

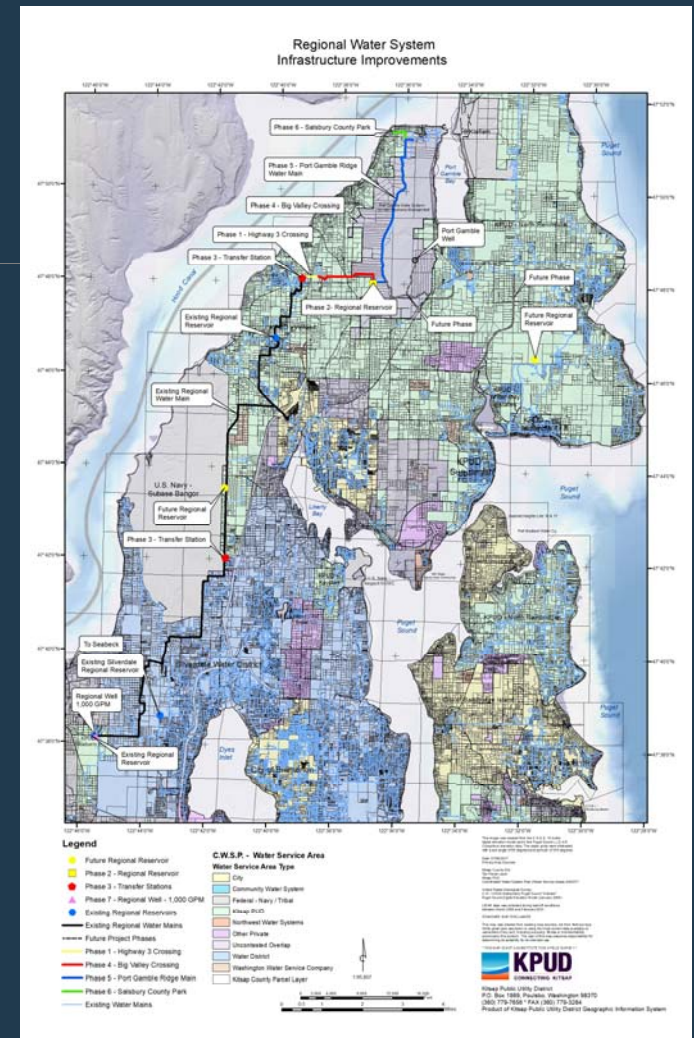
KITSAP PUBLIC UTILITY DISTRICT BROADBAND UTILITY

**PORT OF BREMERTON UPDATE
FEBRUARY 25, 2020**

Kitsap Public Utility District

STRENGTHENING KITSAP COMMUNITIES THROUGH
RESPONSIVE AND SUSTAINABLE UTILTY SERVICES

- Water Resource Management
 - All of Kitsap County
- Water Operations
 - Serving 16,000 customers
- Broadband services
 - Business Customers – 365
 - Residential Customers - 475



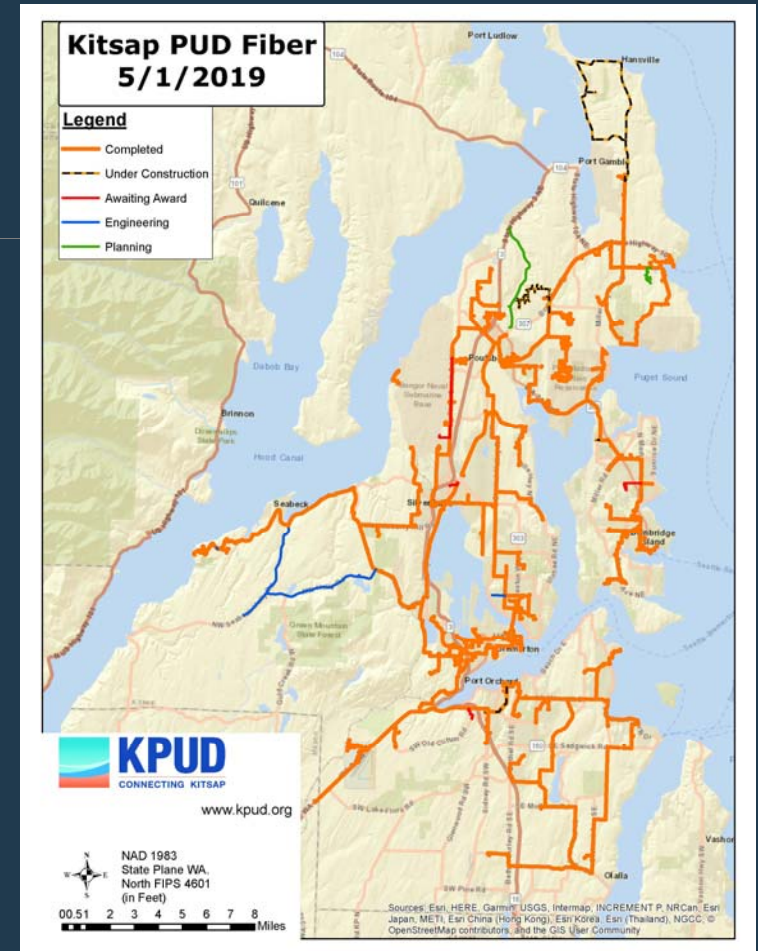
PUDs in Telecommunications

- In the early 1990s PUDs saw a need to provide telecommunications services to rural areas of the state.
 - If private enterprise is not providing adequate levels of service, particularly to rural portions of the state, then the public should avail themselves of the opportunity to utilize special purpose utility districts (PUDs) to provide such services.
- In 2000, the Washington State Legislature granted PUDs the authority to offer wholesale telecommunications services (RCW 54.16.330).
 - The statute prohibited public utility districts from providing telecommunications services to end users (“retail telecom”).
 - Conditional Retail Telecommunications Authority was granted in 2018 – if no “quality” Retail Service Providers available
- PUDs invested over \$1 Billion in telecommunications infrastructure in Washington State
 - Including NoaNet
 - Connecting Anchor Institutions throughout the State

Kitsap PUD - Telecom

- KPUD telecom utility was created using long term bonds
 - Built a figure 8 backbone infrastructure in Kitsap County
 - Connecting Schools, Libraries and other Anchor institutions
- Carrier transport, Kitsap Naval Bases, Cell Tower backhaul, Small business customers

Committed to maintaining a community owned, high-speed, open-access, Fiber Optic Network



What is Broadband?

- **In telecommunications, broadband is wide bandwidth data transmission which transports multiple signals and traffic types.** The medium can be coaxial cable, optical fiber, radio or twisted pair (telephone lines). In the context of Internet access , broadband is used to mean any high-speed Internet access that is always on and faster than dial-up access over traditional analog or ISDN PSTN services. – Wikipedia
- FCC Defines Broadband as Internet Access of speed greater than or equal to 25Mbps Download and 3Mbps upload.

Kitsap PUD – Express Services

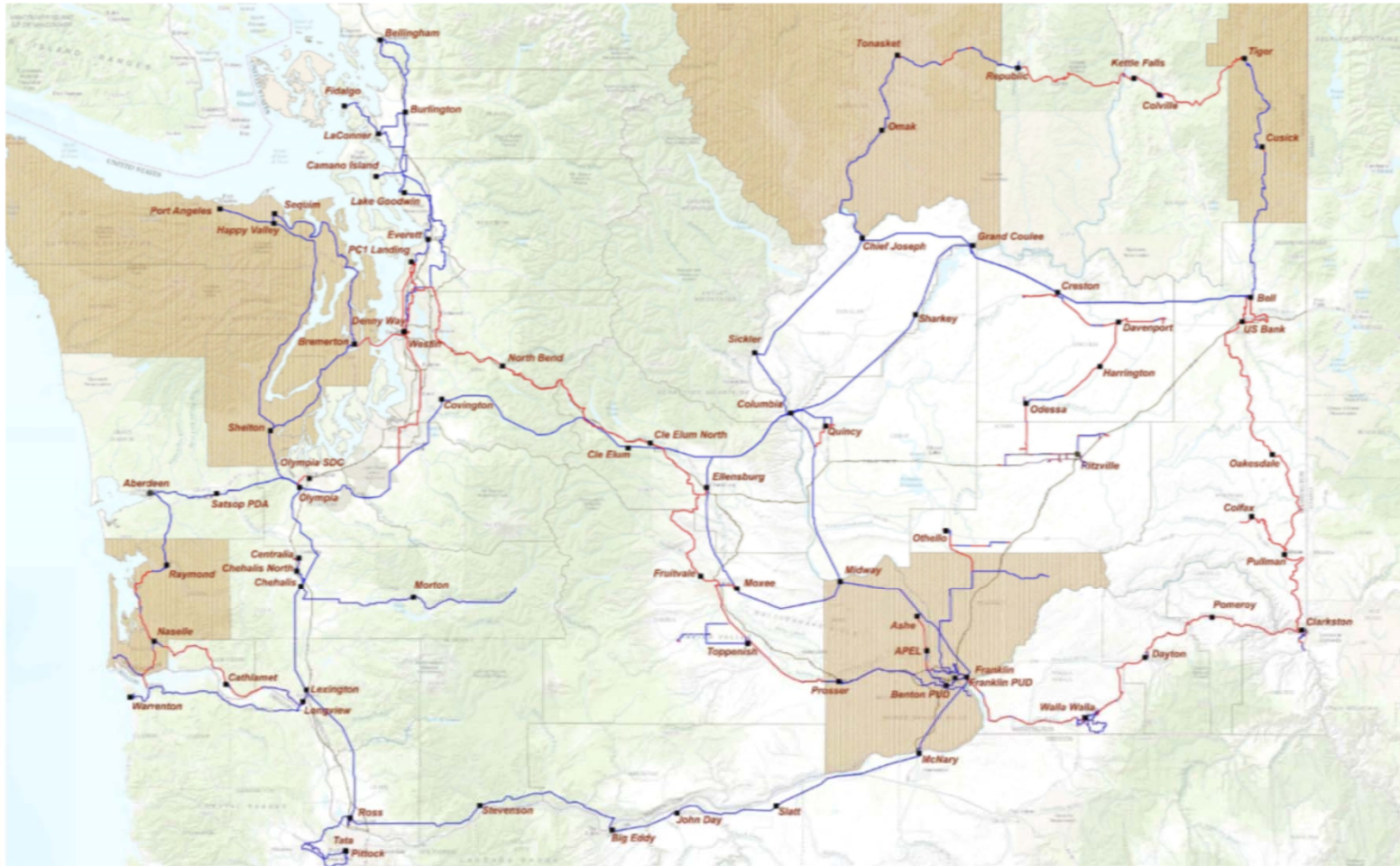
- Kitsap PUD is currently providing 10Mbps to 100Gbps services across the county.
 - Ethernet and Wave Length services
- Kitsap PUD is experienced in providing services that require a high degree of reliability and redundancy
 - Cellular backhaul
 - Enhanced 911 data transport to Public Safety Answering Points in Kitsap County
 - Carrier and cable television data transport
- Public Private partnerships are the mechanism through how Kitsap PUD has grown the network to serve the community.
 - All expansions are driven by customer or end user need.
- Northwest Open Access Network (NoaNet) partners with Kitsap PUD to provide businesses in the County connections to sites throughout the State and beyond.



NoaNet 20 Years

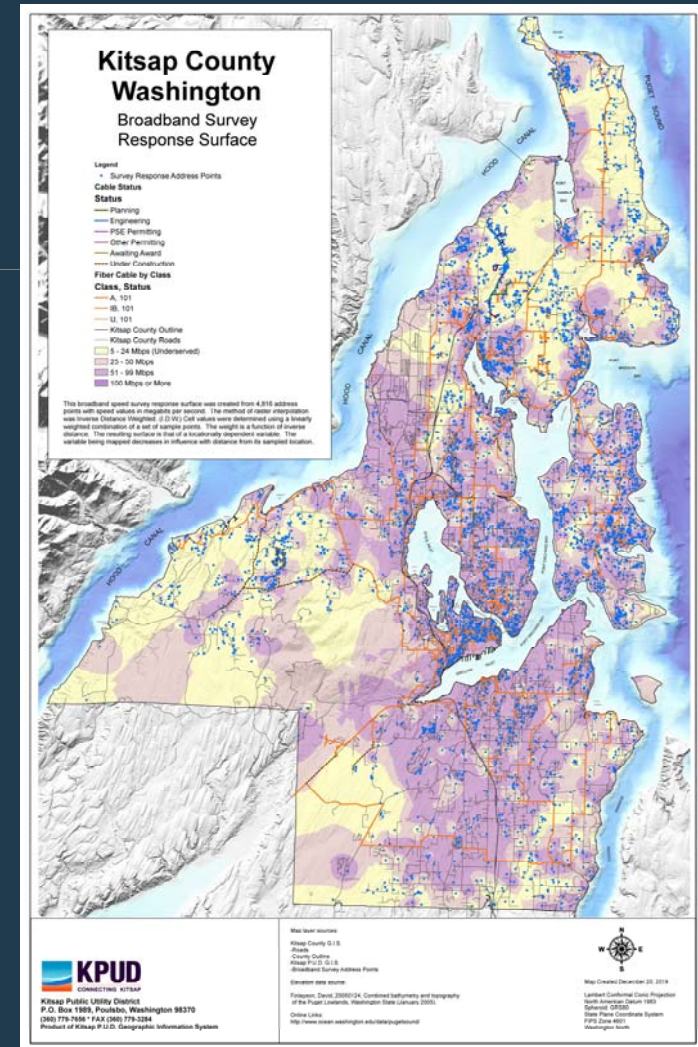


- Connections to every county in the state using NoaNet, PUD, BPA and privately owned fiber.
- Virtually all Anchor institutions in the state have access to broadband services through NoaNet and it's partners.
- NoaNet currently employees 59 staff members, many of whom work remotely from their homes in rural areas of the Northwest.
- Network Operation Center (NOC) is located in the US Bank Building in Spokane
 - Provide network monitoring
 - 24/7/365
- Underlying Service provider for many state agencies, cellular companies, ng911, and other large carriers.



Residential Fiber Expansion

- 2015 Launched the COS Service Zones as a Survey tool for the county.
- 2016 Installed distribution cabinets and established the residential network – separate from the express network
 - Operate an Active Ethernet Solution
- 2019 Goal to provide service to 1000 residents
- Middle Mile Expansion
 - Over 25 miles planned in 2019
 - Reach areas of unserved or underserved residents
 - Yellow areas on Heat Map



Broadband Access for Kitsap County

- High Speed and Quality Network to provide Kitsap County Residents Access to Broadband Services
- All Fiber Network
 - Provide a 'future proof' solution for residents in unserved or underserved areas
- KPUD is Wholesale only operating an Open Access Network
 - Multiple service providers and services to choose from
 - Competition drives better pricing and services
- All Residences are installed with equipment to provide a 1 Gbps connection
 - Upload and Download speeds are symmetrical
- Can upgrade in the future (10Gbps or higher) with an exchange of Equipment only
- We may not be the least expensive solution for Broadband

Connection Costs

- Base connection fee is \$2,200 plus tax
 - Includes All Equipment, fiber from the connection point to the residence up to 1000', power feed, conduit if application, distribution port in cabinet, and other appurtenances for operations
 - If Construction or distances greater than 1000', additional charges are added
 - Average connection fee \$7,000
- Maintenance and Operations
 - Wholesale only network
 - Monthly Rates include
 - Monitoring, Repair and Replacement, Maintenance, Engineering, addition of the 'object' to our Business Engine Software
- We do not extend beyond the Customer Premises Equipment or CPE
 - Retail Service Provider or Residents responsibility within the residence

Legislative Changes in 2018

- Retail Restrictions left Kitsap Residents at Risk
 - High costs for extension of fiber
 - No service provider could be available
- Kitsap PUD worked with our legislators to modify the authorities
 - Retail telecommunications services would be allowed in cases where no “quality” service provider was available
- Service Level Agreement
 - Speeds – 75% of what is advertised at all times
 - Network Availability – 99.99%
 - Net Neutral Network
 - Personal Data is not sold

Local Utility District - LUD

- LUD is a financing mechanism for a group of homeowners to pay construction costs for public utility improvements over a period of time.
- For Kitsap PUD, construction costs are financed for 20 years by a lien placed against the property which is billed annually through assessments by the Kitsap County Treasurer's Office.
 - Value of assessment is less than or equal to the increase value of the property
 - Community pays the same assessment for each lot.
- Community Petitions the PUD to form the LUD and build the infrastructure.
 - 50% +1 of the home owner in the area – The PUD must act
 - Form the LUD if it is financially feasible
- Kitsap PUD communicates with surrounding property owners to notify of the project and opportunity to participate.

Non-Contiguous LUD

- A Local Utility District made up of single properties that are non-contiguous.
- Each property owner assessed the amount of their project only
 - Differing from the Traditional LUD
- Participants waive their right to protest the formation of the NCLUD
 - Formation and Finalization hearings are held at the same time
- Makes installations costs manageable for residents
 - \$2,498 Fee (\$2,200 Plus Tax Plus \$100 participation fee) at 4.5% Interest
 - Average monthly cost \$15.32 or nearly \$20/mo first year and \$10/mo the last year

Current Challenges

- Residential
 - Monthly charges can still be a hurdle for broadband access
 - Support lifeline funds to PUDs providing open access services
 - Middle Mile fiber expansion limited by funds
 - Increase in access to grants to extend open access middle mile fiber
 - Education on what services Kitsap PUD is providing
- Express
 - Current Legislation provides a back stop in the case of no service provider
 - Still cannot qualify as a CLEC because of retail restriction
 - No access to USF funds
 - Cannot be an eRate provider and therefore have no control of what is bid
 - Fiber is currently being overbuilt by private providers who are using eRate funds
 - Education on what services Kitsap PUD is providing

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