## Land Use Application

### Applicant(s): Chip & Val Fowler

<table>
<thead>
<tr>
<th>Mailing Address:</th>
<th>Property Owner(s): Chip &amp; Val Fowler</th>
</tr>
</thead>
<tbody>
<tr>
<td>381 Old Highway 8, Lyle WA 98635</td>
<td>Mailing Address: (same)</td>
</tr>
<tr>
<td>Phone: 206-372-4881</td>
<td>Phone:</td>
</tr>
<tr>
<td>Email: <a href="mailto:cwfslleddog@aol.com">cwfslleddog@aol.com</a></td>
<td>Email:</td>
</tr>
</tbody>
</table>

### Location of property:

<table>
<thead>
<tr>
<th>Township: 3 North</th>
<th>Range: 12 East</th>
<th>Parcel address: 381 Old Highway 8</th>
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<tbody>
<tr>
<td>Section &amp; Qtr. Section:</td>
<td>County: Klickitat</td>
<td>Parcel Size (acres): 55.95</td>
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<tr>
<td>30</td>
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### Use of adjacent parcels:

<table>
<thead>
<tr>
<th>Existing use of parcel:</th>
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<tbody>
<tr>
<td>Agriculture</td>
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<table>
<thead>
<tr>
<th>Use of adjacent parcels:</th>
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<tbody>
<tr>
<td>N/A</td>
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### Project description: (updated by applicants May 26, 2020)

We propose to remove the existing tool and vehicle shed on our 56-acre property and build an accessory building to support the most dominant and continuous use of our land, agriculture. The new accessory building will be necessary and subordinate to the current agricultural use and will enable us to: 1) store our farm vehicles; 2) provide space for farm equipment and supplies; and 3) establish a tool room/work bench area. Prior to completion of the accessory building, we will remove the badly decaying shed, which has been used to store two farm vehicles and includes a work space and tool storage; we will also rehabilitate the shed site, which will be incorporated into the farm road that travels east and west behind the rock wall.

The new three-bay accessory building (shown in Figure 2) will be slightly larger (32’ x 29’) than the existing two-bay shed (22’ x 22’) in order to accommodate three farm vehicles (tractor, skid steer, Polaris Ranger ATV), a vineyard sprayer, and a mower. We intend to build this 778 sq. ft. accessory building to the north of the existing garden shed, located directly north of a thick grove of mature trees consisting of Oregon oak and Ponderosa pines. From this location the extensive existing vegetation will effectively screen the structure, and the accessory building will be visually subordinate or not visually evident from all Key Viewing Areas (KVAs) in all seasons.
The footprint of the accessory building is located in a non-agricultural area of the parcel that is devoid of any trees or vegetation except packed dirt and local grasses. This location has been previously disturbed: the previous owner of the property leveled the area in the early 1980s when he was constructing the existing house. He affirms that he found no cultural resources or items of historic interest in the grading process. In 2017 Archeological Investigations Northwest, Inc. (AINW) surveyed the area adjacent to the proposed development site; AINW found no cultural resources and determined that no historic properties are affected on the surveyed site.

The structure will not negatively impact current agricultural uses on nearby lands, and is located to minimize the conversion of lands capable of producing farm crops and livestock. The accessory building will be constructed on top of a concrete slab so there will be minimal ground disturbance; the disturbed area will be a few inches (vertical depth) covering an estimated 3,000-3,300 square feet (horizontal ground area).

The proposal protects natural resources; prior Commission findings for the site have determined no likely adverse impacts to rare and sensitive plant species, no adverse effects on winter range habitat, and no impact on wetlands, streams, ponds, lakes, riparian areas, or buffers. The structure will be located to the west of the known seasonal flow of water that drops into the gully to the east of the current house.

The accessory building will be 8’ high at the southern end and 16’ high at the northern end, and will include garage doors to better protect the farm vehicles. We plan to use the same roof design as the current shed and will paint the wooden structure a low-reflectivity earth-tone color with dark brown roofing tiles. This will be a wood structure with wood/metal garage doors painted in a dark earth tone and a solar array on the roof to provide renewable power for the accessory building and vineyard irrigation system.

There will be three small exterior lights (2 on the north side, and 1 on the east side); each light will be directed downward and sited, hooded, and shielded to ensure they are not highly visible as seen from KVAs. The three small non-continuous windows on the west side of the structure are each under ten square feet. There is also a single smaller window on the east and south sides of the structure.

The solar panels we are planning to use are the 330W PERC Module (JAM60S09 310-330/PR) that is produced in Japan. The casing and panel are both colored black. It is powered by high efficiency Percium cells and has excellent low light performance and comes with a Single-Phase Inverter with HD Wave Technology that is designed for North American power grids. Most importantly, it can operate in very cold temperatures in the winter and very high temperatures in the summer. Each panel weighs 18 Kg and measures 39.57 inches by 65.59 inches. We would place the panels at the top of our shed roof facing south in three rows of 7 panels for a total of 21; however, this is only notional as the engineering team that installs the system after the
Accessory building is constructed may suggest a different configuration such as two rows of 8 and a third row with five. The notional array would be approximately 24 ft long horizontal, centered on a roof that is 32 ft long. It would also be 16.5 ft vertical on the slope of the roof that is 30 ft. It is important to note that this is an initial estimate that is designed to meet most of the electrical energy requirements for just our farm.

Estimate of Energy production: With a 21 panel array we estimate that the peak production capacity will be 6.51 KW and can generate about 10.9 MWh per year, which should come close to meeting most of our energy needs with PUD. Depending on weather conditions, quarterly energy production will range from 1.9 MWh in the first quarter (winter) to 3.1 MWh in the second quarter (spring/summer).

Current energy consumption:
Jan-Apr 2020: 2.7 MWh (current house and well)
Jan-Apr 2020: 4.3 MWh (irrigation system, pumps, weather station)
If you multiply that by three for a notional year you end up with 8.1 MWh plus 12.9 MWh, for a total of 21MWh. Our notional 21 panel array is projected to produce about 11 MWh per year we will be well below any threshold and would have to add another 3 panels (8 x 3) to get closer to the actual requirement.

In 2019, the vineyard irrigation system and pumps averaged about 2 MWh per month for the seven primary irrigation months of Apr-Nov. The current house and well head pump numbers were slightly more than 7 MWh per annum which is consistent with this past 4 month range. If the solar engineers think we can meet our energy needs with less panels we will, of course, cut the numbers back so as to not generate excess energy.

The two photos below show the existing tool and vehicle storage shed to be demolished.
Application form completed and signed
☐ Site plan
☐ Key viewing areas checklist, elevation drawings, and landscape details, if required
☐ Names and addresses of adjacent property owners, if required (see below *)
☐ Any additional information as required

Signature of the property owner(s) indicates that the property owner(s) is/are aware that an application is being made on the subject property. Signature of the property owner(s) also authorizes the Gorge Commission or the Commission's designee(s) reasonable access to the site in order to evaluate the application.

Applicant(s) signature: Charles W. Fowler  date 24 Mar 2020

Valerie C Fowler  date 24 March 2020

Property owner(s) signature: Charles W. Fowler  date 24 Mar 2020

Valerie C Fowler  date March 24, 2020

* Only one adjacent property owner: David Santee, 203 Highway 8, Lyk, WA
**Mono 330W PERC Module**

**JAM60S09 310-330/PR Series**

**Introduction**

Powered by high-efficiency PERC/UM cells, this series of high-performance modules provides the most cost-effective solution for lowering the LCOE of any PV systems large or small.

- 5 busbar solar cell design
- Higher output power
- Excellent low-light performance
- Lower temperature coefficient

**Superior Warranty**

- 12-year product warranty
- 25-year linear power output warranty

**Comprehensive Certificates**

- IEC 61215, IEC 61730, UL 1703
- ISO 9001:2015 Quality management systems
- ISO 14001:2015 Environmental management systems
- OHSAS 18001:2007 Occupational health and safety management systems
- IEC TS 62941:2016 Terrestrial photovoltaic (PV) modules — Guidelines for increased confidence in PV module design qualification and type approval

**JA Solar**