

The Dungeness Valley features an extensive network of approximately 170 miles of irrigation canals and ditches that divert water from the Dungeness River. [1]

https://www.google.com/search?q=irrigation+channel+dungeness+river&gs_lcrp=EgZjaHJvbWUqBwgBECEYoAEyBggAEEUYOTIHCAEQIRigATIHCAIQIRigATIHCAHQIRigATIHCAUQIRigAdIBCTEzNTkzajBqN6gCALACAA&sourceid=chrome&ie=UTF-8&fbs=ABfTbFVyMZGZf1hfvX9uKjN_-G8c4u0nXx4bElpwm1lnNH832VstEKsVDqPorK0Gahnm2nq-aQnTz_mBV-EZYISbLc-S3LQBbMYAGT8xXTqdTxRg04zS3ruzpNYXVbY3kOqiLf6gKylA7jMY8dv-DKwlq8XO-j9YgEsc_f9qCQ4UXKY-MZO-2wWpO890Tbtf-c6wiTAE-vmgl8zGrzut_8wSdcJdmKLnBw&aep=10&ntc=1&sxsrf=APpeQnvLSR5HAzvpDIWu9m_Bc-CBAaGjRg%3A1789323318246&mstk=AUTExfBb18UTE88A0n5PryqM0D2bCe2qhMMbj7OSdJ5emHtfOmBmfRauClaDbV_kcK_3vPXBAYfBpW86mO9VbVJHCYUcwaEVZo4MgGFDf5NjY0jD17Jo6nEpKZ03L-0oIN1mhhwaV6A1BuZo1FgH8flgzYq0pNP5LKGgbJgMHEQs37KTYdy_ehaL_shwunOhvwgiolP9AcVB7ASMdfWqW6uFy5YEFXFXjvIKH7GwGT5b5sTZnHOYYrAmQkfU685iT4W5isgAthF88ahMAVNPfMVZra0D1dq76mC1rCK9aNCVQLXsjGJABggRMQFqLO2gweNsEAX8sA9cbcmdXg&aioh=3&csuir=1&cs=0&udm=50&atvm=2&mtid=lemmauPWKfyC0PEP4d2_-AU&zx=1789323672361

Overview of the Irrigation System

- **History:** Built beginning in 1895–1896, the original Sequim Prairie Ditch and subsequent channels brought agricultural water to the arid Sequim-Dungeness rain shadow region. [1, 2, 3]
- **Districts:** Major entities managing these water rights and infrastructure include the [Dungeness Irrigation District](#), Agnew Irrigation District, and Highland Irrigation District. [1, 2]
- **Impact:** Historically, diversions took up to 80% of the river's flow during late-summer peak irrigation and salmon spawning periods. [1, 2]

Modern Conservation and Management

- **Flow Rules:** Regulations state that no more than 50% of the Dungeness River's flow can be diverted, protecting a minimum instream flow. [1, 2]
- **Piping Projects:** Open dirt and gravel ditches are progressively being replaced with pipelines by local groups like the [Clallam Conservation District](#) to reduce water loss from seepage and evaporation. [1, 2]
- **Off-Channel Reservoir:** Partners are advancing the [Dungeness Off-Channel Reservoir](#) to store winter/spring water and ease summer withdrawal pressures on endangered salmon. [1, 2]

The 170-mile irrigation network spans the entire Sequim-Dungeness Valley, drawing from the Dungeness River and spreading north, east, and west toward the Strait of Juan de Fuca. [1]

You can view the exact geographic lines via the official [Dungeness Irrigation Network Map](#) hosted by the [Clallam Conservation District](#). [1, 2]

Primary Main Canal & Intake Locations

The main headgates divert water directly from the Dungeness River, moving outward across distinct operational zones:

- **Highland Irrigation District:** Located furthest upstream on the west side of the river. This system services the higher-elevation benches south of Sequim. [1]
- **Agnew Irrigation District:** Positioned primarily on the west side of the Dungeness River, servicing the farmlands stretching west toward Port Angeles. [1]
- **Sequim Prairie Tri-Irrigation Association (SPTIA):** Operates the historic main ditch flowing east from the river. It cuts directly south of U.S. Highway 101, passes north behind the Sequim Walmart, travels through the Jennie's Meadow development, and heads east toward 5th Avenue.

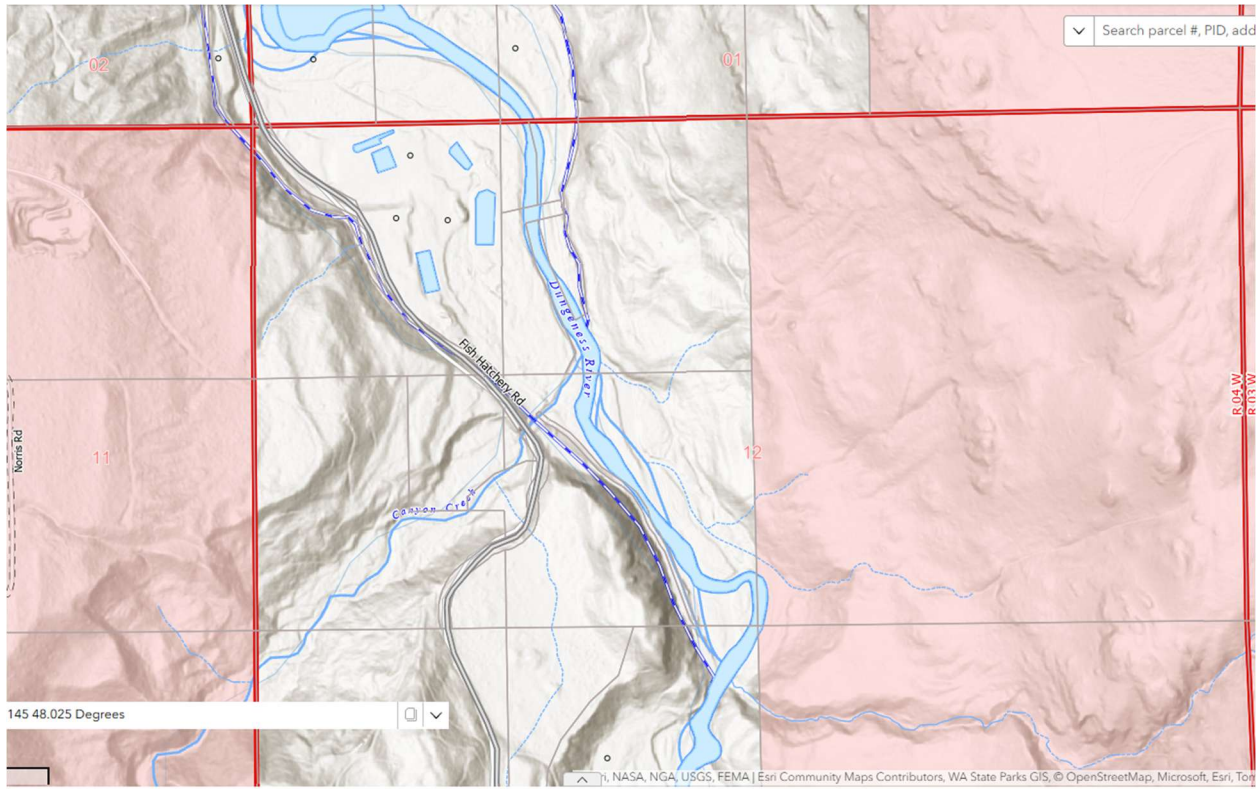
[1, 2]

- **Independent Irrigation / Eureka Canals:** Branch off the east side of the river, flowing through the Jamestown S'Klallam Tribe's Healing Campus and running parallel behind Washington Street. [1]
- **Cline & Dungeness Districts:** Route water toward the lower valley, pushing north into the flatlands approaching the Dungeness Spit. [1]

Key Public Landmarks

While much of the system runs through private agricultural easements, you can easily cross or spot historic segments at these spots:

- **The Sequim Prairie Ditch Crossing:** The historic 1895 ditch crosses directly under the prominent "bump" in the road on **Priest Road**, just east of [Railroad Bridge Park](#).
- **The New Reservoir Site:** You can track the current construction lines for the upcoming [Dungeness Off-Channel Reservoir Map](#), located just off **River Road** and **Happy Valley Road**. This marks where winter runoff will be held before distribution. [1, 2]



<https://clallam-county-portal-clallam.hub.arcgis.com/apps/23bbb33c10b24b4c8706e89ae98f7add/explore>

Remarks:

There seem to be two irrigation diversion points on the river, both of them by the fish hatchery. The first one is upstream from the hatchery, marked by a tell-tale building.



The second irrigation diversion site is a little upstream from the fish hatchery to the east and diverts water to the Sequim side of the irrigation district, so its flow has to be fairly significant. This diversion is not well shown on Google maps. This bears some visual investigation, as much as possible.



The Off-Channel reservoir seems to be very unhappily located, right on the edge of the residential region, underneath the powerlines. As Tony thinks, this project is most likely doomed.

<https://www.clallamcountywa.gov/1767/Dungeness-Off-Channel-Reservoir-Design>

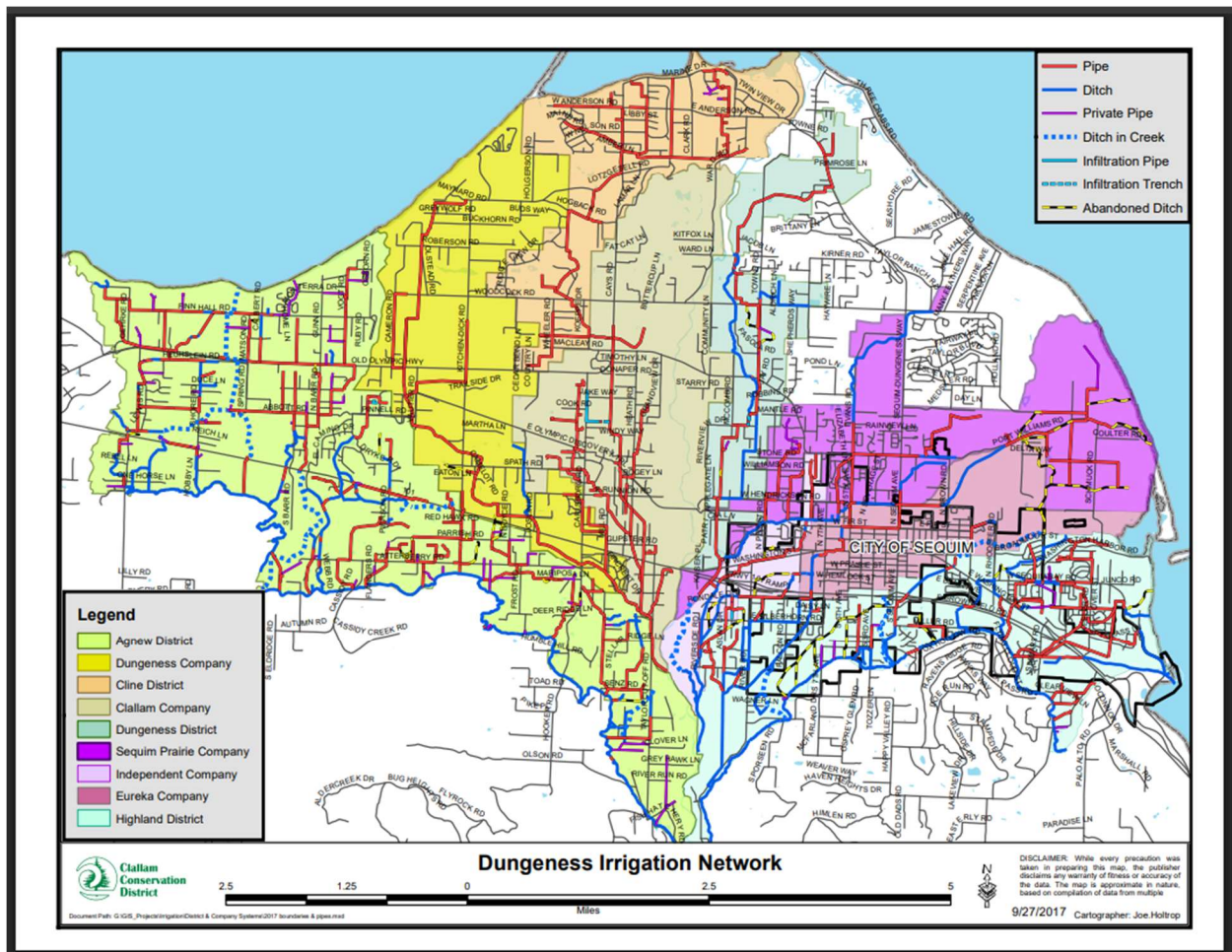
<https://www.clallamcountywa.gov/188/Dungeness-Off-Channel-Reservoir-Project>

Dungeness Multi-Benefit Off-Channel Reservoir Project



Low flow in the Dungeness River is a significant limiting factor for four ESA-listed species of Salmon and

As for the irrigation districts themselves, we have a fortunate situation: The county GIS shows the irrigation network in full detail. The map provided by the sequimirrigation.com site is incomplete, leaving out the river diversion points. But it shows a very extensive system of irrigation lines all over Sequim area, as well as the Carlsborg and down-land areas toward the Strait. This looks like an extensive line of irrigation ditches and lines. This could be used fairly easily for aquifer recharge. And this idea seems to be emphatically opposed by the irrigators! Oh shit!



I'll bet this method of aquifer recharge would be a lot cheaper, less intrusive and more effective than the off-channel reservoir.

<https://clallam-county-portal-clallam.hub.arcgis.com/apps/23bbb33c10b24b4c8706e89ae98f7add/explore>

<https://static1.squarespace.com/static/52a1fa6fe4b0b2685d1ec5f9/t/5a0c79589140b7e76ce970b5/1510766938862/Dungeness+Irrigation+Network+2017.pdf>

<https://www.sequimirrigation.com/>

file:///C:/Users/owl_w/OneDrive/Documents/Sequim%20Beacon/PPF%20Stuff/offchannel%20reservoir%20map.pdf

<https://www.clallamcountywa.gov/DocumentCenter/View/19849/Reservoir-Overview-Map>

More questions:

1. How much water is presently being diverted by the irrigation systems? Do we have access to the data?

2. OK, the big question here is: Just the river: how much water is required for a. irrigation, b. city of Sequim and c. salmon runs. Furthermore, how much water is needed for adequate aquifer recharge in the entire area?

Hydrogeology – Aquifer Assessment and Trends – Very important for aquifer use in the Dungeness-Sequim area.

About the hydrogeologic assessment of the Sequim-Dungeness area, Clallam County
This has valuable aquifer information, although this study is more than 26 years old

<https://www.usgs.gov/publications/hydrogeologic-assessment-sequim-dungeness-area-clallam-county-washington>

<https://pubs.usgs.gov/wri/1999/4048/report.pdf>

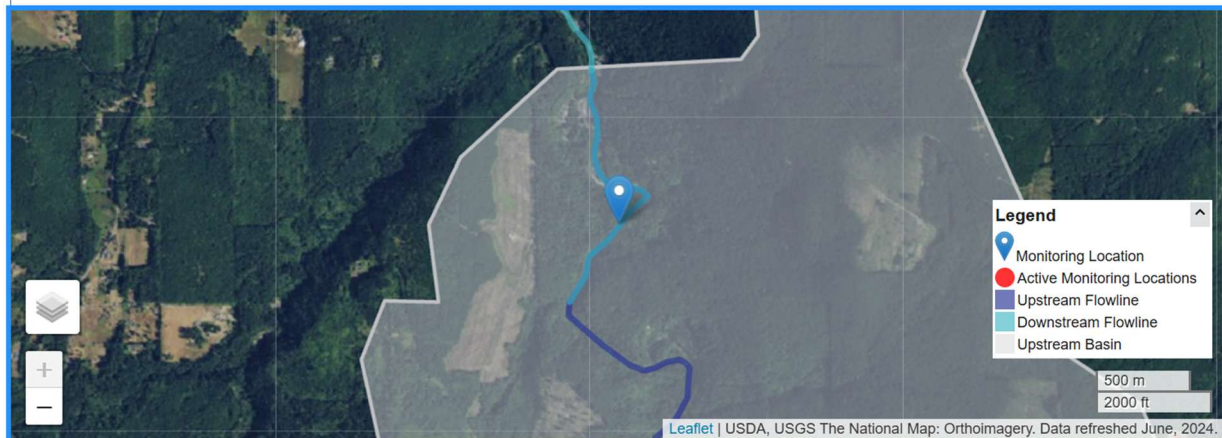
<https://clallamcountywa.gov/DocumentCenter/View/5596/City-of-Sequim-2001-Hydrologic-Monitoring-Report-Pacific-Groundwater-Group-2002-PDF>

OK, the USGS flow monitoring station is located here:



[View these locations in My Favorites](#)

[Use Explore USGS Water Data to discover additional data near this location](#)



Interested in understanding how to access the upstream data? Visit the [Network-Linked Data Index \(NLDI\)](#).

This location appears to be above the fish hatchery and the irrigation diversion ditches. The water data presented represents water flow from levels higher up in the mountains and does NOT reflect any irrigation diversion or lowland urban area effects. Any data collected here reflects conditions in higher elevations including aquifer inflow and snowpack, as well as rainfall runoff.

<https://waterdata.usgs.gov/monitoring-location/USGS-12048000/#dataTypeId=continuous-00060-0&period=P30D&showFieldMeasurements=true&showMedian=true>

I suspect the CFS data is a calculation from gauge height and cross section estimates.