COUNTY OF NAPA

CONSERVATION, DEVELOPMENT, AND PLANNING DEPARTMENT
1195 3rd Street, Suite 210
Napa, Calif. 94559
707.253.4417

Notice of Intent to Adopt a Negative Declaration

1. **Project Title:** Small Wind Energy Zoning Ordinance, County-initiated Zoning Code Text Amendment № P10-00243-ORD

2. **Property Owner:** Not Applicable

3. **Contact person and phone number:** Jeff Sharp, Project Planner, (707) 259.5936, jeff.sharp@countyofnapa.org

4. **Project location and APN:** The proposed ordinance would apply to parcels greater than 2 acres in size in the Agricultural Preserve (AP), Agricultural Watershed (AW), and Industrial (I) zoning districts of the County.

5. **Project Sponsor's Name and Address:** Planning Director Hillary Gitelman for the Napa County Board of Supervisors, 1195 Third Street, Suite 210, Napa, Calif. 94558, (707) 253.4417, hillary.gitelman@countyofnapa.org

6. **Hazardous Waste Sites:** This project is applicable to all parcels greater than 2 acres in size in the AP, AW, and I zoning districts of the County, a number of which are included on the lists of hazardous waste sites enumerated under Government Code §65962.5.

   Project Description: Board of Supervisors adoption of an ordinance, as provided for under California Assembly Bill 45 (Blakeslee. Distributed generation: Small Wind Energy Systems (2009)), permitting the installation of small wind energy systems in the unincorporated areas of Napa County that are outside urbanized areas, on parcels greater than 2 acres in size in the AP, AW, and I zoning districts. The ordinance establishes a process for the issuance of administrative and conditional use permits for these systems, subject to specified conditions regarding aspects of the system's location and operation so as to be protective of Napa County's unique and diverse environmental resources. By providing for the safe and effective use of small wind energy systems to reduce the consumption of centralized utility-supplied electricity, the ordinance fosters the local production of renewable energy.

PRELIMINARY DETERMINATION:

The Napa County Director of Conservation, Development, and Planning has tentatively determined that the following project would not have a significant effect on the environment and the County intends to adopt a **negative declaration.** Documentation supporting this determination is contained in the attached Initial Study Checklist and is available for inspection at the offices of the Napa County Conservation, Development, and Planning Department, 1195 Third St., Suite 210, Napa, CA 94559 between the hours of 8:00 AM and 4:45 PM Monday through Friday (excepting holidays).

9/16/10
DATE:

BY: Jeff Sharp

WRITTEN COMMENT PERIOD: September 20, 2010 through October 19, 2010

Please send written comments to the attention of Jeff Sharp at 1195 Third St., Suite 210, Napa, CA. 94559, or via e-mail to jeff.sharp@countyofnapa.org. A public hearing on this project is tentatively scheduled for the Napa County Conservation, Development, and Planning Commission at 9:00 AM or later on Wednesday, October 20, 2010. You may confirm the date and time of this hearing by calling (707) 253.4417.

COUNTY OF NAPA

CONSERVATION, DEVELOPMENT, AND PLANNING DEPARTMENT
1195 3rd Street, Suite 210
Napa, Calif. 94559
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Initial Study Checklist

1. **Project Title**
   Small Wind Energy System Zoning Ordinance, County-initiated Zoning Code Text Amendment № P10-00243-ORD.

2. **Property Owner**
   Not Applicable

3. **Contact person and phone number**
   Jeff Sharp, Project Planner, (707) 259.5936, jeff.sharp@countyofnapa.org

4. **Project location and APN**
   The proposed ordinance would apply to parcels greater than 2 acres in size in the Agricultural Preserve (AP), Agricultural Watershed (AW), and Industrial (I) zoning districts of the County.

5. **Project Sponsor's Name and Address**
   Planning Director Hillary Gitelman for the Napa County Board of Supervisors, 1195 Third Street, Suite 210, Napa, Calif. 94558, (707) 253.4417, hillary.gitelman@countyofnapa.org

6. **General Plan Description**
   Agricultural Resource (AR), Agriculture, Watershed, and Open Space (AWOS), and Industrial (I)

7. **Current Zoning**
   Agricultural Preserve (AP), Agricultural Watershed (AW), and Industrial (I) zoning districts.

8. **Project Description**
   Board of Supervisors adoption of an ordinance, as provided for under California Assembly Bill 45 (Blakeslee. Distributed generation: Small Wind Energy Systems (2009)), permitting the installation of small wind energy systems ("systems") in the unincorporated areas of Napa County that are outside urbanized areas, on parcels greater than 2 acres in size in the AP, AW, and I zoning districts. The ordinance, attached hereto for reference purposes, establishes a process for the issuance of administrative and conditional use permits for these systems, subject to specified conditions regarding aspects of a system's location so as to be protective of Napa County's unique and diverse environmental resources. By providing for the safe and effective use of small wind energy systems to foster the local production of renewable energy, there should be reduced local consumption of centralized utility-supplied electricity.

9. **Background and Scope of this Review**
   Assembly Bill 45 - Small Wind Energy Systems
   Article 2.11 (commencing with Section 65893), entitled "Wind Energy", was recently added to Chapter 4 of Division 1 of Title 7 of the Government Code by Assembly Bill 45 (Blakeslee, 2009). Article 2.11 provides that if a local agency has not adopted an ordinance for the issuance of permits for qualified small wind energy systems ("systems") outside of defined urbanized areas in accordance with its provisions by January 1, 2011, a county may

do so at a later date, but any applications that are submitted between January 1, 2011 and the adopted date of the ordinance must be approved through a ministerial permit if the system meets the requirements of Government Code §65896(b). Additionally, any later enacted permitting ordinance could be no more restrictive on specified conditions than as are contained Government Code §65896(b). Those requirements limit the ability to regulate systems with respect to notice, tower height, setback, noise level, visual effects, turbine approval and drawings and engineering analysis. Those conditions allow systems up to eighty feet in height to be installed on parcels of 1 to 5 acres, and up to one hundred feet in height on parcels greater than 5 acres. Required setbacks would be no greater than the systems height. County ordinances adopted prior to January 1, 2011 are not so constrained by the conditions enumerated in Government Code §65896(b).

Existing Regulations and Purpose of Ordinance Amendment

Title 18 of the Napa County Code currently allows for the establishment of noncommercial wind energy conversion systems with the grant of a use permit in the Agricultural Preserve (AP), Agricultural Watershed (AW), Industrial District (I), and Timber Preserve (TP) zoning districts currently (at present, no TP district is provided for on the County's zoning map). A noncommercial wind energy conversion system is specifically defined in Chapter 18.08.390, and conditions the height, setback, energy use, blade diameter and generation capacity of proposed systems in these districts (blade diameter may not exceed thirty-two feet and unit capacity may be no greater than 25kw). These specific provisions allowing for the establishment of wind energy systems in Napa County have been in place since 1983 (Ord. 757 § 7).

The purpose of the proposed ordinance subject to this review is to provide a uniform and comprehensive set of standards for the installation and use of small energy wind systems that would be subject to the provisions of AB 45 absent the ordinances adoption. Those systems consist of wind turbine, a tower, and associated control or conversion electronics that have a rated capacity of not more than 50 kilowatts per customer site, consistent with the requirements of Public Resources Code §25744(3)(b) used primarily to reduce onsite consumption of utility power. The proposed ordinance is designed to protect public health, safety, and welfare while at the same time not unduly restricting their development and use. The ordinance contains specific development standards and requires natural resource studies to ensure proposed projects are sited, designed and operated in such a manner as to avoid significant impacts on environmental resources, and preserve the visual quality of the natural and built environment. The ordinance provides for the issuance of an administrative permit providing a system meets the specified development standards, and requires a use permit if the development standards cannot be met. Those systems that cannot be administratively approved will require individual CEQA review as a component of the use permit processing.

The ordinance limits the locating of eligible systems to parcels greater than 2 acres in size in the AP, AW, and I zoning districts. It requires a biological study to, among other things, ensure the system will not adversely impact birds and bats or other environmental resources such as special status plants. It also requires the system be located in such a manner so as minimize adverse visual impacts. A copy of the proposed ordinance, setting forth all the permitting requirements, is attached hereto and incorporated herein by reference.

Wind Energy Resource

Wind power is seen as a renewable source of energy with significant potential to contribute to our nation's energy needs. Small wind energy systems consist of a single turbine, scaled appropriately for personal use. Generally, turbines large enough to provide a significant portion of electricity for a typical U.S. home require more than one acre of property and are best suited for rural areas (US Dept. of Energy 2005). As such, small scale residential systems are typically dispersed, unlike commercial utility-systems, and located on small acreages of land. These small systems and can be economical if sited properly in areas with winds averaging over 10-12 mph (e.g. class 2 winds or greater). Napa County contains approximately 34,977 acres of land (or roughly 7%) with estimated average wind speeds of 10.1-11.2 mph and 437 acres land with average winds higher 11.2 mph (measured at 30m) (California Energy Commission 2003).

Current Policy and Renewable Energy

The County's General Plan (as amended by Resolution 09-88, June 23, 2009) includes a number of policies encouraging the development of distributed wind energy generation as it relates to the reduction of local greenhouse gas emissions that contribute to climate change. The General Plan specifically promotes the economic and environmental health of Napa County by conserving energy, increasing the efficiency of energy use, and producing renewable energy locally (Goal CON-16). Established policies in the Plan include the promotion of research and the development and use of advanced and renewable energy technology through expedited permit processing or other incentives, securing grants to support the implementation of photovoltaic, wind, and other renewable energy technologies, and encouraging the use of renewable energy resources in residential, commercial, industrial, and agricultural projects and uses (Policy CON-68). General Plan Policy CON-70 encourages the County to increase the amount of energy produced through locally available energy sources, including establishing incentives for, and removing barriers to, renewable and alternative energy resources (solar, wind) where they are compatible with the maintenance and preservation of the County's environmental quality (Policy CON-70).

10. **Environmental Setting and Surrounding Land Uses**

Napa County is located north of the San Francisco Bay Area, California. Napa County is bounded on the north and northeast by Yolo County, on the south and southeast by Solano County, and on the west by Lake and Sonoma counties. Major cities in the neighboring counties (outside of Napa County) include the cities of Vallejo (Solano County), Benicia (Contra Costa County), Fairfield (Solano County), Vacaville (Solano County), and Sonoma (Sonoma County). Regional land use patterns generally consist of dense urban centers associated with the cities along Interstate 80 as well as near the Bay Area to open space, natural resources (wetlands, grasslands, forests, and mountain terrain) and agricultural activities with vineyard development as one of the most visually prominent activities.

Napa County is comprised of approximately 506,000 acres, of which 23,000 acres is water (primarily in Lake Berryessa). Approximately 479,000 (95%) of the remaining acreage is included within the unincorporated areas of the County. The remaining area, approximately 6% (30,400 acres), is designated for urban uses and is distributed among the five incorporated areas in the County: City of American Canyon, City of Calistoga, City of Napa, City of St. Helena, and Town of Yountville. The majority of the balance remaining rural land is designated for agricultural uses, either agricultural resource or agricultural watershed lands. Approximately 86,000 acres of land within the County is publicly owned. At the present time, there are approximately 50,000 acres of planted vineyard acres in the County.

11. **Other agencies whose approval is required:** (e.g., permits, financing approval, or participation agreement).
N/A

12. **Responsible (R) and Trustee (T) Agencies:**
California Department of Fish & Game (T), U.S. Fish and Wildlife Service (T)

13. **Other Agencies Contacted:**
California Energy Commission Special Projects Office, County of Marin, County of Sonoma

ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS:

The conclusions and recommendations contained herein are professional opinions developed in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Resource Maps, the Napa County Baseline Data Report, Napa County General Plan Environmental Impact Report, specific documents referenced herein, other sources of information included or referenced in the record file, comments received, conversations with knowledgeable individuals, the preparer's personal knowledge of the area, and visits to the site and

surrounding areas. For further information, please see the permanent record file on this project, available for review at the offices of the Napa County Department of Conservation, Development, and Planning, 1195 Third Street, Napa, Calif.

On the basis of this initial evaluation:

- ☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

BY: Jeff Sharp
Project Planner
Napa County Conservation, Development, & Planning

9/16/10
Date

Environmental Checklist Form

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
I.	AESTHETICS. Would the project:				
	a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
	b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
	c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
	d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion:

a.-d. The subject ordinance does not in itself cause a specific new development project to be undertaken. Absent adoption of the ordinance, as of January 1, 2011 State law would limit the restrictions a local agency may place on the installation and use of small wind energy systems (systems), including siting considerations affecting aesthetics. The systems are to be used primarily to reduce onsite consumption of electricity and located on parcels greater than two (2) acres in the AP, AW, and I zoning districts. The proposed ordinance, in § 18.117.050, restricts allowable locations of the systems in accord with AB 45 requirements. Further, that section restricts the placement of the systems with respect to their silhouetting against the skyline and placement on ridgelines that are viewable from public parks, trails, recreation areas, and designated roadways. Systems that as proposed might not comply with those requirements would require specialized findings be made for the issuance of a use permit, and probable concomitant aesthetic mitigations as determined by appropriate CEQA review. Proposed Chapter 18.117 also requires the systems towers and blades be nonreflective, unobtrusive in color, and that the systems be designed and placed in a manner to minimize adverse visual impacts from neighboring areas. Lighting is limited to that required by the FAA for protection of aircraft. These restrictions will be imposed on any proposed system either through strict adherence to the development standards necessary for an administrative permit, or specified mitigation associated with the issuance of a use permit, effectively reducing any potential visual impacts arising from the adoption of the ordinance to a less than significant level.

Mitigation Measures: None are required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
II.	AGRICULTURE AND FOREST RESOURCES.[1] Would the project:				
	a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Important (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
	b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
	c) Conflict with existing zoning for, or cause rezoning of, forest land as defined in Public Resources Code Section 12220(g), timberland as defined in Public Resources Code Section 4526, or timberland zoned Timberland Production as defined in Government Code Section 51104(g)?	☐	☐	☒	☐
	d) Result in the loss of forest land or conversion of forest land to non-forest use in a manner that will significantly affect timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, or other public benefits?	☐	☐	☒	☐
	e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use.	☐	☐	☒	☐

Discussion:

a. Adoption of the proposed ordinance does not in itself cause a specific new development project to be undertaken. It is foreseeable that a future small wind energy system may be located on designated agricultural farmland as mapped under the State's Farmland Mapping and Monitoring Program (FMMP). The physical footprint of a small wind energy system is relatively small, analogous to the many wind machines currently located within the County's agricultural lands for use in frost protection. Wind energy systems are typically located close to electrical utility service grids and in close proximity to uses demanding electricity (e.g. residential homes, barns, agricultural buildings, and accessory uses). Under the proposed ordinance only one system would be allowed per parcel. Given the relatively disperse nature of the systems allowed under the proposed ordinance, their compatibility with existing agricultural infrastructure, and placement in close proximity to developed areas, any impact do to the conversion of mapped farmland under the State's FMMP arising from the adoption of the ordinance would be less than significant .

[1] "Forest land" is defined by the State as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." (Public Resources Code Section 12220(g)) The Napa County General Plan anticipates and does not preclude conversion of some "forest land" to agricultural use, and the program-level EIR for the 2008 General Plan Update analyzed the impacts of up to 12,500 acres of vineyard development between 2005 and 2030, with the assumption that some of this development would occur on "forest land." In that analysis specifically, and in the County's view generally, the conversion of forest land to agricultural use would constitute a potentially significant impact only if there were resulting significant impacts to sensitive species, biodiversity, wildlife movement, sensitive biotic communities listed by the California Department of Fish and Game, water quality, or other environmental resources addressed in this checklist.

b.- d. The proposed ordinance is not in conflict with existing agricultural uses and systems under the ordinance are not allowed if prohibited under the terms of a Williamson Act contract. The ordinance is not in conflict with existing zoning for, or cause rezoning of, forest land, timberland or timberland zoned timber production areas. The proposed ordinance under § 18.117.070(I) includes vegetation protective measures, specifically the avoidance of tree removal for species greater than 6" in diameter, the protection of tree root systems and requirements for the planting of additional native trees and vegetation if needed for visual screening. These protections will be imposed on any proposed system through adherence to the development standards necessary for an administrative permit, or through specified mitigation associated with the issuance of a use permit, thereby effectively reducing any potential impacts to these issues to a less than significant level.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Discussion:

a. While the topographical and meteorological features of Napa County, and of the Napa Valley in particular, create a relatively high potential for air pollution, small wind energy systems do not produce air pollution in volumes substantial enough to result in an air quality plan conflict. The *Bay Area Air Quality Management Plan* states that projects that do not exceed a threshold of 2,000 vehicle trips per day will not impact air quality and do not require further study (*BAAQMD CEQA Guidelines*, p. 24). The proposed ordinance providing for the installation and operation of small wind energy systems under limited conditions would not significantly increase traffic volumes. As a result, the County foresees no significant increase in traffic to the currently-permitted baseline conditions. The subject project would not conflict with or obstruct the implementation of any applicable air quality plan.

b. Please see "a.", above. Adoption of the proposed ordinance does not in itself cause a specific new development project to be undertaken. There are no projected or existing air quality violations in the area to which this proposal would contribute on a project-specific basis. The proposed ordinance would not result in any violations of applicable air quality standards. Cumulative impacts related to air quality standards were identified in the 2008 General Plan EIR. Significant cumulative impacts were identified, including a failure to comply with the Clean Air Plan, increased emissions of ozone precursors resulting primarily from vehicles, increased PM_{10} emissions, and a failure to fully support Clean Air Transportation Control Measures. Despite the adoption of mitigation measures that incorporated specific policies and action items into the General Plan, cumulative impacts related to air quality standards were found to be significant and unavoidable and a statement of overriding considerations was adopted.

c. Please see "a." and "b.," above. Adoption of the proposed ordinance would not result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. The proposed ordinance would permit limited new construction of small wind energy systems. The proposed ordinance includes specific development standards requiring the control of fugitive dust during system installation and operation (see proposed ordinance § 18.117.070(L). Additionally, all systems will require the issuance of a building permit and as such strict adherence to Napa County's Stormwater Pollution Prevention Program (NCSPPP), per the requirements of County Code Chapter 16.28. Adherence to the NCSPPP requires the implementation of standard practices to manage erosion and control dust to ensure that the proposed development does not impact adjoining properties, drainages, and roadways. Moreover, the proposed ordinance includes development standards to maintain and enhance existing vegetation by protecting and limiting the removal of trees, and the replanting of vegetation compatible with the vegetation in the surrounding area. Therefore impacts would be is less-than-significant.

d.-e. Adoption of the proposed ordinance will not expose sensitive receptors to substantial pollutant concentrations and will not create objectionable odors affecting a substantial number of people. Construction and operation of these systems, will generate little, if any, such pollutants.

Mitigation Measure(s): None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, Coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

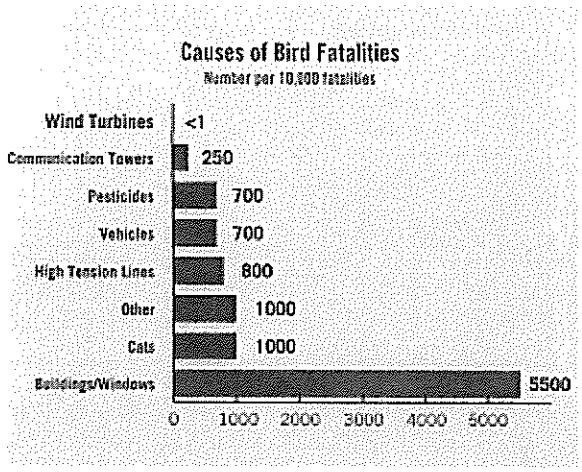
Discussion:

a.- f. Adoption of the proposed ordinance does not in itself cause a specific new development project to be undertaken.

Wind turbines may cause fatalities to birds and bats through collision with system rotors or supporting structures. According to the National Research Council's report on the environmental impacts of wind-energy projects (2007), impacts vary depending on species vulnerability and type of wind turbine used. Newer turbines appear to cause fewer fatalities than those found in older wind-energy developments in California.

The American Wind Energy Association (AWEA) asserts there is a common misconception that wind energy systems are disproportionately harmful to bird and bat populations. The National Academy of Sciences confirms this misconception finding that large utility-scale wind farms with turbines grouped closely together account for less than 0.003% of all human caused bird deaths. By comparison, house cats and glass windows cause 10,000 times more bird deaths then do wind energy systems.

An extensive review of existing literature estimated that from 100 million to well over 1 billion birds are killed annually in the United States due to collisions with human-made structures, including vehicles, buildings and windows, powerlines, communication towers, and large commercial wind turbines (National Wind Coordinating Committee (NWCC) 2001). This research contrasted avian collision mortality associated with commercial windpower developments with other significant sources of avian collision mortality. The National Audubon Society estimates avian mortality due to house cats at 100 million birds per year. Pesticide use, oil spills, disease, etc., are considered other significant sources of unintended avian mortality. Overall, avian collision mortality associated with commercial windplants is noted as much lower than other sources of collision mortality. The current levels of mortality caused by commercial windpower developments do not appear to be causing any significant population impacts (except possibly for golden eagles at Altamont, although several possible contributors to this decline have been proposed) (NWCC 2001).



Source: Erickson, et.al, 2002. Summary of Anthropogenic Causes of Bird Mortality

Researchers believe there are a number of reasons for the relatively low mortality rates associated with wind energy systems. One reason is the relatively sparse and dispersed development of windpower facilities and another is that many developments are being located in areas with relatively low bird and raptor use. Even if commercial windpower facilities were quite numerous (e.g., 1 million turbines), they would likely cause no more than a few percent of all collision deaths related to human structures. It appears from the available data that siting windpower developments in areas with low bird and raptor use is currently the best way to minimize collision mortality (NWCC 2001).

A number of guidance documents have been recently developed by multi-agency committees to help local permitting authorities avoid or otherwise minimize biological impacts associated with the wind energy system development. Although most of these guidance documents are focused towards large wind-farm developments, the challenges raised in these documents and the methods of addressing them can be also applied to small wind energy systems (CEC 2007). U.S. Fish and Wildlife Service Wind Turbine Guidelines recommends avoiding areas with known threatened or endangered species, siting systems out of migratory bird pathways, avoid siting near known bat populations, and configuring tower and turbine structures to minimize bird and bat mortality among other measures to minimize the effects wind turbines have on bird and bat species (USFWS 2010) (GeoSearch 2010). Guidelines provided by the California Energy Commission in association with the California Department of Fish & Game provide direction on how best to conduct studies and site systems to minimize impacts and address the requirements of CEQA and State and federal wildlife laws. The guidelines recommend specific protocols to obtain baseline information to effectively evaluate potential impacts to birds and bats according to CEQA (CEC 2007). The National Research Council also recommends that standardized studies be conducted prior to siting and construction to avoid potential environmental impacts.

The wind turbine systems allowed under the proposed ordinance are much smaller than commercial-scale systems in both height and rotor size. Only one system is allowed per parcel; therefore the systems provided for in the proposed ordinance would be dispersed, and not clustered like commercial facilities. All systems shall avoid significant impacts to sensitive plants and wildlife as verified by a submitted biological and special-status plant studies. Systems covered under the proposed text amendments are not allowed:

a) Within five times the system height or three hundred feet, whichever is greater, of a known or suspected avian migratory concentration point;
b) Within five times the system height or three hundred feet, whichever is greater, of a known nest or roost of a listed State or Federal threatened or endangered species or California Department of Fish and Game designated bird or bat 'species of special concern;'

c) Within areas that contain a potential for impacts to any special-status plants or rare plant communities defined in department's guidelines.

The proposed ordinance discourages the use of guy wires where whenever feasible. If guy wires are necessary, they are required to incorporate bird deterrent devices as recommended by the USFWS or CDFG.

All proposed small wind energy systems must also meet the requirements established by other chapters of the Napa County Code that are not inconsistent with the proposed ordinance. This includes the County's Conservation Regulations, which provide setbacks to protect streams, wetlands and riparian areas, and measures to conserve soil and vegetative resources, including revegetation requirements and protection of tree, shrub and brush canopies in the County's sensitive domestic water supply drainages.

If it is determined that there is a potential for impacts to any listed State or Federal threatened or endangered species (plant or animal) or California Department of Fish and Game designated bird or bat 'species of special concern' found to nest or roost in the area of the proposed system, the system will require a use permit and further processing pursuant to the County's Local Procedures for Implementing the California Environmental Quality Act (CEQA), with appropriate mitigations imposed on the project, or denial if the impact cannot be avoided.

The proposed ordinance does not contain provisions that would substantially reduce the number of special-status species or substantially alter their habitats. The ordinance includes development standards, limitations and protective measures that avoid and minimize potential adverse environmental impacts on biological resources. If a system does not qualify for approval under these protective measures, a use permit will be required and will be subject to appropriate CEQA review and findings to ensure that the proposed system does not substantially adversely impact the environment. Therefore, any impacts to biological resources associated with adoption of the ordinance would be less-than-significant.

Mitigation Measure(s): None are required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES. Would the project:**				
	a) **Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?**	☐	☐	☒	☐
	b) **Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines§15064.5?**	☐	☐	☒	☐
	c) **Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?**	☐	☐	☒	☐
	d) **Disturb any human remains, including those interred outside of formal cemeteries?**	☐	☐	☒	☐

Discussion:

a.- d. No small wind energy system, as provided for under the proposed ordinance, would be allowed on sites listed in the National Register of Historic Places or the California Register of Historical Resources. All project applications will be reviewed against the County's inventory of archeological sites to determine if a project is proposed to be located in the area of any recorded cultural resources. No system or related improvements are allowed to be sited or constructed that will damage an archaeological site or have an effect on a historic feature identified on the Napa County environmental sensitivity maps (see proposed ordinance §18.117.070(H)(3)). If there is a potential to impact cultural resources, the project will be subject to approval by use permit and require additional CEQA review and findings to ensure that the proposed system does not substantially adversely impact the County's cultural resources. Therefore impacts to cultural resources is less-than-significant.

Mitigation Measure(s): None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VI. GEOLOGY and SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐

Discussion:

a,i-iv. Adoption of the proposed ordinance would not in itself cause a specific new development project to be undertaken. However, the proposed ordinance could foreseeably lead to new construction or new earth disturbing activities. The area of development required for the installation and operation of a small wind energy system is limited and much less than that required for typical residential structures. Any system or improvements provided for under the ordinance would be located outside the boundaries of any environmental or geologic hazardous area as identified on the Napa County environmental sensitivity maps, unless suitable evidence is presented to the department showing such hazards do not in fact exist in the affected area. Such areas include fault zones, landslide areas, and areas of high liquefaction potential, and include those areas identified on the most recent Alquist-Priolo Earthquake Fault Zoning Map. As a result of these constraints, systems under the proposed ordinance would not create significant impacts relative to any earthquake fault zone, soils with a high liquefaction potential, landslides, or any soil creep area. While seismic activity is endemic to the Bay Area, all structures are required to comply with the requirements of the California Building Code, which functions to reduce seismic-related risks to a less than significant level. Therefore any impacts will be less-than-significant.

b. All small wind energy systems provided for must also meet most all requirements established by other chapters of the Napa County Code, including the County's Conservation Regulations, which limit winter earth disturbing/grading activities and provide protective measures to conserve soil and prevent soil loss. All systems will require the issuance of a building permit and as such strict adherence to Napa County's Stormwater Pollution Prevention Program (NCSPPP), per the requirements of County Code Chapter 16.28. Adherence to the NCSPPP requires the implementation of standard practices to manage erosion and loss of topsoil, control dust and ensure that the proposed development does not impact adjoining properties, drainages, and roadways. Additionally, the proposed ordinance includes development standards to maintain and enhance existing vegetation by protecting and limiting the removal of trees, and the replanting of vegetation compatible with the vegetation in the surrounding area. Therefore impacts would be less-than-significant.

c. Please see "a." above. This project will not result in significant impacts on a geologic unit or soil that is unstable, or that may become unstable, or which could potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Therefore impacts would be less-than-significant.

d. Please see "a." above. Any system provided for under the proposed ordinance requires standard drawings and engineering analysis of the system's tower or support structure and associated accessory structures, showing compliance with the Uniform Building Code or the California Building Standards Code and any required certification by professional mechanical, structural, or civil engineers licensed by this state. The application for a system must demonstrate that the system is designed to meet the most stringent wind requirements (Uniform Building Code wind exposure D), the requirements for the worst seismic class (Seismic 4), and the weakest soil class, with soil strength of not more than one thousand pounds per square foot. Risks to life and property will be less than significant.

e. The development and operation of a small wind energy system does not in itself cause or require the siting or installation of a septic tank or alternative waste water disposal system. Any application for such a wastewater treatment system or expansion of an existing wastewater system requires review by the County's Department of Environmental Management to ensure that all such systems are adequate to handle the flows associated with intended use. The proposed ordinance will have a less than significant impact with regard to wastewater flows on incapable soils.

Mitigation Measure(s): None are required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VII.	GREENHOUSE GAS EMISSIONS. Would the project:				
a)	Generate a net increase in greenhouse gas emissions in excess of applicable thresholds adopted by the Bay Area Air Quality Management District or the California Air Resources Board which may have a significant impact on the environment?	☐	☐	☒	☐
b)	Conflict with a county-adopted climate action plan or another applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion:

a. - b. In 2006, the State Legislature enacted Assembly Bill 32, requiring the California Air Resources Board (CARB) to design measures and rules to reduce greenhouse gas (GHG) emissions statewide to 1990 levels no later than 2020. The measures and regulations to meet the 2020 target are to be put in effect by 2012, and the regulatory development of these measures is ongoing. In August 2007, the Legislature enacted Senate Bill 97, which among other things, directed the Governor's Office of Planning and Research (OPR) to propose new CEQA regulations for the evaluation and mitigation of GHG emissions. SB 97 directs OPR to develop such guidelines by July 2009, and directs the state Resources Agency (the agency responsible for adopting CEQA regulations) to certify and adopt such regulations by January 2010. This effort is underway; however, to date neither the State nor Napa County has adopted explicit thresholds of significance for GHG emissions, although the State has recently adopted changes to the State CEQA Guidelines which suggest that agencies may consider (among other factors) the extent to which a project complies with requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG (State CEQA Guidelines Section 15064.4(b)(3)). Also, the Bay Area Air Quality Management District (BAAQMD) has proposed compliance with a "qualified climate action plan" as a threshold of significance, along with a quantitative threshold of 1,100 MTCO2e/yr (metric tons of carbon dioxide equivalents per year) for land use projects.

Overall increases in green house gas (GHG) emissions in Napa County were assessed in the Environmental Impact Report (EIR) prepared for the Napa County General Plan Update and certified in June 2008. GHG emissions were found to be significant and unavoidable despite adoption of mitigation measures that incorporated specific policies and action items into the General Plan.

Consistent with these General Plan action items, Napa County participated in development of a community-wide GHG emissions inventory and "emission reduction framework" for all local jurisdictions in the County in 2008-2009. This planning effort was completed by the Napa County Transportation and Planning Agency (NCTPA) in December 2009, and is currently serving as the basis for development of a refined inventory and emission reduction plan for unincorporated Napa County.

Pursuant to State CEQA Guidelines §15183, because this initial study assesses a project that is consistent with an adopted General Plan for which an environmental impact report (EIR) was prepared, it appropriately focuses on impacts which are "peculiar to the project," rather than the cumulative impacts previously assessed.

The proposed ordinance provides for the development of distributed small wind energy systems to advance the County's goals towards reducing emissions of local greenhouse gases that contribute to climate change. One of wind energy's environmental benefits is the lack of emission of both air pollution and GHGs when compared

with alternative methods of energy generation (AWEA 2010[1]). Wind energy is a renewable source of energy and in operation produce no carbon dioxide. While some emissions of GHG takes place during the design, manufacture, transport and erection of small wind turbines, enough electricity is generated from these systems to compensate for those emissions. Studies have found that the manufacturing of very large-commercial wind turbines and the building of utility-scale wind plants creates much less carbon dioxide per unit of electrical energy generated compared to coal or natural gas facilities (on the order of 1% of coal or 2% of natural gas). In other words, using wind instead of coal reduces carbon dioxide emissions by 99%, using wind instead of gas by 98% (AWEA 2010[2]).

Small wind energy systems provided for in the proposed ordinance will not generate a net increase in greenhouse gas emissions in excess of applicable thresholds adopted by the Bay Area Air Quality Management District or the California Air Resources Board. Furthermore, there is no foreseeable significant increase in GHG emissions, either from the installation or operation of a small wind energy system, when compared to the currently-permitted baseline conditions. The systems allowed under the proposed ordinance are not in conflict with a county-adopted climate action plan or another applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Project impacts related to GHG emissions are therefore considered less than significant.

Mitigation Measure(s): None are required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
VIII.	**HAZARDS AND HAZARDOUS MATERIALS. Would the project:**				
a)	**Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**	☐	☐	☐	☒
b)	**Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**	☐	☐	☐	☒
c)	**Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**	☐	☐	☐	☒
d)	**Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**	☐	☐	☐	☒
e)	**For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wild-land fires, including where wild-lands are adjacent to urbanized areas or where residences are intermixed with wild-lands?	☐	☐	☐	☒

Discussion:

a.- h. The proposed ordinance does not in itself cause a specific new development project to be undertaken. Adoption of the proposed ordinance regulating the placement of small wind energy systems will not result, either directly or indirectly, in the release of any hazardous materials into the environment. It will not impact schools, hazardous materials sites, or any emergency response or emergency evacuation plan. With respect to airports (be they public or private), the ordinance requires compliance with FAA regulations, including lighting and height restrictions. Undergrounding of electrical wires associated with the system will lessen exposure of people and/or structures to a significant risk of loss, injury or death involving wildland fires to a level of less than significant.

Mitigation Measure(s): None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☒	☐
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐

Discussion:

a.- f. The proposed ordinance does not in itself cause a specific new development project to be undertaken. The proposed ordinance establishes regulations and standards regarding the location, design and operation of small wind energy systems for the primary purpose of reducing on-site consumption of utility power. The proposed ordinance would permit limited new construction and earth disturbing activities associated with the installation of these systems. Only one system is allowed per parcel greater than two acres, and required setbacks are greater than those typically applied to other allowed accessory uses; therefore the systems provided for in the proposed ordinance would be dispersed on the landscape. The area of development required for the installation and operation of a small wind energy system is limited and much less than that required for typical residential structures.

All small wind energy systems provided for in the proposed ordinance must meet most all requirements established by other chapters of the Napa County Code (see proposed §18.117.060), including the County's Conservation Regulations, which limit winter earth disturbing/grading activities, provide protective measures to conserve soil and prevent soil loss, call for setbacks from streams commensurate with slope, and require vegetation retention standards within the County's sensitive domestic water supply drainages. Furthermore, all systems will require the issuance of a building permit and as such strict adherence to Napa County's Stormwater Pollution Prevention Program (NCSPPP), per the requirements of County Code Chapter 16.28. Adherence to the

NCSPPP requires the implementation of standard practices to manage erosion and loss of topsoil, control dust and ensure that the proposed development does not impact adjoining properties, drainages, and roadways. Additionally, the proposed ordinance, in §18.117.070, includes strict development standards that are protective of hydrology and water quality impacts by requiring the enhancement and maintenance of existing vegetation, limiting the removal of trees, and the replanting of vegetation compatible with that found in the surrounding area. The ordinance prohibits earth disturbance related to system installation or operation in areas that average 30% slope or more (see proposed §18.117.070(H)(5)).

Given the protective measures provided in the proposed ordinance, the dispersed nature of these systems, and restrictions elsewhere in the County Code, adoption of the ordinance will not violate water quality standards or waste discharge requirements, nor substantially deplete groundwater supplies or interfere substantially with groundwater recharge, nor will it substantially alter existing drainage patterns or contribute to excessive soil erosion rates or runoff. The restrictions that will be imposed on any system either through strict adherence to the development standards necessary for an administrative permit, or specified mitigation associated with the issuance of a use permit, will effectively reduced any potential hydrological and water quality impacts arising from the adoption of the ordinance to a less than significant level.

g.- j. The proposed ordinance does not in itself cause a specific new development project, nor cause the placement of housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. The proposed ordinance restricts the location of these systems such that no system shall be located inside the boundaries of any environmentally hazardous area identified on the Napa County environmental sensitivity maps; which include areas such as floodways, fault zones, landslide areas, and areas of high liquefaction potential, unless suitable evidence is submitted certifying that the hazard involved does not exist in the area in question (see proposed §18.117.070(H)(4)). All systems will require the issuance of a building permit and as such strict adherence to the requirements of County Code Chapter 16.04, Flood Plain Management Regulations. These restrictions reduce any potential floodway or flooding impacts arising from the adoption of the ordinance to a less than significant level.

Mitigation Measures: None are required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
X.	**LAND USE AND PLANNING. Would the project:**				
	a) **Physically divide an established community?**	☐	☐	☐	☒
	b) **Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**	☐	☐	☐	☒
	c) **Conflict with any applicable habitat conservation plan or natural community conservation plan?**	☐	☐	☐	☒

Discussion:

a. The placement of a single wind energy system on a parcel greater than 2 acres in size in AP, AW, or I zoning districts, in conformance with the proposed ordinance's standards will not physically divide an established community.

b. The proposed ordinance, in §18.117.050, limits allowable locations for the systems so they do not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The proposed ordinance furthers the County's goal of utilizing clean, renewable energy sources thereby reducing the consumption of centralized utility-supplied electricity. The proposed ordinance furthers the following goals and policies of the Napa County General Plan: Goals AG/LU-6 and CON-3, 15, 16; Policies CC-10, 38, 39, 42 and CON-13, 16, 17, 68 and 70.

c. The County has no applicable habitat conservation plan or natural community conservation plans that would conflict with the proposed ordinance adoption. However, the ordinance, in §18.117.070, imposes development standards that must be adhered to protect habitat areas such as requiring special status plant studies to assure such areas are not disturbed, and compliance with setback distances from riparian areas.

Mitigation Measures: None are required.

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XI.	**MINERAL RESOURCES. Would the project:**				
	a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
	b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion:

a. - b. Adoption of the proposed ordinance regulating the design and placement of small wind energy systems will not result in the loss of any known mineral resources or mineral resource recovery sites. Limiting the size of the systems, with their concomitant small footprint, will not result in any impacts to mineral resources, or interfere with the ability to extract such mineral or cause the loss of a recovery site.

Mitigation Measures: None are required.

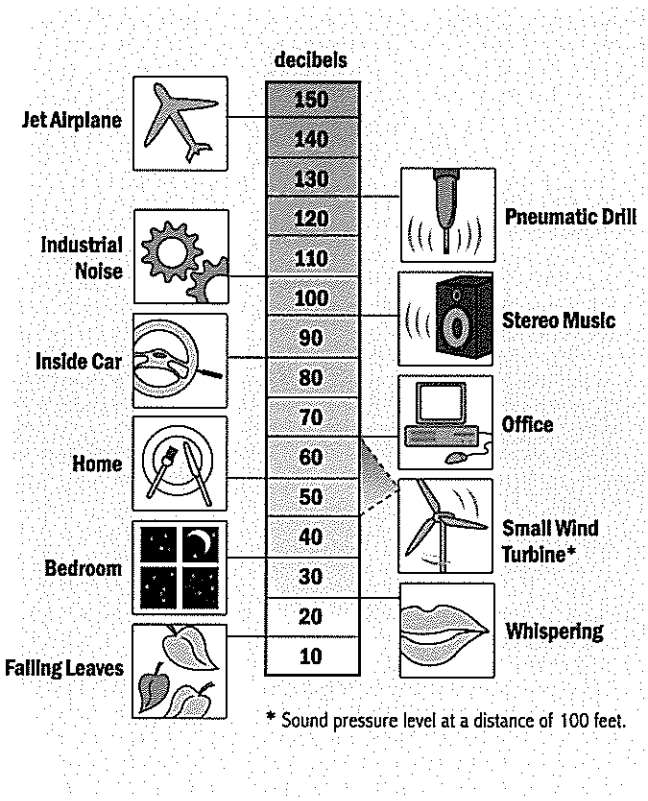
		Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XII.	NOISE. Would the project result in:				
	a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
	b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐
	c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
	d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
	e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
	f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Discussion:

a. - d. Wind turbines commonly produce some level of broadband noise from the rotation of their rotor blades encountering turbulence in the passing air. This noise is usually described as a "swishing" or "whooshing" sound. Some wind turbines (usually older ones) can also produce tonal sounds (e.g., a "hum" or "whine" at a steady pitch). This can be caused by mechanical components or, less commonly, by unusual wind currents interacting with turbine parts. These noise problems associated with older turbines has been nearly eliminated in modern turbine designs (AWEA 2010[3]). Noise is measured in decibels (dB). The decibel is a measure of the sound pressure level (ie. the magnitude of the pressure variations in the air). An increase of 10 dB sounds roughly like a doubling of loudness. Measurements of environmental noise are usually made in dB(A) which includes a correction for the sensitivity of the human ear. Below are examples of noise levels from various sources measured at a distance. The noise levels provided are approximant and offer ranges for both utility-scale wind energy facilities (wind farms) and small wind energy turbines.

Source/Activity	Indicative noise level dB (A)
Threshold of hearing	0
Rural night-time background	20-40
Quiet bedroom	35
Utility-scale wind facility at 1,150 ft	35-45
Car at 40mph at 330 ft	55
Busy general office	60
Truck at 30mph at 330 ft	65
Pneumatic drill at 23 ft	95
Jet aircraft at 820 ft	105
Threshold of pain	140

"Noise from Wind Turbines"
British Wind Energy Association, 1994.
http://www.bwea.com/ref/noise.html



http://www.awea.org/faq/noisefaq.html

The proposed ordinance, in § 18.117.040(H), requires evidence of a system's decibel levels to be submitted with the application for permit. The ordinance explicitly limits the allowable noise from theses systems to those levels established under Chapter 8.16 (Noise Control Regulations), except during short-term events such as utility outages and severe wind storms (see proposed §18.117.070(J). Because of the rural nature of Napa County, the noise limitations in Chapter 8.16 are slightly more restrictive than those allowed under Article 2.11 if the County chose not to adopt the proposed ordinance. As the minimum parcel size for location of the systems is greater than

2 acres, exposure of persons other than the property owner to noise and vibration will be minimal. As a result of required compliance with the Noise Control Regulations, noise impacts are determined to be less than significant.

e.-f. The proposed ordinance requires any proposed system to comply all applicable Federal aviation requirements and precludes the location of such systems within the safety zone of any airport unless the airport operator indicates that it will not adversely affect the operation of the airport. Furthermore, no system shall be installed where special painting or lighting will be required under FAA regulations unless evidence is submitted showing the proposed location is the only technically feasible site available. These restrictions effectively minimize any potential noise impacts to levels that are less-than-significant for systems located within airport planning areas or near any airport of private airstrip (public or private).

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIII. POPULATION and HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion:

a. - c. Adoption of the proposed ordinance, regulating the placement and operation of small wind energy systems for the primary purpose of reducing on-site consumption of utility power, does not involve the proposal of new homes or businesses. Therefore, no impacts are associated with potentially inducing substantial population growth. It is not expected that the systems will displace any existing housing stock or populations, but rather complement through providing an alternative energy source, presently existing housing structures. Therefore, impacts to population and housing are either non-existent or less than significant.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES. Would the project result in:				
a) Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion:

a. Adoption of the proposed ordinance, regulating the placement and operation of small wind energy systems for the primary purpose of reducing on-site consumption of utility power, does not involve substantial adverse physical impacts associated with the provision or alteration of governmental facilities, nor the need for construction of new governmental facilities. The proposed ordinance requires systems be constructed out of metal or other non-flammable materials, and requires all systems be set back a distance equal to at least the system height from all required yards and at least one hundred feet from any public trail, park, or outdoor recreation area, unless a greater setback is needed to comply with the applicable fire setback requirements set forth in Section 4290 of the Public Resources Code (see proposed §18.117.070(A)). Impacts to public services resulting from the adoption of the proposed ordinance are either non-existent or less than significant.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XV. RECREATION. Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion:

a. – b. Adoption of the proposed ordinance, regulating the placement and operation of small wind energy systems for the primary purpose of reducing on-site consumption of utility power, does not increase the use of existing recreational parks, nor include any recreational facilities, or the construction thereof, which might have an adverse effect on the environment. There is no foreseeable impact to recreation facilities resulting from the adoption of the proposed ordinance.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC. Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system and/or conflict with General Plan Policy CIR-16, which seeks to maintain an adequate Level of Service (LOS) at signalized and unsignalized intersections, or reduce the effectiveness of existing transit services or pedestrian/bicycle facilities?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the Napa County Transportation and Planning Agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature, (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
f) **Conflict with General Plan Policy CIR-23, which requires new uses to meet their anticipated parking demand, but to avoid providing excess parking which could stimulate unnecessary vehicle trips or activity exceeding the site's capacity?**	☐	☐	☐	☒
g) **Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?**	☐	☐	☐	☒

Discussion:

a.-b. Adoption of the proposed ordinance, regulating the placement and operation of small wind energy systems for the primary purpose of reducing on-site consumption of utility power, will not cause a substantial an increase in traffic in relation to existing traffic loads and capacities of the County's street/road system, nor will it significantly adversely affect the Level of Service (LOS) at signalized and unsignalized intersections. Furthermore, the proposed ordinance will not reduce the effectiveness of existing transit services or pedestrian/bicycle facilities. Therefore the proposed ordinance would not result in a significant increase in traffic or a net negative change in the existing roadway level of service.

c. The proposed ordinance would not result in any change to air traffic patterns. The proposed ordinance specifically restricts locating a system within the safety zone of any airport unless the airport operator indicates that it will not adversely affect the operation of the airport (see proposed §18.117.050(L)).

d.- e. The proposed ordinance does not in itself cause a specific new development project to be undertaken. Adoption of the proposed ordinance regulating the placement of small wind energy systems will not increase traffic hazards due to roadway design features or incompatible roadway uses. The ordinance requires development standards that establish greater setbacks than would otherwise be required for allowed accessory uses. Therefore the proposed ordinance will not result in inadequate emergency access.

f.- g. The installation and operation of a small wind energy system as allowed under the proposed ordinance is not in conflict with General Plan Policy CIR-23 and will not result in any changes to existing roadways or parking demand, and there will be no impacts related to non-motorized transportation or public transportation.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) **Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Require or result in the construction of a new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of a new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion:

a.-b. Adoption of the proposed ordinance, regulating the placement and operation of small wind energy systems for the primary purpose of reducing on-site consumption of utility power, does not in itself cause a specific new development project to be undertaken. The development and operation of a small wind energy system does not create wastewater and will not result in new wastewater treatment facilities. There is no foreseeable impact to wastewater disposal systems.

c. Also see discussion under section XI Hydrology and Water Quality, a.- f.. The proposed ordinance will not require or result in the construction of new storm water drainage facilities or an expansion of existing facilities which would cause a significant impact to the environment.

d.- e. Adoption of the proposed ordinance, regulating the placement and operation of small wind energy systems for the primary purpose of reducing on-site consumption of utility power, does not in itself cause a specific new development project to be undertaken, nor does it require the use of existing water entitlements or limit the capacity of a wastewater treatment facility. As a result, there is no foreseeable impact to water supplies or the capacity of any wastewater treatment facility.

f.-g. Adoption of the proposed ordinance will not directly result in any substantially significant increases in solid waste generation. Napa County is served by a landfill with sufficient capacity to meet the demands of foreseeable future development. Impacts related to the disposal of solid waste will be less than significant.

Mitigation Measures: None are required.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) **Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**	☐	☐	☒	☐
b) **Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**	☐	☐	☒	☐
c) **Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?**	☐	☐	☒	☐

Discussion:

a. Adoption of the proposed ordinance would have a less than significant impact on environmental resources, including fish and wildlife communities and their habitats, or significantly threaten or reduce rare or endangered plants or animals. Furthermore, the proposed ordinance would not result in a significant loss of important examples of California's history or pre-history.

b. Analyses conducted in this initial study considered both cumulative and individual potential impacts. Adoption of the proposed ordinance, regulating the placement and operation of small wind energy systems for the primary purpose of reducing on-site consumption of utility power does not in itself cause impacts that are individually limited but cumulatively considerable.

c. The proposed ordinance includes development standards, limitations and protective measures that avoid and minimize potential adverse impacts to the environment and human beings. If a system does not qualify for approval under these protective measures, a use permit will be required and will be subject to appropriate CEQA review and findings to ensure that the proposed system does not substantially adversely cause impacts. Analyses conducted in this initial study considered both cumulative and individual potential impacts. There are no environmental effects caused by the adoption of this ordinance that would result in significantly substantial adverse effects on the environment, or human beings, whether directly or indirectly.

The analyses performed in this initial did not identify any significant effects resulting from the proposed ordinance, nor did it discover any significant environmental impacts that require mitigation, and warrants approval of a Negative Declaration of Environmental Impact.

Mitigation Measures: None are required.

Documents Incorporated by Reference for Initial Study

The following is a list of relevant information sources, which have been incorporated by reference into the foregoing Initial Study. The information incorporated from these documents and from other sources identified have been considered in the preparation of this Initial Study (listed in order of citation).

Permitting Small Wind Turbines: A Handbook, Learning from the California Experience. Renewable Energy Program, California Energy Commission and the American Wind Energy Association. September 2003.

Small wind Electric Systems, A U.S. Consumer's Guide. U.S. Department of Energy, National Renewable Energy Laboratory. March 2005.

Wind Turbine Guidelines Advisory Committee Recommendations. U.S. Fish and Wildlife Service Wind Turbine Guidelines Advisory Committee. March 2010.

Challenges with Permitting Wind Power: Permitting Difficulties for Wind and Solar Facilities. GeoSearch Webinar. Melinda Taylor, Executive Director of the University of Texas School of Law's Center for Global Energy. August 2010.

Avian Collisions with Wind Turbines: A Summary of Existing Studies and Comparisons of Avian Collision Mortality in the United States. National Wind Coordinating Committee Resource Document. August, 2001.

California Guidelines for Reducing Bird and Bat Impacts from Wind Energy Development: Frequently Asked Questions. California Energy Commission & California Dept. of Fish & Game. October 2007.

American Wind Energy Association [1] – Comparative Air Emissions of Wind and Other Fuels.Website Resources: Wind Energy Fact Sheet. September 2010.

American Wind Energy Association [2] – How does wind stack up on greenhouse gas emissions when the "total fuel cycle" (including manufacture of equipment, plant construction, etc.) is considered?.Website Resources: Web Tutorial on Wind Energy. September 2010.

American Wind Energy Association [3] – Facts About Wind Energy and Noise.Website Resources: Wind Energy Fact Sheet. September 2010

Attachment

Proposed Small Wind Energy Zoning Ordinance

County-initiated Zoning Code Text Amendment № P10-00243-ORD

Additions are underlined.
Deletions are ~~struck through.~~
Revision markers are noted in left or right margins as vertical lines.

ORDINANCE NO. _____

AN ORDINANCE OF THE BOARD OF SUPERVISORS OF THE COUNTY OF NAPA, STATE OF CALIFORNIA, REPLACING REPEALED CHAPTER 18.117 WITH A NEW CHAPTER 18.117 TO TITLE 18 OF THE NAPA COUNTY CODE REGULATING THE INSTALLATION AND USE OF SMALL ENERGY WIND SYSTEMS OUTSIDE URBANIZED AREAS IN THE UNINCORPORATED PORTIONS OF NAPA COUNTY

WHEREAS, Article 2.11 (commencing with Section 65893), entitled "Wind Energy", was added to Chapter 4 of Division 1 of Title 7 of the Government Code by Assembly Bill 45 (Blakeslee). The State Legislature made the following findings with respect to Article 2.11 in Section 65893:

(1) Wind energy is an abundant, renewable, and nonpolluting energy resource.

(2) Wind energy, when converted to electricity, reduces our dependence on nonrenewable energy resources, reduces air and water pollution that result from conventional sources burning fossil fuels, and reduces emissions of greenhouse gases.

(3) Distributed generation small wind energy systems also enhance the reliability and quality of electricity delivered by the electrical grid, reduce peak power demands, increase in-state electricity generation, diversify the state's energy supply portfolio, and make the electricity supply market more competitive by promoting consumer choice.

(4) Small wind energy systems designed for onsite home, farm, and small commercial use are recognized by the Legislature and the State Energy Resources Conservation

and Development Commission as an excellent technology to help achieve the goals of increased in-state electricity generation, reduced demand on the state electrical grid, increased consumer energy independence, and nonpolluting electricity generation.

(5) It is the intent of the Legislature to encourage local agencies to support the state's ambitious renewable energy procurement requirements by developing and adopting ordinances that facilitate the installation of small wind energy systems and do not unreasonably restrict the ability of homeowners, farms, and small businesses to install small wind energy systems in zones in which they are authorized by local ordinance.

(6) It is the intent of the Legislature to facilitate the implementation of consistent statewide standards to achieve the timely and cost-effective installation of small wind energy systems; and

WHEREAS, Government Code section 65895 further provides that if a local agency has not adopted an ordinance in accordance with the provisions of Article 2.11 by January 1, 2011, it may do so at a later date, but any applications for small wind energy systems (systems) that are submitted between January 1, 2011, and the adopted date of the ordinance must be approved through a ministerial permit if the systems meet the requirements and conditions of Government Code Section 65896(b). Such a ministerial permit would limit the County's ability to regulate conditions related to notice, tower height, setback, noise level, visual effects, turbine approval, and drawings and engineering analysis. Systems allowed under the ministerial requirement could be located outside of cites and urban areas on any parcel one acre or greater and have a height of not more than eighty feet on parcels between one and five acres and not more than one hundred feet on parcels above five acres. The allowed systems would be setback from property lines no

farther than the system height. Ordinances adopted prior to January 1, 2011 are exempt from the provisions of Article 2.11 and the above noted ministerial limiting conditions; and

WHEREAS, the purpose and intent of these regulations is to protect the public health, safety and community welfare and otherwise protect the scenic beauty and environment of Napa County to the maximum extent allowable consistent with the provisions of Government Code section 65893 et seq.; and

WHEREAS, these regulations recognize that rapidly expanding technologies are making wind turbines increasingly more efficient, quiet, safe, and cost effective; and

WHEREAS, distributed generation small wind energy systems advance the County's goals to reduce emissions of local greenhouse gases that contribute to climate change, and promote the economic and environmental health of Napa County by conserving energy, increasing the efficiency of energy use, and producing renewable energy locally (General Plan Goals CON-15 & 16 and related Policies CON-68 & 70); and

WHEREAS, these regulations establish development standards, procedures, and environmental resource protection measures for the construction and use of small wind energy systems that minimize potential adverse environmental impacts. All future small wind energy systems proposals that cannot be administratively approved based on the standards set forth in this Ordinance will be reviewed for environmental effects and merits on a case-by-case basis in accordance with the standards hereby established and the provisions of the California Environmental Quality Act.

Now therefore, the Board of Supervisors of the County of Napa, State of California, ordains as follows:

SECTION 1: A new Chapter 18.117, entitled Small Wind Energy Systems, is added to the Napa County Code, replacing repealed Chapter 18.117 to read in full as follows:

Chapter 18.117

Small Wind Energy Systems

Sections:

18.117.010 Purpose.

The purpose and intent of these regulations is to provide a uniform and comprehensive set of standards for the installation and use of small energy wind systems, designed for onsite home, farm, and small commercial use which are used primarily to reduce onsite consumption of utility power. The regulations contained herein are designed to protect the public health, safety, and community welfare while at the same time not unduly restricting the development of small wind energy systems. The regulations contain development standards for small wind energy systems and require studies relating to the assessment of natural resources for future proposed projects to assure that systems are sited, designed and operated in such a manner as to avoid significant impacts on environmental resources, including special-status species and their habitats, and preserve the visual quality of the natural and built environment. The regulations have also been developed to comply with the standards for development and use of small wind energy systems as provided in Government Code section 65893 et seq.

18.117.020 Definitions.

Unless otherwise specified, the terms indicated below shall have the following meaning:

"Energy commission" means the State Energy Resources Conservation and Development Commission.

"Small wind energy system" (system) means a wind energy conversion system consisting of a wind turbine, a tower or stand, and associated distribution, storage, control or conversion electronics and any accessory structure associated with them, which has a rated capacity of not more than 50 kilowatts per customer site, consistent with the requirements of paragraph (3) of subdivision (b) of section 25744 of the Public Resources Code and which will be used primarily to reduce onsite consumption of utility power.

"System height" means the higher of either the height of the tower and the system measured to the top of the blade at the highest point of the system extended above the existing grade when being operated. The system height of a free-standing system shall be measured from the natural, undisturbed ground surface below the center of the base of its tower to the top of the highest piece of equipment attached thereto. In the case of building or roof-mounted systems the height of the system includes the height of the portion of the building on which it is mounted.

"Tower height" means the height above grade of the upper most fixed portion of the tower, excluding the length of any vertical axial-rotating turbine blades.

"Urbanized area" means either of the following:

1. An urbanized area as defined in paragraph (2) of subdivision (d) of section 65944 of the Government Code; or

2. A city as defined in section 56023 of the Government Code.

18.117.030 Permit.

One small wind energy system may be installed and operated outside of urbanized areas on parcels greater than two acres in size in the unincorporated area of the county in the AP, AW, I, and TP zoning districts upon obtaining an administrative permit pursuant to Chapter 18.126 or by a use permit pursuant to Chapter 18.124, subject to the conditions set forth in this Chapter. To the extent the provisions Chapters 18.124 and 18.126 conflicts with this Chapter 18.117, the provisions of this Chapter shall prevail. The system shall be used primarily to reduce onsite consumption of electricity.

A. Administrative Permit – Permit applications which meet the criteria in Section 18.117.070 shall be submitted to the department for review by the director. The director may require the submittal of additional information including, but not limited to, a photo or computer simulation of the project and associated improvements, prior to determining that the project meets the criteria contained in Section 18.117.070. If the application, either as submitted, or upon the inclusion of specified measures, meets all of the criteria specified in Section 18.117.070, the director shall issue a tentative approval of an administrative permit. Notice of the tentative approval of the administrative permit shall be given by the director in accordance with subsection (B)(4) of Section 18.136.040. The notice shall inform the persons notified of their right to appeal the decision under Chapter 2.88, including the time within which any appeal must be filed. If no appeal is timely filed, the tentative approval shall become final.

B. Use Permit – If a system does not qualify for approval under subsection (A), a system may be approved through the issuance of a use permit under the provisions Chapter 18.124 and subject to appropriate CEQA review. Such a permit may only be approved if the commission, in addition to the findings required under Section 18.124.070, finds after receipt of sufficient evidence, that failure to adhere to the standards of Section 18.117.070 will not significantly increase the visibility of the system, decrease public safety, or substantially adversely impact the environment. Notices related to the use permit shall comply with Section 18.136.040.

18.117.040 Application.

Application for a permit shall be made to the department in writing on a form prescribed by the director. At minimum, the application shall include:

A. A vicinity map of appropriate scale illustrating the system's location and distance from the nearest urbanized area.

B. A site map of appropriate scale locating the system and its components, including any electricity storage facilities, on the subject parcel and their proximity to neighboring parcels and structures. The site map shall also indicate the location of all other structures and land uses onsite.

C. Standard drawings and engineering analysis of the system's tower or support structure and associated accessory structures, showing compliance with the Uniform Building Code or the California Building Standards Code and any required certification by professional mechanical, structural, or civil engineers licensed by this state. However, a wet stamp shall not be required, provided that the application demonstrates that the system is designed to meet the most stringent wind requirements (Uniform Building Code wind exposure D), the requirements for the worst seismic class (Seismic 4), and the weakest soil class, with a soil strength of not more than one thousand pounds per square foot.

D. A line drawing of the electrical components of the system in sufficient detail to allow for a determination that the manner of installation conforms to the National Electric Code.

E. Sufficient information demonstrating that the system will be used primarily to reduce onsite consumption of electricity, including but not limited to a complete listing of onsite electrical demands.

F. Written evidence, unless the applicant does not plan to connect the system to the electricity grid, that the electric utility service provider that serves the proposed site has been informed of the applicant's intent to install an interconnected customer-owned electricity generator.

G. Evidence that the height of the system's tower does not exceed the height recommended by the manufacturer or distributor of the system.

H. Evidence that decibel levels for the system comply with the noise provisions of Chapter 8.16.

I. A visual simulation of the installed system, demonstrating any visual impacts from one or more strategic vantage points. The visual simulation must also indicate the color treatment of the system's components and any visual screening incorporated into the project that is intended to lessen the system's visual prominence.

J. Payment of the fee established by resolution of the board of supervisors.

18.117.050 Locations.

All small wind energy systems shall be located on parcels greater than two acres in size located in non-urbanized areas of the unincorporated area of the county in the AP, AW, and I zoning districts, and located so as to minimize their visibility and comply with all applicable county codes. A small wind energy system shall not be allowed where prohibited by the following:

A. A local coastal program and any implementing regulations adopted pursuant to the California Coastal Act, Division 20 (commencing with Section 30000) of the Public Resources Code.

B. The California Coastal Commission, pursuant to the California Coastal Act, Division 20 (commencing with Section 30000) of the Government Code.

C. The San Francisco Bay Plan and any implementing regulations adopted by the San Francisco Bay Conservation and Development Commission pursuant to the McAteer-Petris Act, Title 7.2 (commencing with section 66600) of the Government Code.

D. A comprehensive land use plan and any implementing regulations adopted by an airport land use commission pursuant to Article 3.5 (commencing with Section 21670) of Chapter 4 of Division 9 of Part 1 of the Public Utilities Code.

E. The Alquist-Priolo Earthquake Fault Zoning Act, Chapter 7.5 (commencing with Section 2621) of Division 2 of the Public Resources Code.

F. A local ordinance to protect the scenic appearance of the scenic highway corridor designated pursuant to Article 2.5 (commencing with Section 260) of Chapter 2 of Division 1 of the Streets and Highways Code.

G. The terms of a conservation easement entered into pursuant to Chapter 4 (commencing with Section 815) of Division 2 of Part 2 of the Civil Code.

H. The terms of an open-space easement entered into pursuant to the Open-space Easement Act of 1974, Chapter 6.6 (commencing with Section 51070) of Division 1 of Title 5 of the Government Code.

I. The terms of an agricultural conservation easement entered into pursuant to the California Farmland Conservancy Program Act, Division 10.2 (commencing with Section 10200) of the Public Resources Code.

J. The terms of a contract entered into pursuant to the Williamson Act, Chapter 7 (commencing with Section 51200) of Division 1 of Title 5 of the Government Code.

K. The listing of the proposed site in the National Register of Historic Places or the California Register of Historical Resources pursuant to Section 5024.1 of the Public Resources Code.

L. No small wind energy system shall be installed within the safety zone of any airport unless the airport operator indicates that it will not adversely affect the operation of the airport.

M. No small wind energy system shall be installed at a location where special painting or lighting will be required under FAA regulations unless technical evidence acceptable to the approving authority is submitted showing that this is the only technically feasible location for the proposed system.

N. No small wind energy system shall be placed so as to silhouette against the sky above one of the county's major skylines, as defined in Section 18.08.355.

O. No small wind energy system shall be installed on an exposed ridgeline, in or at a location readily visible from a public trail, public park or other outdoor recreation area.

18.117.060 Compliance with other chapters.

All small wind energy systems shall meet all the requirements established by the other chapters of this code that are not in conflict with the requirements contained in this chapter, notwithstanding any language to the contrary in such chapters.

18.117.070 Development standards.

A. Setback.

All systems shall be set back a distance equal to at least the system height from all required yards as provided in Section 18.104.010 and at least one hundred feet from any public trail, park, or outdoor recreation area, unless a greater setback is needed to comply with the applicable fire setback requirements set forth in Section 4290 of the Public Resources Code. Guy wire anchors, if utilized, shall be set back at least twenty feet from any property line.

B. System height.

1. Maximum system heights of not more than fifty feet shall be allowed on parcels greater than two acres and less than five acres, and system heights of not more than eighty feet shall be allowed on parcels of five acres or more, be they either free-standing or building/roof-mounted systems.

2. All system heights shall not exceed the applicable limits established by the Federal Aviation Administration.

3. The highest point of the system shall be less than thirty feet above the highest point on the surrounding tree canopy within one hundred horizontal feet.

C. Structural safety requirements.

1. No small wind energy system shall be designed and/or sited such that it poses a potential hazard to nearby residences or surrounding properties or improvements. Any system located at a distance of less than one hundred ten percent of its height from a habitable structure, property line, or other tower shall be designed and maintained to withstand without failure the maximum forces expected from wind, earthquakes, and ice. Initial demonstration of compliance with this requirement shall be provided via submission of a report prepared by a structural engineer licensed by the state of California describing the system's structure and turbine, the basis for the calculations done, and documenting the actual calculations performed.

2. All systems shall be equipped with manual or automatic over-speed controls. The conformance of rotor and over-speed control design and fabrication with good engineering practices shall be certified by the manufacture.

D. Design. All small wind energy systems shall be designed to blend into the surrounding natural and man-made environment to the greatest extent feasible in such a manner so as to be effectively unnoticeable by incorporating all of the following minimum design measures:

1. Systems shall be placed or constructed below any major ridgeline, as defined by Section 18.106.030, when visible from any scenic highway corridor designated pursuant to Article 2.5 (commencing with Section 260) of Chapter 2 of Division 1 of the Streets and Highways Code, or any scenic highway corridor designated in the Napa County General Plan.

2. Systems shall be constructed out of metal or other non-flammable material.

3. All buildings, poles, towers, supports, and other components of each system shall be initially painted and thereafter repainted as necessary with a "flat" paint. The color selected shall be one that in the opinion of the approving authority will minimize the system's visibility to the greatest extent feasible. Systems which will be primarily viewed against soils, trees or grasslands shall be painted colors matching these landscapes while elements which rise above the horizon shall be painted a blue grey that matches the typical sky color at that location.

4. Systems taller than thirty-five feet shall be monopoles or guyed/lattice towers except where satisfactory evidence is submitted to the approving authority that a self-supporting tower is required to provide the height and/or capacity necessary for the proposed system use, to minimize the need for screening from adjacent properties, or to reduce the potential for bird strikes.

5. The use of guy wires shall be avoided whenever feasible. If guy wires are necessary, they shall incorporate bird deterrent devices as recommended by the USFWS or CDFG. Anchor points for any guy wires shall be located within property lines and not on or across any above-ground electric transmission or distribution line. The point of ground attachment for the guy wires shall be enclosed by a fence six feet high or sheathed in a bright orange or yellow covering from three to eight feet above ground.

6. All on-site electrical wires associated with the system shall be installed underground, except "tie-ins" to a public utility company and public utility company transmission poles, towers, and lines. An exemption may be granted if project terrain is found to be unsuitable to accomplish the intent and purpose of this subsection (D).

7. If a climbing apparatus is provided on the system tower, access shall be controlled by one of the following means:

a. The climbing apparatus shall be located no less than twelve feet above the ground and the tower shall be designed to prevent climbing within the first twelve feet;

b. A locked anti-climb devise is installed on the tower; or

c. A locked protective fence at least six feet in height encloses the tower.

8. Construction of on-site roadways for site access shall be minimized. Temporary access roads utilized for initial installation shall be regraded and revegetated to a natural condition after completion of installation.

9. Shadow flicker impacts on existing neighboring habitable structures shall be avoided.

E. Electromagnetic interference. The system shall be operated so that no disruptive electromagnetic interference is caused. If it has been demonstrated that a system is causing harmful electromagnetic interference, the system operator shall promptly mitigate the same or cease operation of the system.

F. Lighting. Tower structure and system component lighting is prohibited unless:

1. Otherwise required by another provision of law, and if so required shall be shielded or directed to the greatest extent possible in such a manner as to minimize the amount of light that falls onto nearby properties;

2. If the system is proposed to be sited in an agricultural area that may have aircraft operating at low altitudes, county shall to notify pest control aircraft pilots registered with the agricultural commissioner of the application.

G. Signage. No signage shall be attached to the system that is visible from a public road, except for public health and safety warning signs placed a maximum of six feet above grade.

H. Environmental resource protection. All systems shall be sited so as to minimize the effect on environmentally sensitive resources by incorporating the following measures:

1. All systems shall avoid significant impacts to sensitive plants and wildlife as verified by a submitted biological and special-status plant studies prepared by a qualified consultant acceptable to the department.

a. The biological study shall follow the department's Guidelines for Preparing Biological Resources Reconnaissance Surveys and include a "Birds and Bats Study", using the most recent version of "California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development" (California Energy Commission, 2007). The biological study shall consider at minimum the Napa County environmental sensitivity maps, the State Natural Diversity Data Base, Partners in Flight Data Base, the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and field data and counts from local environmental groups or scientific research provided by a government agency or credible ecological research organization/researcher. With respect to the Bird and Bat Study component of the biological study, the Bird and Bat Study shall:

i. Identify any listed State or Federal threatened or endangered species and California Department of Fish and Game designated bird or bat 'species of special concern' found to nest or roost in the area of the proposed site; and

ii. Identify periods of migration and roosting and assess preconstruction site conditions and proposed tree removal of potential roosting sites. If it is determined by the consultant that there is a potential for impacts to any listed State or Federal threatened or endangered species or California Department of Fish and Game designated bird or bat 'species of special concern' found to nest or roost in the area of the proposed system, the system will require a use permit and processing pursuant to the County's Local Procedures for Implementing the California Environmental Quality Act (CEQA).

b. The biological study shall confirm that the proposed system is not located within five times the system height or three hundred feet, whichever is greater, of a known or suspected avian migratory concentration point (e.g., ridge, valley, peninsula, water body or course, habitat island, or concentrated food source).

c. The special-status plant study shall follow the department's Guidelines for Preparing Special-Status Plant Studies. If it is determined by the consultant that there is a potential for impacts to any special-status plants or rare plant communities defined in department's guidelines as a result of system construction or improvements, the system will require a use permit and processing pursuant to the County's Local Procedures for Implementing the California Environmental Quality Act (CEQA).

2. No system shall be located within five times the system height or three hundred feet, whichever is greater, of a known nest or roost of a listed State or Federal threatened or endangered species or California Department of Fish and Game designated bird or bat 'species of special concern.'

3. No system or related improvements shall be sited or constructed that will damage an archaeological site or have an effect on a historic feature identified on the Napa County environmental sensitivity maps.

4. No areas that may be disturbed by the system or construction shall be located inside the boundaries of any environmental or geologic hazardous area identified on the Napa County environmental sensitivity maps, such as the floodway, fault zones, landslide areas, or areas of high liquefaction potential, unless suitable evidence submitted by a qualified consultant acceptable to the department definitively stating that the hazard involved in fact does not exist in the area in question.

5. The areas to be disturbed shall have average land slopes under thirty percent.

I. Vegetation protection and screening. All systems shall be installed in such a manner so as to maintain and enhance existing vegetation by incorporating the following measures:

1. Removal of trees larger than six inches in diameter shall be avoided.

2. All areas disturbed during system construction shall be replanted with vegetation compatible with the vegetation in the surrounding area.

3. Existing trees and other screening vegetation in the vicinity of the system and along the electrical line routes involved shall be protected from damage, both during construction and system operation by the following measures:

a. Prior to commencement of any work on-site, the trees and their driplines adjacent to the system and accessory construction areas shall be trimmed and temporary fencing installed and the area therein shall not be disturbed; and

b. All underground utility lines shall be routed such that a minimum amount of damage is done to tree root systems; and

c. When trees exist within one hundred feet of any wind energy development area, demonstration of compliance with these requirements shall be provided via submission of two inspection reports prepared by a qualified consulting certified arborist, the first prior to issuance of necessary building permits and the second prior to commencement of operation.

4. Additional trees and other native or adapted vegetation shall be planted and maintained around the system and the immediate vicinity in those instances where such vegetation is needed to screen the system from view.

J. Noise. Decibel levels for the system shall not exceed the interior and exterior noise limits established for receiving land uses pursuant to Chapter 8.16 except during short-term events such as utility outages and severe wind storms.

K. System Turbine Requirements. The system shall use a wind turbine that has been approved by the Energy Commission as qualifying under its Emerging Renewables Program pursuant to Section 25744 of the Public Resources Code or has been certified by a national program recognized and approved by the State Energy Resources Conservation and Development Commission.

L. Dust Control Measures. All areas of earth disturbance associated with the system installation, related improvements and long-term operation shall be managed to minimize the release of fugitive dust. Fugitive dust management practices will be verified via inspection by either the Department's Building Division or the Department of Public Works.

18.117.080 Compliance with federal aviation requirements.

The system shall comply with all applicable Federal Aviation Administration requirements, including Subpart B (commencing with Section 77.11) of Part 77 of Title 14 of the Code of Federal Regulations regarding installations close to airports, and the State Aeronautics Act (Part 1 (commencing with Section 21001) of Division 9 of the Public Utilities Code).

18.117.090 Validity of Permit.

The permit for a system shall be for an indefinite period, except that a permit shall lapse if a system becomes inoperative or abandoned for a period of more than one year. Inoperative or abandoned systems shall be removed.

18.117.100 Sunset Provision.

This chapter shall remain in effect only until January 1, 2017, and as of that date is repealed, unless the state Legislature, on or before January 1, 2017 deletes or extends the provisions of Government Code section 65893 et seq.

SECTION 2: Section 18.126.030 (Issuance) of Chapter 18.126 (Administrative Permits) of the Napa County Code is amended to read in full as follows:

18.126.030 Issuance.

Subject to the provisions of this chapter, an administrative permit may be issued by the director for any of the following:

A. A temporary event;

B. A home occupation;

C. An entry structure;

D. Directional, identification, temporary off-site and/or agricultural signs, and comprehensive sign plans;

E. A temporary trailer;

F. Very minor modifications to use permits as described in Sections 18.124.130(C)(1) through (4); and/or

G. Hot air balloon launching sites involving fifty or fewer days of launches or attempted launches at the same site per year. For purposes of this chapter, anytime the permittee stages or sets up balloon equipment in anticipation of a launch at the same site, the site shall be deemed used and it shall count towards the maximum fifty launching days allowed per year regardless of whether an actual launch occurs.

H. Small wind energy systems pursuant to the requirements of Chapter 18.117 of this Code.

SECTION 3. According to the proposed Negative Declaration, adoption of this ordinance will not have any potentially significant environmental impacts.

SECTION 4. Pursuant to Chapter 4, Title 7 (commencing with Section 65800) of the Government Code, this Ordinance is consistent with the following goals and policies of the Napa County General Plan (as amended through June 23, 2009): Goals AG/LU-6 and CON-3, 15, and 16; Policies CC-10, 38, 39, and 42 and CON-13, 16, 17, 68, and 70.

SECTION 5. It is hereby declared to be the intention of the Board of Supervisors that the sections, paragraphs, sentences, clauses and phrases of this Ordinance are severable, and if any phrase, clause, section, paragraph or section of this Ordinance shall be declared unconstitutional or invalid by a court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this ordinance.

SECTION 6. This ordinance shall take effect on December 31, 2010.

SECTION 7. A summary of this Ordinance shall be published at least once 5 days before adoption and at least once before the expiration of 15 days after its passage in the Napa

Valley Register, a newspaper of general circulation published in the County of Napa, together with the names of members voting for and against the same.

The foregoing Ordinance was introduced and public hearing held thereon at a regular meeting of the Napa County Conservation, Development and Planning Commission held on _____; and was introduced, title read and reading of balance waived, and passed at a regular meeting of the Board of Supervisors of the County of Napa, State of California, held on the ____ day of_____, 2010, by the following vote:

AYES: SUPERVISORS _____

_____

NOES: SUPERVISORS _____

ABSTAIN: SUPERVISORS _____

ABSENT: SUPERVISORS _____

_____
DIANE DILLON, CHAIR
Board of Supervisors

ATTEST: GLADYS I. COIL
Clerk of the Board of Supervisors

By:_____

APPROVED AS TO FORM **Office of County Counsel**	**Approved by the Napa County** **Board of Supervisors**
By: _____ (by e-signature) Deputy County Counsel	Date: _____
By: _____ (by e-signature) County Code Services	Processed by:
Date: _____	_____ Deputy Clerk of the Board

I HEREBY CERTIFY THAT THE ORDINANCE ABOVE WAS POSTED IN THE OFFICE OF THE CLERK OF THE BOARD IN THE ADMINISTRATIVE BUILDING, 1195 THIRD

STREET ROOM 310, NAPA, CALIFORNIA ON _____.

_____, DEPUTY
GLADYS I. COIL, CLERK OF THE BOARD