

Geography of Deception: How GIS Exposes Fraud Patterns

Joanne Pearson, Washington Geographic Information Officer

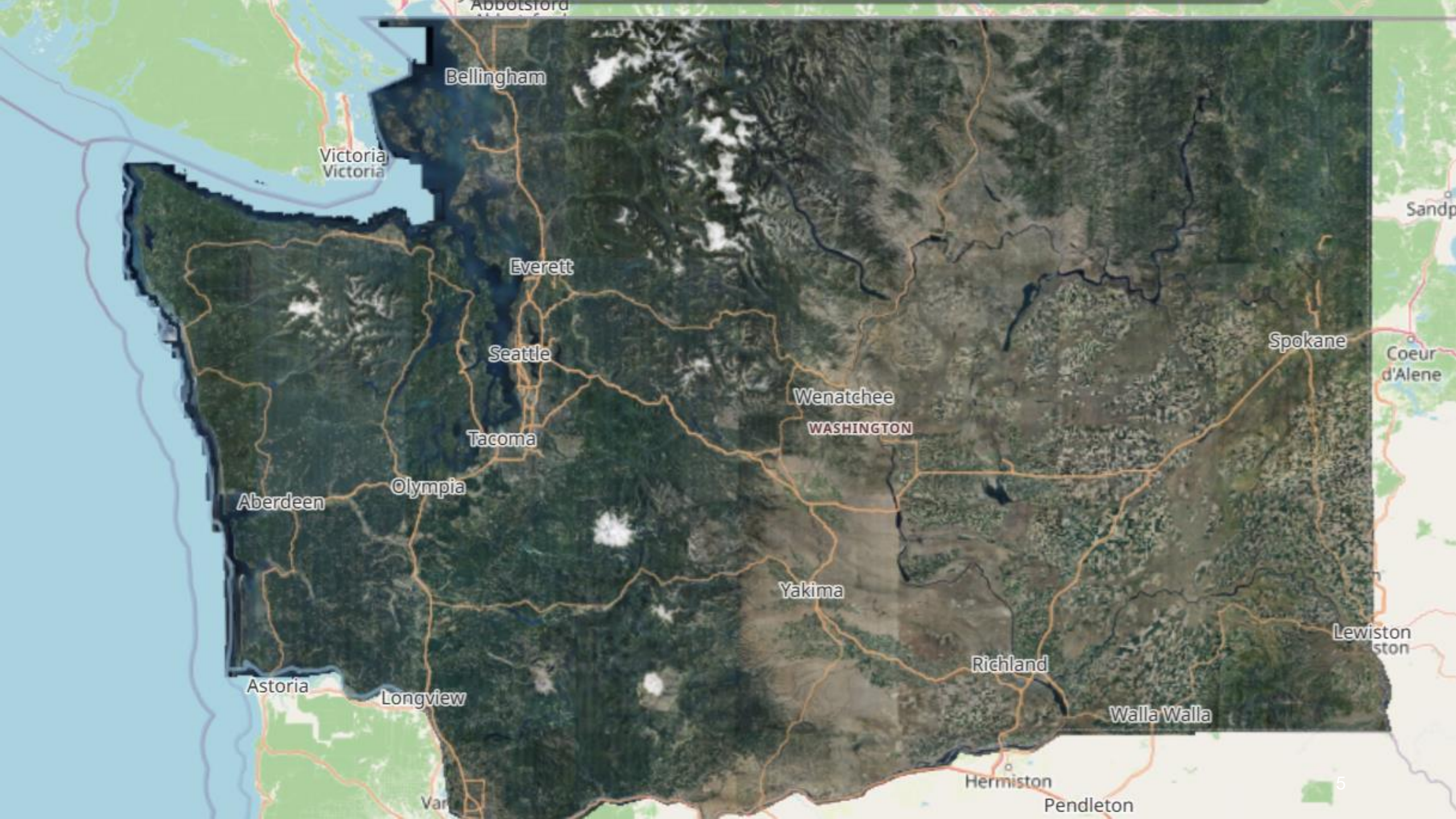
Katy Ruckle, Washington Chief Privacy Officer

A little about me



**Geography is
very personal.**





Bellingham

Victoria
Victoria

Everett

Seattle

Tacoma

Wenatchee

WASHINGTON

Spokane

Coeur
d'Alene

Aberdeen

Olympia

Yakima

Lewiston
ston

Astoria

Longview

Richland

Walla Walla

Hermiston

Pendleton

5



Critical Evacuation Impact

WA SEOC //

CRITICAL

EVACUATION

IMPACT

LEVE

L 3 -

GO

HIGHEST IMPACT AT

CURRENT EVACUATION

LEVEL

CHELAN

COUNTY

ASSOCIATE

D

WILDFIRE

NEAREST

MAJOR

INCIDENT

LITTLE

GIANT

DAILY

ACRES

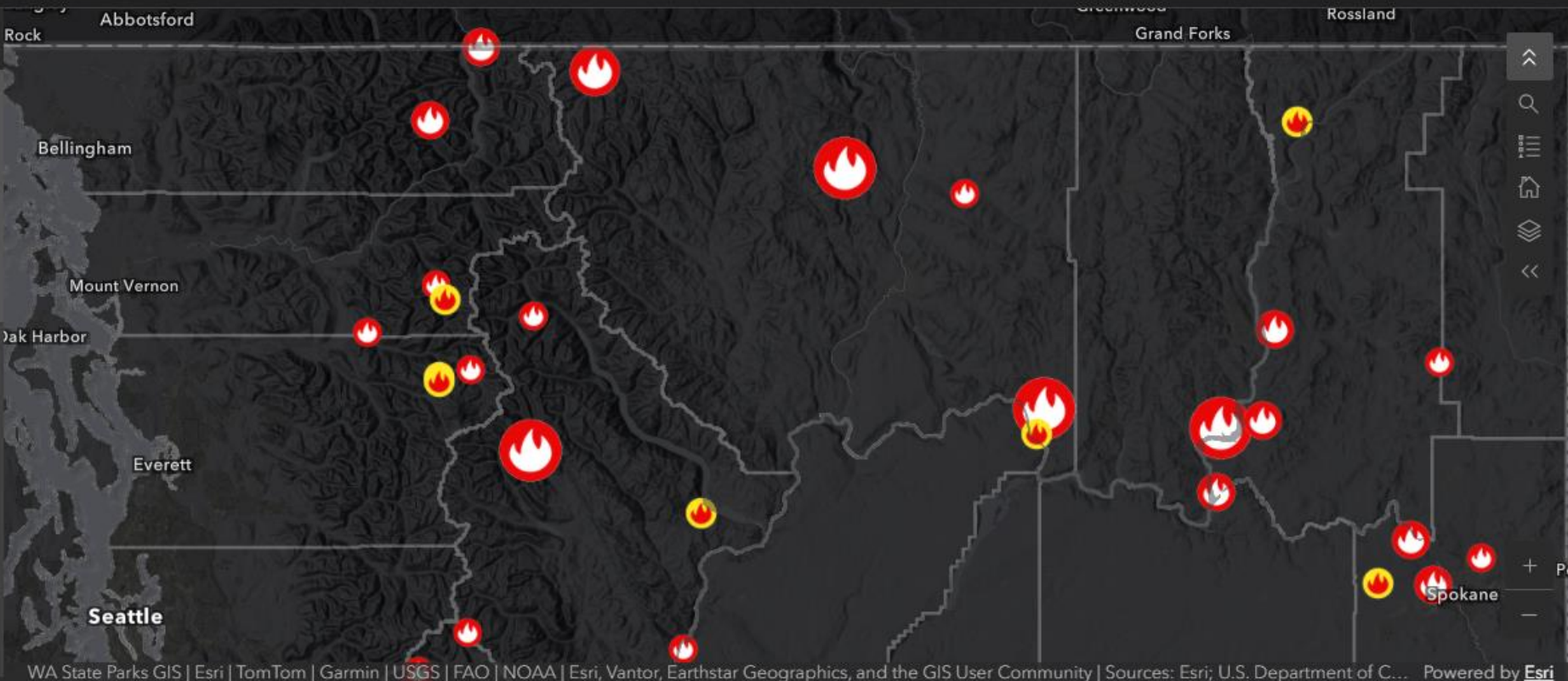
135,

DISTANC

E TO

IMPACT

ZONE



Statewide Evacuation Impact

22

ZONES

IMPACTED

Share of statewide

GO // 2,274 OF 7,

20

ZONES

IMPACTED

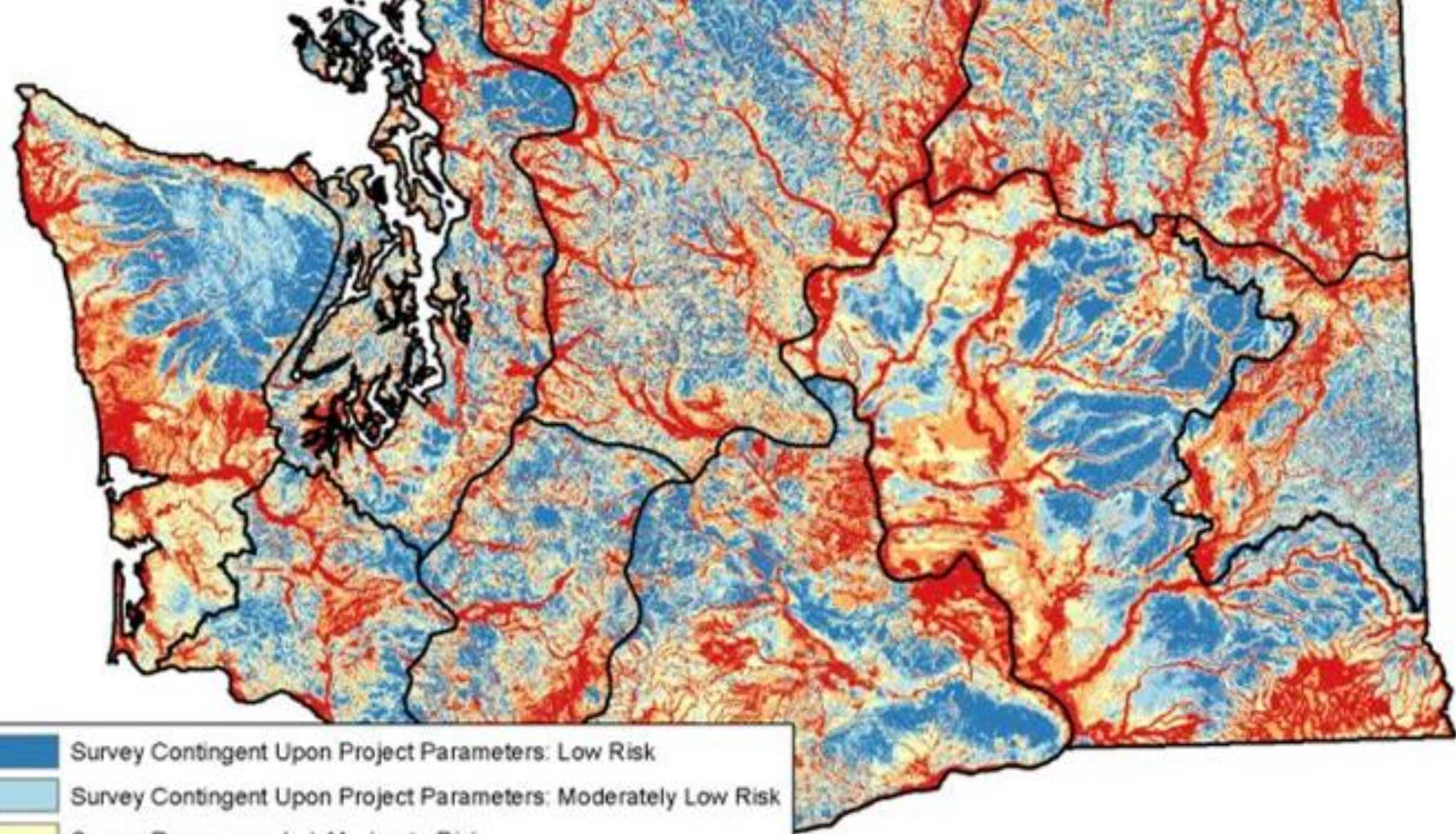
Share of statewide

BE SET // 1,369 O

Fire	County	Report Date	Evacuation Level	Residential Structures	Non-Residential Structu...	Other Structures	Estimated Per Resid
CR - HIGHWAY	Chelan	08/17/2026	Level 1 - Ready	0	18	159	3.50
Hagen	Columbia	08/17/2026	Level 1 - Ready	0	0	15	3.50
Hagen	Walla Walla	08/17/2026	Level 2 - Be Set	0	0	6	3.50
Kaiser Canyon	Ferry / Okanogan	08/17/2026	Level 1 - Ready	414	17	537	3.50
Kaiser Canyon	Ferry / None / Okanogan	08/17/2026	Level 2 - Be Set	9	2	33	3.50
Kaiser Canyon	Okanogan	08/17/2026	Level 3 - Go	0	0	2	3.50

Exemptions for In-home Caregivers and Client Data

- RCW 42.56.640 - defines sensitive personal information to include names, addresses, GPS coordinates, telephone numbers, email addresses, and other identifying information.
- It exempts such information for specified vulnerable individuals and in-home caregivers serving vulnerable populations.
- This is especially relevant to government databases containing geocoded home addresses or coordinates that can be associated with protected individuals.



Exemptions to Protect Employee Data

- GPS data revealing public employee or volunteer residences
- RCW 42.56.250(1)(j):
- Exempts the specified GPS information from public records disclosure.
- GPS data revealing criminal justice worker residences
- RCW 42.56.240(13):
- Exempts the specified GPS information from public records disclosure.

Geography of deception



Insurance Claims Example



Usage-based insurance – RCW 48.18.600

- This statute directly restricts the collection of location information for usage-based motor vehicle insurance.
- An insurer may not collect location data without disclosing that the data is being collected and obtaining the insured's consent.
- The statute also limits the use, retention, and third-party disclosure of individually identifiable information collected through covered recording devices.
- This is a legislative example of requiring affirmative consent before collecting location information, rather than simply restricting disclosure afterward.

Tracking Vehicles Example



Automated license plate readers – New 2026 restrictions

- **RCW 10.130.020 – GPS and location data** The law expressly includes GPS coordinates, location, date, time, vehicle identification, and related information within its definition of automated license plate reader data.
- **RCW 10.130.030 – Authorized use** Government agencies may use automated license plate reader systems only for specified statutory purposes.
- The statute also places restrictions on collection involving certain sensitive facilities and locations, including health care facilities, schools, places of worship, courts, and food banks. The precise restrictions and exceptions depend on the subsection and intended use.
- **RCW 10.130.040 – Data retention** The default maximum retention period is 21 days, with specific exceptions for criminal or civil proceedings, parking enforcement, traffic studies, commercial vehicle systems, and certain evidentiary purposes.

Automated license plate readers - Prohibitions

RCW 10.130.050 – Prohibited practices

- Sharing or providing unauthorized access to collected information.
- Selling, leasing, renting, or purchasing ALPR data.
- Government access to privately held license plate reader data without a qualifying warrant.
- Public disclosure of covered license plate reader data, subject to a limited research exception.
- Vendor access and secondary transfers.
- The law also requires technical protections to prevent unauthorized vendor sharing and access.

Unlike Public Records Act exemptions, this law regulates the entire location-data lifecycle, including collection, authorized purposes, retention, access, third-party sharing, and enforcement.

Billing Discrepancies



WA My Health My Data Act Definitions (RCW 19.373.010)

- **Geofence:** Technology that uses GPS coordinates, cellular connectivity, Wi-Fi, radio frequency identification, or other spatial detection mechanisms to create a virtual boundary. The statutory definition specifies a boundary extending no more than 2,000 feet from a physical location's perimeter.
- **Precise location information:** Information derived from GPS coordinates or other technologies that identifies an individual's specific location within a radius of 1,750 feet.
- These definitions are important because they recognize that sensitive location data can be collected through technologies other than GPS, including wireless networks and cellular systems.
- The act also protects certain precise location data capable of revealing an individual's attempt to obtain health care. Its collection, sharing, security, and deletion provisions are relevant in addition to the explicit geofencing prohibition.

WA My Health My Data Act – Geofencing restrictions

- RCW 19.373.080
- Makes it unlawful to implement a geofence around an entity providing in-person health care services when the geofence is used to:
- Identify or track consumers seeking health care services.
- Collect consumer health data.
- Send notifications, messages, or advertising related to consumers' health information or health care services.

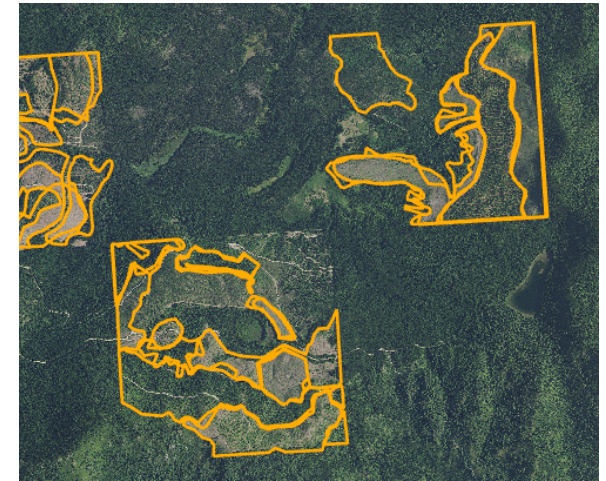
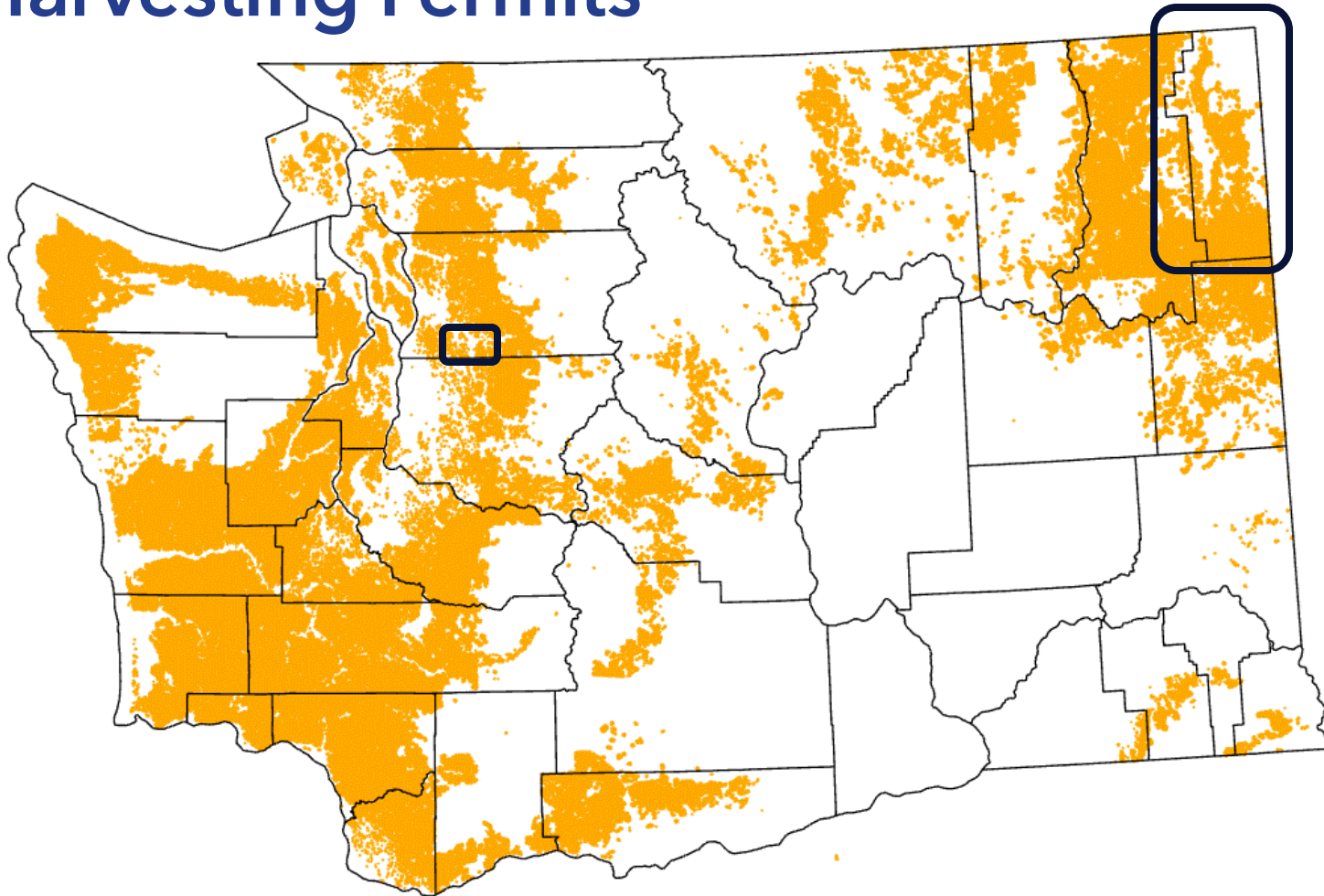


This is a direct restriction on the use of location-based technology.

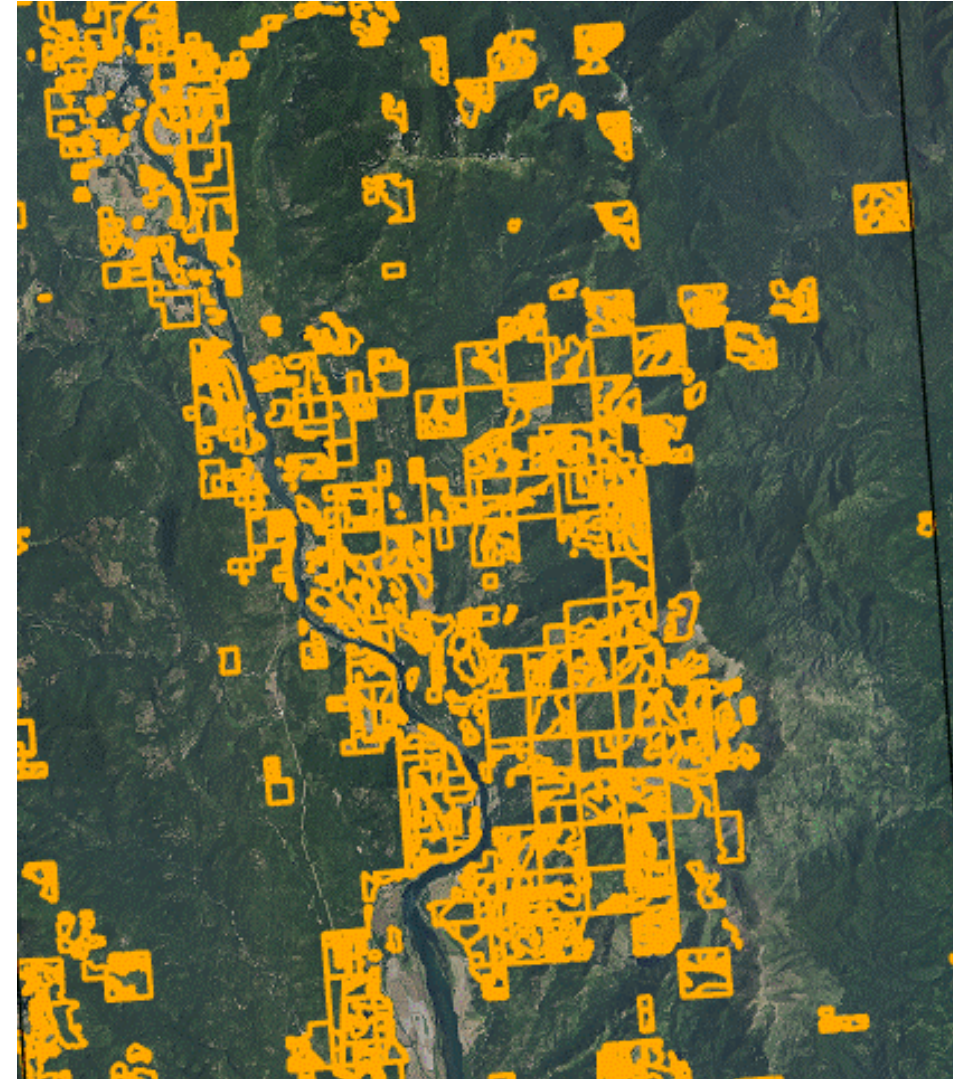
Unpermitted Logging Activities



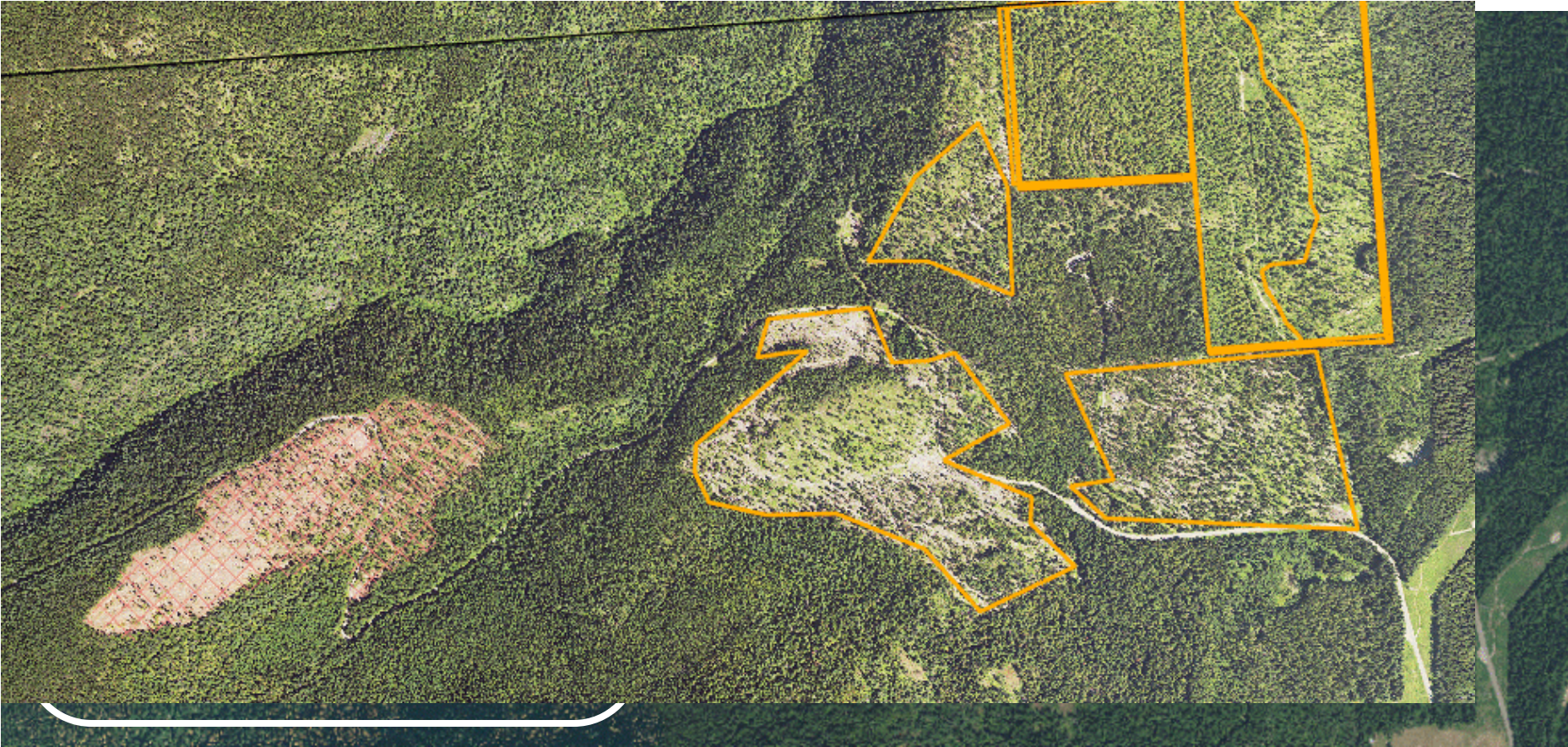
Harvesting Permits



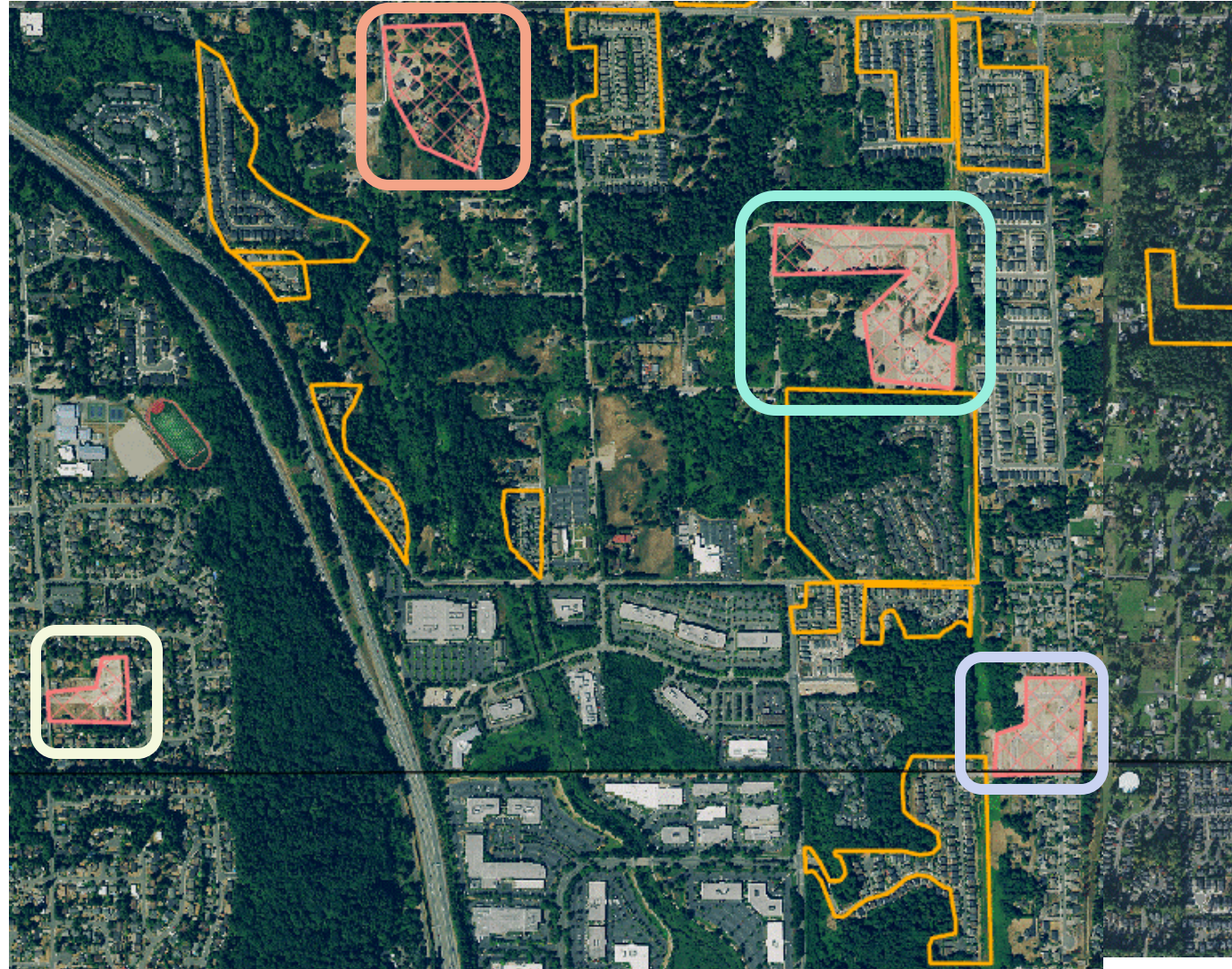
Harvesting Permits Pend Oreille County

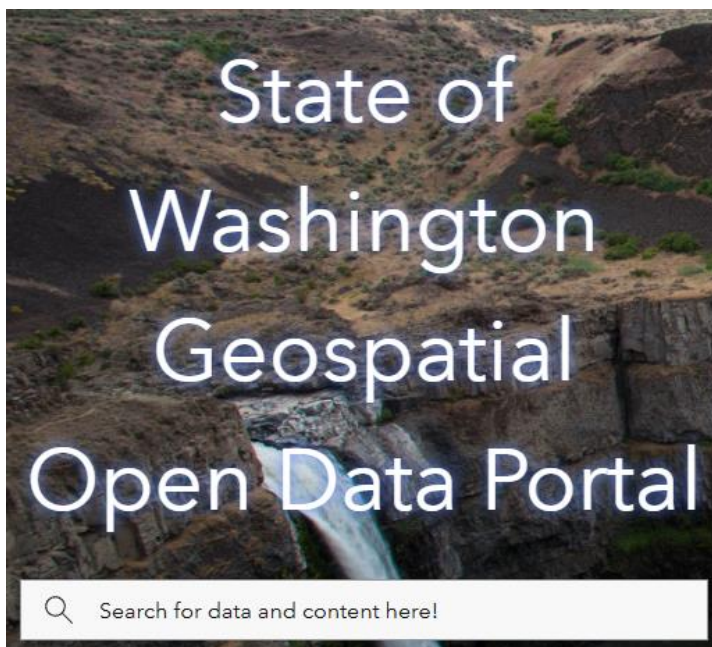






Suburban area





Washington's statewide Geoportals share maps, spatial data, imagery, and location-based insight. They give agencies a central place to access and share high quality geospatial information for planning, operations, and response.

COMMON USE CASES

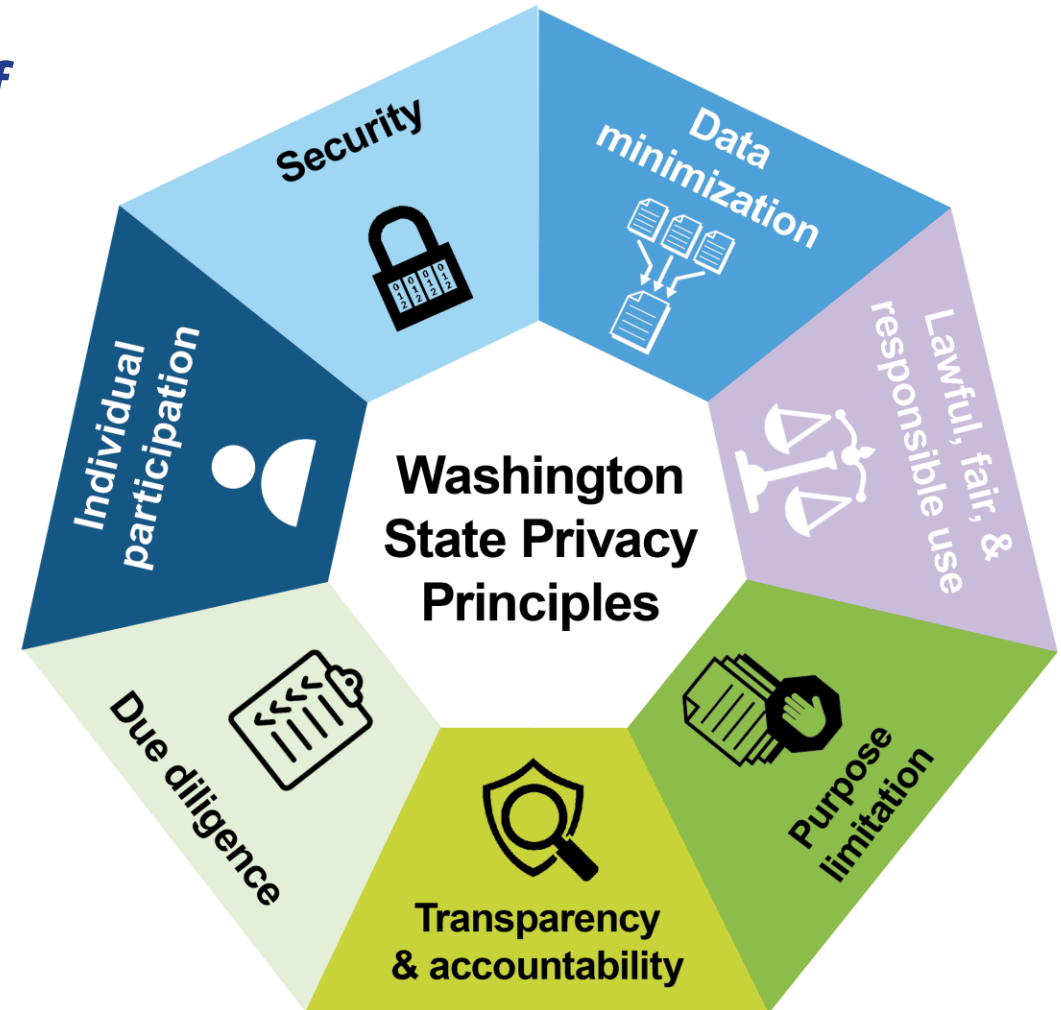
- Emergency response and real time situational awareness
- Transportation, land use, and infrastructure planning
- Environmental and natural resource monitoring
- Daily operational mapping and agency reporting

WHAT SUCCESS LOOKS LIKE

- Agencies use a shared map framework statewide.
- Data is accurate, consistent, and easy to access.
- Cross agency coordination improves outcomes and speeds response.

Collaboration happens at the speed of trust.

- Respect others.
- Innovate.
- Encourage new ideas.
- Budgeting.
- Balance workloads.
- Governance



Welcome to Team GIS: Everyone is on the team



Thank you.

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