user.

Table 9: Delineated irrigation in each year (2013, 2015, 2017, 2019)

Year	Total Irrigated Acres (Med/High Confidence)
2013	12.1
2015	0.4
2017	12.7
2019	12.3

[3] https://www.co.pierce.wa.us/ArchiveCenter/ViewFile/Item/6075, page 5-40

Water Right

Table 10: Current Water Right

Document Type	Qa	Qi	Priority Date	Purpose of Use	WR Acres	Source
Certificate	34 AF	0.38 cfs	9/29/1952	Irrigation	30	Groundwater

These quantities only reflect what is shown on the water right document, and do not represent any beneficial use assessment by Ecology.

Water Right History:

The original certificate authorized the irrigation of 17 acres. This water right has priority date of 9/29/1952, listed purpose of irrigation, with a Qi of 0.38 cfs (170 GPM) and 34 acre feet annually identified as the Qa. The water is pumped out of a well.

Well Information:

Using a map search on Ecology's well database, one well log was identified as potentially related to this project, by correlating the names on the well logs and names on water rights documents. The identified well has three two-inch diameter driven casings at a depth of 115 feet, 140 feet, and 120 feet respectively with a static water level of 6 feet.

The well record in the supporting documents for the water right, shows the same well as having been completed 9/25/1952 with three two-inch diameter driven casings at a depth of 115 feet, 140 feet, and 120 feet respectively.

Metering Records:

Metering records were not available in the Ecology Water Resources Explorer database and a request to Ecology found no records.

Conclusion

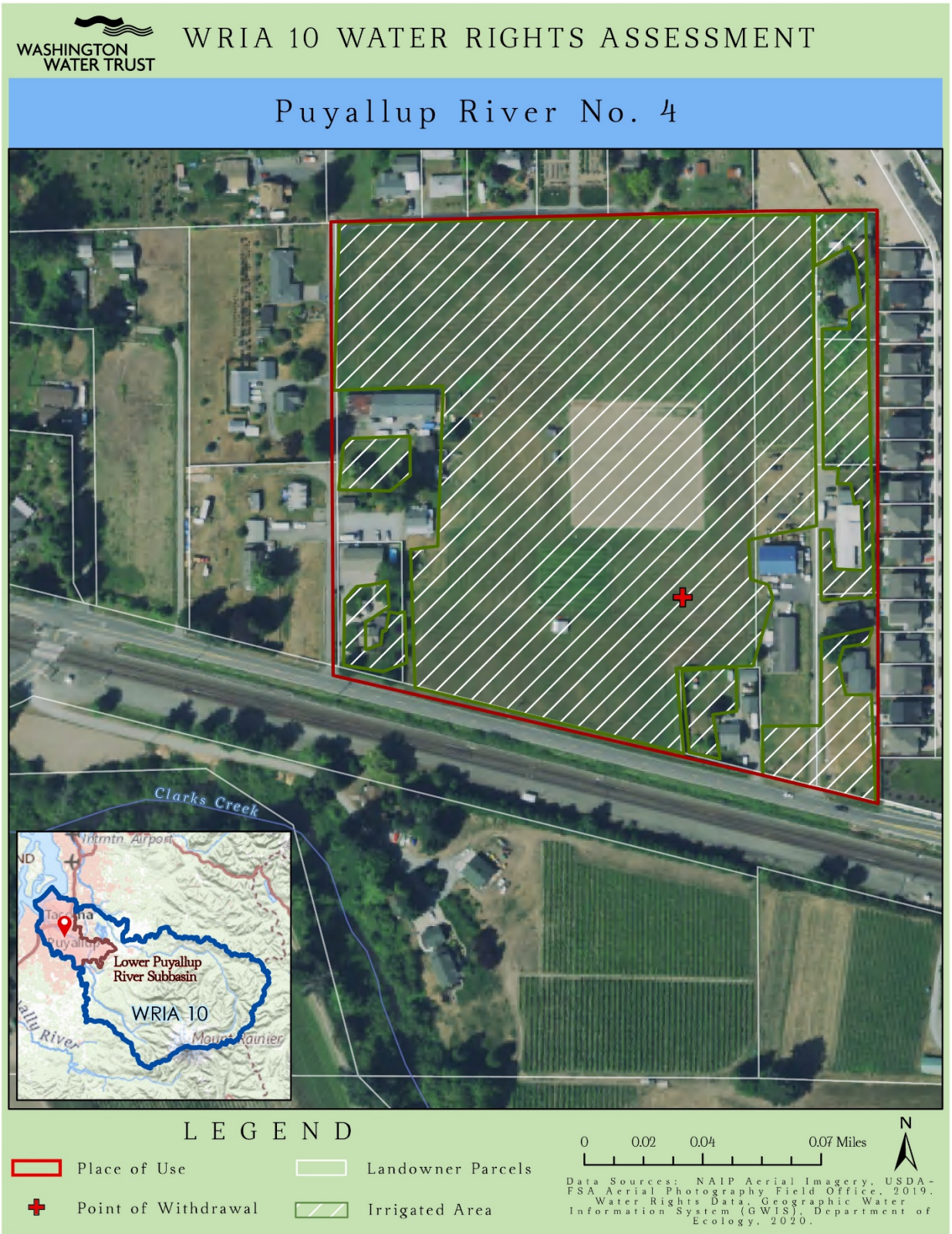
This project was identified as a potential acquisition opportunity using the irrigation analysis prioritization factors. No metering records exist for this water right. Current land use is CU Farm and Agriculture and Single Family. Four years of irrigation delineations were undertaken (2013, 2015, 2017, 2019) which estimate as 12.7 irrigated acres irrigated. This irrigation occurs predominantly on one larger parcel with seven other residential parcels showing irrigated landscaping. WWT utilized the delineated acreage to estimate the potential consumptive use quantity that may be available to serve as an offset. An estimate is developed based on the pasture water duty (16.6 inches) found in the Washington Irrigation Guide (Puyallup station, Appendix A) and irrigation method assumed to be sprinkler (75% irrigation efficiency, 10% application efficiency).

- Based on the 12.7 delineated acres and assuming pasture and sprinkler irrigation, 19.92 afy consumptive is the estimated quantity available for trust water transaction.[4]

The Puyallup R No. 4 water right has a priority date of 9/29/1952, which is senior to the establishment of the Puyallup Basin Instream Resources Protection Program in 1980. This water right certificate does not have instream flow provisions.

[4] This is only an estimate of consumptive use quantity. An extent and validity determination by Ecology would be required to determine the actual quantity available for acquisition.

Figure 5: Project Map

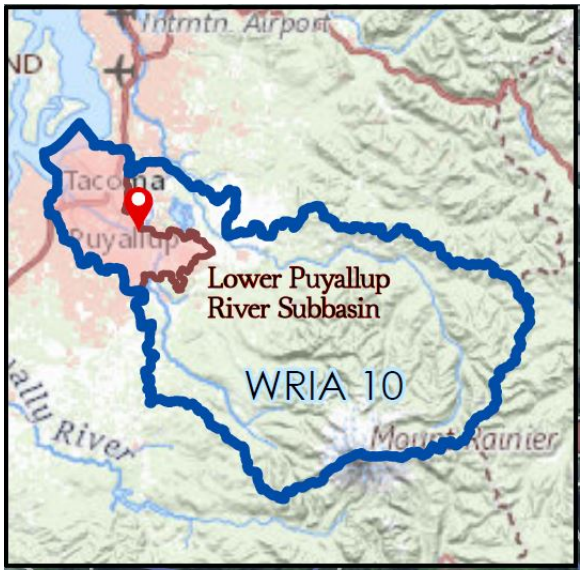


WWT, MWS, and BWGIS, 2020

WRIA 10 Project Opportunity Profile –

Puyallup River No. 1

Project Summary



FLOW BENEFIT: Additional 0.75 cfs in 10 miles of the Puyallup River.

PRIORITY SUBBASIN: Lower Puyallup River

ESTIMATED OFFSET: 82.82 afy consumptive

SUBBASIN CONSUMPTIVE USE ESTIMATE: 41.1 afy

PRIORITY DATE(S): 11/6/1951 (groundwater), 3/18/1963 (surface water)

INSTREAM FLOW RULE (1980): Puyallup River Basin Instream Resources Protection Program, established in 1980.[1]

ESA LISTED FISH: Spring, Summer, and Fall Chinook (Threatened), Coho (Species of Concern), Winter and Summer Steelhead (Threatened), Bull Trout (Threatened)

OUTREACH STATUS: None

Project Description

Puyallup River No. 1 (Puyallup R No. 1) was included in the WRIA 10 water rights analysis due to the prioritization factors utilized in the Irrigation Analysis (e.g. priority sub-basin, acres of irrigation, etc). Puyallup R No. 1 includes water rights appurtenant to a golf course and country club, and a berry farm. The golf course and country club have been in operation for more than 90 years. A portion of the golf course operates on land leased from an early homesteading family with the current lease agreement valid through 2045. Additionally, the Puyallup R No. 1 water rights are appurtenant to what appears to be a berry farming operation and farm stand.

There appears to be beneficial use related to these water rights. The irrigated area is found on a single parcel. A barrier to acquisition may be the ability for the owner to change their land use multiple landowners within the place of use or a readily available alternative water supply. To our knowledge, there has been no outreach to the water right holder by any entity at this time.

[1] WAC 173-510-030

Watershed

This project is located in the Lower Puyallup River Subbasin and the water right diversion is at approximately river mile (RM) 10 of the Puyallup River that flows into Commencement Bay. The Puyallup River has an instream flow established in this downstream reach, and "loss of natural habit-forming flow regimes" is a limiting factor cited for the Puyallup Watershed in the 2018 Salmon Habitat Protection and Restoration Strategy for Puyallup and Chambers Watersheds.[2]

Land Use & Ownership

The land underlying Puyallup R No. 1 includes numerous parcels with multiple owners covering a golf course, residential development, and farmed area.

According to the Pierce County Assessor, the land utilized as a golf course is zoned Municipal Area (City of Puyallup RM-20 High Density Multiple-Family Residential) and the current land use is listed as CU Open Space. Five parcels are for the golf course and country club, under group account 391.

According to the Pierce County Assessor, the land utilized as farm is zoned Municipal Area (City of Puyallup ML – Limited Manufacturing with an Agricultural Zoning Overlay) and the current land use is listed as CU Farm and Agriculture and Vacant Industrial Land. There are two parcels with different owners in the farmed area.

A review of the WSDA 2019 Agricultural Land Use map identifies 47.37 acres of turfgrass under sprinkler irrigation and 4.7 acres of berries for a total of 52.07 acres of irrigation. Irrigation delineation estimates as much as 52.8 irrigated acres in 2013 and 2019. It is possible that the difference of estimated irrigated acres between years analyzed maybe explained based the result of the timing of the aerial photograph, specific water use practices or from sufficient causes for non-use (RCW 90.14.140). These details would be better understood through direct conversation with the water user.

Table 11: Delineated irrigation in each year (2013, 2015, 2017, 2019)

Year	Total Irrigated Acres (Med/High Confidence)
2013	52.8
2015	46.7
2017	50.0
2019	52.8

[2] https://www.co.pierce.wa.us/ArchiveCenter/ViewFile/Item/6075, page 5-40

Water Right

Table 12: Current Water Right

Document Type	Qa	Qi	Priority Date	Purpose of Use	WR Acres	Source
Certificate	50 af	0.45 cfs	11/6/1951	Domestic Single, Irrigation	25	Groundwater
Certificate	60 af	0.3 cfs	3/18/1963	Irrigation	30	Puyallup River

These quantities only reflect what is shown on the water right document, and do not represent any beneficial use assessment by Ecology.

Water Right History:

Puyallup R No. 1 is comprised of two water rights with adjacent non-overlapping places of use.

The groundwater right was issued for the irrigation of 25 acres. This water right has a priority date of 11/6/1951, listed purpose of use domestic single and irrigation, with a Qi of 0.45 cfs (200 GPM) and 50 acre-feet identified as the Qa. The water is diverted from a groundwater well.

The surface water certificate was issued for the irrigation of 30 acres. This water right has priority date of 3/18/1963, listed purpose of irrigation, with a Qi of 0.3 cfs and 60 acre feet identified as the Qa. The water is diverted from Puyallup River.

Well Record

A signed *Record by Well Driller* report, found in the documentation attached to the water right certificate, shows that a well was completed 10/25/1951 and is an eight-inch diameter 169 foot deep well with a static water level of 52 feet.

Metering Records:

Metering records were not available in the Ecology Water Resources Explorer database and a request to Ecology found no records.

Conclusion

This project was identified as a potential acquisition opportunity using the Irrigation Analysis prioritization factors. No metering records exist for this water right. The current land use with irrigation is CU Open Space, CU Farm, Agriculture and Vacant Industrial Land. Four years of irrigation delineations were undertaken (2013, 2015, 2017, 2019) which estimate as much as 52.8 acres irrigated. WWT utilized the delineated acreage to estimate the potential consumptive use quantity that may be available to serve as an offset. An estimate is developed based on the pasture water duty (16.6 inches) found in the

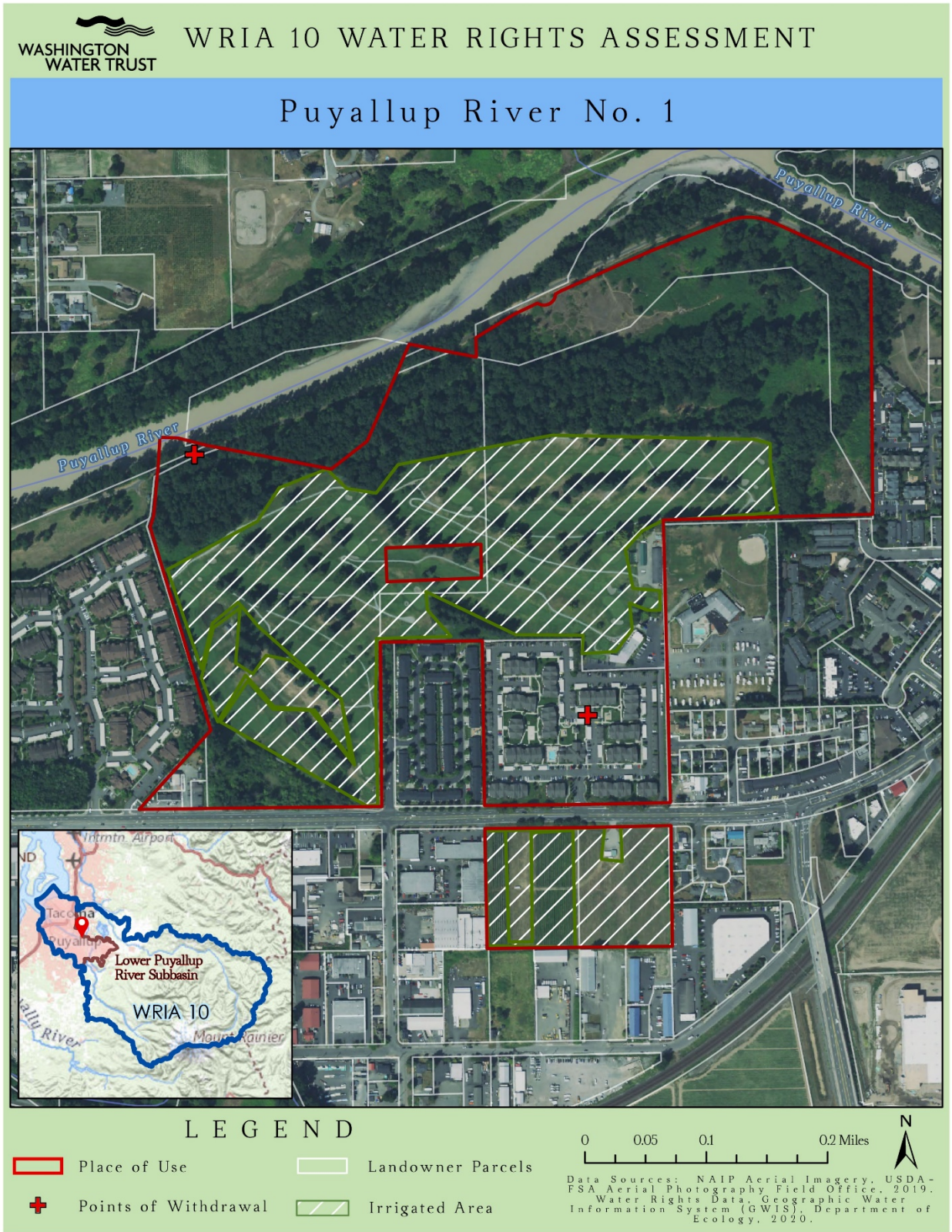
Washington Irrigation Guide (Puyallup station, Appendix A) and irrigation method assumed to be sprinkler (75% irrigation efficiency, 10% application efficiency).

- Based on the 52.8 delineated acres and assuming pasture and sprinkler irrigation, 82.82 afy consumptive is the estimated quantity available for trust water transaction.[3]

The Puyallup R No. 1 water rights have a priority date of 3/18/1963 and 11/6/1951, which are senior to the establishment of the Puyallup Basin Instream Resources Protection Program in 1980. These water right certificates do not have instream flow provision.

[3] This is only an estimate of consumptive use quantity. An extent and validity determination by Ecology would be required to determine the actual quantity available for acquisition.

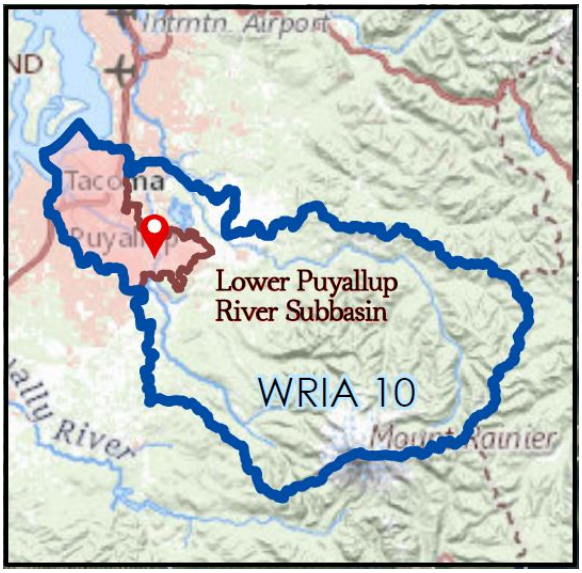
Figure 6: Project Map



WRIA 10 Project Opportunity Profile –

Fennel Creek – Puyallup River No. 5

Project Summary



FLOW BENEFIT: Additional 0.22 cfs in 16 miles of the Puyallup River.[1]

PRIORITY SUBBASIN: Lower Puyallup River

ESTIMATED OFFSET: 23.55 afy

SUBBASIN CONSUMPTIVE USE ESTIMATE: 41.1 afy

PRIORITY DATE(S): 6/22/1950

INSTREAM FLOW RULE (1980): Puyallup River Basin Instream Resources Protection Program, established in 1980.[2]

ESA LISTED FISH: Spring, Summer, and Fall Chinook (Threatened), Coho (Species of Concern), Winter and Summer Steelhead (Threatened), Bull Trout (Threatened)

OUTREACH STATUS: None

Project Description

The Fennel Creek - Puyallup River No. 5 (Fennel Cr - Puyallup R No. 5) was included in the WRIA 10 water rights analysis due to the prioritization factors utilized in the irrigation analysis (e.g. priority sub-basin, acres of irrigation, etc). Fennel Cr - Puyallup R No. 5 is located one mile north-northeast of McMillian WA. The current land use, based on aerial imagery review, appears to be irrigated row cropping and there appears to be beneficial use related to this water right.. The project includes four parcels with the irrigated area found on two parcels under common ownership. To our knowledge, there has been no outreach to the water right holders by any entity at this time.

[1] Dependent on hydraulic continuity
[2] WAC 173-510-030

Watershed

This project is located in the Fennel Creek – Puyallup River Subbasin and the property is located at approximately RM 16 of the Puyallup River. The Puyallup River has an instream flow established in this downstream reach, and "loss of natural habit-forming flow regimes" is a limiting factor cited for the Puyallup Watershed in the 2018 Salmon Habitat Protection and Restoration Strategy for Puyallup and Chambers Watersheds.[3]

Land Use & Ownership

According to the Pierce County Assessor, the current land use is listed as 9400-CU Open Space and is zoned as Rural 10. The land underlying Fennel Cr – Puyallup R No. 5 is four parcels, but irrigation only appears to occur on two of the parcels that are under common ownership. The two Pierce County parcels that show irrigation comprise a total of 15.42 acres and were sold by the original water right holder to the current land owner on 3/11/2011.

A review of the WSDA 2019 Agricultural Land Use map identifies 14.47 acres of vegetable crops. Irrigation delineation indicates that as much as 15 acres were irrigated in 2019. While the scale of difference between years may be marginal, it is possible that the difference of estimated irrigated acres between years analyzed maybe explained based on the sufficient causes for non-use (RCW 90.14.140), or result of the timing of the aerial photograph. The details of water use may be better understood through direct conversation with the water user.

Table 13: Delineated irrigation in each year (2013, 2015, 2017, 2019)

Year	Total Irrigated Acres (Med/High Confidence)
2013	14.8
2015	14.7
2017	14.7
2019	15.0

Water Right

Table 14: Current Water Right

Document Type	Qa	Qi	Priority Date	Purpose of Use	WR Acres	Source
Certificate	30 afy	0.22 cfs	6/22/1950	Irrigation	20	Groundwater

[3] https://www.co.pierce.wa.us/ArchiveCenter/ViewFile/Item/6075, page 5-40

These quantities only reflect what is shown on the water right document, and do not represent any beneficial use assessment by Ecology.

Water Right History:

The original certificate was issued for the irrigation of 20 acres. This water right has priority date of 6/22/1950, listed purpose of irrigation, with a Qi of 0.22 cfs (100 GPM) and 30 acre feet identified as the Qa. The water is pumped out of a groundwater well.

Well Information:

Using a map search on Ecology's well database, one well log was identified as potentially related to this project, by correlating the names on the well logs and names on water rights documents. The identified well was drilled 6/19/1950, and is a 6 inch diameter 120 foot deep well with a static water level of 17 feet.

Metering Records:

Metering records were not available in the Ecology Water Resources Explorer database and a request to Ecology found no records.

Conclusion

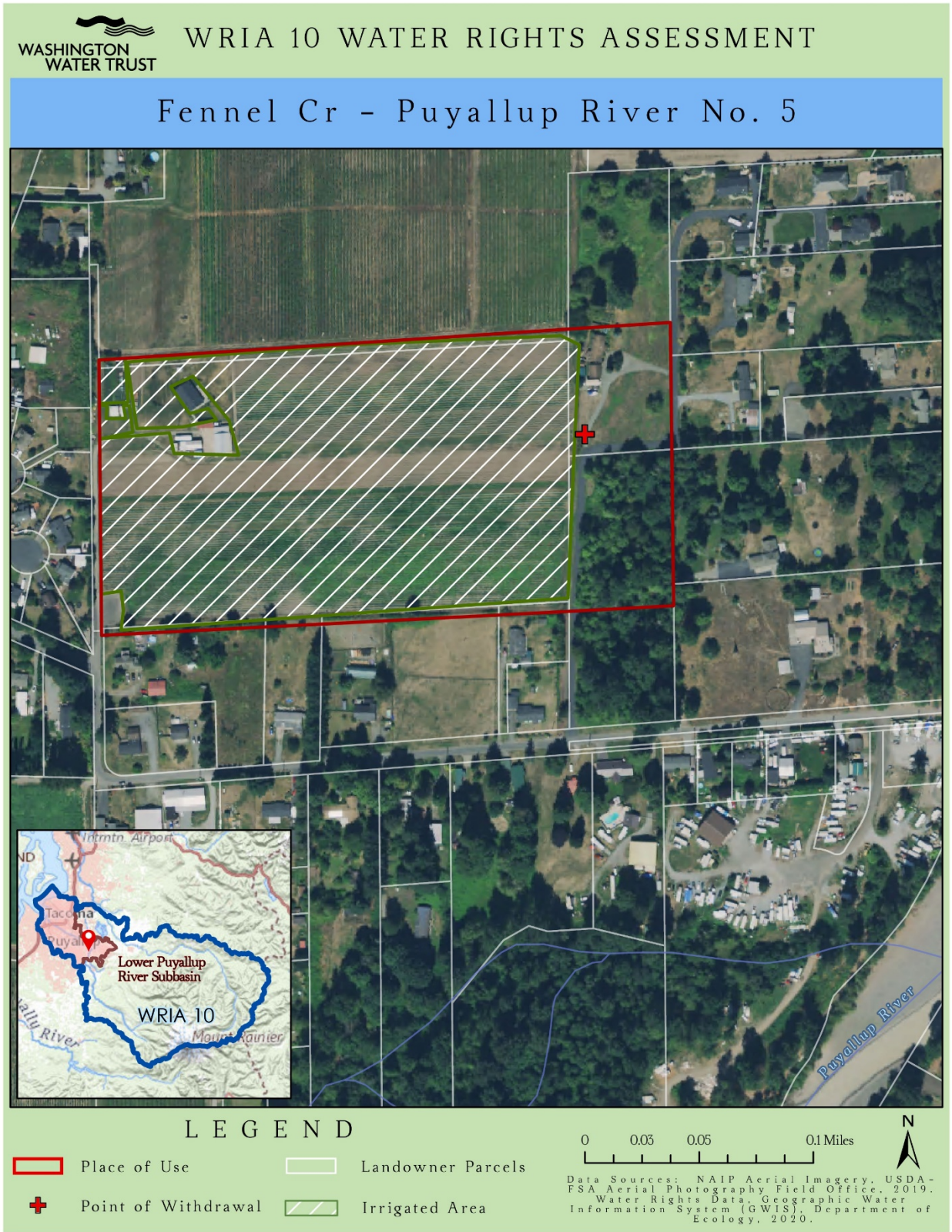
This project was identified as a potential acquisition opportunity using the irrigation analysis prioritization factors. No metering records exist for this water right. Current land use is 9400-CU Open Space. Four years of irrigation delineations were undertaken (2013, 2015, 2017, 2019) which estimate as much as 15 acres irrigated. WWT utilized the delineated acreage to estimate the potential consumptive use quantity that may be available to serve as an offset. An estimate is developed based on the pasture water duty (16.6 inches) found in the Washington Irrigation Guide (Puyallup station, Appendix A) and irrigation method assumed to be sprinkler (75% irrigation efficiency, 10% application efficiency).

- Based on the 15 delineated acres and assuming pasture and sprinkler irrigation, 23.53 afy consumptive is the estimated quantity available for trust water transaction.[4]

The Fennel Cr – Puyallup R No. 5 water right has a priority date of 6/22/1950, which is senior to the establishment of the Puyallup Basin Instream Resources Protection Program in 1980. This water right certificate does not have instream flow provisions.

[4] This is only an estimate of consumptive use quantity. An extent and validity determination by Ecology would be required to determine the actual quantity available for acquisition.

Figure 7: Project Map



WWT, MWS, and BWGIS, 2020

WRIA 10 Project Opportunity Profile –

Fiske Cr – Puyallup R No. 3

Project Summary

FLOW BENEFIT: Additional 0.45 cfs in 23 miles of the Puyallup River.[1]

PRIORITY SUBBASIN: Upper Puyallup River

ESTIMATED OFFSET: 72.15 afy consumptive

SUBBASIN CONSUMPTIVE USE ESTIMATE: 66.5 afy

PRIORITY DATE(S): 3/27/1968 and 4/30/1982

INSTREAM FLOW RULE (1980): Puyallup River Basin Instream Resources Protection Program, established in 1980.[2]

ESA LISTED FISH: Spring, Summer, and Fall Chinook (Threatened), Coho (Species of Concern), Winter and Summer Steelhead (Threatened), Bull Trout (Threatened)

OUTREACH STATUS: None

Project Description

Fiske Cr – Puyallup R No. 3 was included in the WRIA 10 water rights analysis due to the prioritization factors utilized in the irrigation analysis (e.g. priority sub-basin, acres of irrigation, etc). Fiske Cr – Puyallup R No. 3 is located in the southeast corner of the City of Orting south of the Puyallup River. The irrigated area associated with these water rights occurs on two parcels that are owned by the WA Department of Veteran Affairs and include part of the Washington Soldiers Home Orting. Of the two water rights in this project, the place of use for the senior water right also includes a subdivision to the north. Based on aerial imagery review, there appears to be beneficial use related to this water right. To our knowledge, there has been no outreach to the water right holder by any entity at this time.

[1] Dependent on hydraulic continuity
[2] WAC 173-510-030

Watershed

This project is located in the Upper Puyallup River Subbasin at approximately river mile (RM) 23 on the Puyallup River that flows into Commencement Bay. The Puyallup River has an instream flow established in this downstream reach, and "loss of natural habit-forming flow regimes" is a limiting factor cited for the Puyallup Watershed in the 2018 Salmon Habitat Protection and Restoration Strategy for Puyallup and Chambers Watersheds.[3]

Land Use & Ownership

According to the Pierce County Assessor, the current land use associated with the irrigated area is listed as Governmental Services and is zoned as Municipal (City of Orting Public Facilities). The land underlying Fiske Cr – Puyallup R No. 3 includes a subdivision to the north and two parcel owned by the WA Department of Veteran Affairs that total 146.98 acres.

A review of the WSDA 2019 Agricultural Land Use map identifies 41.32 acres of commercial tree with big gun irrigation and 3.22 acres of other for a total of 44.54 acres of irrigation. Irrigation delineation estimates as much as 46 irrigated acres in 2019. It is possible that the difference of estimated irrigated acres between years analyzed may be explained as the result of the timing of the aerial photograph, specific water use practices or from sufficient causes for non-use (RCW 90.14.140), which would be best understood through direct conversation with the water user.

Table 15: Delineated irrigation in each year (2013, 2015, 2017, 2019)

Year	Total Irrigated Acres (Med/High Confidence)
2013	40.3
2015	38.6
2017	37.0
2019	46.0

[3] https://www.co.pierce.wa.us/ArchiveCenter/ViewFile/Item/6075, page 5-40

Water Right

Table 16: Current Water Right

Document Type	Qa	Qi	Priority Date	Purpose of Use	WR Acres	Source
Certificate	90 afy	0.45 cfs	3/27/1968	Irrigation	60	Groundwater
Certificate	66 afy (34 for DM and 32 for Irr)	0.36 cfs	4/30/1982	Domestic Multiple, Irrigation	16	Groundwater

These quantities only reflect what is shown on the water right document, and do not represent any beneficial use assessment by Ecology.

Water Right History:

The original groundwater certificate was issued for the irrigation of 60 acres. This water right has priority date of 3/27/1968, listed purpose of irrigation, with a Qi of 0.45 cfs (200 GPM) and 90 acre feet identified as the Qa. The water is diverted from a groundwater well.

A non-additive/supplemental groundwater water right also exists for 16 acres. This water right has a priority date of 4/30/1982, listed purpose of use of domestic multiple and irrigation, with Qi of 0.36 cfs (160 GPM) and 66 acre feet identified as the Qa. The Qa is split with 34 acre feet for the domestic multiple use and 32 acre feet for irrigation. In 2013, an additional well was added to this water right under a showing of compliance (RCW 90.44.100(3)). The water is diverted from two groundwater wells.

Well Records:

A signed *Water Well Report* found in the documentation attached to the primary water right certificate, is for a well drilled 6/30/1967, that is an 8 inch diameter 124 foot deep well with a static water level of 13ft.

Using a map search on Ecology's well database, 2 wells were identified as potentially related to the non-additive/supplemental water right, by correlating the names on the well logs which reflected current ownership and names on water rights documents. The first was for the construction of a well 11/4/2002, which is an 8 inch diameter 260 foot deep well that was then decommissioned on 4/23/2013.

The second well is reported in the post certificate documents as having been added to the water right through a *Showing of Compliance* form 5/15/2013. This well was completed 4/16/2013 and is a 16 inch diameter 119 foot deep well with a static water level of 6.6 ft.

Metering Records:

Metering records were not available in the Ecology Water Resources Explorer database and a request to Ecology found no records

Conclusion

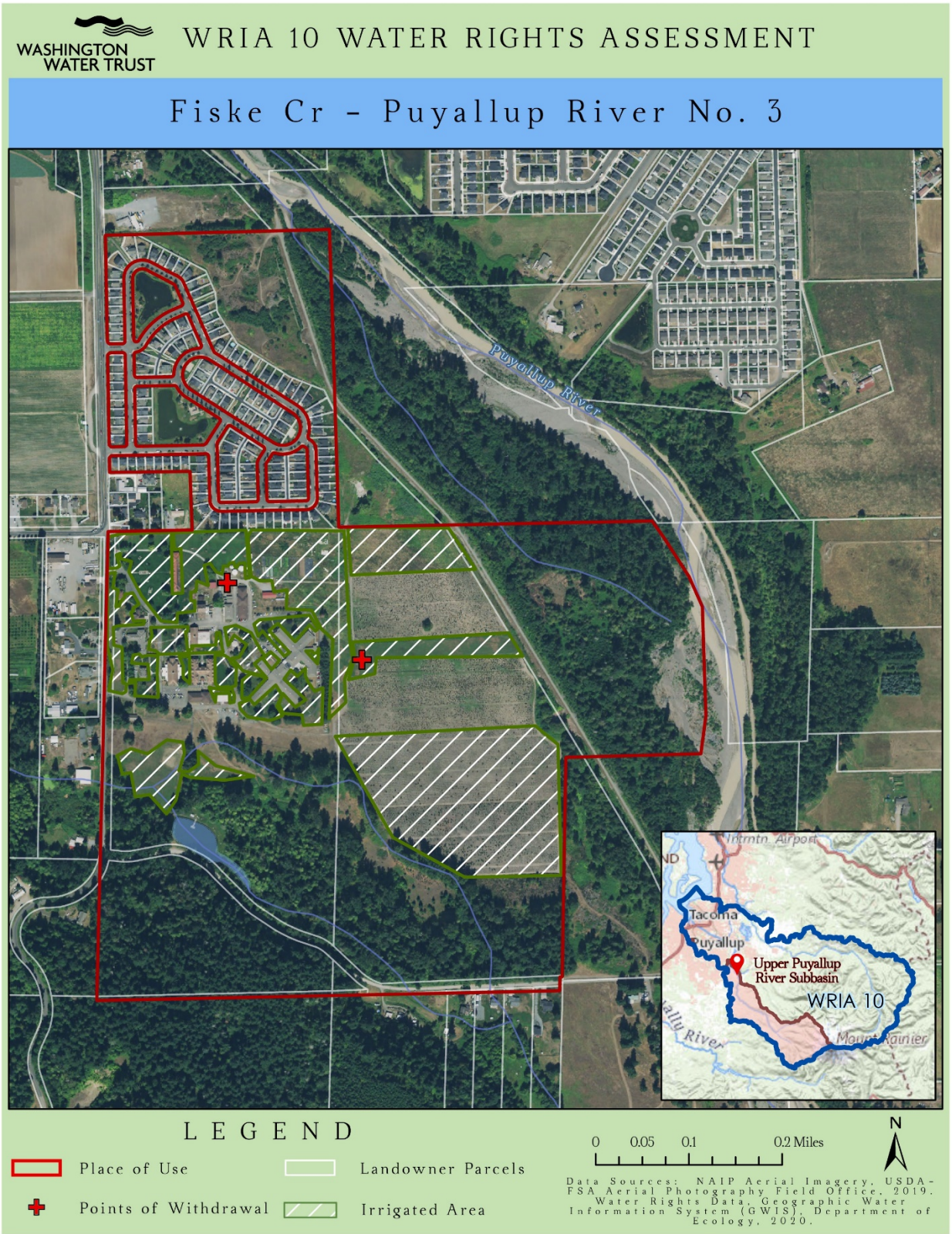
This project was identified as a potential acquisition opportunity using the irrigation analysis prioritization factors. No metering records exist for this water right. Current land use with irrigation is Governmental Services. Four years of irrigation delineations were undertaken (2013, 2015, 2017, 2019) which estimate as much 46 acres irrigated. WWT utilized the delineated acreage to estimate the potential consumptive use quantity that may be available to serve as an offset. An estimate is developed based on the pasture water duty (16.6 inches) found in the Washington Irrigation Guide (Puyallup station, Appendix A) and irrigation method assumed to be sprinkler (75% irrigation efficiency, 10% application efficiency).

- Based on the 46 delineated acres and assuming pasture and sprinkler irrigation, 72.15 afy consumptive is the estimated quantity available for trust water transaction.[4]

The Fiske Cr – Puyallup R No. 3 water rights have a priority dates of 3/27/1968 and 4/30/1982, which are senior and junior respectively to the establishment of the Puyallup Basin Instream Resources Protection Program in 1980. These water right certificates do not have instream flow provision. A barrier to acquisition may be the ability for the owner to change their land use.

[4] This is only an estimate of consumptive use quantity. An extent and validity determination by Ecology would be required to determine the actual quantity available for acquisition.

Figure 8: Project Map



WWT, MWS, and BWGIS, 2020

WRIA 10 Project Opportunity Profile –

Boise Creek – White River No. 3

Project Summary

FLOW BENEFIT: Additional 0.3 cfs in 0.2 miles of Cyclone Creek, 24.3 miles of White River, and 10.5 miles of Puyallup River.

PRIORITY SUBBASIN: Middle White River

ESTIMATED OFFSET: 47.06 afy consumptive

SUBBASIN CONSUMPTIVE USE ESTIMATE: 23 afy

PRIORITY DATE(S): 4/29/1952

INSTREAM FLOW RULE (1980): Puyallup River Basin Instream Resources Protection Program, established in 1980.[1]

ESA LISTED FISH: Spring, Summer and Fall Chinook (Threatened), Coho (Species of Concern), Winter and Summer Steelhead (Threatened), Bull Trout (Threatened)

OUTREACH STATUS: None

Project Description

Boise Creek – White River No. 3 (Boise Cr – White R No. 3) was included in the WRIA 10 water rights analysis due to the prioritization factors utilized in the irrigation analysis (e.g. priority sub-basin, acres of irrigation, etc). Boise Cr – White R No. 3 is located two miles south of the City of Enumclaw and to the west of Pinnacle Peak Park. There appears to be beneficial use related to this water right. The irrigated area is found on two parcels with two different owners. To our knowledge, there has been no outreach to the water right holder by any entity at this time.

[1] WAC 173-510-030

Watershed

This project is located in the Middle White River Subbasin and the property is just upstream of the confluence of Boise Creek with the White River. The White River joins the Puyallup River at RM 10.5 before flowing into Commencement Bay. The Puyallup River has an instream flow established in this downstream reach, and "loss of natural habit-forming flow regimes" is a limiting factor cited for the Puyallup Watershed in the 2018 Salmon Habitat Protection and Restoration Strategy for Puyallup and Chambers Watersheds.[2] The White River and all tributaries are closed to new surface water appropriations but do not have an instream flow established in Chapter 173-510 WAC.

Land Use & Ownership

According to the King County Assessor, the current land use is listed as Single Family and is zoned as A-35 (agricultural, one DU per 35 acres). The land appurtenant to Boise Cr – White R No. 3 is two parcels with two owners. The first King County parcel is 31.79 acres and has had multiple owners with the current owner having acquired the property through a quit claim deed on 12/24/2013. The second King County parcel is 1.87 acres and has had multiple owners with the last sale occurring 10/22/2013**.**

A review to the WSDA 2019 Agricultural Land Use map identifies 26.5 acres of hay/silage. Irrigation delineation indicates that as much as 30.7 irrigated acres in 2013. It is possible that the difference of estimated irrigated acres between years analyzed may be explained as the result of the timing of the aerial photograph, specific water use practices or from sufficient causes for non-use (RCW 90.14.140), which would be best understood through direct conversation with the water user.

Table 17: Delineated irrigation in each year (2013, 2015, 2017, 2019)

Year	Total Irrigated Acres (Med/High Confidence)
2013	30.7
2015	0.0
2017	0.0
2019	3.0

[2] https://www.co.pierce.wa.us/ArchiveCenter/ViewFile/Item/6075, page 5-40

Water Right

Table 18: Current Water Right

Document Type	Qa	Qi	Priority Date	Purpose of Use	WR Acres	Source
Certificate	-	0.3 CFS	4/29/1952	Irrigation	30	Cyclone Creek

These quantities only reflect what is shown on the water right document, and do not represent any beneficial use assessment by Ecology.

Water Right History:

The original certificate was issued for the irrigation of 30 acres. This water right has priority date of 4/29/1952, listed purpose of irrigation, with a Qi .3 cfs and an unidentified Qa. The water is diverted from Cyclone Creek.

Metering Records:

Metering records were not available in the Ecology Water Resources Explorer database and a request to Ecology found no records

Conclusion

This project was identified as a potential acquisition opportunity using the irrigation analysis prioritization factors. No metering records exist for this water right. The current land use is Single Family. Four years of irrigation delineations were undertaken (2013, 2015, 2017, 2019) which estimate as much as 30.7 irrigated acres. WWT utilized the delineated acreage to estimate the potential consumptive use quantity that may be available to serve as an offset. An estimate is developed based on the pasture water duty (16.6 inches) found in the Washington Irrigation Guide (Puyallup station, Appendix A) and irrigation method assumed to be sprinkler (75% irrigation efficiency, 10% application efficiency).

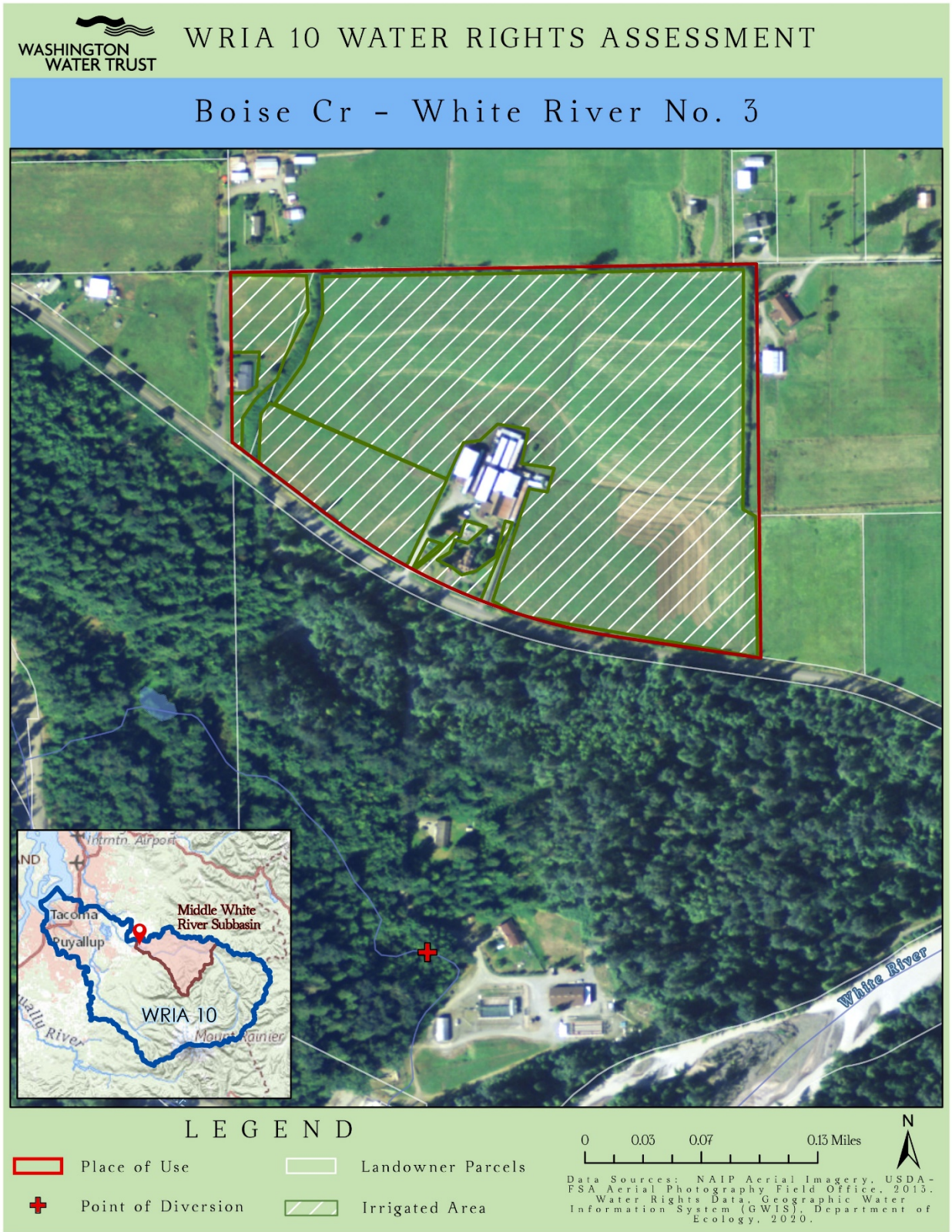
- Based on the 30.7 delineated acres and assuming pasture and sprinkler irrigation, 48.15 afy consumptive is the estimated quantity available for trust water transaction.[3]
- Based on the water right document, which authorizes 30 acres of irrigation and assuming pasture and sprinkler irrigation, 47.06 afy consumptive is the estimated quantity available for trust water transaction.

Based on the 30 acres of authorized irrigation on the water right certificate, the consumptive quantity for offset may be as much as 47.06 afy. The Boise Cr – White R No. 3 water right has a priority date of 4/29/1952, which is senior to the establishment of the Puyallup Basin Instream Resources Protection

[3] This is only an estimate of consumptive use quantity. An extent and validity determination by Ecology would be required to determine the actual quantity available for acquisition.

Program in 1980. This water right certificate does not have instream flow provision. . A potential barrier to acquisition may be the ability for the owner to change their land use or multiple landowners within the place of use.

Figure 9: Project Map



WWT, MWS, and BWGIS, 2020

WRIA 10 Project Opportunity Profile –

Boise Creek – White River No. 2

Project Summary

FLOW BENEFIT: Additional 0.22 cfs in 24.7 miles of White River and 10.5 miles of Puyallup River.[1]

PRIORITY SUBBASIN: Middle White River

ESTIMATED OFFSET: 52.86 afy consumptive

SUBBASIN CONSUMPTIVE USE ESTIMATE: 23 afy

PRIORITY DATE(S): 2/19/1971

INSTREAM FLOW RULE (1980): Puyallup River Basin Instream Resources Protection Program, established in 1980.[2]

ESA LISTED FISH: Spring, Summer, and Fall Chinook (Threatened), Coho (Species of Concern), Winter and Summer Steelhead (Threatened), Bull Trout (Threatened)

OUTREACH STATUS: None

Project Description

Boise Creek – White River No. 2 (Boise Cr – White R No. 2) was included in the WRIA 10 water rights analysis due to the prioritization factors utilized in the irrigation analysis (e.g. priority sub-basin, acres of irrigation, etc). Boise Cr – White R No. 2 is located two miles south of the City of Enumclaw, just to the west of Pinnacle Peak Park. Based on aerial imagery review, there appears to be beneficial use related to this water right. The irrigated area is found on two parcels with different ownership. To our knowledge, there has been no outreach to the water right holders by any entity at this time.

[1] Dependent on hydraulic continuity
[2] WAC 173-510-030

Watershed

This project is located in the Middle White River Subbasin and the property is just upstream of the confluence of Boise Creek with the White River. The White River joins the Puyallup River at RM 10.5 before flowing into Commencement Bay. The Puyallup River has an instream flow established in this downstream reach, and "loss of natural habit-forming flow regimes" is a limiting factor cited for the Puyallup Watershed in the 2018 Salmon Habitat Protection and Restoration Strategy for Puyallup and Chambers Watersheds.[3] The White River and all tributaries are closed to new surface water appropriations but do not have an instream flow established in Chapter 173-510 WAC.

Land Use & Ownership

According to the King County Assessor, the current land use is listed as Single Family and is zoned as A-35 (agricultural, one DU per 35 acres). The land appurtenant to Boise Cr – White R No. 2 is two parcels with two owners. The first King County parcel is 34.77 acres and has had multiple owners with the current owner having purchased the property on 10/23/2016 and then transferred the property to their LLC in 2017 through a quitclaim deed. The second King County parcel is 49.75 acres and has had multiple owners with the last sale occurring 4/8/2019.

A review of the WSDA 2019 Agricultural Land Use map identifies 44.3 acres of pasture. Irrigation delineation estimates as much as 33.7 irrigated acres in 2019.

It is possible that the difference of estimated irrigated acres between years analyzed maybe explained as the result of the timing of the aerial photograph, specific water use practices or from sufficient causes for non-use (RCW 90.14.140), which would be best understood through direct conversation with the water user.

Table 19: Delineated irrigation in each year (2013, 2015, 2017, 2019)

Year	Total Irrigated Acres (Med/High Confidence)
2013	30.7
2015	0.0
2017	0.0
2019	33.7

[3] https://www.co.pierce.wa.us/ArchiveCenter/ViewFile/Item/6075, page 5-40

Water Right

Table 20: Current Water Right

Document Type	Qa	Qi	Priority Date	Purpose of Use	WR Acres	Source
Certificate	40 af	0.22 cfs	2/18/1971	Irrigation	50	Groundwater

These quantities only reflect what is shown on the water right document, and do not represent any beneficial use assessment by Ecology.

Water Right History:

The original certificate was issued for the irrigation of 50 acres. This water right has a priority date of 2/18/1971, listed purpose of irrigation with a Qi of 0.22 cfs (100 GPM) and 40 acre-feet identified as the Qa. The water is pumped out of a groundwater well.

Well Information:

Using a map search on Ecology's well database, one well log was identified as potentially related to this project by correlating the names on the well logs, which matched current ownership and names on water rights documents. The identified well was drilled 6/14/1972, and is an eight-inch diameter 134 foot deep well.

A signed *Water Well Report* found in the documentation attached to the water right certificate, appears to be for the same well and shows that the well was completed 6/14/1972 and is an eight-inch diameter 134 foot deep well with a static water level of 52 feet.

Metering Records:

Metering records were not available in the Ecology Water Resources Explorer database and a request to Ecology found no records

Conclusion

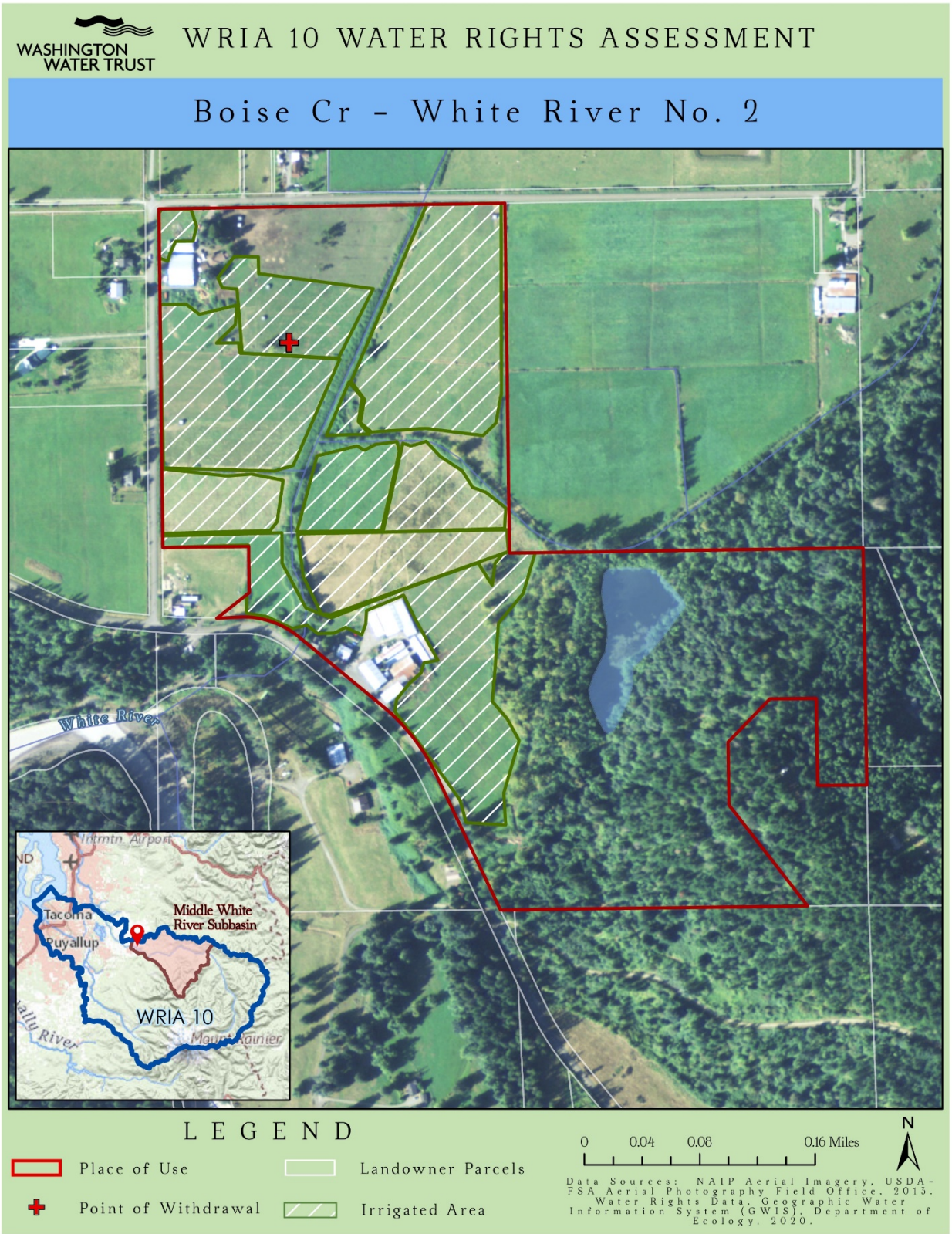
This project was identified as a potential acquisition opportunity using the Irrigation Analysis prioritization factors. No metering records exist for this water right..The current land use is Single Family. Four years of irrigation delineations were undertaken (2013, 2015, 2017, 2019) which estimate as much as 33.7 acres irrigated. WWT utilized the delineated acreage to estimate the potential consumptive use quantity that may be available to serve as an offset. An estimate is developed based on the pasture water duty (16.6 inches) found in the Washington Irrigation Guide (Puyallup station, Appendix A) and irrigation method assumed to be sprinkler (75% irrigation efficiency, 10% application efficiency).

- Based on the 33.7 delineated acres and assuming pasture and sprinkler irrigation, 52.86 afy consumptive is the estimated quantity available for trust water transaction.[4]

The Boise Cr – White R No. 2 water right has a priority date of 2/19/1971, which is senior to the establishment of the Puyallup Basin Instream Resources Protection Program in 1980. This water right certificate does not have instream flow provisions. A potential barrier to acquisition may be the ability for the owner to change their land use or multiple landowners within the place of use.

[4] This is only an estimate of consumptive use quantity. An extent and validity determination by Ecology would be required to determine the actual quantity available for acquisition.

Figure 10: Project Map



WWT, MWS, and BWGIS, 2020

WRIA 10 Project Opportunity Profile –

Boise Creek – White River No. 4

Project Summary

FLOW BENEFIT: Additional 0.3 cfs in 3 miles of Boise Creek, 23.4 miles of White River, and 10.5 miles of Puyallup River.

PRIORITY SUBBASIN: Middle White River

ESTIMATED OFFSET: 47.06 afy consumptive

SUBBASIN CONSUMPTIVE USE ESTIMATE: 23 afy

PRIORITY DATE(S): 4/20/1948

INSTREAM FLOW RULE (1980): Puyallup River Basin Instream Resources Protection Program, established in 1980.[1]

ESA LISTED FISH: Spring, Summer, and Fall Chinook (Threatened), Coho (Species of Concern), Winter and Summer Steelhead (Threatened), Bull Trout (Threatened)

OUTREACH STATUS: None

Project Description

Boise Creek – White River No. 4 (Boise Cr – White R No. 4) was included in the WRIA 10 water rights analysis due to the prioritization factors utilized in the irrigation analysis (e.g. priority sub-basin, acres of irrigation, etc). Boise Cr – White R No. 4 is located one mile south-southeast of the City of Enumclaw and to the north of Pinnacle Peak Park. There appears to be beneficial use related to this water right. The property appears to be operated as a dairy farm. The irrigated area is found on a single parcel. To our knowledge, there has been no outreach to the water right holder by any entity at this time.

[1] WAC 173-510-030

Watershed

This project is located in the Middle White River Subbasin and the water right diversion is at approximately river mile (RM) 3 on Boise Creek. Boise Creek flows into the White River at RM 23.4 and the White River joins the Puyallup River at RM 10.5 before flowing into Commencement Bay. The Puyallup River has an instream flow established in this downstream reach, and "loss of natural habit-forming flow regimes" is a limiting factor cited for the Puyallup Watershed in the 2018 Salmon Habitat Protection and Restoration Strategy for Puyallup and Chambers Watersheds.[2] The White River and all tributaries are closed to new surface water appropriations but do not have an instream flow established in Chapter 173-510 WAC.

Land Use & Ownership

According to the King County Assessor, the current land use is listed as Single Family and is zoned as A-35 (agricultural, one DU per 35 acres). The land appurtenant to Boise Cr – White R No. 4 is a single parcel and owner. The King County parcel is 38.22 acres and has had multiple owners with the current owner having acquired the property on 12/10/2009.

A review to the WSDA 2019 Agricultural Land Use map identifies 7.51 acres of hay/silage, 7.92 acres of pasture, and 15.86 acres of cereal grain utilizing big gun irrigation or a total of 31.29 irrigated acres. Irrigation delineation estimate as much as 31.4 irrigated acres in 2013. It is possible that the difference of estimated irrigated acres between years analyzed may be explained as the result of the timing of the aerial photograph, specific water use practices or from sufficient causes for non-use (RCW 90.14.140), which would be best understood through direct conversation with the water user.

Table 21: Delineated irrigation in each year (2013, 2015, 2017, 2019)

Year	Total Irrigated Acres (Med/High Confidence)
2013	31.4
2015	17.5
2017	18.5
2019	23.0

[2] https://www.co.pierce.wa.us/ArchiveCenter/ViewFile/Item/6075, page 5-40

Water Right

Table 22: Current Water Right

Document Type	Qa	Qi	Priority Date	Purpose of Use	WR Acres	Source
Certificate	-	0.3 CFS	4/20/1948	Irrigation	30	Cyclone Creek

These quantities only reflect what is shown on the water right document, and do not represent any beneficial use assessment by Ecology.

Water Right History:

The original certificate was issued for the irrigation of 30 acres. This water right has priority date of 4/20/1948, listed purpose of irrigation, with Qi of 0.3 CFS and an unidentified Qa. The water is diverted from Cyclone Creek.

Metering Records:

Metering records were not available in the Ecology Water Resources Explorer database and a request to Ecology found no records

Conclusion

This project was identified as a potential acquisition opportunity using the irrigation analysis prioritization factors. No metering records exist for this water right. The current land use is listed as Single Family. Four years of irrigation delineations were undertaken (2013, 2015, 2017, 2019) which estimate as much as 31.4 irrigated acres. WWT utilized the delineated acreage to estimate the potential consumptive use quantity that may be available to serve as an offset. An estimate is developed based on the pasture water duty (16.6 inches) found in the Washington Irrigation Guide (Puyallup station, Appendix A) and irrigation method assumed to be sprinkler (75% irrigation efficiency, 10% application efficiency).

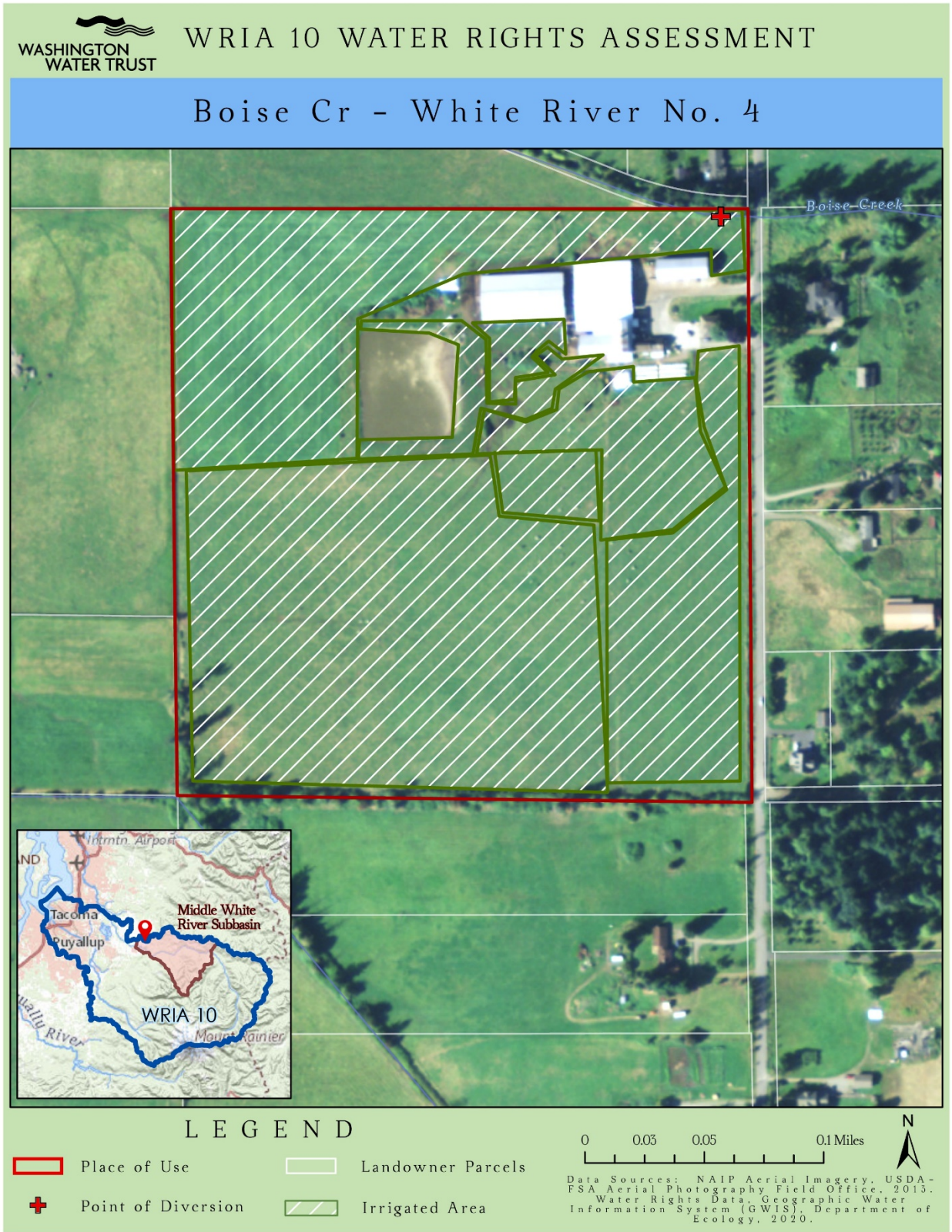
- Based on the 31.4 delineated acres and assuming pasture and sprinkler irrigation, 49.25 afy consumptive is the estimated quantity available for trust water transaction.[3]
- Based on the water right document, which authorizes 30 acres of irrigation and assuming pasture and sprinkler irrigation, 47.06 afy consumptive is the estimated quantity available for trust water transaction.

Based on the 30 acres of authorized irrigation on the water right certificate, the consumptive quantity for offset may be as much as 47.06 afy. The Boise Cr – White R No. 4 water right has a priority date of

[3] This is only an estimate of consumptive use quantity. An extent and validity determination by Ecology would be required to determine the actual quantity available for acquisition.

4/29/1952, which is senior to the establishment of the Puyallup Basin Instream Resources Protection Program (Instream Flow Rule) in 1980. This water right certificate does not have instream flow provision.

Figure 11: Project Map



WWT, MWS, and BWGIS, 2020

Attachment 5: Water Rights 101

WATER RIGHTS 101

WHAT IS A WATER RIGHT?

•A water right is a:
–Legal authorization to use a quantity of public water for a designated, beneficial, purpose and in the quantities and place of use specified.
–Usufructuory property right – right to use a public resource.
•Managed and regulated by the Washington Department of Ecology (Ecology) based on Washington water law Title 90 RCW, administrative rules (Title 173 WAC), and water resources case law.

WATER RIGHTS TYPES

•*Water right claim*
–Predates the water permitting system (1917 for surface water, Chapter 90.03 RCW; 1945 for groundwater, Chapter 90.44 RCW).
–1967 Claims Registration Act –water right claims must be filed with State (Chapter 90.14 RCW).
•*Water right permit*
–Unperfected water right in development (put to beneficial use); it is not a final water right and must be perfected.
– Rettkowski v. Ecology (1993) Adjudication required as stated in Chapter 90.03 RCW –Ecology manages permits via "tentative" determinations.
•*Water right certificate*
–Ecology issues a certificate after confirming that all the conditions of the permit have been met. Water right "perfected".
–A Certificate of Water Right is a private use-based right ("Usufructuory") connected to the land (appurtenant).

WATER RIGHT FUNDAMENTALS

•*First in time, first in right:*	Priority based on seniority (prior appropriation)
•*No Impairment:*	Water use or new water use may not impede the ability of senior water right users to access their legally authorized water quantities
•*Use it or lose it:*	5 years or more of nonuse = relinquishment (Chapter 90.14 RCW), subject to "Sufficient Causes"
•*Beneficial use:*	A use of water approved in state law as providing value to the state - irrigation, domestic, municipal, stock, industrial, and others
•*Consumptive use:*	The portion of water diverted from a stream or withdrawn from groundwater, needed for plant growth, consumed by people/animals or evaporated during beneficial use.
•*Non-Consumptive use:*	The portion of water diverted or withdrawn, which conveys the consumptive use water, which is not consumed by beneficial use and reenters the watershed through return flow

•*Place of use:*	The authorized place where a water right may be used
•*Point of diversion:*	The authorized location where water may be withdrawn or diverted.
• *Water Right Change:*	Water right elements (purpose, points of diversion/withdrawal, place of use) may be changed through application to Ecology
• *Qi*	The instantaneous quantity of water use measure in gallon per minute (gpm) for groundwater sources and cubic feet per second (cfs) for surface water uses
• *Qa*	The annual quantity of water use measured in acre-feet per year (afy)

Attachment 6: Sample Letter

SAMPLE LETTER

Ms. Common Name
PO Box XXXX
City WA 9XXXX

July 25, 202X

Dear Ms. Name:

We hope this letter finds you well.

The Water Resources Enhancement Committee (WREC) is contacting you related to our Watershed Planning efforts within the Puyallup-White River basin. We are reaching out to a specific group of Puyallup-White River basin water right holders to explore opportunities to enhance flows in the river and improve community water security with the purchase of water rights at fair market value.

In 2018, the Washington State Legislature passed a law, the Streamflow Restoration Act, which required counties and basin stakeholders to develop watershed plans to accommodate new rural wells for the next 20 years. This law directed that these plans identify water rights in good standing which may be able to offset the stream impact of new wells. We are reaching out to you as a water right holder and potential partner in supporting improved watershed health and community water security.

The WREC is comprised of a wide variety of stakeholders representing different interests. The WREC committee members are [this paragraph introduces who is reaching out to the water right holder].

If you are willing, we would appreciate the opportunity to discuss water rights and your potential interest in water conservation efforts in the Puyallup-White River basin. You may be reach me at the contact information below.

Sincerely,

First Name Last Name
Project Sponsor Organization
Address
Email
Phone

Attachment 7: Sample Letter of Intent

LETTER OF INTENT

Date

This letter documents intent (this "LETTER OF INTENT") by the signatory (the "PROPERTY OWNER") to work exclusively with PROJECT SPONSOR for the purpose of negotiating an agreement to (proposed project)

This agreement is hereby entered into as of _____ (the "EFFECTIVE DATE").

The names, address, telephone and fax numbers of the parties to this LETTER OF INTENT are as follows

PROPERTY OWNER Representative Address Phone number	PROJECT SPONSOR Representative Address Phone number

The PROPERTY OWNER hereby acknowledges the intent to continue in good faith negotiations from the EFFECTIVE DATE, for the express purpose of developing a mutually acceptable Project as generally described in the proposal entitled **"Title"** (the "PROPOSAL"), as more particularly described on Exhibit A, attached hereto and incorporated herein by this reference, for a period of not more than one hundred eighty (180) days (the "EXCLUSIVE NEGOTIATING PERIOD"). The PROPERTY OWNER further acknowledges that it will not enter into negotiations with other entities for the sale, lease, or other transaction associated with the water right identified above during the EXCLUSIVE NEGOTIATING PERIOD.

This LETTER OF INTENT is not binding and is not an offer, but is only an expression of some aspects of the PROPOSAL. Any or all of the terms of this LETTER OF INTENT, including the PROPOSAL may be reversed, modified or clarified by the PROPERTY OWNER or PROJECT SPONSOR through the negotiation of an agreement to effectuate the details of the PROPOSAL (the "AGREEMENT"). In the event the PROPERTY OWNER and WWT wish to enter into the AGREEMENT, this LETTER OF INTENT shall be superseded and replaced by the AGREEMENT.

[*Signatures to follow*]

PROPERTY OWNER:

By: _____ Date: _____

Name: _____

Its: _____

PROJECT SPONSOR:

By: _____ Date: _____

Name:_____ _____

Attachment 8: Additional Resources

ADDITIONAL RESOURCES

Water Rights FAQ

https://ecology.wa.gov/Water-Shorelines/Water-supply/Water-rights

Landowners Guide to Water Rights

https://appswr.ecology.wa.gov/docs/WaterRights/wrwebpdf/landownerguide-2019.pdf

Sufficient Causes for Non-Use

https://app.leg.wa.gov/RCW/default.aspx?Cite=90.14.140

DETERMINING IRRIGATION EFFICIENCY AND CONSUMPTIVE USE-Guidance 1210-Ecology

https://appswr.ecology.wa.gov/docs/WaterRights/wrwebpdf/guid1210.pdf

Washington Irrigation Guide-Appendix A

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_033608.pdf