


Chelan County Fire Flow Water Storage Facilities in Remote Areas or Those with Limited Infrastructure

**Partnership between Chelan County, Community Organizations,
Property Owners, with State and Federal Agencies to Establish
Accessible Firefighting Water Supply Points for Remote Areas**

Alternative Options for Fire Flow Requirement

- ❖ Fire Flow for structures greater than 3600 Sq. Ft up to 4800 Sq. Ft. is 1750 gallons per minute (GPM) for 2 hours.
- ❖ Fire Sprinklers allow for a 50% reduction in fire flow requirement.
- ❖ Chelan County Fire Marshal allows for Fire Protection Credits (must score 10 points minimum) for the remaining fire flow amount e.g., $1750 \text{ GPM} \times .50 = 875 \text{ GPM}$

		Chelan County Fire Marshal's Office	
		Fire Protection Credits Form	
Owner Name		Address or Parcel#	
Check boxes of applicable credits	Water Supply Credits		Points
	<input type="checkbox"/>	2000 gallons on site	.5
	<input type="checkbox"/>	4000 gallons on site	1
	<input type="checkbox"/>	6000 gallons on site	1.5
	<input type="checkbox"/>	8000 gallons on site	2
	<input type="checkbox"/>	10,000 gallons on site	2.5
	<input type="checkbox"/>	Approved Fire District Water Supply (property is within and served by a Fire District) (Only two allowed to be combined)	6
	Total Water Supply Credits (Minimum of 3 points required)		
	Setback Credits		
	<input type="checkbox"/>	30' Min. setback all Property Lines	1.5
<input type="checkbox"/>	60' Min. setback all Property Lines	2	
<input type="checkbox"/>	100' Min setback all Property Lines	2.5	
(Only one allowed)			
Total Setback Credits (Minimum of 1.5 points required, unless lot is too small then additional building credits will be required with approval by the Fire Marshal)			
Building Credits			
<input type="checkbox"/>	Building < 2,000 sq. ft.	1	
<input type="checkbox"/>	Monitored fire alarm with smoke detectors (may be home fire/security)	.5	
<input type="checkbox"/>	1/2" Gypsum board on all interior walls (create thermal barriers)	1	
<input type="checkbox"/>	Eaves and soffits protected on the exposed underside by 2" nominal lumber or approved non-combustible materials.	.5	
<input type="checkbox"/>	Gutter and downspouts – constructed of noncombustible material and an approved method to prevent the buildup of debris in the gutter	.5	
<input type="checkbox"/>	Exterior walls meeting one of the following: 1-Hr rated construction assembly. Approved non-combustible materials. Heavy timber or log wall construction. Fire retardant treated wood (labeled for exterior use)	1	
<input type="checkbox"/>	Under floor meeting one of the following: Enclosed to the ground with exterior walls. Limited enclosure where all exposed structural columns, beams and supporting walls are protected by 1-Hr fire resistive rated construction. Approved non-combustible materials Heavy timber or log construction. Fire retardant treated wood (labeled for exterior use)	1	
<input type="checkbox"/>	Exterior Doors and Windows: minimum 20-minute rating (not part of 1-Hr fire resistive rated construction exterior walls)	.5	
<input type="checkbox"/>	Vents: Attic ventilation openings, foundation or underfloor vents, or other ventilation openings in vertical exterior walls and vents through roofs shall not exceed 144 square inches each. Such vents shall be covered with noncombustible corrosion-resistant mesh with openings not to exceed 1/8 inch	1	
Total Building Credits (Minimum of 2.5 points required)			
Total Fire Protection Credits (Minimum of 10 Required)			
Owner Signature:		Date:	

Revised July 29, 2022

Washington State Ratings Bureau

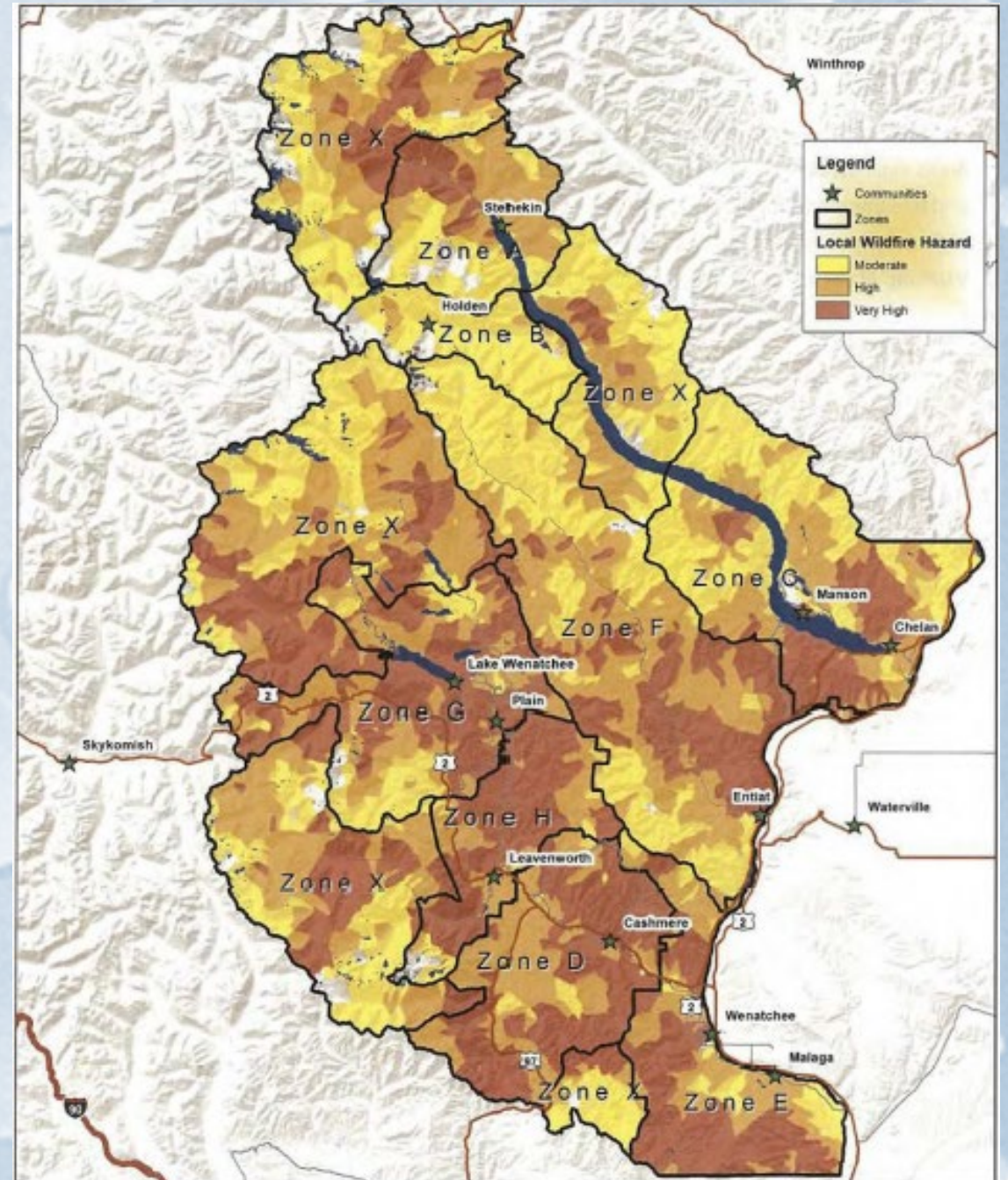
Water Supply

RELATIVE VALUES

Feature	Relative Value
Water Supply	35%
Fire Department	40%
Emergency Communications	9%
Fire Safety Control	<u>16%</u>
	100%

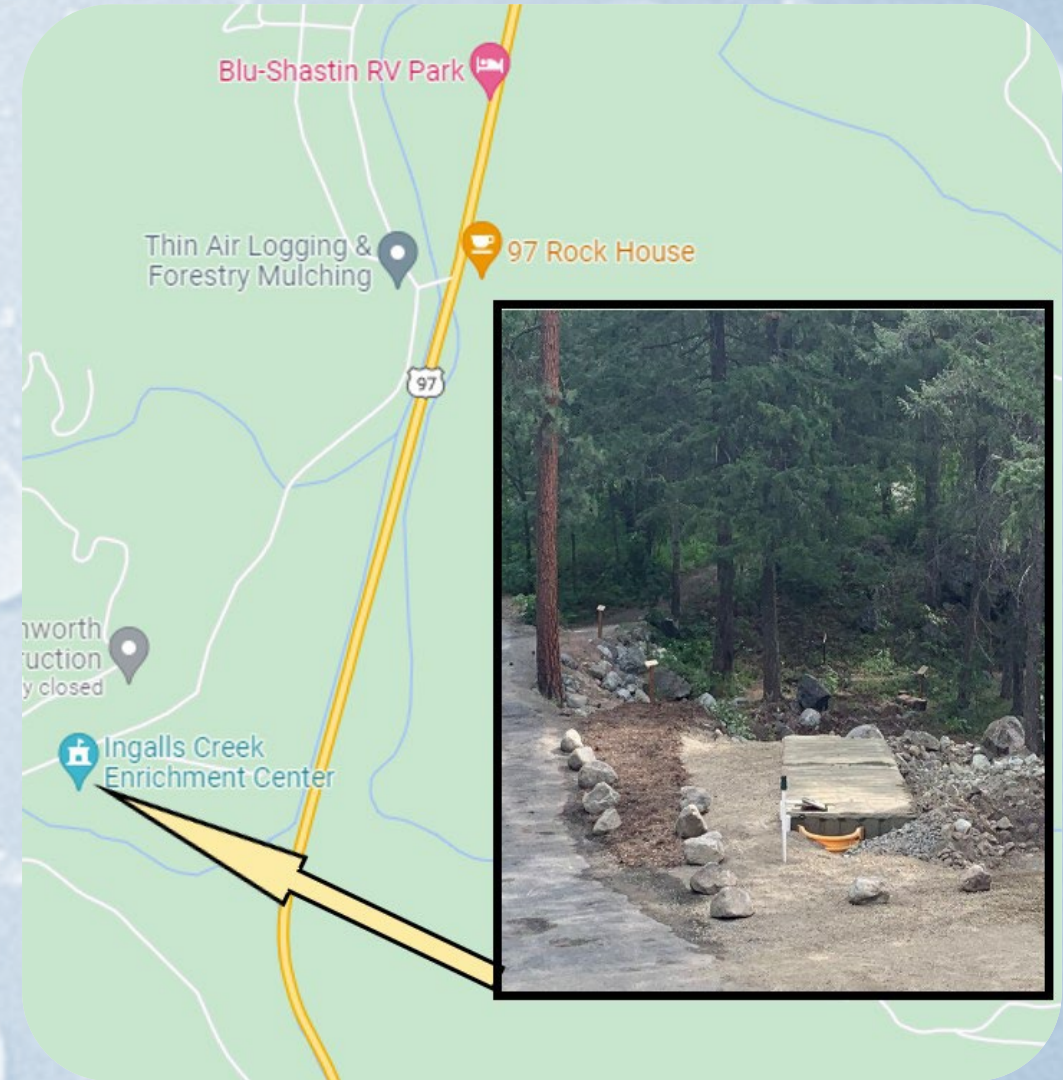
- ❖ Tender Credit the minimum rate of 250 gallons per minute (gpm) continuously for 30 minutes or a total of 7,500 gallons
- ❖ **New Credit** - Minimum duration for Mobile Water Supply Credit is 250 GPM for two hours for a total of 30,000 gallons
- ❖ This credit applies in areas without fire hydrant coverage but located in a community with water hauling capabilities exceeding the requirements of Tender Credit.
- ❖ Mobile Water Supply Credit could improve the PC rating of properties

Chelan County Communities Designated as High Risk from Wildfire Hazards



Ingalls Creek Enrichment Center Water Storage Tank

- ❖ To meet fire flow requirements for future development an on site water storage tank with a minimum of 10,000 gallons was required to be installed.
- ❖ Due to the cost and difficulty of locating a suitable poly or steel manufactured tank an alternative was granted.
- ❖ The alternative was the repurpose of an insulated mobile water storage tank.



Repurposing Mobile Water Storage Tanks As Firefighting Tender Refill Stations



- ❖ 21,000 gallons capacity
- ❖ Insulated exterior to -10 degrees
- ❖ Adaptable Plumbing Fixtures
- ❖ Installation Aboveground or Underground

Estimated Cost of Water Storage Tank Site \$50,000 – \$100,000

**Site acquisition:
\$25,000 - \$50,000**

CUP

SEPA

Easements

MOAs

**Design and Installation:
\$25,000 - \$50,000**

Purchase Tank (used)

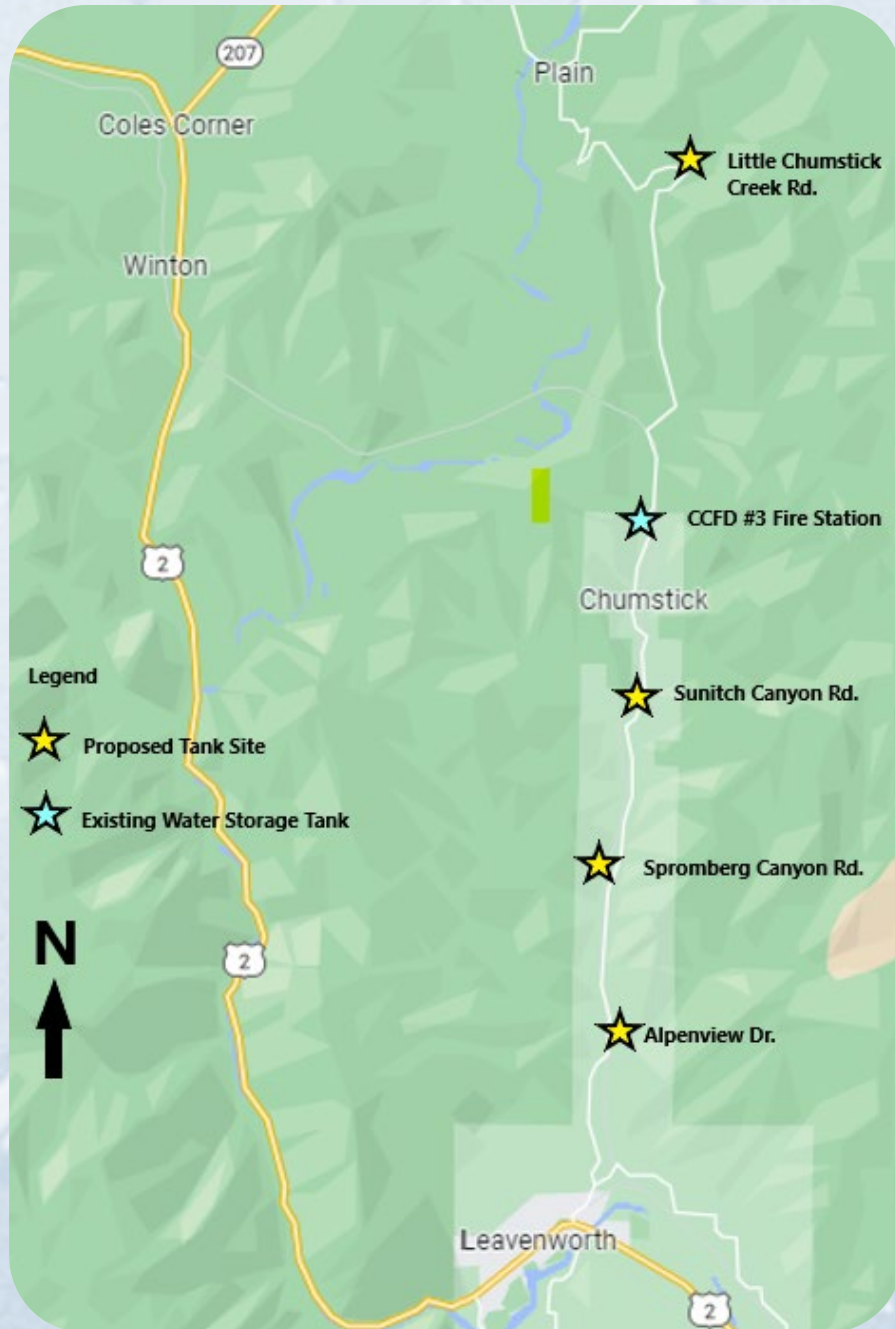
\$ 9,000 – \$12,000

Site Work

(above or underground)

\$10,000 – \$30,000

Chumstick Hwy. Proposed Water Storage Tank Sites



1. Alpenview Rd.
2. Spromberg Canyon Rd.
3. Sunitsch Canyon Rd.
4. Little Chumstick Creek Rd.

Spromberg Canyon Rd. – Site is on easement right of way (2 tanks total of 42,000 gallons

- ❖ Site would require fencing around tanks
- ❖ Control valve lock box
- ❖ Possibly concrete barriers for aboveground install.

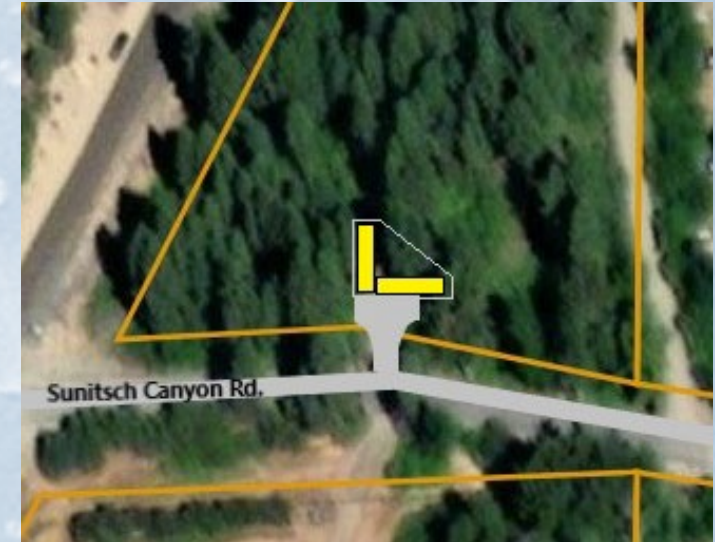


Sunitsch Canyon LLC - parcel # 251807340000

Sunitsch Canyon Rd, 2 tanks total of 42,000 gallons



- ❖ Hammerhead turn around for fire Apparatus
- ❖ Site would require fencing around tanks
- ❖ control valve lock box
- ❖ gate across the entrance from SC Rd.

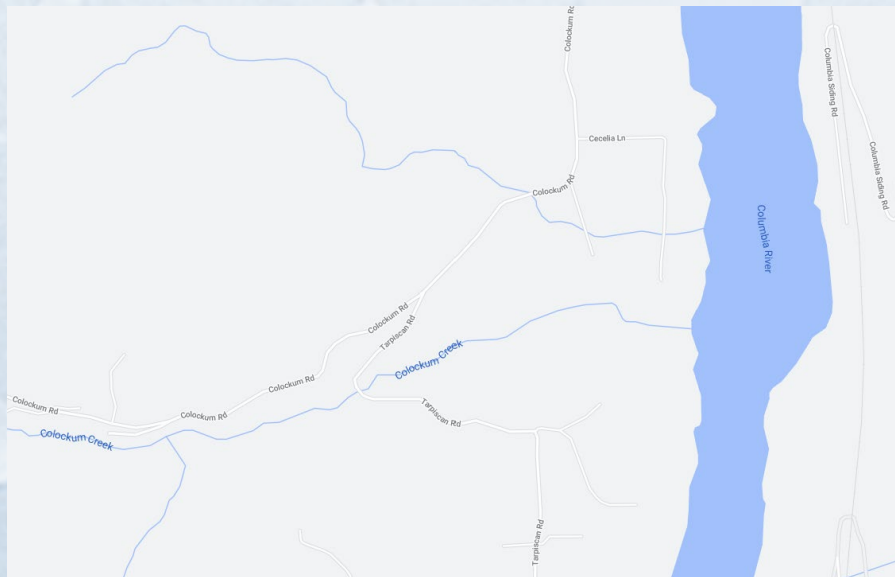


Little Chumstick Creek Rd. - parcels # 261818410200 and 261817320100 - 2 tanks total of 42,000 gallons



- ❖ Site would require fencing around tanks
- ❖ control valve lock box
- ❖ concrete barriers for aboveground install

Chelan County Owned Parcel # 212220240160



Areas for Other Potential Water Storage Tank Sites

**Chumstick Hwy.
(4 possible Sites)**

Colockum Rd.

- 1. Brender Canyon Rd.**
- 2. Nahahum Canyon Rd.**
- 3. Entiat River Rd.**
- 4. Union Valley Rd.**
- 5. Cooper Gulch Rd.**
- 6. PUD Infrastructure Sites**

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Questions?