Staff Report Attachment 1

Amendments to 2022 Comprehensive Plan and Development Regulations

Key to changes:

Plain text = existing writing with no changes

~~Strikethrough~~ = existing writing to be deleted

Underlined = new writing to be added

~~Double Strikethrough~~ = existing writing moved to another location

Double Underline = existing writing moved from another location

Italics = instructions to writing reviser

Table of Contents

C22-01 Wind Turbine Use Amendment

14.04.020 Definitions

Small Wind Energy Systems (SWES): a wind turbine with a nameplate capacity rating of up to 30kW along with tower, supporting members and necessary electrical components. Small wind energy systems may be either "net metering system" as defined in this chapter or off grid systems.

Wind Turbine: the components of a wind generating system that convert the energy of wind into electrical power including the blades, generator and tail.

Tower: any structure that is designed and constructed primarily for the purpose of supporting 1 or more antennas, or the vertical structure that supports generator, rotor blades and tail assembly and/or equipment utilized to gather and assess wind energy resource data. Tower types include~~ing~~ self-supporting lattice towers, guy towers, or monopole towers. The term encompasses personal wireless service facilities towers, microwave towers, common-carrier towers, cellular telephone towers, personal communications services towers, alternative tower structures, and the like.

Total Height: the total height of the small wind energy system inclusive of the tower, turbine and highest arc of the rotor blades.

Rotor: a system of airfoils or blades that rotates around an axis or hub.

Rotor Diameter: the diameter of the circle described by the outer tip of the rotating rotor blades.

Generator nameplate capacity: the maximum rated output of electrical power production of a generator under specified conditions designated by the manufacturer on a nameplate that is attached to the generator.

14.XX Small Wind Energy Systems

Sections

14.XX.010 Purpose

(1) The purpose of this chapter is to regulate the installation and operation of small wind energy systems in Skagit County for private landowners, subject to reasonable restrictions.

14.XX.020 Applicability

(1) The requirements set forth in this chapter shall govern the siting of small wind energy systems used to generate mechanical or electrical energy to perform work, and which may be connected to the utility grid pursuant to Chapter 80.60 RCW, Net Metering of Electricity, and serve as an independent source of energy, or serve as part of a hybrid system.

(2) The requirements of this chapter shall apply to all small wind energy systems (SWES) proposed after the effective date of the ordinance codified in this chapter. Any SWES for which a required permit has been properly issued prior to the effective date of the ordinance codified in this chapter shall not be required to meet the requirements of this chapter, provided, however, that any such pre-existing SWES that is not producing energy for a continuous period of 12 months shall meet the requirements of this

chapter prior to recommencing production of energy. No modification that increases the height of the system or increases the system output more than 25 percent shall be allowed without full compliance with this chapter.

14.XX.030 Regulatory Framework

(1) Permits and Zoning.

System Type	Required Permit	Zones
SWES Tower	Outright Permitted	All

(2) SWES towers are required to be in compliance with but not limited to SCC Title 15 Buildings and Construction, and acquire the necessary permits.

(3) Accessory Use. A SWES is an accessory use to an existing structure. Any SWES that is constructed or installed in accordance with the provisions of this chapter shall not be deemed to constitute the expansion of a nonconforming use or structure. There may not be more than one SWES per lot of record.

14.XX.040 General Requirements for SWES

(1) Visual Appearance – Lighting – Power Lines

(a) Wind turbines must be painted a nonreflective, nonobtrusive color such as the manufacturer's default color option or a color that conforms to the environment and architecture of the community, unless FAA standards require otherwise. The administrative official may require a photo of the SWES of the same model as that proposed in the landowner's application, adjacent to a building or some other object illustrating scale (e.g., manufacturer's photo).

(b) At SWES sites, the design of the buildings and related structures will, to the extent reasonably possible, use materials, colors, textures, screening, and landscaping that will blend the SWES to the natural setting and the existing environment.

(c) No SWES will be artificially lighted, except to the extent required by the FAA or other applicable authority.

(d) No SWES will be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the wind turbine.

(e) Electrical controls, control wiring and power lines will be wireless or underground, except where SWES wiring is brought together for connection to the transmission or distribution network adjacent to that network, and except that in the Ag-NRL zone the minimum installation depth for electrical controls, control wiring and power lines is 36" and not over 47" inches below finish grade.

(f) For all SWES, the manufacturer's engineer or other qualified engineer shall be licensed in Washington state and certify that the turbine connection, foundation, and tower design of the SWES meets engineering standards, given local design criteria per SCC Title 15.

(g) All SWES electrical systems will comply with requirements per the Washington State Department of Labor and Industries and the current adopted edition of the National Electrical Code when and where applicable.

(i) All SWES will meet requirements per the applicable sections of SCC 14.32 for erosion control and stormwater management.

(j) Violation of any part of this chapter of the code will be subject to the provisions of SCC 14.44.

(2) Setback Requirements. The following setback requirements will apply to all SWES towers, unless the underlying zone has more restrictive setbacks. All setbacks are measured from the property lines of the property on which the project is located.

(a) Setbacks Table

System Size	**Setback Requirement**
Up to and including 30kW	1.2 times total height

(b) A reduction in setbacks may be approved if appropriate easements from neighboring property owners or appropriate mitigation acceptable to neighboring property owners is approved by the administrative official and recorded against the applicable deeds(s).

(c) Communication and Electrical Lines. Each SWES will be setback from the nearest above-ground public or private nonparticipating utility a distance no less than 1.2 times its tower height, determined from the existing power line or telephone pole.

(d) Setbacks will be measured to the outer edge of the base of the SWES structure tower. Guy cables and other accessory support structures may be located within setback areas.

(3) Height Limitations. The total height of a SWES may not exceed 100 feet.

(4) SWES Sound Levels. Audible sound may not exceed the limits set forth by Chapter 173-60 WAC (55 dBA.

14.XX.050 Safety

(1) General provisions for SWES.

(a) Wind turbine towers may not have step bolts or a ladder readily accessible to the public and must be a minimum height of 15 feet above ground level.

(b) All electrical equipment must be safely and appropriately enclosed from unintentional access.

(c) Appropriate warning signage (e.g. electrical hazards) must be placed on or near towers and electrical equipment.

(d) Any SWES found to be unsafe by the building official must be repaired or decommissioned and removed by the landowner and/or project owner to meet federal, state, and local safety standards, according to the regulatory authority of the building official and applicable provisions per SCC Title 15.

(2) Blade Tip Height

(a) The blade tip of any SWES with a cumulative rated output up to and including 30 kW must, at its lowest point, have ground clearance of no less than 30 feet, as measured at the lowest point of the arc of the blades.

(3) Over-Speed Controls

(a) All SWES shall be equipped with over-speed controls to limit rotation of blades to speed below the designed limits of the system. No changes or alterations from the certified design shall be permitted unless accompanied by a licensed professional engineer's statement of certification.

14.XX.060 Decommissioning for SWES

(1) Abandonment. Absent notice of a proposed date of decommissioning, SWES projects will be considered abandoned when the project fails to operate for more than one year without the written approval of the director or designee.

(2) Removal Requirements. When a SWES is scheduled to be decommissioned, the project owner/property owner must notify the county by certified mail of the proposed date of discontinued operations and plans for removal. Within 120 days of receipt of notice of abandonment or within 120 days of providing notice of termination of operations, the owner of the SWES must:

(a) Remove all wind turbines, above-ground improvements, and outdoor storage.

(b) Remove all hazardous material from the property and dispose of the hazardous materials in accordance with federal, state, and local law.

(c) In addition to removing the wind turbine generator, the owner must restore the site by planting native or other approved vegetation to minimize erosion.

14.XX.070 Federal, state, and local requirements

(1) SWES must comply with all current adopted Skagit County codes and ordinances.

(2) SWES must comply with regulations of the Federal Aviation Administration (FAA), along with requirements within SCC 14.16.210.

(3) All SWES electrical systems will comply with requirements per the Washington State Department of Labor and Industries and the current adopted edition of the National Electric Code (NEC) when and where applicable.

(4) All SWES with the intention to tie to their respective utility provider's grid system must meet the requirements of Chapter 80.60 RCW, Net Metering of Electricity.

C22-2 Critical Areas Ordinance Correction

14.24.080(4)

(4) Determination That Critical Areas Are Present or Affected. If the Administrative Official determines that critical area indicators are present within 200 feet of the proposed activity or within a distance otherwise specified in this Chapter, then the Administrative Official shall note this determination in the application file and the applicant shall be required to provide the critical areas site assessment specified in this Chapter. Development of a site assessment may precede a County site visit; provided, that no disturbance of vegetation or land surface occurs prior to County authorization. If the applicant chooses, the site assessment may be limited to 300 feet surrounding a proposed development only if there are no other activities occurring or proposed on the remainder of the parcel which are in conflict with this Chapter. If the applicant, together with assistance from the Administrative Official, cannot obtain permission for access to properties within 300 feet of the project area, then the site assessment may also be limited accordingly. The site assessment shall be completed as follows:

(a) The site assessment shall be prepared by a qualified professional for the type of critical area or areas involved and shall contain the information specified for each type of critical area. The qualified professional may consult with the Administrative Official prior to or during preparation of the site assessment to obtain County approval of modifications to the contents of the site assessment.

(b) The site assessment shall use scientifically valid methods and studies in the analysis of critical areas data and field reconnaissance and reference the source of science used.

(c) The site assessment shall include:

(i) Project description that includes a detailed narrative describing the project, its relationship to the critical area and its potential impact to the critical area; and

(ii) A copy of the site plan for the project proposal including a map to scale depicting critical areas, buffers, the development proposal, and any areas to be cleared; and

(iii) Identification and characterization of all critical areas and buffers adjacent to the proposed project area; and

(iv) An assessment of the probable cumulative impacts to critical areas resulting from development of the site and the proposed development; and

(v) A description of the proposed stormwater management plan for the development and consideration of impacts to drainage alterations; and

(vi) A description of efforts made to apply mitigation sequencing pursuant to Subsection ~~(6)(b)~~ (5)(b) of this Section; and

C22-3 Guemes Island Overlay Side Setback Amendment

14.16.360 Guemes Island Overlay

(7) Dimensional Standards.

(a) Setbacks.

(i) Front Setback for Fences. Fences that are less than 50 percent opaque and more than three feet tall must be set back at least 10 feet.

(ii) Side. Each side setback must be at least eight feet. ~~The total of both side setbacks must be at least 30 feet, or 30 percent of the lot width at its widest point, whichever is less.~~

(b) Maximum Height.

(i) Structures. The actual height of the structure from base flood elevation may not exceed ~~12~~ 30 feet. ~~at the side setback. The actual height of the structure from base flood elevation may increase by one foot for each foot inside the required side setback, up to a maximum actual structure height of 30 feet. (Ord. O20160004 § 6 (Att. 6))~~

C22-5 Seawater Intrusion Areas Amendment

14.24.380 Seawater Intrusion Areas

(2) Application Requirements.

(a) For Wells. An application proposing use of a well must include all of the following, which must be submitted for review prior to drilling any new well:

(i) A site plan, including:

(A) A dedicated inland well site location;

(B) Estimated depth of proposed well;

(C) An estimated land elevation of the well, except that if the well is within 250 feet of the shoreline, or if determined by ~~the County Hydrogeologist~~ a hydrogeologist engaged or employed by the County, the elevation of the well must be surveyed by a licensed surveyor;

(4) Development Standards for Wells.

(a) Generally. For both existing and new wells, a well driller must:

(i) Install a wellhead source meter;

(ii) Install a sounding tube to allow water level measurements;

(iii) Set the maximum pumping rate consistent with Table 14.24.380-1;

(iv) Conduct a pump test under the supervision of a licensed well driller or licensed hydrogeologist, consistent with the following:

(A) Use the conservative maximum pumping rate defined in Table 14.24.380-1, or if the well driller proposes to use more than the maximum pumping rate in Table 14.24.380-1, include a hydrogeological assessment (including pump tests) using observation wells;

(B) Pump a minimum of 350 gallons from the formation during the test;

(C) Continue the pump test for at least four hours after water level stabilization has occurred, or for the timespan determined by ~~the County Hydrogeologist~~ a hydrogeologist engaged or employed by the County, whichever is longer.

(b) Documentation of Installation. The well driller must submit the following after the pump test:

(i) Well ID;

(ii) Proof of the sounding tube installation;

(iii) The maximum pumping rate set;

(iv) A record of the static water level depth prior to starting the pump test;

(v) Pumping rates during the pump test;

(vi) Drawdown measurements recorded throughout the pumping test in intervals as approved by ~~the County Hydrogeologist~~ a hydrogeologist engaged or employed by the County;

(d) Maximum Pumping Rates.

(i) The maximum pumping rate for wells must be set consistent with the following table.

(ii) A maximum pumping rate other than that in the table may be set if approved by ~~the County Hydrogeologist.~~ a hydrogeologist engaged or employed by the County.

Table 14.24.380-1. Maximum pumping rates.

	Chloride level		
Location	**0—24 ppm**	**25—99 ppm**	**100—250* ppm**
less than 1/2 mile from the coast for areas in (1)(a)	as determined or approved by ~~the County hydrogeologist~~ a hydrogeologist engaged or employed by the County		
less than 1/2 mile from the coast for islands in (1)(b)	3 gpm	2 gpm	1 gpm
greater than 1/2 mile from the coast for islands in (1)(b)	3 gpm	3 gpm	3 gpm