## Chelan Dam Substation – Potential Sites

May 15, 2019



## Substation Site Evaluation

## **System Considerations**

Operating considerations determined the general location for the substation in southeast Chelan:

- Proximity to the service area/load center
- Proximity to existing transmission lines
- Positioned to pick up future load growth
- Positioned to alleviate load on existing substations
- PUD owns property in the area limited land purchase considerations

## Site Evaluation

Site A	Site B	Site C	Site D
Limited	Yes	Limited – would	Yes
configurations		require relocation of	
available		adjacent driveway	
Requires least	Less transmission line	More transmission	Requires most
transmission		line	transmission line
Requires most	More distribution	Less distribution	Requires least
distribution get-			distribution get-
aways			aways
Yes	Yes	Yes	Yes
Site improvements	Yes	Yes	Yes
required			
No – steep slope	Yes	Yes – some	Yes
requires significant		excavation required	
excavation			
No	No	Yes	Yes
Possibly	Yes – trail segment	No	Yes – trail segment
	would be relocated		would be relocated
		Adjacent to permitted	Adjacent to permitted
		use area (poses	use area (poses
_		_	hazard to hang
slope is possible		gliding/ paragliding)	gliding/ paragliding)
			Adjacent to potential
			trailhead parking
			expansion
Generally prefer due	Generally prefer due	Less preference due	Less preference due
to:	to:	to:	to:
<ul> <li>Least transmission</li> </ul>	<ul> <li>Least transmission</li> </ul>	<ul> <li>Proximity to</li> </ul>	<ul> <li>Proximity to</li> </ul>
<ul> <li>Safer for hang</li> </ul>	<ul> <li>Safer for hang</li> </ul>	permitted use	permitted use
gliding	gliding	area	area
Little trail impact	<ul> <li>Further from</li> </ul>	<ul> <li>Potential visibility</li> </ul>	<ul> <li>Potential visibility</li> </ul>
<ul> <li>Furthest from</li> </ul>	existing homes	from	from
existing homes		neighborhood	neighborhood
-		<ul> <li>More transmission</li> </ul>	<ul> <li>More transmission</li> </ul>
		lines	lines
	Limited configurations available Requires least transmission Requires most distribution get- aways Yes  Site improvements required No – steep slope requires significant excavation No  Possibly  Feasibility study needed to determine if excavating the slope is possible  Generally prefer due to:  Least transmission Safer for hang gliding Little trail impact Furthest from	Limited configurations available Requires least transmission Requires most distribution getaways Yes Yes  Site improvements required No – steep slope requires significant excavation No No  Possibly Yes – trail segment would be relocated  Feasibility study needed to determine if excavating the slope is possible  Generally prefer due to:  Least transmission Safer for hang gliding Little trail impact Furthest from  Yes  Generally prefer due to:  Least transmission Safer for hang gliding Further from existing homes	Limited configurations available Requires least transmission Requires most distribution get-aways Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye