

Index of Exhibits

| | |
|------------|-------------------------------------------------------------------------|
| Exhibit 1 | Conditional Use Permit Application |
| Exhibit 2 | SEPA Checklist |
| Exhibit 3 | Kittitas County Code Chapter 17.29 (A-20 – Agriculture Zone) |
| Exhibit 4 | Kittitas County Parcel Printout Re Applicant’s Property |
| Exhibit 5 | Applicant’s Lease with Wind Turbine Company |
| Exhibit 6 | Portion of a Kittitas County Road Map |
| Exhibit 7 | Photographs of the Site |
| Exhibit 8 | Kittitas County Tax Parcel Printout Showing Area |
| Exhibit 9 | Site plan filed by the EFSEC |
| Exhibit 10 | Kittitas County Code Chapter 17.60A (Conditional Uses) |
| Exhibit 11 | Excerpt from Kittitas County Ordinance 2013-001 |
| Exhibit 12 | Comment Letters from Members of Law Enforcement |
| Exhibit 13 | Comment letter from Washington State Parks and Recreation Commission |
| Exhibit 14 | Comment Letters from Members of the Public |
| Exhibit 15 | Mitigated Determination of Non-Significance (“MDNS”) |
| Exhibit 16 | Art Noxon’s Report |
| Exhibit 17 | Notice of Application by Kittitas County Community Development Services |

EXHIBIT 1



KITITITAS COUNTY COMMUNITY DEVELOPMENT SERVICES

411 N. Ruby St., Suite 2, Ellensburg, WA 98926

CDS@CO.KITITITAS.WA.US

Office (509) 962-7506

Fax (509) 962-7682

"Building Partnerships – Building Communities"

ZONING CONDITIONAL USE PERMIT APPLICATION

(Proposing a use such as a Bed & Breakfast or Campground, per KCC 17.60A)

A **preapplication conference** is encouraged for this permit. The more information the County has early in the development process, the easier it is to identify and work through issues and conduct an efficient review. To schedule a preapplication conference, complete and submit a Preapplication Conference Scheduling Form to CDS. Notes or summaries from preapplication conference should be included with this application.

Please type or print clearly in ink. Attach additional sheets as necessary. Pursuant to KCC 15A.03.040, a complete application is determined within 28 days of receipt of the application submittal packet and fee. The following items must be attached to the application packet.

REQUIRED ATTACHMENTS

- Site plan of the property with all proposed buildings points of access, roads, parking areas, septic tank, drainfield, drainfield replacement area, areas to be cut and/or filled, natural features such as contours, streams, gullies, cliffs, etc.
- SEPA Checklist (if not exempt per KCC 15.04 or WAC 197-11-800)
 - Please pick up a copy of the SEPA Checklist if required
- Project Narrative responding to Questions 9-11 on the following pages.

APPLICATION FEES:

1,565.00 Kittitas County Community Development Services (KCCDS)

418.00 Kittitas County Department of Public Works

329.00 Kittitas County Fire Marshal

\$2,312.00 Total fees due for this application (One check made payable to KCCDS)

FOR STAFF USE ONLY

| | | | |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application Received By (CDS Staff Signature):  | DATE: 10/17/11 | RECEIPT #: 12639 | <div style="border: 2px solid black; padding: 5px; text-align: center;"> <p>RECEIVED</p> <p>OCT 17 2011</p> <p>KITITITAS COUNTY</p> <p>CDS</p> <p><small>DATE STAMP IN BOX</small></p> </div> |
| | | | |

COMMUNITY PLANNING • BUILDING INSPECTION • PLAN REVIEW • ADMINISTRATION • PERMIT SERVICES • CODE ENFORCEMENT • FIRE INVESTIGATION

FORM LAST REVISED: 1-12-2011

Page 1 of 3

ORIGINAL

GENERAL APPLICATION INFORMATION

1. Name, mailing address and day phone of land owner(s) of record:

Landowner(s) signature(s) required on application form.

Name: Cascade Field and Stream Club
Mailing Address: PO Box 424
City/State/ZIP: Cle Elum, WA 98922
Day Time Phone: _____
Email Address: _____

2. Name, mailing address and day phone of authorized agent, if different from landowner of record:

If an authorized agent is indicated, then the authorized agent's signature is required for application submittal.

Agent Name: Chris Cruse
Mailing Address: PO Box 959
City/State/ZIP: Ellensburg, WA 98926
Day Time Phone: 509-962-8242
Email Address: cruseandassoc@kvalley.com

3. Name, mailing address and day phone of other contact person

If different than land owner or authorized agent.

Name: Jeff Slothower
Mailing Address: PO Box 1088
City/State/ZIP: Ellensburg, WA 98926
Day Time Phone: 509-925-6916
Email Address: jslothower@lwhsd.com

4. Street address of property:

Address: 2380 Hayward Rd
City/State/ZIP: Cle Elum, WA 98922

5. Legal description of property (attach additional sheets as necessary):

That portion of the E 1/2 of Section 21, Township 19 N, Range 17 E., W.M. that lies east of Hayward Road

6. Tax parcel number: 19-17-21000-0001

7. Property size: 182.38 (acres)

8. Land Use Information:

Zoning: AG-20 Comp Plan Land Use Designation: Rural

PROJECT NARRATIVE

(INCLUDE RESPONSES AS AN ATTACHMENT TO THIS APPLICATION)

- 9. **Narrative project description (include as attachment):** Please include at minimum the following information in your description: describe project size, location, water supply, sewage disposal and all qualitative features of the proposal; include every element of the proposal in the description.
- 10. **Provision of the zoning code applicable:** KCC 17.29.030(26)
- 11. **A conditional use permit may be granted when the following criteria are met. Please describe in detail how each criteria is met for this particular project (attach additional sheets as necessary):**
 - A. The proposed use is essential or desirable to the public convenience and not detrimental or injurious to the public health, peace, or safety or to the character of the surrounding neighborhood.
 - B. The proposed use at the proposed location will not be unreasonably detrimental to the economic welfare of the county and that it will not create excessive public cost for facilities and services by finding that (1) it will be adequately serviced by existing facilities such as highways, roads, police and fire protection, irrigation and drainage structures, refuse disposal, water and sewers, and schools; or (2) that the applicant shall provide such facilities; or
 - C. Demonstrate that the proposed use will be of sufficient economic benefit to offset additional public costs or economic detriment.

(See attached Exhibit A)

AUTHORIZATION

- 12. Application is hereby made for permit(s) to authorize the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agencies to which this application is made, the right to enter the above-described location to inspect the proposed and or completed work.

All correspondence and notices will be transmitted to the Land Owner of Record and copies sent to the authorized agent or contact person, as applicable.

Signature of Authorized Agent:
(REQUIRED if indicated on application)

Date:

X (see attached) _____

Signature of Land Owner of Record
(Required for application submittal):

Date:

X (see attached) _____

PROJECT NARRATIVE
 (INCLUDE RESPONSES AS AN ATTACHMENT TO THIS APPLICATION)

9. Narrative project description (include as attachment): Please include at minimum the following information in your description: describe project size, location, water supply, sewage disposal and all qualitative features of the proposal; include every element of the proposal in the description.
10. Provision of the zoning code applicable: KCC 17.29.030(26)
11. A conditional use permit may be granted when the following criteria are met. Please describe in detail how each criteria is met for this particular project (attach additional sheets as necessary):
- A. The proposed use is essential or desirable to the public convenience and not detrimental or injurious to the public health, peace, or safety or to the character of the surrounding neighborhood.
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 - C. Demonstrate that the proposed use will be of sufficient economic benefit to offset additional public costs or economic detriment.

(See attached Exhibit A)
AUTHORIZATION

12. Application is hereby made for permit(s) to authorize the activities described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agencies to which this application is made, the right to enter the above-described location to inspect the proposed and or completed work.

All correspondence and notices will be transmitted to the Land Owner of Record and copies sent to the authorized agent or contact person, as applicable.

Signature of Authorized Agent:
 (REQUIRED if indicated on application)

x Chris Cruise

Date:

9/23/2011

Signature of Land Owner of Record
 (Required for application submitted):

x Phil D. Hunt

Date:

9/21/11

Pres. Cascade Field Stream Club

EXHIBIT A

9. *Narrative Project Description:*

The Cascade Field and Stream Club is applying for a conditional use permit to allow for a shooting range open to Club invitees and non-members on its 182 acre property at 2380 Hayward Rd. in Cle Elum, Washington.

The Cascade Field and Stream Club is a long standing outdoor sportsmen's and women's club now located on Hayward Road in upper Kittitas County. Originally organized in the early 1930s, the club has operated for over seventy-five years providing a venue for sportsmen and women to enjoy the shooting sports, archery, hunting and fishing opportunities, conducting hunter education and safety training and supporting environmental, preservation, and conservation initiatives. In the 1940s, the club headquarters consisting of a small clubhouse was relocated from the Ronald area to a location off Bullfrog Road, just west of SR 903 on property leased from Burlington Northern Railroad and subsequently, Plumb Creek Timber Company until 1997. The property was sold to Jeld-Wen Corporation as part of the total 7200acre land sale for development of a destination resort by it's subsidiary, Trendwest Resorts Inc. (now Suncadia). Trendwest continued the lease arrangement until June 1, 2000 when the club was notified to vacate. In June, 2001 the club purchased 180 acres on Hayward Road with the plan of building a new facility.

The objectives of the Cascade Field and Stream Club are to promote the safe, responsible and respectful pursuit of outdoor sports, including hunting, fishing, hiking and camping; to provide a safe controlled facility for the pursuit of the shooting sports and to promote the safe, responsible and respectful use of firearms in those activities.

Organized in 1934, the club registered as a non-profit corporation with the Secretary of State in the State of Washington in 1947 and established exempt status with the Internal Revenue Service under Section 501(c)(7) of the Internal Revenue Code in 1995.

Membership before the 2001 move averaged approximately 300 yearly, including approximately 60 officers from local, county and state law enforcement agencies who used the range for maintenance and qualification of shooting skills and special training exercises. Agencies represented were Cle Elum Police Department, Kittitas County Sheriff's Office, Washington State Patrol and Washington State Criminal Justice Training Commission.

Facilities at the old site included a small clubhouse, rifle and pistol ranges with covered firing positions, shotgun range and archery field. These were located on approximately 27.5 acres of forest land. The facilities were the only ones available in Kittitas County providing a variety of target shooting opportunities in a safe environment. As such, they were made available to and used by many other organized groups from around the state.

At our new location we hope and plan to offer many of the same opportunities and services.

The property will be used in its existing condition with additional ranges and a storage facility being constructed as needed and funds allow. No onsite water or sewage disposal is planned but each may be installed for future use. See SEPA for additional information and mapping attachments A and B for existing conditions and future ranges.

11. *Conditional Use Criteria:*

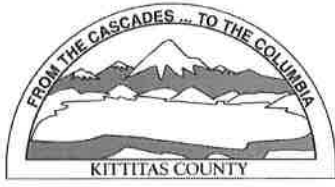
11.A. – The proposed use is essential or desirable to the public convenience and not detrimental or injurious to the public health, peace, or safety or to the character of the surrounding neighborhood.

The proposed shooting range will be desirable to the public as there are no designated controlled shooting areas in the county. This range will provide a convenient location to shoot with rules and regulations in place to address safety and environmental issues that are often disregarded on public lands. This range will also provide a location for County law enforcement members to train. The range is located within an industrial wind farm and adjacent to public lands where shooting is currently allowed but without any rules. There will be no detrimental changes to the neighborhood.

11.B. – The proposed use at the proposed location will not be unreasonably detrimental to the economic welfare of the county and that it will not create excessive public cost for facilities and services by finding that (1) it will be adequately serviced by existing facilities such as highways, roads, police and fire protection, irrigation and drainage structures, refuse disposal, water and sewers, and schools; or (2) that the applicant shall provide such facilities; or

11.C. - Demonstrate that the proposed use will be of sufficient economic benefit to offset additional public costs or economic detriment.

The proposed range will not require any additional services and the existing rural facilities are sufficient for the proposed use. Therefore, the proposed use will not be unreasonably detrimental to the economic welfare of the County and will not create excessive public cost for facilities.



KITTITAS COUNTY PERMIT CENTER
411 N. RUBY STREET, ELLENSBURG, WA 98926

RECEIPT NO.: 00012659

COMMUNITY DEVELOPMENT SERVICES
(509) 962-7506

PUBLIC HEALTH DEPARTMENT
(509) 962-7698

DEPARTMENT OF PUBLIC WORKS
(509) 962-7523

Account name: 003329

Date: 10/17/2011

Applicant: STREAM CLUB CASCADE FIELD &

Type: check # 14531

| <u>Permit Number</u> | <u>Fee Description</u> | <u>Amount</u> |
|----------------------|------------------------|-----------------|
| CU-11-00003 | CUP FEE | 1,565.00 |
| CU-11-00003 | CUP FIRE MARSHAL FEE | 329.00 |
| CU-11-00003 | PUBLIC WORKS CUP FEE | 418.00 |
| | Total: | 2,312.00 |

EXHIBIT 2



KITTTITAS COUNTY COMMUNITY DEVELOPMENT SERVICES

411 N. Ruby St., Suite 2, Ellensburg, WA 98926

CDS@CO.KITTTITAS.WA.US

Office (509) 962-7506

Fax (509) 962-7682

"Building Partnerships – Building Communities"

SEPA ENVIRONMENTAL CHECKLIST

PURPOSE OF CHECKLIST:

The State Environmental Protection Act (SEPA), chapter 43.21C RCW. Requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

INSTRUCTIONS FOR APPLICANTS:

This environmental checklist asks you to describe some basic information about your proposals. Governmental agencies use this checklist to determine whether the environmental impacts or your proposal are significant, requiring preparation if an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "don not know" or "does not apply" Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

USE OF CHECKLIST FOR NONPROJECT PROPOSALS:

Complete this checklist for non-project proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS.

For non-project actions, the references in the checklist to the words "project," "applicant" and "property or site" should be read as "proposal," "proposer" and "affected geographic are" respectively.

APPLICATION FEES:

490.00 Kittitas County Community Development Services (KCCDS)

70.00 Kittitas County Department of Public Works

\$560.00 Total fees due for this application (One check made payable to KCCDS)

FOR STAFF USE ONLY

Application Received By (CDS Staff Signature):

DATE: 10/17/11

RECEIPT # 12660

RECEIVED

OCT 17 2011

KITTTITAS COUNTY
CDS

DATE STAMP IN BOX

COMMUNITY PLANNING • BUILDING INSPECTION • PLAN REVIEW • ADMINISTRATION • PERMIT SERVICES • CODE ENFORCEMENT

FORM LAST REVISED: 4-21-11

Page 1 of 11

ORIGINAL

TO BE COMPLETED BY APPLICANT

FOR STAFF USE

A. BACKGROUND

1. Name of proposed project, if applicable:
Cascade Field and Stream Club Shooting Range
2. Name of applicant:
Cascade Field and Stream Club
3. Address and phone number of applicant and contact person:
PO Box 959, Ellensburg, WA 98926
(509) 962-8242
4. Date checklist prepared:
January 19, 2011
5. Agency requesting checklist:
Kittitas County
6. Proposed timing or schedule (including phasing, if applicable):
Immediate use of current facility;
Add ranges as the need and money allows.
7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.
Yes. Additional ranges similar to Attachment F range designs may be added in the future.
8. List any environmental information you know about that had been prepared, or will be prepared, directly related to this proposal.
SEPA and EIS was completed in 2007 for Kittitas Valley Wind Power Project that includes this property.
9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.
None known.
10. List any government approvals or permits that will be needed for your proposal, if known.
Kittitas County Conditional Use Permit for a shooting range.
11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)
Shooting Range on 182 acre site as per Attachment A with future use as per Attachment B.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

2380 Hayward Rd, Cle Elum, WA 98922
Portion of East 1/2, Section 21, Township 19 N, Range 17 East, W.M.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (circle one): flat, rolling, hilly, steep slopes, mountainous, other.

b. What is the steepest slope on the site (approximate percent slope)?
±30%

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Varying depths of mineral soils covering consolidated alluvium and basaltic rock.

d. Are there surface indications or history of unstable soils in the immediate vicinity?

None known or observed.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Future ranges may be graded. Gravel imported to surface parking areas.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes. Rainfall and snowmelt could wash exposed areas.

g. About what percentage of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Less than 1%.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Re-vegetate or gravel exposed areas as needed to minimize any erosion.

a. What types of emissions to the air would result from the proposal (i.e. dust, automobiles, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Dust and equipment during construction. Autos and gunfire during use.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Use of best management practices during construction together with dust control.

3. WATER

a. Surface

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what streams or river it flows into.

Seasonal stream and pond during snowmelt.

2) Will the project require any work over, in or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

None planned.

3) Estimate the fill and dredge material that would be placed in or removed from surface water or wetlands, and indicate the area of the site that would be affected. Indicate the source of fill material.

None.

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

None planned.

5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No.

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No.

b. Ground

1) Will ground water be withdrawn, or will water be discharged to surface waters? If so, give general description, purpose, and approximate quantities if known.

None planned. Future club members may desire to drill a well. Any well will be drilled consistent with Ecology and Health Department rules and regulations.

2) Describe waste materials that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic

sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

None planned. "Porta-potty" to be used as needed. Future improvements may include septic tank with drainfield.

c. Water Runoff (including storm water):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known).

Where will this water flow? Will this water flow into other waters?

If so, describe.

Rainwater and snowmelt - expect water to seep into ground. Will create storm water retention areas as required by applicable law.

2) Could waste materials enter ground or surface waters? If so, generally describe.

Not likely (see Lead Management Plan, Attachment C).

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

Re-vegetate exposed ground as needed.

4. PLANTS

a. Check or circle types of vegetation found on the site:

deciduous tree: alder, maple, aspen, other

evergreen tree: fir, cedar, pine, other

shrubs

grass

pasture

crop or grain

wet soil plants: cattails, buttercup, bulrush, skunk cabbage, other

water plants: water lily, eelgrass, milfoil, other

other types of vegetation: _____

b. What kind and amount of vegetation will be removed or altered?

Sage and grass in ranges and shot fall zones.

c. List threatened or endangered species known to be on or near the site.

None known or observed.

d. Proposed landscaping use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Use native seed as available for re-vegetating.

5. ANIMALS

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other:

mammals: deer, bear, elk, beavers, other:

fish: bass, salmon, trout, herring, shellfish, other: _____

- b. List any threatened or endangered species known to be on or near the site.
None known or observed. _____

- c. Is the site part of a migration route? If so, explain.
Pacific flyway. _____
- d. Proposed measures to preserve or enhance wildlife, if any.
Proposal leave majority of property undisturbed that will allow use by wildlife. _____

6. ENERGY AND NATURAL RESOURCES

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the competed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
None planned. Electric in future. _____

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, describe.
No. _____

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.
All activities will be run during daylight hours. May install lighting for future use. _____

7. ENVIRONMENTAL HEALTH

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.
Yes. Lead from bullets and shot shells. _____

 - 1) Describe special emergency services that might be required.
None. _____

 - 2) Proposed measures to reduce or control environmental health hazards, if any. Lead Management (Attachment C); Range Rules (Attachment D) _____
- b. Noise _____
 - 1) What types of noise exist in the area which may affect your project (for example, traffic, equipment, operation, other)?
None - Wind turbines. _____

 - 2) What types and levels of noise would be created by or associated with the project on a short-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.
Gunfire, construction of future ranges (see EIS and Attachment E for additional information on noise measements). _____

 - 3) Proposed measures to reduce or control noise impacts, if any.
Shooting during daylight hours only. Law enforcement might use for night training. _____

8.

LAND AND SHORELINE USE

a. What is the current use of the site and adjacent properties?

Industrial wind farm and open range.

b. Has the site been used for agriculture? If so, describe.

None other than sporadic and minimal grazing.

c. Describe any structures on the site.

Wind turbines.

d. Will any structures be demolished? If so, what?

No.

e. What is the current zoning classification of the site?

AG-20.

f. What is the current comprehensive plan designation of the site?

Rural.

g. If applicable, what is the current shoreline master program designation of the site?

N/A

h. Has any part of the site been classified as an:

environmentally sensitive area?

None known.

i. Approximately how many people would the completed project displace?

None.

j. Approximately how many people would reside or work in the completed project?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any.

None.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.

None.

9.

HOUSING

a. Approximately how many units would be provided, if any? Indicate whether high, middle or low-income housing.

N/A

b. Approximately how many units, if any, would be eliminated?

Indicate whether high, middle or low-income housing.

N/A

c. Proposed measures to reduce or control housing impacts, if any.

N/A

10.

AESTHETICS

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? ±25'. Not to exceed zoning.

b. What views in the immediate vicinity would be altered or obstructed?

None.

- c. Proposed measures to reduce or control aesthetic impacts, if any.
None.

11. LIGHT AND GLARE

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
Project will create no light or glare. May add lighting in the future.
- b. Could light or glare from the finished project be a safety hazard or interfere with views?
Not likely.
- c. What existing off-site sources of light or glare may affect your proposal?
None.
- d. Proposed measures to reduce or control light and glare impacts, if any.
None.

12. RECREATION

- a. What designated and informal recreational opportunities are in the immediate vicinity?
Shooting, hiking, hunting, etc. on adjacent state lands.
- b. Would the proposed project displace any existing recreational uses? If so, describe. No.
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
None.

13. HISTORIC AND CULTURAL PRESERVATION

- a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
None known.
- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.
Kittitas Valley Wind Farm conducted a survey in January 2009 and did not identify any sites.
- c. Proposed measures to reduce or control impacts, if any.
If any sites or remains are observed the governing agency will be contacted.

14. TRANSPORTATION

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.
Hayward Road (Attachment A). Access will be from the north on Hayward Road off of Horse Canyon Road only. Hayward Road south of the Club's access is unimproved and will not be used for access to the property. _____

- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
No. _____

- c. How many parking spaces would the completed project have? How many would the project eliminate?
Open area for parking of vehicles _____

- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).
None planned. _____

- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No. _____

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.
Expect 4-5 ADTs on weekends, 1-2 ADTs during week. May have 10-20 ADTs on range 2-4 times per year or on hunter education days. _____

- g. Proposed measures to reduce or control transportation impacts, if any.
None. _____

15. PUBLIC SERVICE

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.
Not likely. _____

- b. Proposed measures to reduce or control direct impacts on public services, if any.
None. _____

16. UTILITIES

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse services, telephone, sanitary sewer, septic system, other.
None. _____

- b. Describe the utilities that are proposed for the project, the utility _____

providing the services, and the general construction activities on the site or in the immediate vicinity which might be needed.

None. May install electric in the future.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Chris Cruse

Date: 9/28/2011

Print Name: Chris Cruse

THE REMAINING QUESTIONS ARE EXCLUSIVELY FOR REZONE APPLICANTS AND FOR AMENDMENTS TO COUNTY COMPREHENSIVE PLAN AND CODE. UNLESS THESE APPLY TO YOU, THIS IS THE END OF THE SEPA CHECKLIST.

SEPA ENVIRONMENTAL CHECKLIST QUESTIONS FOR NON-PROJECT ACTIONS ONLY. WHEN ANSWERING THESE QUESTIONS, BE AWARE THE EXTENT OF THE PROPOSAL, OR THE TYPE OF ACTIVITIES LIKELY TO RESULT FROM THE PROPOSAL, WOULD AFFECT AN ITEM AT A GREATER INTENSITY OR AT A FASTER RATE THAN IF THE PROPOSAL WERE NOT IMPLEMENTED. RESPOND BRIEFLY AND IN GENERAL TERMS (ATTACH ADDITIONAL SHEETS AS NECESSARY)

FOR STAFF USE

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise? Proposed measures to avoid or reduce such increases.

2. How would the proposal be likely to affect plants, animals, fish or marine life? Proposed measures to protect or conserve plants, animals, fish or marine life.

3. How would the proposal be likely to deplete energy or natural resources? Proposed measures to protect or conserve energy and natural resources.

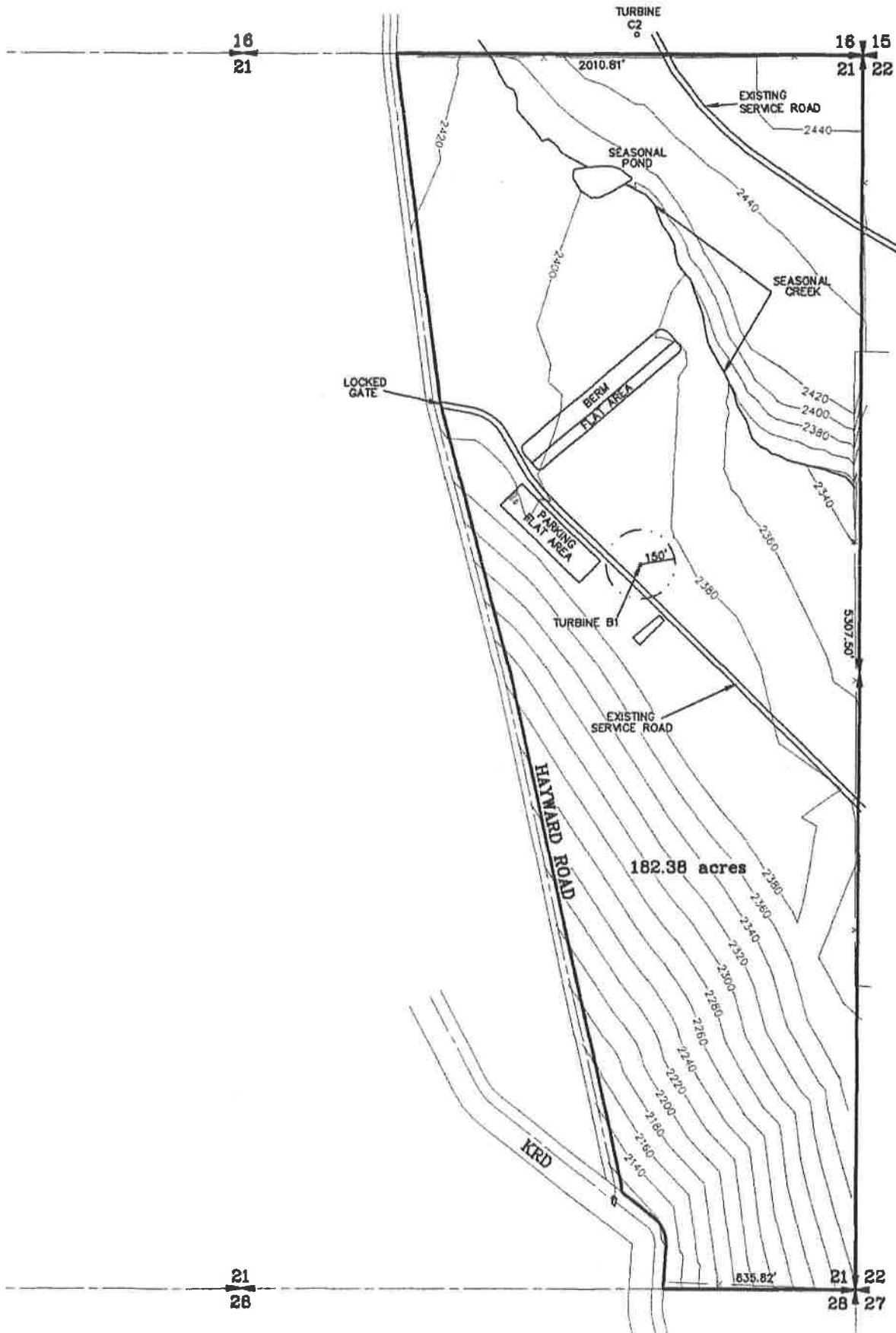
4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands? Proposed measures to protect such resources or to avoid or reduce impacts.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses? Proposed measures to avoid or reduce shoreline and land use impact.

6. How would the proposal be likely to increase demands on transportation or public services and utilities? Proposed measures to reduce or respond to such demand(s).

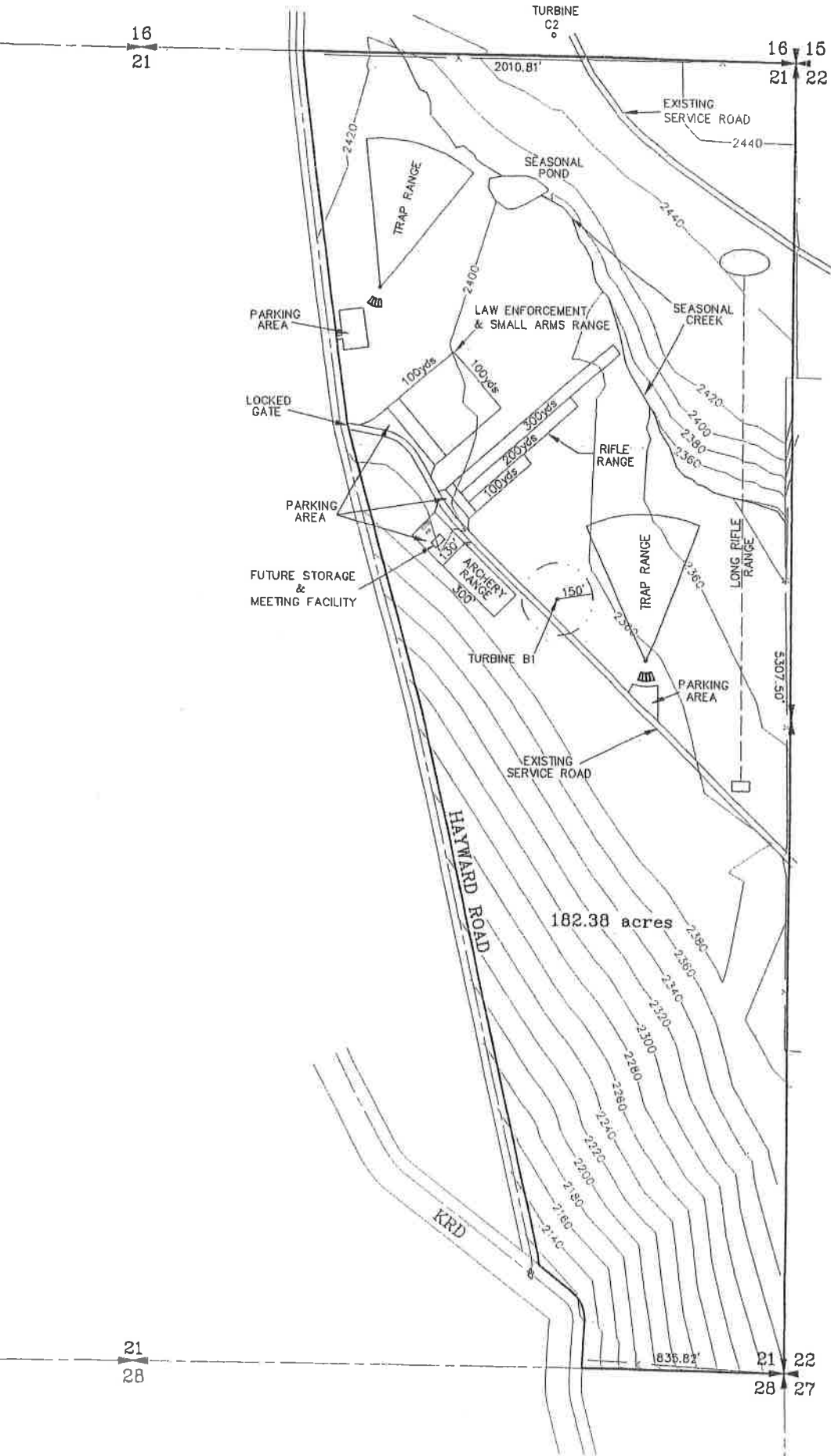
7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

CASCADE FIELD AND STREAM EXISTING CONDITIONS



CASCADE FIELD AND STREAM POSSIBLE FUTURE RANGES

ATTACHMENT B



**MANAGEMENT PLAN FOR LEAD/BULLETS AT CASCADE FIELD
AND STREAM CLUB SHOOTING RANGE**

**P.O. BOX 424
2380 HAYWARD ROAD
CLE ELUM, WA 98922**

A. Cascade Field and Stream Clubs Range is located at 2410 Hayward Road in Ellensburg, WA 98926

B. The Cascade Field and Stream Club is committed to provide a body of organization to those interested in hunting, fishing, archery, and other shooting sports. Our goals are to promote firearms and hunter safety, to cooperate with state department of fish and wildlife and other local law enforcement agencies, to encourage and aid in conservation and propagation of wildlife and fish resources and adherence to laws and regulations, and to provide hunter's education and other activities with the objective of increasing and perpetuating the resources and pleasure for all outdoor persons.

C. This lead management plan is based on the U.S. Environmental Protection Agency's Best Management Practice's for Lead at Outdoor Shooting Ranges manual (BMPLOSR).

D. The purpose of this plan is to:

1. Identify potential environmental concerns.
2. Identify, evaluate, and prioritize appropriate actions to manage lead shot and bullets safely as well as addressing environmental concerns.
3. List short and long term steps for implementation.
4. Develop an implementation schedule.
5. Evaluate annual progress made towards achieving these goals.

E. Description of existing range and facilities:

1. One unimproved rifle range that allows target placement up to 300 yards.
2. One unimproved archery range that allows target placement up to 100 yards.
3. No permanent buildings and structures except for one wind turbine has been located on the property.
4. Access to the range is by a gravel road in a public right of way.
5. The entire property is primarily covered with sagebrush and grasslands with a seasonal creek that contains water during snowmelt.

F. Rifle, Long rifle, Law Enforcement, and Small Arms Ranges:

1. Action Plan - The existing and all future ranges shall adhere to the following options whenever possible:
 - a. Hydro seed or vegetate berms when needed for erosion control as per section 3.2.2 of EPA's BMPLOSR.
 - b. Apply lime and/or phosphate to berms and foreground if Ph testing determines the soil acidity is outside of the Ph 6.5 to 8.5 range to help eliminate lead migration as per section 3.2.1 of EPA's BMPLOSR.
 - c. Plan a lead reclamation project as per section 3.3 of EPA's BMPLOSR.
 - d. Remove and recycle lead as per section 3.3 of EPA's BMPLOSR.

G. Trap, Skeet, and Sporting Clays Ranges:

1. Action Plan - The existing and all future ranges shall adhere to the following options whenever possible:
 - a. Hydro seed or vegetate all areas when needed for erosion control as per section 3.2.2 of EPA's BMPLOSR.
 - b. Apply lime and/or phosphate to shot fall zones if Ph testing determines the soil acidity is outside of the Ph 6.5 to 8.5 range to help eliminate lead migration as per section 3.2.1 of EPA's BMPLOSR .
 - c. Plan a lead reclamation project as per section 3.3 of EPA's BMPLOSR
 - d. Remove and recycle lead as per section 3.3 of EPA's BMPLOSR.
 - e. Orient all ranges to avoid lead shot from entering wetlands as per section 2.2 and 2.3 of EPA's BMPLOSR .
 - f. Orient all ranges to maximize the overlap of falling shot into open terrain as per section 3.1.2 of EPA's BMPLOSR .

H. Plan Implementation:

1. All ranges will conduct an annual Ph survey and assessment of erosion, vegetation, and wetland areas. Reorient and/or realign shooting positions and/or ranges if needed.

I. Plan Review and Revisions:

1. Monitor the success of this plan by documenting the annual findings of the Ph survey and the environmental assessment of the property.
2. Document the quantity and costs of all lead reclamation activities.
3. Review and update this plan on an annual basis or sooner if needed.
4. For future reference document what did and did not work and any issues that need to be addressed to better manage the property.

From: "Cruse & Associates" <cruseandassoc@kvalley.com>
Date: Wednesday, January 26, 2011 2:56 PM
To: <cchunt@live.com>
Subject: Fw: Cascade F and S Range Rules

CASCADE FIELD AND STREAM CLUB RANGE RULES

**P.O. BOX 424
2380 HAYWARD ROAD
CLE ELUM, WA 98922**

TREAT EVERY FIREARM AS IF IT IS LOADED

- A. Fundamental NRA Safety Rules for handling or using firearms:
 - 1. Always keep the firearm pointed in a safe direction.
 - 2. Always keep your finger off the trigger until ready to shoot.
 - 3. Always keep the firearm unloaded until ready to use.

- B. Other NRA Safety Rules for using or storing firearms:
 - 1. Know the target and what is beyond.
 - 2. Know how to use the firearm safely.
 - 3. Be sure the firearm is safe to operate.
 - 4. Use only the correct ammunition for the firearm.
 - 5. Wearing eye and ear protection is required.
 - 6. Never use alcohol or drugs before or while shooting.
 - 7. Store firearms so they are not accessible to unauthorized persons.
 - 8. Be aware that certain types of firearms and many shooting activities require additional safety precautions.

- C. Specific Cascade Field and Stream Club Range (CFSCR) Rules:
 - 1. All federal, state, and local laws shall be obeyed.
 - 2. CFSCR rules and use of the range will be superseded by special events, projects, and maintenance.
 - 3. Everyone shall be a member or guest except for events open to the public.
 - 4. No shooting is allowed before sunup or after sundown.
 - 5. The Board reserves the right to exclude unusual firearms that might cause undue damage to club property.
 - 6. Firearms must be unloaded, magazines out, and have the actions open except when on a firing line proved ready to fire. When moved, all firearms must be pointed in the safest direction (normally with the muzzle upward). Firearms will normally remain cased or boxed until on the firing line.
 - 7. Shoot only from the firing lines.
 - 8. Shooters shall use approved targets and target stands.
 - 9. Shoot in a controlled manner and only at the targets directly in front of you. Every shot must impact the berm directly in front of the firing position.
 - 10. When shooting prone, you must keep others on the firing line aware of your position.
 - 11. Children under 18, all guests, and anyone not having gone through orientation, must be under the direct supervision of the responsible member (arms length at all times).
 - 12. When going down-range, coordinate a cease-fire, make all firearms safe, and activate any available warning device.
 - 13. Whenever anyone is down-range, everyone else must be away from the bench/firing line. Firearms must be benched, unloaded with the magazines out, and have the actions open.
 - 14. No tracer ammunition is allowed.

ATTACHMENT D-2

15. No smoking or open fires allowed on property.
16. Do not litter—Pick up and dispose of all used targets, waste, and rimfire or non-brass shells.
17. Speed limit is 10 mph throughout the range.
18. Gates must remain closed and locked.
19. Do not climb on, or over, any berm. Never dig into or remove lead from berms.
20. Membership cards must be readily available; and shall not be loaned, transferred to, or used by others.

Preliminary noise measurements for proposed Cascade Field & Stream
firing range on Hayward Road

November 1, 2003

Andrew A. Piacsek, PhD
Assistant Professor of Physics
Central Washington University

Background

The Cascade Field and Stream Club (CSFC) have filed an application with the Kittitas County Planning Office to establish a practice firing range for shotguns, rifles, and handguns on a property owned by the club located on Hayward Road, approximately 1.5 miles north of the intersection with Highway 10. The property is identified as Township 19, Range 17, Section 21.

The present study consists of sound level measurements of typical rifle shots fired at the proposed range site; the objective is to provide a preliminary assessment of the environmental noise impact at the perimeter of the property and at residential sites up to three miles away. The measurements were recorded on September 16 and October 24 of 2003, using a type I sound level meter in accordance with WAC 173-58-030, -040, -050, and -060. Specific operating procedures are described below.

Geographical setting

The proposed firing range is located near the top of a ridge (see map in Appendix A). The direction of rifle fire is NNE, toward a hillside that is within 200 m of the shooter, henceforth referred to as the acoustic "source." The vegetation is predominantly shrub-steppe and the surrounding area is undeveloped. From the source, the nearest residence is approximately one mile distant, due south, and 100 m lower in elevation.

Procedure

Sound level measurements were made with a Quest model 1900 type I sound level meter (SLM) using the A-weighted frequency response. The 1/2 inch microphone was covered with a 6 cm diameter foam windscreen. Background noise level and wind speed were recorded for each measurement. Most measurements were made with the SLM set to the very fast "peak" time response (50 μ s time constant). For comparison, some measurements were also made using the impulse response setting (30 ms time constant). A discussion of the definition and interpretation of these two settings appears in the Conclusions section. Calibration measurements were performed before and after the field measurements on both days.

All gun shots were made with a 30.06 rifle operated by Paul Horish of the CFSC. The sound level meter was operated by Dr. Andrew Piacsek of CWU; written records were made by Dr. Piacsek, CWU student Greg Wagner, and Duane Fluent of the CFSC (time and wind speed).

A source level was measured at a distance of 30 m, perpendicular to the aim direction; both the peak and impulse settings were used. The source level can be used to predict sound levels at other distances using basic outdoor propagation models. Later in the report, these predictions are compared with measured sound levels to give an indication of "excess attenuation" levels due to environmental effects such as wind and terrain.

Sound level measurements were then recorded at various locations along the perimeter of the property, as well as locations more distant from the source. All the recording sites are listed in Table 1; these are also identified in the map provided in Appendix A. The perimeter

measurements were taken on September 16, which was a relatively windy day (wind speed often exceeded 12 mph); the wind noise that day precluded sound level measurements at more remote sites. A second round of recordings took place on October 24, when the maximum wind speed was about 5 mph.

A sound level measurement consisted of the following set of actions:

1. A receiving location was identified and described. The perimeter locations were described by GPS; the remote locations were described physically (e.g. "intersection of Bettas Rd. and Hayward Rd").
2. Background noise (usually wind, traffic, or flowing water) was observed and typical values were recorded.
3. When background noise was acceptably low (typically less than 50 dBA), communication by 2-way radio was established and a 10-second silent countdown commenced. The countdown was followed by a single rifle shot. A recording was made of the sound pressure level (SPL) meter reading that appeared after an audible shot. If no gunshot was heard, the countdown and shot were repeated.
4. For perimeter measurements, this procedure was performed twice at each location. Two shots were also fired at each remote location, but one shot was measured using the peak response and the second was measured using the impulse response setting.
5. The wind speed was recorded at the source for each shot. Unless otherwise noted, wind was from the West.

Measurements

All measurements are listed in Table 1, which shows the location, elevation, distance from source, wind speed, peak and impulse SPL, ambient sound level, and theoretical and actual attenuation for each set of sound level readings. The entry "NR" indicates that the corresponding measurement was not recorded, either because the measurement was not attempted or because environmental conditions precluded a satisfactory measurement. Some perimeter readings were taken twice; both values are recorded.

Table 1 includes measurements taken on September 16, as well as those taken on October 24. The 9/16 measurements were taken during the afternoon, between 2:30 and 4:30; the average temperature was 52° F, the humidity was 55%, and the average wind speed was about 12 mph, which is the upper limit for environmental noise studies, as specified in WAC 173-58-40. The 10/24 measurements were taken in the morning, between the hours of 10:00 and 12:00, with an average temperature of 52° F, humidity of 40%, and an average wind speed of 2 mph.

Table 1

| ID | Location | elevation (feet) | distance (feet) | wind speed (mph) | peak SPL (dBA) | impulse SPL (dBA) | ambient noise (dBA) | Spread Loss (dB) | Actual Loss (dB) |
|----|-------------------------------------------------------|---------------------|--------------------|------------------------|----------------------|-------------------------|---------------------------|------------------------|------------------------|
| 1 | 30m E of source 9/16 | 2400 | 100 | 12 | 133 | NR | NR | X | X |
| 2 | 30m E of source 10/24 | 2400 | 100 | 1.5 | 129 | 110 | NR | X | X |
| 3 | SE corner of property 47°06'16"N 120°42'32"W | 2360 | 3500 | 1.6 | 74 78 | NR | 50 | -31 | -59 |
| 4 | Property line E of source 47°06'42" N 120°42'33" W | 2395 | 1000 | 13 12 | 96 95 | NR | 50 | -20 | -37 |
| 5 | Highline canal bridge 47°07'06" N 120°42'46" W | 2088 | 3500 | 10 12 | 67 72 | NR | NR | -31 | -66 |
| 6 | On canal S of bridge 47°06'52" N 120°42'42" W | 2092 | 4500 | 14 | 66 | NR | 55 | -33 | -67 |
| 7 | NW corner of property 47°07'56" N 120°43'00" W | 2432 | 2000 | 17 | 75 | NR | NR | -26 | -58 |
| 8 | NE corner of property 47°07'55" N 120°42'32" W | 2420 | 2000 | 15 13 | 80 86 | NR | NR | -26 | -53 |
| 9 | Hayward Rd, crest of hill 500 ft. S of power lines | 2480 | 3500 | 1.6 | 92 | 69 | < 50 | -31 | -37 |
| 10 | Hayward Rd. 1000 ft from Bettas Rd. | 2520 | 5500 | 1.6 | 62 | NR | < 50 | -35 | -67 |
| 11 | Bettas Rd. .8 mile E of Hayward Rd. | 2400 | 5500 | 3.0 S | 62 | NR | 45 | -35 | -67 |
| 12 | Pearson residence driveway N of house | 2060 | 5500 | 2.5 S | 81 | 66 | < 50 | -35 | -48 |
| 13 | Rte 10 at Swauk Cyn gate | 1760 | 6000 | 3.0 S | 58 | NR | NR | -36 | -71 |
| 14 | driveway of #16530 Rte. 10 | 1850 | 4000 | 4.0 S | 79 | 52 | NR | -32 | -50 |
| 15 | Thorp Hwy 1/3 mi S Rte 10 | 1800 | 8500 | 5.2 S | <50 | NR | 50 | -39 | -79+ |
| 16 | Thorp Hwy @ Yakima River | 1680 | 9700 | 5.2 S | <58 | NR | 58 | -40 | -71+ |

The column labeled "Spread Loss" refers to the attenuation of sound due to geometric spreading. A rifle shot in an open environment can be considered a point source that spreads spherically, so that the pressure amplitude decreases as $1/r$, where r is the distance from the source. Thus the attenuation (in dB) from some reference distance, r_{ref} , to the distance, r , where a measurement is made is given by $Loss = 20 \log_{10}(r_{ref}/r)$. This assumes flat terrain with no wind and a uniform temperature profile; windy conditions and hilly terrain will generally cause excess attenuation. The column labeled "Actual Loss" is the difference between the peak SPL recorded at the indicated location and the peak SPL at 100 feet (matched to the day of measurement).

Elevations recorded on 9/16 were obtained via GPS; those recorded on 10/24 were obtained from a contour map with 40 ft contour intervals (included in Appendix A). Distances from the source were obtained from the same map and are rounded to the nearest 100 feet.

The wind direction for measurements 1-10 was predominantly West to East; for measurements 11-16, the wind was predominantly from the South.

Conclusions

The measurements described above should be considered preliminary. Only SPL was measured; the waveform was not recorded, nor was any spectral analysis conducted. Only one or two measurements of a single shot were made at each location, which does not provide sufficient information to characterize the day to day variation in sound level due to environmental changes (especially wind) or in the nature and number of sources. This study also does not attempt to provide a long-term characterization of the background noise levels at residential sites within audible range of the source.

The peak SPL measurements shown in Table 1 do provide a general idea of the sound level at the nearest residential locations (none closer than 4000 feet), as well as an indication of the effect of wind and local topography on the attenuation of sound from the proposed firing range site. A discussion of some specific results is given below.

It should be noted that the extremely short duration of the peak response time captures the absolute peak amplitude of a very brief event, such as a gunshot. In contrast, the impulse response computes an rms average of the signal over 35 ms; the shorter the acoustic event, the larger the disparity between these two methods of measuring amplitude. At 100 feet from the 30.06 rifle used in this study, the difference between the two response settings was 19 dB. The WAC does not specify which response setting to use, but clearly the two numbers cannot be casually compared. Since the impulse response more closely resembles the response of the human ear, this is the more appropriate metric for establishing compliance with noise ordinances. We have chosen to measure primarily the peak response in this study because this quantity is more sensitive to differences in the sound propagation due to wind speed, wind direction, topography, etc, thereby allowing to study the practical effects of these variables.

The peak response is sensitive to wind speed, since high winds can "smear out" an acoustic signal, transforming a tall narrow spike into a shorter, rounder spike; the impulse response will not be sensitive to this broadening of the peak. This is illustrated by the observation that the peak SPL at site #7 (2000 feet NNW of the source) was 17dB *less* on a windy day than the SPL at site #9 (3500 feet NNW of the source) recorded on a calm day. Both sites are partly upwind from the source. Another factor contributing to this disparity is the difference in elevation.

A second example of the importance of wind speed when taking peak response measurements is seen in the comparison of the 66 dBA reading at site #6 (4500 feet S of source) on a windy day with the 81 dBA reading at site #12 (5500 feet S of source), taken on a calm day.

The importance of topography is very clear from the data. The reading at site #12 is relatively high because this location has a line of sight to the source; there are no significant hills or humps in between to block the direct sound path. In contrast, readings at sites #10 and #11 are almost 20 dB less, even though they are the same distance from the source (and more in the line of fire). However, the ground rises at least 60 feet between the source and Bettas Rd., interfering with the direct sound path. According to the contour map in Appendix A, this appears to be true for all areas north of the proposed firing range (between NW and NE of the source). Site #13 is due West of the source, but the canyon walls jut out to block the line of sight; it is also 640 feet lower

in elevation and is generally upwind of the source. This site had the largest excess transmission loss of all the calm day measurements. Site #14 is 4000 feet SW of the source and has a direct transmission path; only site #12 was louder at a comparable distance.

Two sites on N. Thorp Highway were investigated (sites #15 and #16), since there are several residences along this road, but the gunshots were inaudible at both locations. This road, and all the houses along it, are on a relatively steep south-facing slope, so that there is no line-of-sight to the firing range. These two locations are also the most remote among those studied. Because the gunshots were inaudible at these locations, it was considered unnecessary to take readings at sites in the Ellensburg Ranches area, which is more remote from the source (with undulating terrain in between).

Lastly, it should be noted that at the residential site (#12) with the loudest reading, the impulse response measurement was less than 70 dB. The measured 66 dBA will likely vary with wind conditions, but not nearly as much as the peak response measurements do.

Summary

The peak response SPL measurements show that there is a large amount of excess attenuation of gunshot sounds at locations west and north of the proposed firing range; this is primarily due to sound blockage by the terrain. The impulse response measurements at the few residential locations south of the firing range that have a direct sound path were less than 70 dB, which is the maximum level specified for class C areas specified in WAC 173-60-030. It should be noted that multiple simultaneous shots may exceed this level. Test gunshots were not audible above background noise at two locations on N. Thorp Hwy. Residential areas to the east of the firing range (e.g. Ellensburg Ranches area) are more 2.5 miles away, with no direct sound path (based on contour maps). Measurements taken at similar locations on days with very different wind speeds show that noise levels from the firing range will be greatest on very calm days.

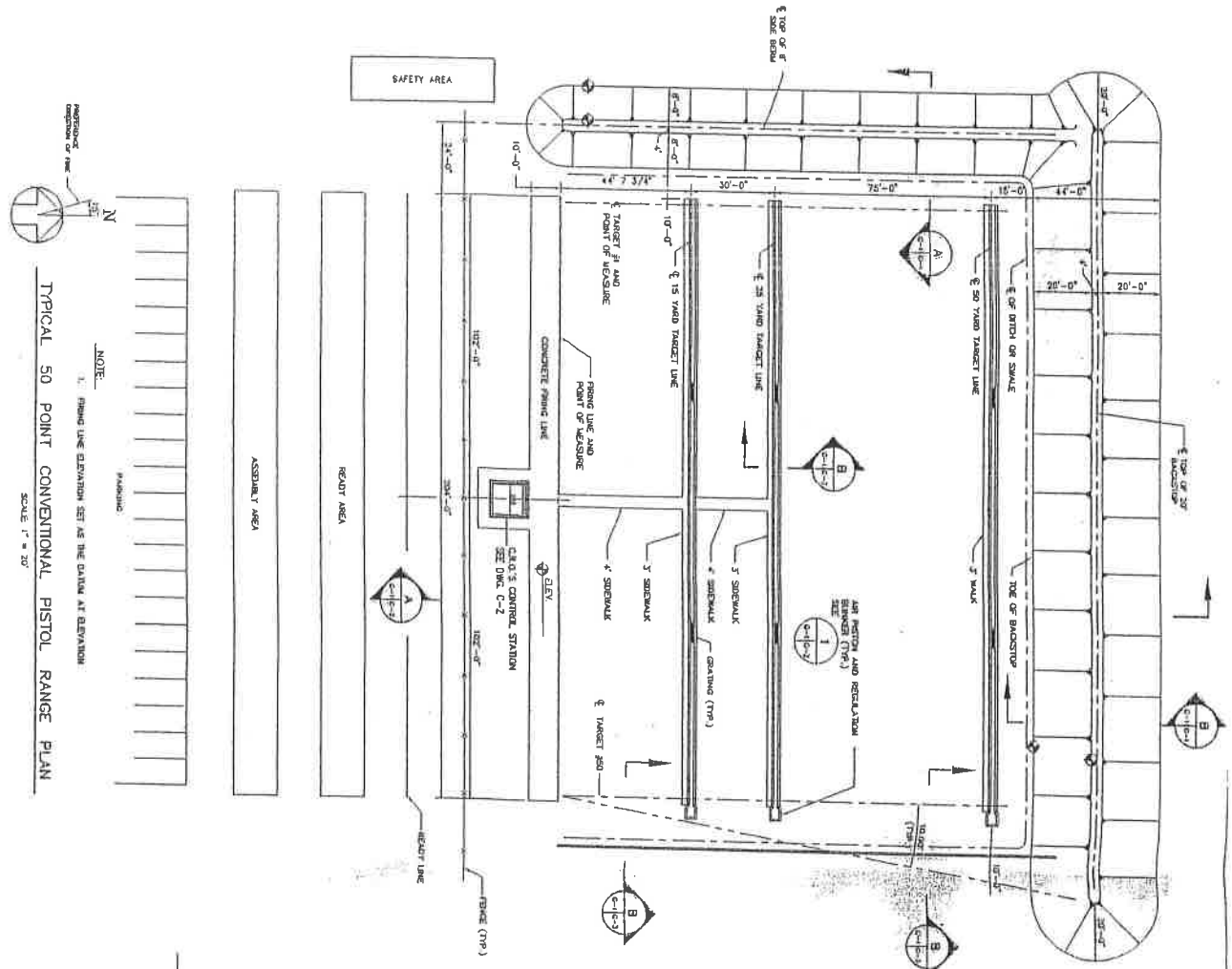
These preliminary measurements suggest that the proposed firing range is likely to meet WAC community noise standards.

NOISE MEASUREMENT STATIONS FROM TABLE 1-ATTACHMENT E



© 2010 Google
Image U.S. Geological Survey

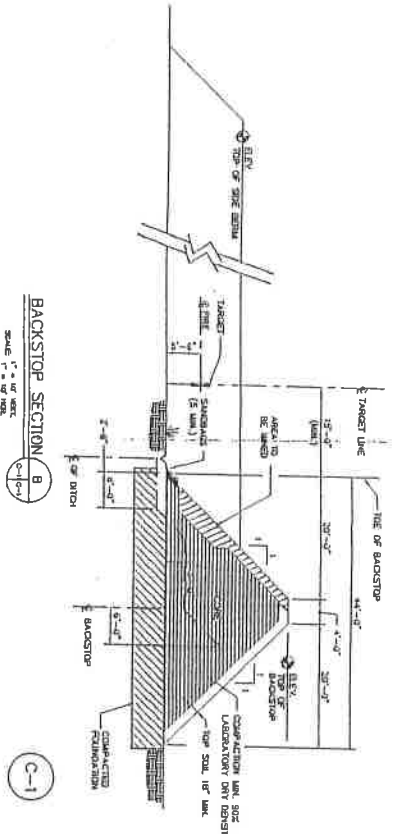
ATTACHMENT F-1



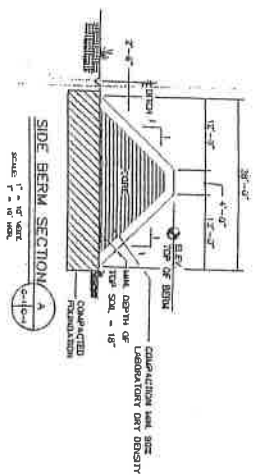
TYPICAL 50 POINT CONVENTIONAL PISTOL RANGE PLAN
SCALE 1" = 20'

NOTE:
1. FIRING LINE ELEVATION SET AS THE DATA AT ELEVATION

- NOTES:
1. METHODS OF SOLE STABILIZATION SHALL BE:
 - A. SANDBAGS AND SOIL SODDING
 2. COMPACT GRANULAR TO 3/4" LABORATORY DRY DENSITY. DEPTH OF FOUNDATION TO BE DETERMINED BY SITE CONDITIONS.
 3. RECOMMENDED SOLE BERM HEIGHT 3'.
4. RECOMMENDED SHOOTSHEET HEIGHT 30".
- CONC. MATERIAL UNLESS SHOWN CONCRETE FINISH OR ROCK, 6" OR LESS OR CAST IN PLACE CONCRETE FINISH UNLESS SHOWN.



BACKSTOP SECTION B
SCALE 1" = 10' HORIZ.



SIDE BERM SECTION A
SCALE 1" = 10' HORIZ.

C. VARGAS & ASSOCIATES, LTD.
CONSULTING ENGINEERS
1000 W. 12th St., Suite 100
Phoenix, AZ 85007
PHONE: 602-998-0150
FAX: 602-998-0151
E-MAIL: CVAS@AZNET.COM
WWW.CVAS.COM

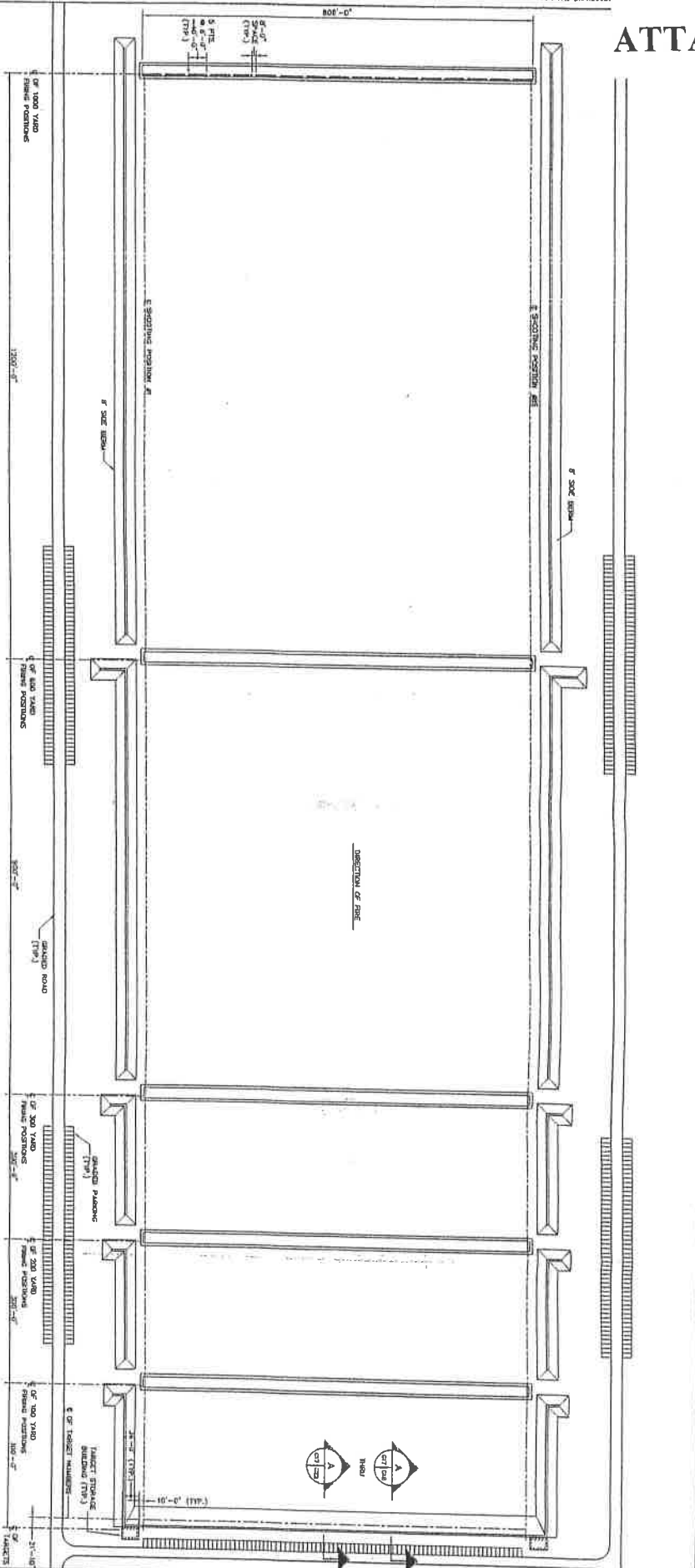
DESIGNED BY: R.E.N. CHECKED BY: C. VARGAS DATE: _____
SUBMITTED BY: _____ FILE NO: 15227



NATIONAL RIFLE ASSOCIATION
RANGE DEPARTMENT
FAIRFAX, VIRGINIA 22031
SHOOTING RANGE
DEFINITIVE DRAWINGS

NON-BAFFLED
PISTOL RANGE
SECTIONS AND DETAILS

| NO. | REVISION | DATE |
|-----|----------|------|
| | | |
| | | |
| | | |



1000 YARD RIFLE RANGE PLAN

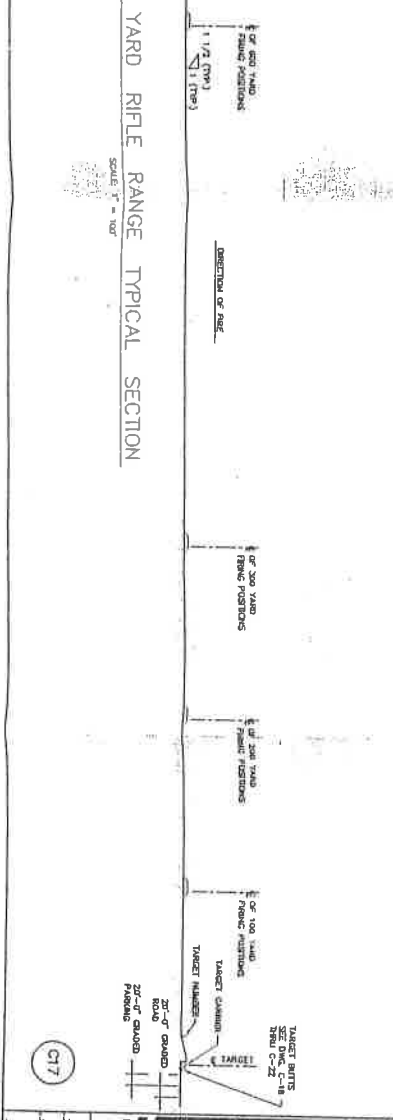
SCALE: 1" = 100'

NOTE: 85 POINTS IN GROUPS OF 5" WITH 8'-0" SPACE BETWEEN GROUPS



1000 YARD RIFLE RANGE TYPICAL SECTION

SCALE: 1" = 100'

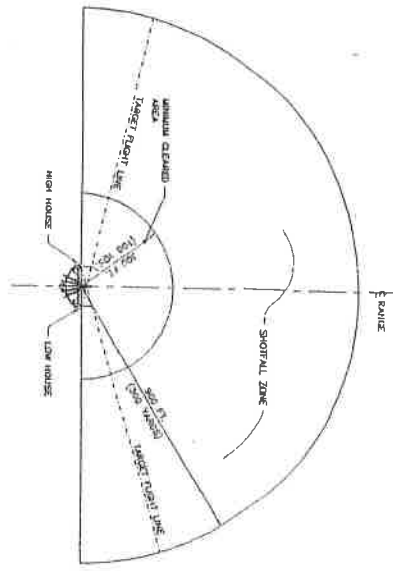


G. VARGAS & ASSOCIATES, LTD.
 CONSULTING ENGINEERS
 8111 ALABAMA HIGHWAY
 ANDERSON, SOUTH CAROLINA 29621
 DRAWN BY: **V.A.H.** CHECKED BY: **C. VARGAS** DATE: **6/2/81**
 SUBMITTED BY: _____ REG. ENGINEER NO. 16297

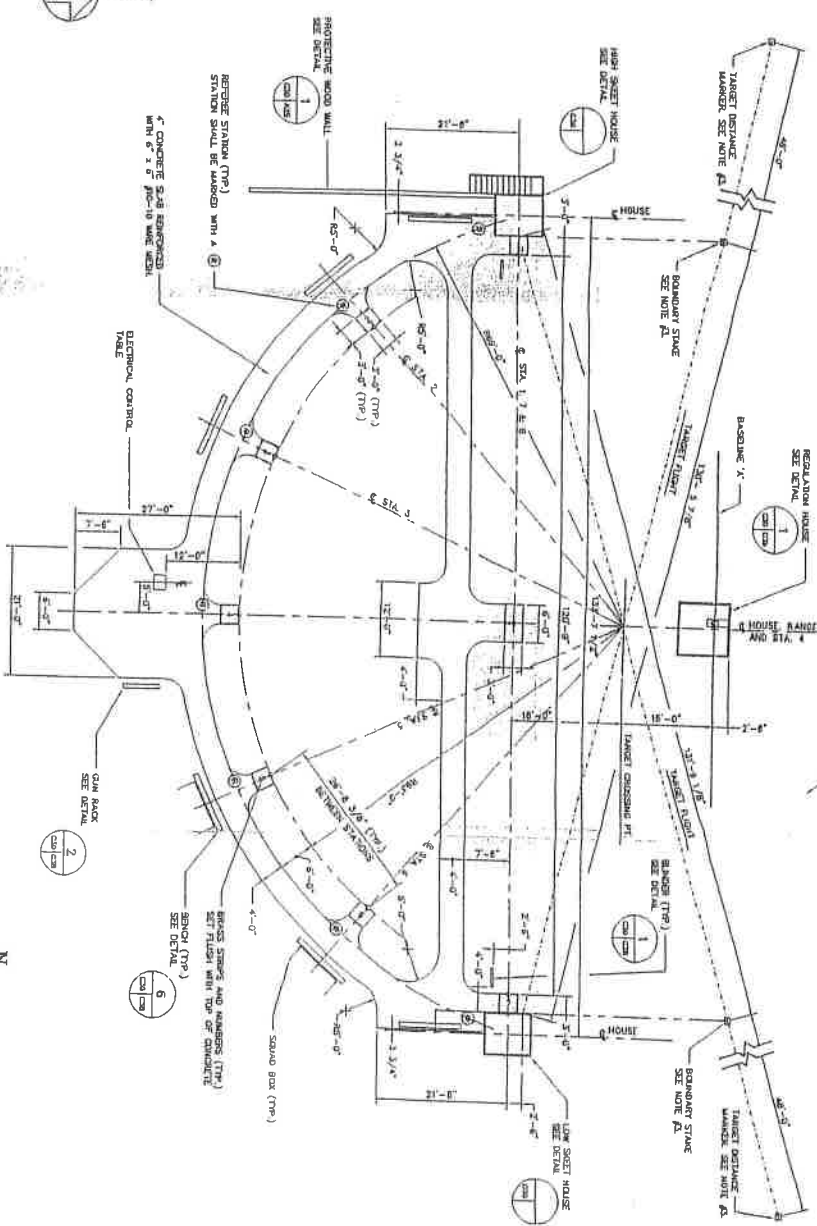
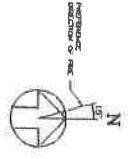
NATIONAL RIFLE ASSOCIATION
 RANGE DEPARTMENT
 PATRICK, VIRGINIA 22050
 SHOOTING RANGE
 DEFINITIVE DRAWINGS

85 POINT
 1000 YARD RIFLE RANGE
 PLAN AND SECTION

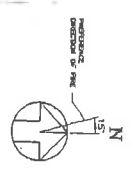
| | | |
|------|----------|------|
| REV. | REVISION | DATE |
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| | | |
| | | |



SHEET FIELD SHOTFALL ZONE PLAN
SCALE: 1" = 100'



SHEET FIELD PLAN
SCALE: 1" = 10'



- NOTES:
1. ALL DIMENSIONAL CONCEPTS FOR ELECTRICAL WIRING SHALL BE Laid POUND TO BE PLACED BY PAINT CONCRETE.
 2. ALL DIMENSIONS NOT SHOWN ARE 3'-0".
 3. THE BOUNDARY STAKES AND TARGET DISTANCE MARKERS SHALL BE 2" x 2" 10'-0" ABOVE GROUND AND PAINTED WHITE IN COLOR.

C30

C. VARGAS & ASSOCIATES, LTD.
CONSULTING ENGINEERS
1400 W. UNIVERSITY BLVD., SUITE 100
MARIETTA, GEORGIA 30067 (770) 575-7141

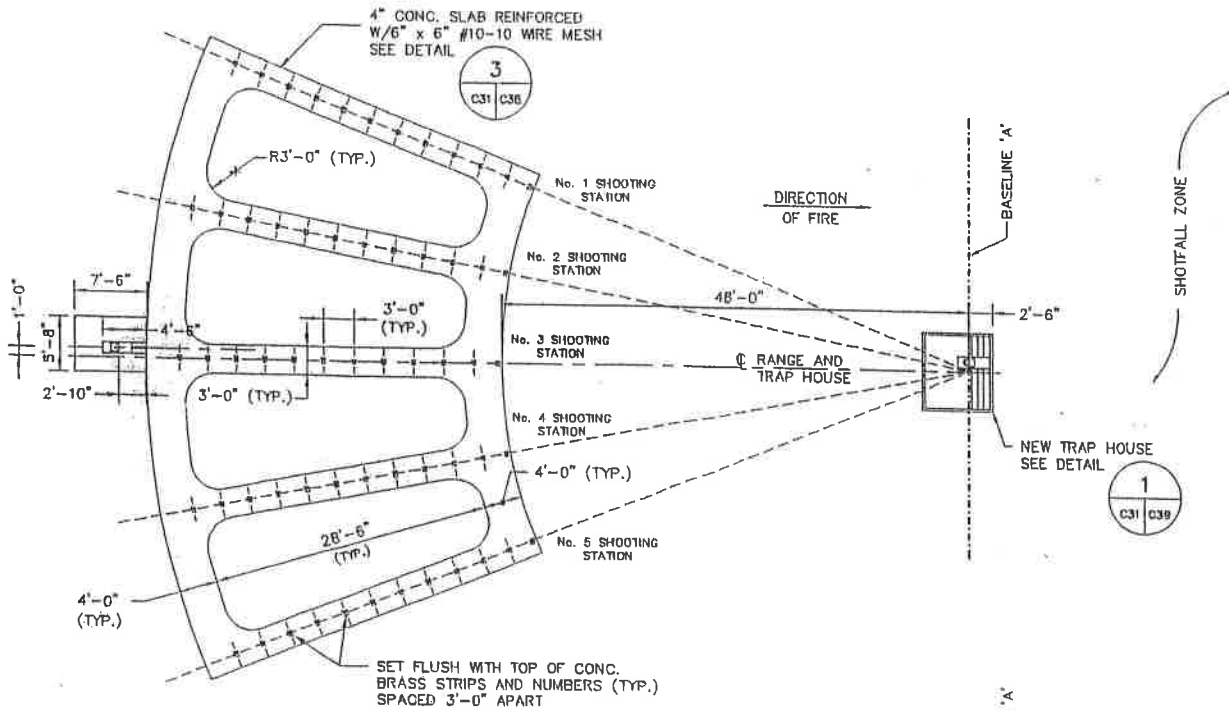
DESIGNED BY: **C. VARGAS** DATE: _____
CHECKED BY: _____ DATE: _____
SUBMITTED BY: _____ REV. SHEET NO. 18292

NATIONAL RIFLE ASSOCIATION
RAJICE DEPARTMENT
FAIRFAX, VIRGINIA BROAD
SHOOTING RANGE
DEFINITIVE DRAWINGS

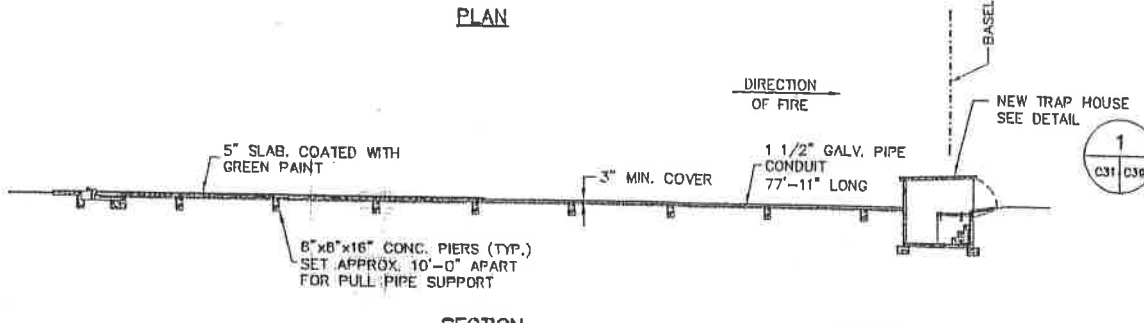
SHEET FIELD PLAN

| NO. | REVISION | DATE | BY |
|-----|----------|------|----|
| | | | |
| | | | |
| | | | |
| | | | |

THIS DRAWING IS THE INSTRUMENT OF SERVICE AND PROPERTY OF C. VARGAS & ASSOCIATES LTD. ANY USE OR REPRODUCTION WITHOUT EXPRESSED WRITTEN PERMISSION OF THIS CORPORATION IS PROHIBITED. ALL RIGHTS OF DESIGN AND INVENTION ARE EXPRESSLY RESERVED.



PLAN



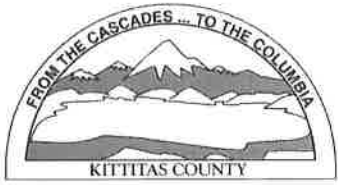
SECTION
TRAP FIELD DETAIL
 SCALE: 1" = 20'

- NOTES:**
1. REFERENCE POINT IS THE INTERSECTION OF BASELINE 'A' AND THE ϕ OF THE RANGE AND TRAP HOUSE.
 2. BASELINE 'A' IS LOCATED 2'-6" BACK FROM THE FRONT EDGE OF THE TRAP HOUSE.
 3. PURSUANT TO A.T.A. RULES, TOP OF THE TRAP HOUSE SHALL NOT BE LESS THAN 2'-2" NOR MORE THAN 2'-10" ABOVE ELEVATION OF No. 3 SHOOTING STATION.

| | |
|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| TRAP FIELD PLAN SHOOTING RANGE DEFINITIVE DRAWINGS | NATIONAL RIFLE ASSOCIATION RANGE DEPARTMENT FAIRFAX, VIRGINIA 22030 |
| C. VARGAS & ASSOCIATES LTD. CONSULTING ENGINEERS 4500 ARLINGTON EXPRESSWAY JACKSONVILLE, FLORIDA 32211 (904) 725-7131 | DRAWN BY: D.E.N. CHECKED BY: C. VARGAS. DATE: 5/08 SUBMITTED BY: _____ REG. ENGR. NO. 16297 |
| CADD FILE C-31.DWG | PROJECT NO. 0759 |
| SHEET | REVISION |

C31

DO NOT SCALE DRAWINGS



KITTITAS COUNTY PERMIT CENTER
411 N. RUBY STREET, ELLENSBURG, WA 98926

RECEIPT NO.: 00012660

COMMUNITY DEVELOPMENT SERVICES
(509) 962-7506

PUBLIC HEALTH DEPARTMENT
(509) 962-7698

DEPARTMENT OF PUBLIC WORKS
(509) 962-7523

Account name: 003329

Date: 10/17/2011

Applicant: STREAM CLUB CASCADE FIELD &

Type: check # 14531

| <u>Permit Number</u> | <u>Fee Description</u> | <u>Amount</u> |
|----------------------|------------------------|---------------|
| SE-11-00007 | CDS SEPA FEE | 490.00 |
| SE-11-00007 | PW SEPA | 70.00 |
| | Total: | 560.00 |

EXHIBIT 3

25. Sand and gravel excavation, provided that noncommercial excavation shall be permitted for on-site use without a conditional use permit
26. Stone quarries
27. Temporary offices and warehouses of a contractor engaged in construction (not to exceed two years). (Ord. 2009-25, 2009; Ord. 2007-22, 2007; Ord. O-2006-01, 2006; Ord. 2005-05, 2005)

17.28A.140 Administrative uses.

The following uses may be permitted in any A-5 zone subject to the requirements set forth in Chapter 17.60B.

1. Accessory Dwelling Unit (if outside UGA or UGN) (Ord. 2007-22, 2007)

[Top ▲](#)

Chapter 17.29

A-20 - AGRICULTURAL ZONE*

Sections

- [17.29.010](#) Purpose and intent.
- [17.29.020](#) Uses permitted.
- [17.29.030](#) Conditional uses.
- [17.29.040](#) Lot size required.
- [17.29.050](#) Yard requirements - Front yard.
- [17.29.060](#) Yard requirements - Side yard.
- [17.29.070](#) Yard requirements - Rear yard.
- [17.29.075](#) Yard requirements- Zones adjacent to Commercial Forest Zone.
- [17.29.080](#) Yard requirements - Sale or conveyance restrictions.
- [17.29.090](#) Dimensional requirements.
- [17.29.100](#) Repealed.
- [17.29.110](#) Access.
- [17.29.120](#) Special setback requirements.
- [17.29.130](#) Administrative uses.

* For provisions on the right to farm for protection of agricultural activities, see Ch. 17.74. For provisions on the commercial agricultural and commercial agricultural overlay zones, see Ch. 17A.55. Prior history: Ords. 81-Z-1, 80-Z-2, 68-1.

17.29.010 Purpose and intent.

The agricultural (A-20) zone is an area wherein farming, ranching and rural life styles are dominant characteristics. The intent of this zoning classification is to preserve fertile farmland from encroachment by nonagricultural land uses; and protect the rights and traditions of those engaged in agriculture. (Ord. 83-Z-2 (part), 1983; Res. 83-10, 1983)

17.29.020 Uses permitted.

1. The following uses are permitted:
 - a. One-family or two-family dwellings;
 - b. Parks and playgrounds;
 - c. Public and parochial schools, public libraries;
 - d. Single family homes not including mobile homes or trailer houses;
 - e. Duplexes and residential accessory buildings;
 - f. All types of agriculture and horticulture not otherwise restricted or prohibited herein;
 - g. Agriculture, livestock, poultry or swine or mink raising, and other customary agricultural uses, provided that such operations shall comply with all state and/or county health regulations and with regulations contained in this title related to feedlots;
 - h. Community clubhouses, parks, playgrounds, public utility buildings, pumping plants and substations;
 - i. Commercial greenhouses and nurseries;
 - j. Roadside stands for the display and sale of fruits and vegetables raised or

- grown on the premises when located not less than forty-five feet from the centerline of a public street or highway;
- k. Existing cemeteries;
 - l. Airport;
 - m. Processing of products produced on the premises;
 - n. Forestry, including the management, growing and harvesting of forest products, and including the processing of locally harvested forest crops using portable equipment;
 - o. Home occupations that do not involve outdoor work or activities, which do not produce noise;
 - p. Gas and oil exploration and construction;
 - q. Uses customarily incidental to any of the above uses;
 - r. Any use not listed which is nearly identical to a listed use, as judged by the administrative official, may be permitted. In such cases, all adjacent property owners shall be given official notification for an opportunity to appeal such decisions to the county board of adjustment within ten working days of notification pursuant to Title 15A of this code, Project permit application process;
 - s. Accessory Dwelling Unit (if in UGA or UGN);
 - t. Accessory Living Quarters;
 - u. Special Care Dwelling;
 - v. Hay processing and container storage;
 - w. Electric Vehicle Infrastructure. See KCC Chapter 17.66.
2. Agriculture Study Overlay Zone: The list of permitted in subsection A shall apply, except that the following uses are not permitted:
-
- a. Parks and playgrounds;
 - b. Public and parochial schools, public libraries;
 - c. Duplexes and residential accessory buildings;
 - d. Community clubhouses, parks, playgrounds, public utility buildings, pumping plants and substations;
 - e. Airport;
 - f. Gas and oil exploration and construction. (Ord. 2011-013, 2011; Ord. 2009-25, 2009; Ord. 2007-22, 2007; Ord. 92-1 (part), 1992; Ord. 83-Z-2 (part), 1983; Res. 83-10, 1983)
-

17.29.030 Conditional uses.

It is the intent of this code that all conditional uses permitted in this zone shall be subordinate to primary agricultural uses of this zone. The following are conditional uses:

1. Auction sales of personal property, other than livestock
2. Bed and breakfast business
3. Churches
4. Commercial Activities Associated with Agriculture
5. Convalescent homes
6. Dairying and stock raising except the raising of swine and mink commercially and the establishment of livestock feed lots; provided that no permit shall be issued for dairying or stock raising on any tract of land having an area of less than nine acres or for animal sheds or barns to be located less than one hundred feet from any property held under different ownership from that upon which such shed or barn is located
7. Day care facilities
8. Farm implement repair and maintenance business of a commercial nature, not to include automobiles, trucks or bikes
9. Farm labor shelters, provided that:
 - a. The shelters are used to house farm laborers on a temporary or seasonal basis only, regardless of change of ownership, if it remains in farm labor-needed status;
 - b. The shelters must conform with all applicable building and health regulations;

- c. The number of shelters shall not exceed four per twenty acre parcel;
 - d. The shelters are owned and maintained by the owner or operator of an agricultural operation which clearly demonstrates the need for farm laborers;
 - e. Should the parent agriculture operation cease or convert to non-agriculture use, then the farm labor shelters shall conform with all applicable building, zoning, and platting requirements or be removed
10. Feedlot. Feedlots existing at the time of adoption of the ordinance codified herein may expand or be enlarged only in compliance with standards and regulations contained herein, and such operations shall comply with all state and/or county health regulations
 11. Feed mills, canneries and processing plants for agricultural products
 12. Golf courses
 13. Governmental uses essential to residential neighborhoods
 14. Guest ranches
 15. Home occupations which involve outdoor work or activities, which produce noise
 16. Hospitals
 17. Kennels
 18. Livestock sales yard
 19. Log sorting yard
 20. Museums
 21. Private Campgrounds. In considering proposals for location of such campgrounds, the board of adjustment shall consider at a minimum the following criteria:
 - a. Campgrounds should be located at sufficient distance from existing or projected rural residential/residential development so as to avoid possible conflicts and disturbances;
 - b. Traffic volumes generated by such a development should not create a nuisance or impose on the privacy of nearby residences or interfere with normal traffic flow;
 - c. Landscaping or appropriate screening should be required and maintained where necessary for buffering;
 - d. Adequate and convenient vehicular access, circulation and parking should be provided;
 - e. Economic and environmental feasibility;
 - f. Public health and safety of campers and those reasonably impacted by the campground (i.e. health, water, sanitation)
 22. Public utility substations
 23. Riding academies
 24. Room and board lodging involving no more than four boarders or two bedrooms
 25. Sand and gravel excavation, provided that noncommercial excavation shall be permitted for on-site use without a conditional use permit
 26. Shooting ranges
 27. Stone quarries
 28. Temporary offices and warehouses of a contractor engaged in construction (not to exceed two years). (Ord. 2009-25, 2009; Ord. 2007-22, 2007; Ord. 2001-13 (part), 2001; Ord. 93-6 (part), 1993; Ord. 92-1 (part), 1992; Ord. 90-10 (part), 1990; Res. 83-10, 1983)

17.29.040 Lot size required.

1. Minimum lot (homesite) requirements in the agricultural (A-20) zone are:
 - a. Twenty acres for any lot or parcel created after the adoption of the ordinance codified in this chapter, except that one smaller lot may be divided off any legal lot; provided such parent lot is at least eight acres in size; and provided, that such divisions are in compliance with all other county regulations (e.g., on-site septic system). Parcels must be located within the Agriculture-20 zone at the date of the adoption of this code. Once this provision has been applied to create a new parcel, it shall not be allowed for future parcel subdivision. Onetime splits shall be completed via the short plat process. The onetime parcel split provision should be

- encouraged where it is adjacent to ongoing agricultural practices, especially since the intent of this provision is to encourage the development of homesite acreage rather than removing agricultural lands out of production.
- b. In no case shall there be more than two dwellings (residences) on any lot or tax parcel unless such parcel is twice the required minimum (twenty-acre) size.

2. Agriculture Study Overlay Zone: Properties containing prime farmland soils with capability grades between 1 and 4 shall be a minimum of 20 acres in size. (Ord. 2010-014, 2010; Ord. 2009-25; 2009; Ord. 2007-22, 2007; Ord. 96-15 (part), 1996; Ord. 95-13 (part), 1995; Ord. 83Z-2 (part), 1983; Res. 83-10, 1983)

17.29.050 Yard requirements - Front yard.

There shall be a minimum front yard of 25 feet. (Ord. 96-19 (part), 1996; Res. 83-10, 1983)

17.29.060 Yard requirements - Side yard.

Side yard shall be a minimum of five feet; on corner lots the side yard shall be a minimum of 15 feet on the side abutting the street. (Res. 83-10, 1983)

17.29.070 Yard requirements - Rear yard.

There shall be a rear yard with a minimum depth of twenty-five feet to the main building. (Res. 83-10, 1983)

17.29.075 Yard requirements - Zones Adjacent to Commercial Forest Zone

Properties bordering or adjacent to the Commercial Forest zone are subject to a 200' setback from the Commercial Forest Zone. (KCC 17.57.050(1)). For properties where such setback isn't feasible, development shall comply with Kittitas County Code 17.57.050(2). (Ord. 2007-22, 2007)

17.29.080 Yard requirements - Sale or conveyance restrictions.

No sale or conveyance of any portion of a lot for other than a public purpose shall leave a structure or the remainder of the lot with less than the minimum lot, yard, or setback requirements of this zone. (Res. 83-10, 1983)

17.29.090 Dimensional requirements.

The minimum average lot width shall be two hundred feet. No platted lot or parcel may be created with a dimensional ratio greater than 4:1. (Res. 83-10, 1983)

17.29.100 Division of nonconforming lots.

Repealed by Ord. 95-13. (Res. 83-10, 1983)

17.29.110 Access.

No dwelling shall be constructed or located on a lot or parcel which is not served by a legal sixty-foot right-of-way or existing county road. (Res. 83-10, 1983)

17.29.120 Special setback requirements.

None of the following uses shall be located within the distances indicated of any public street or road, any school or public park, or any dwelling (except such dwelling as may exist upon the same property with the restricted):

1. Within one and one-half miles:
 - a. (Deleted by Ord. 88-5)
 - b. Farms or establishments for feeding of garbage or other refuse to hogs or other animals:
 - i. Provisions made that all other operations (subdivisions 1 and 2 of Section 17.28.110A1) shall be conducted in compliance with all state and county health regulations, and
 - ii. Reasonable protection from any potential detrimental effects such use might have on surrounding properties will be provided.
2. (Deleted by Ord. 87-11)
3. Within one hundred feet:
 - a. Barns, shelters or other buildings or structures for keeping or feeding of any

- livestock, poultry, or other animals or birds whether wild or domestic.
4. Feed lots containing fifty to one hundred head at a density of less than five hundred square feet per head for a period of six months or more shall be located no closer than three hundred feet to any existing home, school or park. (Ord. 88-5 (part), 1988; Ord. 87-11 (part), 1987; Res. 83-10, 1983)

17.29.130 Administrative uses.

The following uses may be permitted in any A-20 zone subject to the requirements set forth in Chapter 17.60B.

1. Accessory Dwelling Unit (if outside UGA or UGN) (Ord. 2007-22, 2007)

[Top](#) ▲

Chapter 17.30

R-3 - RURAL-3 ZONE

Sections

- [17.30.010 Purpose and intent.](#)
- [17.30.020 Uses permitted.](#)
- [17.30.030 Conditional uses.](#)
- [17.30.040 Lot size required.](#)
- [17.30.045 Development Standards.](#)
- [17.30.050 Yard requirements.](#)
- [17.30.055 Yard requirements- Zones Adjacent to Commercial Forest Zone.](#)
- [17.30.060 Sale or conveyance of lot portion.](#)
- [17.30.070 Nonconforming uses.](#)
- [17.30.080 Shoreline setbacks.](#)
- [17.30.090 Administrative uses.](#)

17.30.010 Purpose and intent.

The purpose and intent of the Rural-3 zone is to provide areas where residential development may occur on a low density basis. A primary goal and intent in siting R-3 zones will be to minimize adverse effects on adjacent natural resource lands. (Ord. 92-4 (part), 1992)

17.30.020 Uses permitted.

Uses permitted. The following uses are permitted:

1. Single-family homes, mobile homes, cabins;
2. Lodges and community clubhouses;
3. Agriculture, livestock, poultry or hog raising, and other customary agricultural uses traditionally found in Kittitas County, provided that such operations shall comply with all state and/or county health regulations and with regulations contained in this title related to feedlots;
4. Forestry, including the management, growing and harvesting of forest products, and including the processing of locally harvested forest crops using portable equipment;
5. Home occupations which do not produce noise, such as accounting, photography, etc.;
6. Cluster subdivision, when approved as a platted subdivision;
7. All mining including, but not limited to, gold, rock, sand and gravel excavation, rock crushing, and other associated activities when located within an established mining district;
8. All buildings and structures not listed above which legally existed prior to the adoption of the ordinance codified in this chapter;
9. Uses customarily incidental to any of the uses set forth in this section;
10. Any use not listed which is nearly identical to a permitted use, as judged by the administrative official, may be permitted. In such cases, all adjacent property owners shall be given official notification for an opportunity to appeal such decisions within ten working days of notification to the county board of adjustment

EXHIBIT 4

Kittitas County Parcel Report Printout



Parcel Info

| | |
|-----------------------|--------------------------------|
| Parcel # | 217734 |
| Map # | 19-17-21000-0001 |
| Acres Recorded | 182.38000000 |
| Situs Address | 02380 HAYWARD RD CLE ELUM |
| Owner Name | CASCADE FIELD & STREAM CLUB |

Mailing Address

| | |
|----------------------|-------------|
| Address Cont. | PO BOX 424 |
| City/State | CLE ELUM WA |
| Zipcode | 98922 |

Critical Areas

| | |
|--------------------------------|-----|
| Contains > 30% Slope | Yes |
| DOE G.W. Moratorium | No |

| | |
|----------------------|-----------------------------------------------------------------------------|
| PHS Site Name | ELLENSBURG MULE DEER WINTER RANGE, SWAUK PRAIRIE DEER WINTER RANGE |
|----------------------|-----------------------------------------------------------------------------|

| | |
|--------------------|--------------------------------|
| Roof Hazard | HIGH_EXTREEME HAZARD RATING |
|--------------------|--------------------------------|

| | |
|-------------------|---------|
| Roof Class | CLASS A |
|-------------------|---------|

| | |
|-------------------------|----|
| Seismic Category | D1 |
|-------------------------|----|

Flood Zone

Shore Line

| | |
|---------------------|---------|
| Wetland Code | U,PUSCH |
|---------------------|---------|

| | |
|-----------------------|-------------|
| FEMA Flood Map | 5300950407B |
|-----------------------|-------------|

| | |
|------------------|--------|
| FIRM Zone | ZONE C |
|------------------|--------|

Coalmine Shaft

Airport Zone

| | |
|------------------|-------|
| Zone Name | AG-20 |
|------------------|-------|

| | |
|-----------------|-------|
| Land Use | RURAL |
|-----------------|-------|

| | |
|----------------------|------|
| Max Elevation | 2448 |
|----------------------|------|



| | |
|-----------------------------|--------------------------------------------------------|
| PG | 78 |
| ISO | 0.032 |
| Districts | |
| Fire District | Fire District 1 (Rural Thorp) |
| Hospital District | HOSPITAL DISTRICT 1 |
| Irrigation District | KRD |
| School District | Cle Elum-Roslyn School District, Thorp School District |
| Voting District | Dry Creek |
| Commisioner District | 2 |
| Weed District | WEED DISTRICT # 9 |

Disclaimer

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EXHIBIT 5

WIND ENERGY LEASE AND AGREEMENT WITH GRANT OF EASEMENTS

THIS WIND ENERGY LEASE AND AGREEMENT WITH GRANT OF EASEMENTS (this "Lease") is made to be effective this 9th day of April 2009 (the "Effective Date"), between Sagebrush Power Partners LLC, a Delaware limited liability company (together with its successors and assigns, "Wind Company") and Cascade Field and Stream Club, a Washington Non-Profit Corporation (together with its successors and assigns, collectively and individually, as the case may be, "Landowner"). Landowner and Wind Company are sometimes referred to individually herein as a "Party" and collectively as the "Parties."

RECITALS

A. Wind Company desires to develop, construct and operate a commercial wind power electric generation facility consisting of wind-powered turbines and generators and other related equipment and facilities, including, without limitation, power lines and roadways for the production, collection and transmission of electrical energy, all of the foregoing to be located in, on, over, across and under the Property (as defined below) and in, on, over, across and under other real property in the vicinity of the Property in which Wind Company has acquired certain rights or in which Wind Company contemplates acquiring certain rights (together with the Property, the "Wind Project Property").

B. Landowner is the owner of that certain property described on Exhibit "A" attached hereto and made a part hereof (and as generally depicted on the map attached hereto as Exhibit "A-1") for all purposes (the "Property"), which Property Wind Company wishes to lease and obtain certain easements as a part of the Wind Project Property, and Landowner wishes to lease same to Wind Company and to grant the easements set forth hereinbelow, all subject to the further terms and conditions hereof. Landowner currently conducts Gun Club activities (as defined in Section 5.9 below) on the Property. The Parties agree that for purposes of this Lease, the Property consist of one hundred eighty-two (182) acres of land.

C. Landowner and Wind Company previously entered into that certain Option Agreement dated April 17, 2002, a memorandum of which was recorded on December 6, 2002 as Instrument No. 200212060005 in the Office of County Clerk of Kittitas County, Washington, as amended by that certain First Amendment to Wind Option Agreement dated December 22, 2004, a memorandum of which was recorded on January 7, 2005 as Instrument No. 200501070035 in the Office of County Clerk of Kittitas County, Washington (collectively, the "Option Agreement"). Wind Company has exercised the option to lease under the Option Agreement and Landowner and Wind Company desire to enter into this Lease.

ARTICLE I

Grant of Rights

Section 1.1 Lease. For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landowner hereby leases to Wind Company, and Wind Company hereby leases from Landowner, the Property, including all air space thereof, which said Property is located in the County of Kittitas (the "County"), in the State of Washington (the "State") for the following purposes (collectively, "Operations") for the benefit of one or more Projects (as defined below) upon all of the terms and conditions hereinafter set forth herein:

- (a) Determining the feasibility of wind energy conversion on the Property or on other Wind Project Property or on neighboring lands, including studies of wind speed, wind direction and other meteorological data;

(b) Converting wind energy into electrical energy, and collecting and transmitting the electrical energy so converted;

(c) Developing, constructing, reconstructing, erecting, installing, improving, replacing, relocating and removing from time to time, and using, maintaining, repairing, operating and monitoring, the following: (i) wind machines, wind turbine generators, wind energy conversion systems and wind power generating facilities (including associated towers, foundations and other structures and equipment), and other power generation facilities to be operated in conjunction with wind turbine installations, in each case of any type or technology (collectively, "Generating Units"); (ii) transmission facilities, including overhead and underground transmission, distribution and collector lines, wires and cables, splice and junction boxes, switch panels, conduits, footings, foundations, towers, poles, crossarms, guy lines and anchors; (iii) overhead and underground control, communications and radio relay systems and telecommunications equipment, including microwave towers, dishes, and control, fiber, wires, cables, conduit and poles; (iv) meteorological towers, guy wires, braces and wind measurement equipment; (v) roads and erosion control facilities; (vi) signs; (vii) fences and other safety and protection facilities; and (viii) other improvements, facilities, appliances, machinery and equipment associated with any of the foregoing (all of the foregoing, including the Generating Units, collectively, "Wind Power Facilities");

(d) Vehicular and pedestrian ingress, egress and access to and from Wind Power Facilities on, over and across the Property by means of roads and lanes thereon if existing, or otherwise by such roads, including but not limited to turning radius from public roads, if necessary, as Wind Company or anyone else may construct from time to time (collectively, "Access Rights");

(e) Conducting site tours to demonstrate the environmental and other benefits of electrical generation from wind power; and

(f) Undertaking any other activities that Wind Company or a Sublessee (as defined below) determines are necessary, helpful, appropriate or convenient with, incidental to or to accomplish any of the foregoing purposes or for the benefit of one or more Projects, including conducting surveys, tests and studies, including but not limited to environmental, biological, cultural, geotechnical drilling and studies and other uses permitted under this Lease as set forth elsewhere herein. Without limiting the generality of the foregoing, the Parties recognize that (a) power generation technologies are improving at a rapid rate and that Wind Company or a Sublessee may (but shall not be required to) from time to time replace existing Generating Units on the Property with newer model (and potentially larger) Generating Units and (b) the Operations may be accomplished by Wind Company, a Sublessee or one or more third parties authorized by Wind Company or a Sublessee. For purposes of this Lease, the term "Project" means one or more Generating Units and associated Wind Power Facilities that are constructed, installed and/or operated on the Property and/or on Wind Project Property by or on behalf of Wind Company, a Sublessee or an affiliate of either thereof, as an integrated energy generating and delivery system.

Section 1.2 Easements. In addition, Landowner hereby grants to Wind Company the following easements for the benefit of one or more Projects and the Wind Project Property (collectively, the "Easements" and individually an "Easement"):

(a) An exclusive easement to use, convert, maintain and capture the free and unobstructed flow of wind over and across the Property;

(b) An exclusive easement to permit the rotors of Generating Units located on adjacent properties in the Project to overhang the Property and to encroach into any county, state or other governmental setback;

(c) A non-exclusive easement for the Access Rights for the benefit of one or more Projects and the Wind Project Property ("Access Easement") for the purposes set forth herein;

(d) A non-exclusive easement for audio, visual, view, reflective light, shadow flicker, noise, shadow and any other effects attributable to any Project or Operations located on the Property or on adjacent properties over and across the Property and any other property owned by Landowner adjacent to or in the vicinity of the Property;

(e) An exclusive easement to permit the use of cranes required to install, repair or replace the Generating Units from time to time along with an access route for the cranes ("Crane Travel Path Easement"), together with the right to temporary earthmoving as necessary to build suitable access routes for the Crane Travel Path Easement;

(f) A seventy-five (75) foot wide non-exclusive easement (the "Distribution Easement") and right to install, maintain, repair and operate on the Property underground at least forty (40) inches below the surface (or above ground if reasonably necessary or required), distribution and collection lines which carry electricity to and from the Wind Project Property, communication lines which carry communications to and from the Wind Project Property, and other above ground improvements, facilities, appliances, machinery and equipment in any way related to or associated with any of the foregoing; and

(g) A non-exclusive "Construction Easement" for purposes of constructing, maintaining, repairing, replacing, and removing all or any part or element of the Wind Power Facilities whether located on or off the Property. The portion of the Property subject to the burden of this easement is referred to as the "Construction Easement Property" and is identified and located as shown on Exhibit "B". The exact size and configuration of the Construction Easement will vary with location and function as reasonably determined by engineering and construction personnel, but is generally expected to comprise an area of approximately five (5) acres at each turbine site, one and one-half (1 1/2) acres at each meteorological tower site, an area of approximately two hundred (200) feet of additional width on each side of all of the access roads measured from the center line of such access roads, an area approximately fifty (50) feet in width (i) on either side of all buried cable and (ii) on either side of all of the aboveground lines and an area of approximately two hundred fifty (250) feet of additional width on each side of the Crane Path Travel Easement. Wind Company may exercise its right to use all or any part of the Construction Easement Property as and when Wind Company deems it necessary or advisable to do so to perform the activities for which this Construction Easement is granted. Wind Company shall have the right to use the Property during the life of the Wind Power Facilities for major repairs requiring a crane and laydown areas and will first notify Landowner of its plans (except in case of emergency) prior to such use. This Construction Easement also shall permit vehicular and pedestrian access in connection with installation or removal of the nacelle or rotor on any Generating Unit to go onto the Property up to 650 feet in any direction from the base of the Generating Unit to hold tag lines securing the nacelle and rotor while they are being lifted into place. When using the Construction

Easement, Wind Company will implement suitable wind erosion control on disturbed ground caused by construction or Wind Company's other activities. After each use of the Construction Easement, Wind Company to the extent reasonably possible shall restore the Construction Easement Property to the condition it was in before Wind Company's use.

Section 1.3 Term. Notwithstanding anything contained herein to the contrary, each Easement shall continue for so long as a Project, the electrical substation serving a Project, or any Wind Power Facility exists on any of the Wind Project Property, including replacements thereof, unless terminated in writing by Wind Company, and shall not terminate on, and shall survive after, the termination or expiration of the Lease and provided Wind Company pays Landowner a one time amount equal to the market value of the land Wind Company is using for the Easements. The market value of the land shall be determined by a Member Appraisal Institute ("MAI") designated appraiser. If the Parties cannot agree on the MAI appraiser, then each Party shall select an MAI appraiser and the two appraisers thus selected shall select a third MAI designated appraiser with the average of the three appraisals thus obtained to be the consideration paid for such extended term. In such case, each Party shall pay the fees of its appraiser and the Parties shall share equally the fees of the third appraiser. Notwithstanding the foregoing, in no event shall any of the Easements continue longer than the longest period permitted by Law (hereinafter defined).

Section 1.4 Landowner Easements. To the extent that Landowner holds any access, utility, transmission or other easements, rights of way or licenses over lands in the general vicinity of the Property (the "Landowner Easements") that are or could be used for the benefit of the Project, then the same are hereby included in this Lease, and Wind Company shall be entitled to make use thereof to, but only to the extent Landowner has the right to grant such rights to Wind Company.

Section 1.5 Setback Waivers. To the extent that (a) Landowner now or in the future owns or leases any land adjacent to the Property or (b) Wind Company, any Sublessee or any affiliate of any thereof owns, leases or holds an easement over land adjacent to the Property and has installed or constructed or desires to install or construct Wind Power Facilities on said land at and/or near the common boundary between the Property and said land, Landowner hereby waives any and all setbacks and setback requirements, whether imposed by Law (hereinafter defined) or by any person or entity, including any setback requirements described in the zoning ordinance of the County or in any governmental entitlement or permit heretofore or hereafter issued to Wind Company, such Sublessee or such affiliate. Further, if so requested by Wind Company or any Sublessee or affiliate, Landowner shall promptly execute (and if appropriate cause to be acknowledged) any setback waiver, setback elimination or other document or instrument reasonably requested by Wind Company, a Sublessee or the County in connection therewith and return the same thereto within ten (10) days after such request.

Section 1.6 Easements to Run with the Land. With respect to each Easement granted hereunder, (a) to the extent permitted by Law, such Easement shall be appurtenant to the applicable leasehold estate; (b) such Easement shall run with the Property for the benefit of the Wind Project Property; (c) no act or failure to act on the part of Wind Company or the holder of the Easement shall be deemed to constitute an abandonment, surrender or termination thereof, except upon recordation by such holder of a release of such holder's rights under the Easement; (d) nonuse of the Easement shall not prevent the future use of the entire scope thereof; and (e) no use of or improvement to the Property or any lands benefited by the Easement, and no Transfer (as defined below), shall, separately or in the aggregate, constitute an overburdening of the Easement. To the extent any of the provisions of this Lease relating to the Easements are not enforceable as covenants running with the land or the status of such as appurtenant is extinguished, the Parties agree that the Easements shall be as assignable and alienable easements in gross.

Section 1.7 Site Plan. On or before expiration of the Development Term (hereinafter defined), Wind Company shall deliver to Landowner a site plan (the "Site Plan") which shall be attached hereto as Exhibit B, setting forth the proposed locations of the Wind Power Facilities and the Easements. Landowner shall have the right to approve the Site Plan, which such approval shall not be unreasonably withheld, delayed or conditioned. In the event that Wind Company desires to modify any of the proposed locations shown on the Site Plan, Wind Company shall obtain the consent of Landowner (not to be unreasonably withheld, conditioned or delayed) to such locations of more than fifty (50) feet for turbine sites and roads and two hundred fifty (250) feet for underground distribution and collection lines and the Parties shall amend the Site Plan to set forth such new locations. Notwithstanding the foregoing restrictions on Wind Company's right to alter the Site Plan, Landowner understands and acknowledges that physical conditions relating to the Property and other matters that may be outside of Wind Company's knowledge at the time of the design of the Site Plan may require the relocation of various easements, and Landowner agrees to act reasonably with respect to any changes to the Site Plan requested by Wind Company. Within one hundred eighty (180) days following completion of construction of the Wind Power Project, Wind Company shall cause an as-built survey of the Project to be prepared and delivered to Landowner, which survey shall replace the Site Plan for all purposes.

Section 1.8 Wind Project Property. Landowner understands and acknowledges that the Wind Project Property may be undetermined as of the Effective Date. The Parties agree that the Wind Project Property includes all property in which Wind Company has acquired rights in connection with the Project as of the Effective Date and any property in which Wind Company acquires rights in the future for the Project (including any future phases of the Project). If multiple or subsequent Projects or phases of the Projects are constructed adjacent to the Wind Project Property, the Easements shall also be for the benefit of the property within such Projects or phases.

Section 1.9 Substation/OM Building/Laydown Yard and Transmission Line Facilities. Provisions governing a substation/switchyard facility, operation and maintenance facility, laydown yard and/or transmission line facilities will be negotiated in a separate lease, purchase agreement or easement agreement.

Section 1.10 Landowner Reservation of Rights. Subject to Sections 5.2, 5.3, 6.1 and 6.4 and the other rights of Wind Company under this Lease, Landowner hereby reserves the right (i) to use the Property for any purpose (including for Gun Club activities (as defined in Section 5.9 of this Lease), agriculture, ranching, oil, gas and other mineral exploration and development, and geophysical and archeological exploration) outside of (a) the setback area of the Generating Units consisting of approximately a 500 foot diameter circle around each Generating Unit which shall be exclusive to Wind Company and Landowner shall have no right to use the land within the 500 foot diameter circle around each Generating Unit for any purposes except for the growing crops or grazing of livestock and pedestrian activities, (b) the Crane Travel Path Easement and Landowner shall have no right to use the land of the Crane Travel Path that lies within the Access Easement for any purposes except vehicular and pedestrian activities, (c) the Access Easement and (d) the Distribution Easement, which said areas will be shown on Exhibit B and (ii) to lease the Property and grant easements on, over, under and across the Property to other persons and entities for such purposes (and any income derived by Landowner from such use, leasing or easement granting shall belong entirely to Landowner); provided, however, that (a) such uses, leases and easements or any other interest or rights, including but not limited to options given to a third party shall not include wind energy development or the installation or use of any facilities related to wind energy development or generation (which rights and uses are exclusively granted to Wind Company in this Lease), (b) such uses, leases and easements shall be for purposes and activities that are not and will not be inconsistent with any of Wind Company's or any Sublessee's Projects or Operations, or Wind Company's enjoyment of the rights granted to it under this Lease including but not limited to options

given to a third party and (c) any such leases and easements entered into after the Effective Date shall expressly provide that they are subject and subordinate in all respects to this Lease and to the rights of Wind Company and any Sublessees hereunder. Notwithstanding the foregoing, if there is any conflict or disagreement between the Parties regarding their respective rights to develop and utilize the Property, then Wind Company's use (for the purposes permitted in this Lease) shall have first priority. Wind Company agrees not to locate any Generating Units in the area as identified and located on Exhibit "B-1" (the "Non-Development Area") without the additional approval of Landowner in the form of a separate agreement.

Section 1.11 Exclusivity. Wind Company shall have the exclusive right to develop and use the Property for wind energy purposes and to convert all of the wind resources of the Property; provided, however, that nothing expressly or impliedly contained in this Lease or represented to Landowner shall be construed as requiring Wind Company to (a) undertake construction, installation or operation of any Wind Power Facilities on the Property or elsewhere, (b) continue operation of any Wind Power Facilities from time to time located on the Property or elsewhere or (c) generate or sell any minimum or maximized amount of electrical energy from the Property; and the decision if, when and to what extent to construct, install or operate Wind Power Facilities, or to generate or sell electrical energy, shall be solely in Wind Company's discretion. Landowner shall cooperate with Wind Company and each Sublessee in connection with its Operations, and, upon request by Wind Company, shall make available to Wind Company for inspection copies of all reports, agreements, surveys, plans and other records of Landowner that relate to the wind on or across the Property or to the feasibility of wind energy development on the Property. Notwithstanding anything contained herein to the contrary, Landowner may, with written notice to Wind Company, but without the consent of Wind Company, build and operate one wind turbine up to 25 kW for residential and/or farm electrical purposes only on the Property ("Landowner's Wind Turbine"), provided said Wind Turbine is located more than one thousand (1000) feet from any Generating Unit.

Section 1.12 Effects. Notwithstanding the grant of the easement contained in Section 1.2(d) hereinabove, Landowner understands and has been informed by Wind Company that by this Lease, Wind Company and each Sublessee has the right to cause on, over, across and under the Property or as an indirect or direct result of Wind Company's or a Sublessee's activities on the Property in connection with each Project and the Subsequent Wind Projects, such audio, visual, view, light, shadow flicker, ice or weather created hazards (collectively, the "Consequences") transmitted by or from the presence and operations of (a) the Wind Power Facilities on the Operating Areas and (b) each Project and the Subsequent Wind Projects, now known or hereafter designed and used for the generation of electricity by wind powered turbines and the transmission of such electricity (collectively, the "Effects"). Landowner, for itself, its heirs, administrators, executors, successors and assigns, does hereby waive, remise and release any right, claim or cause of action which it may now have or which it may have in the future against Wind Company or a Sublessee as a direct or indirect result of said Effects.

ARTICLE II

Term

Section 2.1 Development Term. This Lease shall initially be for a term (the "Development Term") commencing on the Effective Date and ending on the sooner to occur of (a) two (2) years after the Effective Date or (b) the date on which the First Extended Term (as defined below) commences.

Section 2.2 Extended Terms. Wind Company shall have the right and option (the "Lease Extension Option") to extend the term of this Lease for one period of thirty (30) years, provided that Commencement of Construction is no later than December 31, 2012, plus two additional periods of ten (10) years each (each, an "Extended Term"). The Development Term and Extended Term(s) are sometimes collectively referred to hereafter as the "Term". For purposes of this Section 2.2, Commencement of Construction shall mean the commencement, on an unlimited basis, of construction of the Wind Power Facilities on the Property and shall not include preliminary inspections, tests or surveys needed to evaluate the feasibility of installing the Wind Power Facilities on the Property.

(a) Wind Company may exercise the Extension Option, for each Extended Term, by giving Landowner written notice of such extension (each, an "Extension Option Notice"). For the first Extended Term (the "First Extended Term"), Wind Company shall give the Extension Option Notice at any time prior to the expiration of the Development Term and the First Extended Term shall commence (and the Development Term shall end) upon the date specified in such Extension Option Notice (which date shall in any event not be later than the expiration of the Development Term). For the second Extended Term (the "Second Extended Term"), Wind Company shall give the Extension Option Notice at any time prior to the expiration of the First Extended Term, and the Second Extended Term shall commence upon the expiration of the then-effective Extended Term. For the third Extended Term (the "Third Extended Term"), Wind Company shall give the Extension Option Notice at any time prior to the expiration of the Second Extended Term, and the Third Extended Term shall commence upon the expiration of the then-effective Extended Term. The terms and conditions set forth in this Lease shall continue and remain in effect during each Extended Term. Notwithstanding the foregoing, in no event shall the term of this Lease be longer than the longest period permitted by Law.

(b) Although the giving of an Extension Option Notice shall by itself (without the requirement of any other writing) conclusively cause the applicable Extended Term to become effective on the specified commencement date, if Wind Company so requests, the Parties shall promptly execute and Wind Company shall be entitled to record a memorandum evidencing such extension, which memorandum shall be reasonably satisfactory in form and substance to Wind Company.

ARTICLE III

Rent

Section 3.1 Rent During the Development Term. Commencing on the Effective Date, and continuing thereafter on or before the fifth day of each calendar year during the Development Term, Wind Company shall pay to Landowner, annually in advance, as rent (the "Development Term Rent"), Two Dollars (\$2.00) per acre of the Property that is from time to time then subject to this Lease.

3.1.1 Signing Fee. Within thirty (30) days of the execution of this Lease by Landowner and delivery of an executed copy of the same to Company, Company shall pay to Landowner, as a signing fee, the sum equal to the greater of (i) [REDACTED] (\$ [REDACTED]) per acre of Property that is from time to time subject to this Lease or (ii) [REDACTED] (\$ [REDACTED]).

Section 3.2 Rent During the Extended Terms.

(a) Commencing on the Effective Date, and thereafter on or before the tenth (10th) day of each calendar year during the Term until the earlier of (i) the expiration of the

Development Term or (ii) the Operation Date (hereinafter defined), Wind Company shall pay to Landowner, as rent (the "Initial Rent"), [REDACTED] (\$ [REDACTED] per acre of the Property that is from time to time then subject to this Lease. "Operation Date" means the date that a power purchasing utility or other entity first receives power produced from all of the Generating Units located on the Property.

(b) Commencing on the Operation Date and for each Term Year (as defined below) thereafter, Wind Company shall pay to Landowner, as additional rent (the "Additional Rent") an amount equal to the greater of (i) [REDACTED] (\$ [REDACTED] per megawatt of nameplate capacity of Generating Units installed on the Property for the first year and thereafter said [REDACTED] shall escalate by two percent (2%) annually or (ii) the Production Rent (as defined below) for such Term Year. As used herein, the "Production Rent" means an amount equal to the product of the amount of the Royalty Percentage of the Gross Revenues (as defined below) actually received over the course of a Term Year times a fraction, the numerator of which is the total amount of megawatt of nameplate capacity of Operational (as defined below) turbines from time to time located on the Property and the denominator is the total amount of megawatt of nameplate capacity of Operational turbines from time to time located on the Property and the Wind Project Property. An "Operational" turbine is a wind turbine: (a) that has been installed and completed for production pursuant to this Lease and (b) which has not been removed by the Wind Company. Landowner acknowledges that the amount of megawatt of nameplate capacity of Operational turbines which comprise the fraction referred to above may not be a constant number throughout the Term and will differ depending on the total amount of megawatt of nameplate capacity of Operational turbines located from time to time on the Property and the Wind Project Property at the time of each calculation. The term "Royalty Percentage" means two and three quarters percent (2.75%) of the Gross Revenues for the first year after the Operation Date and on December 31st of each year thereafter shall be adjusted by two percent (2%), commencing one year after the Operation Date which such adjustments are shown on the Exhibit "C", attached hereto and made a part hereof. The Initial Rent, No Generating Units Rent, No Wind Power Facilities Rent and the Additional Rent are together referred to herein as the "Rent." As used herein, the term "Term Year" refers to any calendar year that occurs during the Term.

(c) No Generating Units Rent. The Parties recognize that the Wind Company may not install any Generating Units on the Property. Commencing on the date of Commercial Operation of the Project, if Wind Company does not install any Generating Units on the Property, then during each Year, Wind Company shall pay to Landowner the sum of [REDACTED] (\$ [REDACTED]), which amount shall escalate by two percent (2%) annually on December 31st of each year, commencing one year after the Operation Date ("No Generating Units Rent"). "Commercial Operation of the Project" for purposes of this Lease shall mean the date that the Wind Power Facilities for the Project are constructed, tested, interconnected with the transmission provider's transmission and distribution system, staffed and operational as determined by Wind Company and specified in a notice of commercial operation delivered by Wind Company to Landowner. In no event shall Landowner receive the Initial Rent, the No Generating Units Rent and the No Wind Power Facilities Rent for the same time periods.

(d) No Wind Power Facilities Rent. The Parties recognize that the Wind Company may not install any Wind Power Facilities on the Property. Commencing on the date of Commercial Operation of the Project, if Wind Company does not install any Wind Power Facilities on the Property, then during each Year, Wind Company shall pay to Landowner the sum of [REDACTED] (\$ [REDACTED]), which amount shall escalate by two percent (2%)

annually on December 31st of each year, commencing one year after the Operation Date (“No Wind Power Facilities Rent”). In no event shall Landowner receive the Initial Rent, the No Generating Units Rent and the No Wind Power Facilities Rent for the same time periods.

(e) Rent payments, except for the Development Term Rent, shall be made on a quarterly basis in arrears, no later than forty-five days after the end of the quarter.

Section 3.3 Gross Revenues. For purposes of this Lease, the term “Gross Revenues” shall mean the aggregate total revenue actually received by Wind Company or a Sublessee during the applicable period of time from the sale to the purchaser (“Purchaser”) of electrical energy generated and sold from Generating Units then located on the Property and the Wind Project Property, as adjusted (upward or downward) to reflect any hedging or similar arrangements in place to mitigate the risk of market price fluctuations on such revenues (“Hedging Transactions”)

(a) “Gross Revenues” shall also include any payments received:

(i) from renewable energy credits or pollution credits that directly result from operation of and generation of electrical energy from Generating Units on the Property and the Wind Project Property (except for production tax credits, other tax benefits and credits, or any reimbursement thereof);

(ii) pursuant to a business interruption insurance policy or by the manufacturer of any Generating Unit under the provisions of its warranty, if such payments are made specifically in lieu of revenues from the normal operation of such Generating Units;

(iii) from any Purchaser if such payments are made specifically in lieu of revenues from the normal operation of such Generating Units on the Property and the Wind Project Property; or

(iv) amounts received by Wind Company and shall be reduced by amounts paid by Wind Company in Hedging Transactions entered into by Wind Company, it being understood that Landowner is to share proportionately with Wind Company in the risks and benefits of such Hedging Transactions; provided that any Hedging Transaction entered into with an affiliate of Wind Company shall be entered into in good faith and on an arm’s length basis.

(b) “Gross Revenues” shall not include revenues received:

(i) from (i) the sale, lease, sublease, assignment, transfer or other disposition of Wind Power Facilities or any other of Wind Company’s or any Sublessee’s improvements, trade fixtures or chattel (or any interest therein) or (ii) the transfer or sale of all or a part of the membership interests in Wind Company or any Sublessee or any of their affiliates;

(ii) from any rental or other payment received by in exchange for Wind Company’s assigning, subleasing, mortgaging or otherwise transferring all or any interests of Wind Company in this Lease;

- (iii) from the sale, modification or termination of any obligation under a power purchase contract;
- (iv) from parasitic or other loss (i.e., electrical energy used to power Wind Power Facilities or Operations, or lost in the course of transforming, shaping, transporting or delivering the electricity);
- (v) from sales of electrical energy for which payment is not received (including because of a default by the purchaser thereof);
- (vi) as reimbursement or compensation for actual wheeling costs or other actual electricity transmission or actual delivery costs paid by Wind Company to a Purchaser and/or a third party pursuant to an arms' length transaction;
- (vii) from production tax credits, other tax benefits and credits, or any reimbursement thereof received by Wind Company or a Sublessee in connection with any Project; or
- (viii) revenues received from any Purchaser not specifically made in lieu of revenues from the normal operation of such Generating Units.

Section 3.4 Commingling; Prorations. If electrical energy produced from Generating Units located on the Property is commingled with electrical energy produced from Generating Units located on other lands, then Wind Company shall, using such methods, calculations, procedures and/or formulae as Wind Company may in good faith adopt, allocate to the Property a portion of the Gross Revenues received from such commingled electrical energy. Any Development Term Rent payable for less than a full calendar year shall be prorated by Wind Company on the basis of a 365-day year, while any Operational Rent payable for part of a calendar year shall be calculated based solely on the Gross Revenues actually received during such partial calendar year.

Section 3.5 Audit. Landowner shall have the right to demand, from time to time (but not more often than once every eighteen (18) months), by written notice to Wind Company, an audit of the computations of Extended Term Rent made by Wind Company (the "Computations"), which audit shall be performed by an independent certified public accountant (an "Accountant"). Wind Company shall select the Accountant, subject to the reasonable approval of Landowner. If the Parties cannot agree upon an Accountant within thirty (30) days after Wind Company's receipt of Landowner's demand for such an audit, then, at the request of either Party, such audit shall be performed by an Accountant appointed by the American Arbitration Association (the "AAA"). If such audit shows that Extended Term Rent has been underpaid, then the amount of the deficiency shall be promptly paid in accordance with the determination made by such Accountant. If such audit shows that Extended Term Rent has been overpaid, then the amount of the overpayment shall be promptly refunded in accordance with the determination made by such Accountant. Any determination made by an Accountant under this Section 3.4 shall be conclusive as between and binding upon the Parties. All of the costs associated with such audit (including AAA fees and costs) shall be paid by Landowner; provided, however, that if such audit establishes that there has been an underpayment, and that the amount of the underpayment is equal to or greater than three percent (3%) of the Extended Term Rent that in the aggregate should have been paid to Landowner for the period of time which is the subject of such audit, then Wind Company shall reimburse Landowner for all its reasonable and verifiable out-of-pocket costs incurred in such audit. If such an audit is not demanded within eighteen (18) months following a particular Computation, then Landowner shall conclusively be deemed to have waived its right to an audit with respect to such Computation, and shall

forever thereafter be precluded from bringing any legal action or proceeding to compel an audit of such Computation or to recover any underpayment of Extended Term Rent associated with or forming the basis of such Computation. Any Computations, materials, data or information obtained or reviewed by the Accountant, as well as such Accountant's determination, shall be deemed to be Confidential Information and shall be governed by Section 10.4 hereof.

Section 3.6 Construction Impact Fee. Wind Company shall pay to Landowner a one-time installation fee ("Construction Impact Fee") equal to Five Thousand Dollars (\$5,000) for each megawatt to be installed on the Property for construction impacts such as noise related to construction and other impacts resulting from construction on the Property such as loss of agricultural production. The Construction Impact Fee shall be paid upon the Commencement of Construction. "Commencement of Construction" shall mean the commencement, on an unlimited basis, of construction of the Generating Units on the Property and shall not include preliminary inspections, test or surveys needed to evaluate the feasibility of installing the Generating Units on the Property.

ARTICLE IV

Wind Company Covenants

Section 4.1 Road Construction and Maintenance. Wind Company shall maintain in good condition any roads it uses or constructs on the Property (the "Wind Company Roads"). If Wind Company constructs any Wind Company Roads, then the same may be one hundred fifty (150) feet wide or more, and, where necessary, additional areas to compensate for turning radius, reasonable shoulders, slopes, erosion control, drainage infrastructure, water diversion dikes or culverts, and field conditions obstacles or impediments; provided, however, after construction of such Wind Company Roads, Wind Company shall use commercially reasonable efforts to limit the actual width of the maximum drivable surface of any Wind Company Road to thirty-four (34) feet. Landowner reserves the right to use and to grant others the right to use any Wind Company Roads; provided, however, that Wind Company shall be reimbursed for an equitable share of the road maintenance costs to the extent the Wind Company Roads are used for commercial purposes by anyone other than Landowner.

Section 4.2 Taxes. Wind Company shall pay any property taxes levied or assessed by any governmental authority upon the Wind Power Facilities installed on the Property by Wind Company or a Sublessee and any increase in the underlying value of the Property caused directly by the installation of the Wind Power Facilities on the Property by Wind Company or Sublessee. Except as expressly provided in the foregoing sentence, Wind Company shall not be responsible for paying any taxes attributable to (a) improvements or facilities installed by Landowner or others on the Property or (b) the underlying value of the Property not directly caused by the installation of the Wind Power Facilities on the Property by Wind Company or Sublessee. In the event that any taxes payable by Wind Company hereunder are levied or assessed in the name of Landowner as part of the real property taxes payable by Landowner, then Wind Company shall promptly reimburse Landowner for Wind Company's proportionate share thereof, which share shall be mutually determined by the Parties in a fair and equitable manner; provided, however, that it is a condition to Landowner's right to reimbursement hereunder that Landowner submit the real property tax bill to Wind Company within six (6) months after Landowner receives the bill from the taxing authority. Wind Company shall have the right, in its sole discretion, to contest by appropriate legal proceedings (which may be brought in the name(s) of Landowner and/or Wind Company where appropriate or required), the legal validity or amount of any assessments or taxes the payment of which Wind Company is responsible for hereunder. Landowner shall cooperate with Wind Company in every reasonable way in such contest (including by joining in the signing of any protest, appeal or pleading that Wind Company may deem advisable to file), and Wind Company shall reimburse Landowner for its

reasonable out-of-pocket expenses incurred for such cooperation. If Landowner fails to pay its taxes when due, Wind Company may, at its option, pay the same (together with, at Wind Company's option, taxes on any land and improvements other than the Property that are part of the same tax lot as all or any part of the Property as to which taxes have not been paid) and deduct the amount paid from the amount paid from the Rent due Landowner hereunder.

Section 4.3 Construction Liens. Wind Company shall keep the Property free and clear of all liens and claims of lien for labor and services performed on, and materials, supplies and equipment furnished to, the Property in connection with Wind Company's or an Sublessee's Operations of the Project(s); provided, however, that Wind Company shall have the right, in its sole discretion, to contest such liens and claims by appropriate legal proceedings (which may be brought in the name(s) of Landowner and/or Wind Company where appropriate or required). Landowner shall cooperate in every reasonable way in such contest, and Wind Company shall reimburse Landowner for its reasonable out-of-pocket expenses incurred for such cooperation.

Section 4.4 Maintenance and Repair. Subject to Sections 1.11, 5.4 and 9.1, at all times during the Term, Wind Company shall keep and maintain, or cause to be kept and maintained, the Wind Power Facilities erected on the Property by Wind Company in a good state of repair (except for reasonable wear and tear) at Wind Company's expense.

Section 4.5 Underground Water Storage Tank. Landowner agrees to allow Wind Company to relocate the underground water storage tank located on the Property from its existing location to a new location within the Construction Easement at Wind Company's expense.

ARTICLE V

Landowner Covenants

Section 5.1 Representations and Warranties. Landowner, to Landowner's knowledge, hereby represents and warrants to Wind Company that, as of the Effective Date:

(a) Landowner is the sole fee owner of the Property, (b) each person or entity signing this Lease on behalf of Landowner is authorized to do so, (c) Landowner has the unrestricted right, power and authority to enter into and perform its obligations under this Lease and to grant the rights granted to Wind Company hereunder, (d) no other person (including any spouse) is required to execute this Lease in order for it to be fully enforceable as against all interests in the Property, and (e) Landowner is not the subject of any bankruptcy, insolvency or probate proceeding.

(b) No litigation is pending, and, no actions, claims or other legal or administrative proceedings are pending, threatened or anticipated with respect to, or which could affect, the Property. If Landowner learns that any such litigation, action, claim or proceeding is threatened or has been instituted, Landowner shall promptly deliver notice thereof to Wind Company.

(c) (a) this Lease and the Property are in full compliance with all applicable federal, State and local laws, statutes, ordinances, orders, rules and regulations (each, a "Law"), (b) this Lease does not violate any contract, agreement, instrument, judgment or order to which Landowner is a party or which affects the Property, and (c) there are no commitments or

agreements with any governmental agency or public or private utility affecting the Property or any portion thereof that have not been disclosed in writing by Landowner to Wind Company.

(d) Without limiting the generality of the foregoing, (a) no underground tanks are now located or at any time in the past have been located on the Property or any portion thereof (except for the existing water tank located on the Property) , (b) no asbestos-containing materials, petroleum, explosives or other substances, materials or waste which are now or hereafter classified or regulated as hazardous or toxic under any Law (each, a "Hazardous Material") have been generated, manufactured, transported, produced, used, treated, stored, released, disposed of or otherwise deposited in or on or allowed to emanate from the Property or any portion thereof other than as permitted by all health, safety and other Laws (each, an "Environmental Law") that govern the same or are applicable thereto and (c) there are no other substances, materials or conditions in, on or emanating from the Property or any portion thereof which may support a claim or cause of action under any Environmental Law. Landowner has not received any notice or other communication from any governmental authority alleging that the Property is in violation of any Environmental Law.

(e) There are no recorded or unrecorded liens, encumbrances, covenants, conditions, reservations, restrictions, easements, leases, subleases, occupancies, tenancies, mineral rights, water rights, options, rights of first refusal or other matters affecting, relating to or encumbering the Property or any portion thereof (each, an "Encumbrance"), the existence, use, foreclosure or exercise of which could reasonably be expected to delay, interfere with or impair any of the Operations, the exercise of any of Wind Company's other rights under this Lease or the Easements, or the financing of any Project. Landowner and the Property are in full compliance with all such Encumbrances.

(f) There are no physical conditions of the Property, nor any other material adverse facts or conditions relating to the Property or any portion thereof, that could delay, interfere with or impair construction or Operations of the Projects(s) or the exercise of any of Wind Company's other rights under this Lease or the Easements, or the financing of any Project, or which could, with the passage of time, the giving of notice or both, have such an effect.

Section 5.2 No Interference. Landowner covenants and agrees that neither Landowner's activities nor the exercise of any rights or interests heretofore or hereafter given or granted by Landowner's to any Related Person (as defined below) of Landowner, whether exercised on the Property or elsewhere, shall, currently or prospectively, interfere with, impair or materially increase the cost of (a) the construction, installation, maintenance or operation of any Project, (b) vehicular or pedestrian access to, or the transmission of energy from, the Property, any Wind Power Facilities or any Project, (c) any Operations of Wind Company or any Sublessee on the Property or with respect to any Project or (d) the undertaking of any other activities or the free enjoyment and exercise of any other rights or benefits given to or permitted Wind Company hereunder. Without limiting the generality of the foregoing, neither Landowner nor any Related Person of Landowner shall (i) interfere with or impair (A) the free, unobstructed and natural availability, accessibility, flow, frequency, speed or direction of air or wind over and across the Property (whether by planting trees, constructing buildings or other structures, or otherwise, except that Landowner may plant trees or construct buildings or other structures outside of the Easement areas so long as same do not exceed sixty-five 65 feet in height), the operation of Generating Unit rotors or the lateral or subjacent support for the Wind Power Facilities, (B) the operation of Generating Unit rotors that overhang the Property or (C) the lateral or subjacent support for the Wind Power Facilities or (ii) engage in any other activity on the Property or elsewhere; in each case that might cause a decrease in the output or efficiency of Wind Company's or any Sublessee's Generating Units. As

used herein, the term "Related Person" means any member, partner, principal, officer, director, shareholder, predecessor-in-interest, successor-in-interest, employee, agent, heir, representative, contractor, sublessee, grantee, licensee, invitee or permittee of a specified Party, or any other person or entity that has obtained or hereafter obtains rights or interests from such Party.

Section 5.3 Hunting. Landowner and Wind Company agree to reasonably cooperate with each other to ensure the mutual safety of each other and their Related Persons and the good condition of the Wind Power Facilities to the extent Wind Company and Landowner and/or their respective Related Persons wish to concurrently occupy the Property, or portions thereof, during hunting seasons. Without limitation of the foregoing covenant of cooperation, the Parties hereby agree as follows:

(a) Wind Company will use commercially reasonable efforts to keep Landowner informed of when construction will occur on the Property. During construction activities on the Property, Landowner shall not hunt or permit any hunting on the Property. During any period of maintenance of Wind Project Facilities located on the Property, Wind Company shall have the right to restrict Landowner's hunting activities to the extent same might interfere with such maintenance or expose any of Wind Company's personnel to danger.

(b) In no event shall Wind Company or any Wind Company Related Person be permitted to hunt on the Property or to possess firearms on the Property.

(c) In addition, Landowner and Wind Company shall comply with all aspects of the Washington Facility Siting Energy Council ("EFSEC") permit in effect from time to time with respect to hunting at the time of the hunting activity.

Section 5.4 Ownership of Wind Power Facilities. Landowner shall have no ownership or other interest in any Wind Power Facilities installed on the Property, and Wind Company may remove any or all Wind Power Facilities at any time and from time to time. Without limiting the generality of the foregoing, to the extent permitted by Law, Landowner hereby waives any statutory or common law lien that it might otherwise have in or to the Wind Power Facilities. If such waiver is not enforceable or permitted by Law, then Landowner hereby subordinates each such statutory or common law lien to any Lender's Lien (as defined below) from time to time existing against the Wind Power Facilities or any thereof.

Section 5.5 Quiet Enjoyment; Liens and Encumbrances. During the entire term of this Lease, Wind Company shall have peaceful and quiet enjoyment of the Property without hinderance or interruption by Landowner or any other person or entity, and Landowner shall protect and defend the right, title and interest of Wind Company hereunder from any other rights, interests, title and claims of or by any Related Person of Landowner or any other third person or entity. Without limiting the generality of the foregoing:

(a) Landowner shall not, without Wind Company's prior written approval, enter into, alter, modify or extend any agreement affecting the Property or any part thereof or allow any Encumbrance to attach to the Property or any portion thereof, if the same could reasonably be expected to delay, interfere with or impair Operations or the exercise of any of Wind Company's other rights under this Lease or the Easements, or the financing of any Project.

(b) On the Effective Date, the Property shall be free and clear of all monetary Encumbrances other than those expressly approved in writing by Wind Company and all

grazing, agricultural and/or crop share tenancies or leases shall be subordinated to this Lease, and Landowner represents and warrants to Wind Company that it has delivered to Wind Company a true, complete and correct copy of each such Encumbrance together with copies of all related promissory notes. After the Effective Date, any mortgage, deed of trust or other Encumbrance placed or permitted to be placed on the Property or any part thereof by (or because of the acts or omissions of) Landowner, shall be subject to (i) this Lease and the Easements (and any amendments or supplements thereto, regardless whether or not then executed or recorded) and the rights of Wind Company and any Sublessee thereunder, (ii) any Sublease whether or not then in existence, (iii) any Lender's Lien (as defined below), whether or not then in existence and (iv) any and all documents executed or to be executed by Landowner, Wind Company in connection with this Lease, the Easements or the Property. Notwithstanding the foregoing, Wind Company agrees that, if requested by Landowner or Landowner's lender, Wind Company will subordinate this Lease to a mortgage on that portion of the Property where the Landowner's Improvements are located, provided that Landowner and Landowner's lender and such portion of the Property shall remain subject to the negative covenants stated in Sections 1.10 (ii) (a), (b) and (c).

(c) If Wind Company desires to obtain a subordination, non-disturbance agreement, consent or other agreement (in a form and containing provisions reasonably requested by Wind Company) from the holder of any Encumbrance, Landowner shall cooperate with Wind Company's efforts to obtain same.

(d) If any Encumbrance (including (a) the lien of property taxes and assessments or (b) any mechanic's or materialman's lien arising from construction by Landowner or any Related Person of Landowner) provides for payment or performance of obligations by Landowner, then Landowner shall, prior to delinquency make such payment and perform such obligations. If Landowner fails to pay any of its obligations contained in any Encumbrance that has priority over this Lease when due, Wind Company may, at its option, pay the same and deduct the amount paid from the amount paid for the Rent due Landowner hereunder.

Section 5.6 Permitting. Wind Company or any Sublessee and at its own cost, may in its sole discretion apply for and obtain any permit, approval or entitlement (including any zoning change, conditional use permit or variance) in connection with Operations, Wind Power Facilities or any Project. Further, Wind Company shall have the right to (a) meet with governmental agencies and with any other persons or entities with whom Landowner has contractual arrangements relating to, or which have jurisdiction over or an interest in, the Property or any portion thereof and (b) discuss with any such agencies, persons and entities the terms of this Lease, the terms of any contractual arrangements between Landowner and any such agency, person or entity, and any other matters relating to the Property, the Operations, the Wind Power Facilities or any Project.

Section 5.7 Special Financing and Lender Protection Provisions. Landowner agrees to comply with the *Special Financing and Lender Protection and Other Provisions Addendum* (the "Financing Addendum") attached hereto and made a part hereof for all purposes. Landowner shall separately sign the Financing Addendum as a condition of the effectiveness of this Lease.

Section 5.8 Mineral Rights. Notwithstanding any other provision contained in this Lease to the contrary and to the extent permitted by Law, neither Landowner nor its successors or assigns shall be entitled to use, or authorize the use of, any portion of the surface of the Property for the purpose of exploring, drilling, or mining for or producing minerals, without the prior written consent of Wind Company, which consent may be withheld in Wind Company's sole business discretion, (i) within 500

feet of any Generating Units to be installed in the future or any substation facility or any interconnection substation facility, or (ii) within one hundred (100) feet of any transmission line to be installed in the future. Any pipeline shall be underground and buried at least six (6) feet or more when crossing a Project road and/or collection and distribution lines and/or between Generating Units and shall be operated so as to not interfere with the Wind Power Facilities, the Project and Operations (or any other portion of the Property that would unreasonably interfere with the use by the Wind Company of the Property). To the best knowledge of Landowner, Landowner represents and warrants that, other than as set forth on Schedule 5.8 attached hereto and made a part hereof, (i) there are no unrecorded leases or other agreements regarding minerals in and under the Property granted by Landowner or any other person; and (ii) such minerals are subject to no existing pooling (whether consensual or forced), unitization, or other orders issued by any governmental entity. Landowner covenants and agrees that in the event Wind Company consents to exploring, drilling, or mining for or producing minerals, Landowner shall obtain a covenant from the holder of any rights under any new lease or other agreement affecting minerals that such holder will not conduct any activities within the areas described in this Section 5.8 and shall not otherwise interfere with the Wind Company's rights under this Lease.

Section 5.9 Gun Club Activities. It is specifically understood that Landowner has the right to operate a shooting and archery club ("Gun Club") upon the Property. Landowner and Wind Company agree that adequate protections will be taken by both Landowner and Wind Company (and any applicable Related Persons) as are necessary for the protection of Wind Company's Related Persons and the Wind Power Facilities during the Term of this Lease (the "Safety Protections"). Without limitation of the foregoing covenant of cooperation, the Parties hereby agree as follows:

(a) Wind Company will use commercially reasonable efforts to keep Landowner informed of when construction will occur on the Property. During construction activities on the Property, Landowner shall not permit any Gun Club activities on the Property. During any period of maintenance or repair of Wind Project Facilities located on the Property, Wind Company shall have the right to restrict Landowner's Gun Club activities to the extent same might interfere with such maintenance or repair and/or expose any of Wind Company's personnel to danger. Landowner shall not be personally responsible for damages to the Wind Power Facilities related to trespassers, unrelated third parties or Related Parties of Landowner that intentionally cause harm or damage to the Wind Power Facilities. Wind Company reserves the right to seek reimbursement for any damages to the Wind Power Facilities caused by Landowner's or its Related Persons' occupation and use of, and activities on, the Property under any applicable insurance policy existing at the time of loss that provides protection against loss or liability to third parties or property of third parties ("Landowner's Insurance"). Wind Company shall be entitled to recover any such damages against Landowner's Insurance and agrees to limit its right of recovery for any of the above described damages caused by Landowner or its Related Parties from Landowner's Insurance.

(b) Wind Company shall not allow Wind Company or any Wind Company Related Person be permitted to participate in any Gun Club activities on the Property or to possess firearms or archery equipment on the Property.

ARTICLE VI

Mutual Covenants

Section 6.1 Insurance. Wind Company shall, at its expense, maintain a broad form comprehensive coverage policy of public liability insurance protecting Landowner (the "Insured Party")

against loss or liability caused by Wind Company's or its Related Persons' occupation and use of, and activities on, the Property, in an amount not less than Five Million Dollars (\$5,000,000.00) of combined single limit coverage per occurrence, accident or incident. Landowner shall be named as additional insured in such policy. Upon request by Landowner, Wind Company shall promptly deliver a certificate of such insurance to Landowner. Wind Company recommends that Landowner maintains at its expense appropriate property and liability insurance for its real and personal property and activities. Landowner agrees to provide notice to Wind Company upon the lapse or termination of Landowner's Insurance.

Section 6.2 Compliance With Law. Each Party shall, at its expense, comply (and cause each of its Related Persons to comply) in all material respects with each Law applicable to its operations or activities on the Property; provided, however, that each Party shall have the right, in its sole discretion, to contest, by appropriate legal proceedings (which may be brought in the names of Landowner and/or Wind Company where appropriate or required), the validity or applicability of any such Law, and the other Party shall cooperate in every reasonable way in such contest, at no out-of-pocket expense thereto.

Section 6.3 Hazardous Materials. Neither Party nor its Related Persons shall violate any Environmental Law with respect to the Property. Each Party shall, at its sole cost and expense, promptly take legally authorized remedial action with regard to any soil, ground water or other contamination and damage caused by Hazardous Materials for which it or its Related Persons are responsible and for which remedial action is required pursuant to any Environmental Law. Each Party shall give the other Party written notice of any breach or suspected breach of the foregoing covenant, promptly upon learning of such breach, undertake such remedial action in a manner designed to minimize the impact on the other Party's and its Related Persons' activities and operations on the Property and cooperate with the other Party and its Related Persons with regard to any scheduling or access to the Property in connection with any action required by this Section.

Section 6.4 Indemnification. Each Party (the "Indemnifying Party") shall defend, indemnify and hold harmless the other Party and such other Party's Related Persons (each, an "Indemnified Party") from and against any and all claims, litigation, actions, proceedings, losses, damages, liabilities, obligations, costs and expenses, including attorneys', investigators' and consulting fees, court costs and litigation expenses (collectively, "Claims") suffered or incurred by such Indemnified Party, arising from (a) physical damage to the Indemnified Party's property to the extent caused by the Indemnifying Party or any Related Person thereof, (b) physical injuries or death (including by reason of any hunting on the Property) to or of the Indemnified Party or the public, to the extent caused by the Indemnifying Party or any Related Person thereof, (c) any breach of any covenant, and any failure to be true of any representation or warranty, made by the Indemnifying Party under this Lease, (d) the presence or release of Hazardous Materials in, under, on or about the Property, which are or were brought or permitted to be brought onto the Property by the Indemnifying Party or any Related Person thereof or (e) the violation of any Environmental Law by the Indemnifying Party or any Related Person thereof; provided, however, that in no event shall the Indemnifying Party be responsible for defending, indemnifying or holding harmless any Indemnified Party to the extent of any Claim caused by, arising from or contributed to by the negligence or willful misconduct of such Indemnified Party. Notwithstanding the foregoing sentence, (i) neither Wind Company nor any Related Person thereof shall be liable to Landowner or any Related Person thereof for any crops damaged or destroyed, or any farmland taken out of production, as a result of Operations conducted, or any Wind Power Facilities installed or constructed, in the exercise of Wind Company's rights under this Lease, (ii) the reference to property damage in such Section does not include losses of rent, business opportunities, profits and the like that may result from the conduct of Operations on the Property by Wind Company as permitted by this Lease, (c) the foregoing indemnity shall not extend to damage or injury attributable to risks of known dangers associated with electrical generating facilities, and (d) in no event shall Wind Company be liable for any damage, injury or death that is not

caused by its own (as opposed to its manufacturers', suppliers' or any other persons' or entities') negligence or willful misconduct. In no event shall Landowner or Wind Company or any of their respective officers, directors, members, partners, shareholders, employees, agents or affiliates be liable for special, indirect, exemplary, punitive or consequential damages of any nature whatsoever connected with or resulting from the performance or non-performance of this Lease or any exhibit attached hereto, including without limitation damages or claims in the nature of lost revenue, income or profits, loss of use, or cost of capital, irrespective of whether such damages are reasonably foreseeable and irrespective of whether such claims are based upon negligence, strict liability, contract, operation of law or otherwise.

ARTICLE VII

Assignment, Subleasing and Mortgaging

Section 7.1 Wind Company's Right to Assign, Sublease and Encumber. Wind Company and each Sublessee shall have the absolute right at any time and from time to time, without obtaining Landowner's consent, to: (a) assign, sublease or grant an easement, subeasement or license in, or otherwise transfer all or any portion of its right, title or interest under this Lease, in its Sublease and/or in any Wind Power Facilities to any person or entity (each (excluding a transfer to or from a Lender), a "Transfer"); and/or (b) encumber, hypothecate, mortgage or pledge (including by mortgage, deed of trust or personal property security instrument) all or any portion of its right, title or interest under this Lease, in its Sublease and/or in any Wind Power Facilities to any Lender as security for the repayment of any indebtedness and/or the performance of any obligation whether or not such obligation is related to any indebtedness (a "Lender's Lien"). As used herein, (i) the term "Sublessee" means any person or entity that receives a Transfer from Wind Company of less than all of the right, title or interest under this Lease or in one or more Easements, (ii) the term "Sublease" means the grant or assignment of such rights from Wind Company to a Sublessee and (iii) the term "Lender" means (i) any financial institution or other person or entity that from time to time provides secured financing for some or all of Wind Company's or a Sublessee's Project, Wind Power Facilities or Operations, collectively with any security or collateral agent, indenture trustee, loan trustee or participating or syndicated lender involved in whole or in part in such financing, and their respective representatives, successors and assigns or (ii) any power purchase agreement offtaker who takes a Lender's Lien as security for the performance of obligations under the power purchase agreement.. References to Wind Company in this Lease shall be deemed to include any person or entity that succeeds (whether by assignment or otherwise) to all of the then-Wind Company's then-existing right, title and interest under this Lease. Any member of a Wind Company or a Sublessee shall have the right from time to time without Landowner's consent to transfer any membership interest in a Wind Company or a Sublessee to one or more persons or entities.

Section 7.2 Release From Liability. Upon a Sublease, Wind Company shall not be released from any of its obligations or liability to Landowner hereunder. Upon a Transfer of all of Wind Company's right, title or interest under this Lease or in an Easement, Wind Company shall be released from all of its obligations and liability under this Lease and/or such Easement (as the case may be), so long as the assignee assumes in writing Wind Company's obligations and liabilities with respect to the right, title and interest so transferred.

Section 7.3 Notice to Landowner. Following a Transfer or the granting of a Lender's Lien as contemplated by Section 7.1, Wind Company or Lender shall give notice of the same (including the address of the Lender for notice purposes) to Landowner; provided, however, that the failure to give such notice shall not constitute an Event of Default (as defined below) but rather shall have the effect of not binding Landowner hereunder with respect to such Lender. Landowner hereby consents to the

recordation of the interest of the Lender in the Official Records of the County in which the Property is located.

Section 7.4 Landowner Transfers. Landowner shall have the right to transfer Landowner's interest in all of the Property to any person or entity ("Transferee") provided there is a concurrent transfer and/or assignment and assumption of Landowner's rights and obligations under this Lease to the same Transferee as part of the same transaction. Landowner shall have no right to sever the wind rights from the Property. Further, Landowner shall have the right to transfer Landowner's interest in a portion of the Property to any person or entity; provided, however, that if Landowner transfers less than all of the Property to any party or entity (a "Partial Transferee") (i) Wind Company shall have the right to receive, review, comment on and/or approve any applications for any such subdivision and shall be entitled to receive notice from Landowner of any public proceeding relating thereto, (ii) any such subdivision shall not violate any zoning and/or subdivided land ordinances and regulations (including but not limited to any setback requirements) imposed upon any Project located thereon or on the Wind Project Property, (iii) each such Partial Transferee shall assume in a writing reasonably acceptable to Wind Company all of the Landowner's then-existing obligations under this Lease to the extent same relate to the portion of the Property being transferred (which writing may include a bifurcation of this Lease, with such changes as in Wind Company's reasonable opinion are necessary to accommodate the partial transfer and to reflect the state of obligations and rights with respect to same at the time of the partial transfer). In the event of such assumption, all references in this Lease (as same may be bifurcated) to "Landowner" shall be deemed to include a Partial Transferee. Landowner shall have the right to mortgage the Property without the consent of Wind Company, provided any such mortgage shall be subordinate to and subject to this Lease.

ARTICLE VIII

Default and Remedies

Section 8.1 Default. If a Party (the "Defaulting Party") fails to perform its obligations hereunder (an "Event of Default"), then it shall not be in default hereunder unless it fails to cure (i) a monetary Event of Default within thirty (30) days after receiving written notice from the other Party (the "Non-Defaulting Party") stating with particularity the nature and extent of such Event of Default and specifying the method of cure (a "Notice of Default") and (ii) a non-monetary Event of Default within sixty (60) days after receiving a Notice of Default from the Non-Defaulting Party; provided, however, that if the nature or extent of the obligation or obligations is such that more than sixty (60) days are required, in the exercise of commercially reasonable diligence, for performance of such obligation(s), then the Defaulting Party shall not be in default if it commences such performance within such sixty (60) day period and thereafter pursues the same to completion with commercially reasonable diligence.

Section 8.2 Payment Under Protest. The Defaulting Party may cure any monetary Event of Default by depositing the amount in controversy (not including claimed consequential, special, exemplary or punitive damages) in escrow with any reputable third party escrow, or by interpleading the same, which amount shall remain undistributed until final decision by a court of competent jurisdiction. No such deposit shall constitute a waiver of the Defaulting Party's right to institute legal action for recovery of such amounts.

Section 8.3 Remedies. Except as qualified Sections 4, 5, 6, 7, 8 and 11 of the Financing Addendum and the other provisions of this Article 8, upon an uncured default by a Defaulting Party under this Lease, the Non-Defaulting Party shall have and shall be entitled to exercise any and all remedies available to it at law or in equity, all of which remedies shall be cumulative; provided, however, at all

times while there are Wind Power Facilities located on the Property, Landowner shall not (and hereby waives the right to) commence any action or proceeding in which termination, cancellation, rescission or reformation of this Lease is sought as a remedy, and Landowner shall be limited to seeking damages in the event of any failure by Wind Company to perform its obligations hereunder; further provided, however, that if Wind Company fails to pay to Landowner within the time specified by any court of last resort with jurisdiction any damages awarded Landowner by such court, then Landowner may, after giving a Notice of Default and subject to the Financing Addendum, terminate this Agreement. The Non-Defaulting Party may pay or perform any obligations of the Defaulting Party that have not been paid or performed as required hereunder and to obtain (a) subrogation rights therefor and (b) prompt reimbursement from the Defaulting Party for the actual, reasonable and verifiable out-of-pocket costs of such payment or performance.

ARTICLE IX

Termination; Release; Restoration

Section 9.1 Wind Company's Right To Terminate; Release. Subject to Section 9 of the Financing Addendum, Wind Company shall have the right, at any time and from time to time during the term of this Lease, to surrender or terminate all or any portion of its right, title and interest in this Lease or the Easements (as to all or any portion or portions of the Property), by giving Landowner thirty (30) days notice and by executing and causing to be acknowledged and recorded in the Official Records of the County a release describing with particularity the portion of such right, title or interest so released and the part of the Property to which it applies. Upon any such release by Wind Company, the Parties' respective rights and obligations hereunder (including as to the Rent) shall cease as to the portion of the Property or the right, title or interest herein as to which such release applies, but this Lease, the Easements and the Parties' respective rights and obligations hereunder shall remain in full force and effect as to any right, title and interest of Wind Company not so released. Upon the expiration or earlier termination of this Lease, promptly following written request by Landowner, Wind Company shall execute and cause to be acknowledged and recorded in the Official Records of the County a release of all of Wind Company's right, title and interest in the Property.

Section 9.2 Restoration. Within twelve (12) months after the expiration, surrender or termination of this Lease, whether as to the entire Property or only as to a part thereof, Wind Company shall (a) remove from the Property (or such part thereof, as applicable) any Wind Power Facilities owned, installed or constructed by Wind Company thereon, except for any roads, and (b) leave the surface of the Property (or such part thereof, as applicable) free from debris; provided, however, that with regard to any Wind Power Facilities located beneath the surface of the land (including footings and foundations), Wind Company shall be required to remove same to the greater of (i) thirty-six (36") inches below the surface of the land or (ii) the depth (if any) required by applicable Law; and Wind Company shall have a continuing easement to enter the Property for such purpose during such twelve (12) month period. Nothing contained in this Section shall be construed as precluding Wind Company, in its sole discretion, from taking any of the actions contemplated by clauses (a) or (b) of this Section at any time during the term of this Lease.

Section 9.3 Restoration Fund. Beginning fifteen (15) years after the date of Commercial Operation, Wind Company shall post a bond, cash, a letter of credit, bond, corporate guarantee from an investment grade company or equivalent security, in Wind Company's sole discretion (the "Restoration Fund") in the amount of Twenty-Five Thousand Dollars (\$25,000) for each Generating Unit installed on the Property, which Restoration Fund shall cover Lessee's obligation under Section 9.2 hereof. The Restoration Fund may, at Wind Company's discretion, (a) be for an amount larger than that required

under the first sentence of this Section, (b) include other lands on which Generating Units are located in the Project, so long as the Restoration Fund is in the amount of at least Twenty-Five Thousand Dollars (\$25,000) for each Generating Unit on all lands so included and/or (c) be in favor of additional parties; provided, however, that in such event, each covered party shall be entitled to make a claim against the Restoration Fund only up to the amount described in the first sentence of this Section, regardless of any claims made or not made against the Restoration Fund by any other covered party. Landowner shall be entitled to apply the proceeds of the Restoration Fund against (i) any sums due from Wind Company hereunder that are outstanding at the time of expiration or termination of this Lease or (ii) remedy any damage to the Property that Wind Company is obligated to remedy at the time of such expiration or termination pursuant to the terms of this Lease and in connection therewith shall be entitled to apply the salvage value of the Generating Units located on the Property for their removal.

Section 9.3.1 Wind Company shall not be obligated to fund the Restoration Fund if the State of Washington and the Washington Facility Siting Energy Council ("EFSEC") impose a bonding or financial security arrangement as part of the condition of the permit with respect to the Project which covers all decommissioning costs, then such Restoration Fund shall be deemed to be satisfied by the bond or financial security arrangement supplied pursuant to the such permit. Wind Company shall comply with all decommissioning requirements that are contained in the EFSEC site certificate that is ultimately issued for the Project.

ARTICLE X

Section 10.1 Notices. All notices, statements, demands, correspondence or other communications required or permitted by this Lease shall be (a) in writing, (b) deemed given (i) when personally delivered to the recipient, (ii) five (5) days after deposit in the United States mail, certified and postage prepaid or (iii) two (2) days after delivery to a reputable overnight courier (provided receipt is obtained and charges prepaid by the delivering Party) and (c) addressed as follows:

If to Landowner: Cascade Field and Stream Club
P.O. Box 424
Cle Elum, WA 98922
Attn: President

If to Wind Company: Sagebrush Power Partners LLC
c/o Horizon Wind Energy LLC
808 Travis, Suite 700
Houston, Texas 77002
Attention: General Counsel

If to any Sublessee or Lender: To the address(es) indicated in the notice(s) to Landowner provided under Section 7.3 hereof.

Any Party may change its address (and the person(s) to whom notice is to be sent) for purposes of this Section by giving written notice of such change to the other parties in the manner provided in this Section. Notwithstanding the foregoing, any amounts payable to Landowner under this Lease shall be deemed to have been tendered to Landowner three (3) days after a check for the same (backed by

sufficient funds), addressed to Landowner's address above, is deposited in the United States mail, first-class postage prepaid.

Section 10.2 Force Majeure. Notwithstanding any other provision of this Lease, if Wind Company's performance of this Lease or of any obligation hereunder is interfered with, delayed, restricted or prevented, in whole or in part, by reason of an event of Force Majeure (as defined below), then Wind Company, upon giving notice to Landowner, shall be excused from such performance (but not from its obligation to pay Rent) to the extent and for the duration of such interference, delay, restriction or prevention, and the term of this Lease and any other time periods set forth herein shall continue and be extended for a like period of time. "Force Majeure" means any act or condition beyond the reasonable control of Wind Company, whether or not similar to the matters or conditions herein specifically enumerated, and includes: acts of God or the elements (including fire, earthquake, explosion, flood, high winds, ice, epidemic or any other casualty or accident); strikes, lock outs or other labor disputes; delays in transportation; inability to secure labor or materials in the open market; transmission system power failure or power surge; war, terrorism, sabotage, civil strife or other violence; acts or failures to act of Landowner; the failure of any governmental authority to issue any permit, entitlement, approval or authorization within a reasonable period of time after an application for the same has been submitted; the effect of any Law, proclamation, action, demand or requirement of any government agency or utility; or litigation contesting all or any portion of the right, title and interest of Landowner in the Property and/or of Wind Company under this Lease.

Section 10.3 Condemnation. In the event of a Taking (hereinafter defined), the Party receiving notice of same shall promptly deliver to the other Party a copy of same, and the rights, interest and obligations of Wind Company as to the property or assets taken shall terminate upon the earlier to occur of (a) the date on which possession thereof is taken by the condemning agency, (b) the date that Wind Company, in its sole judgment, determines that it is no longer able or permitted to operate the Project in a commercially viable manner on or as to the property or assets so taken or (c) the date of the condemnation judgment. As used herein, the term "Taking" means the taking or damaging of the Property, the Wind Power Facilities, this Lease, the Easements or any part thereof (including severance damage) by eminent domain or by inverse condemnation or for any public or quasi-public use. A Party who receives any notice of a Taking shall promptly give the other Party notice of the receipt, contents and date of such Taking notice. In the event of any other damage to the Property or any part thereof, the rights, interest and obligations of Wind Company as to the damaged portion(s) of the Property shall terminate on the date that Wind Company, in its sole judgment, determines that it is no longer able or permitted to operate the Project on such portion of the Property in a commercially viable manner. Following such Taking or damage to the Property, this Lease shall continue in full force and effect (with an equitable reduction in the Rent) as to any part of the Property, the Wind Power Facilities, this Lease and the Easements that has not been the subject of such Taking or has not been damaged (as the case may be); provided, however, that if Wind Company, in its sole judgment, determines that the remaining Property, Wind Power Facilities, Lease and Easements are insufficient or unsuitable for Wind Company's purposes hereunder, then, subject to Section 9 of the Financing Addendum, Wind Company shall be entitled (but not required) to terminate this Lease in its entirety by written notice to Landowner, whereupon the Parties shall be relieved of any further obligations and duties to each other hereunder. If a Taking occurs, then the compensation payable therefor, whether pursuant to a judgment, by agreement or otherwise, including any damages and interest (collectively, the "Award"), whether for the fee, this Lease, the Easements, the Wind Power Facilities or any thereof, shall be deposited promptly with an independent third-party escrow company mutually agreed upon by the Parties (or, if the Parties cannot so agree, by an escrow company selected by the AAA), and shall be distributed in the following order or priority: (a) any portion of the Award attributable to the Taking of or injury to this Lease, the Easements or the Wind Power Facilities shall be paid to Wind Company; (b) any portion of the Award attributable to any cost or

loss that Wind Company may sustain in the removal and/or relocation of the Wind Power Facilities, or Wind Company's chattels and trade fixtures, shall be paid to Wind Company; (c) any portion of the Award attributable to Wind Company's anticipated or lost profits, to damages because of deterrent to Wind Company's business or to any special damages of Wind Company, shall be paid to Wind Company; and (d) any portion of the Award attributable to the Taking of the fee, and all remaining amounts of the Award, shall be paid to Landowner.

Section 10.4 Confidentiality. Landowner shall maintain in the strictest confidence, and shall require each Related Person of Landowner to hold and maintain in the strictest confidence, (a) all information pertaining to the terms of (including the payments under) this Lease, (b) any books, records, computer printouts, product designs or other information regarding Wind Company or the Project, (c) any information regarding Operations on the Property or on any other lands, (d) Wind Company's site or product design, methods of operation or methods of construction, (e) the level of power production, the wind capacity of the Property and the availability of the Wind Power Facilities and (f) any other information that is proprietary or that Wind Company requests be held confidential (collectively, "Confidential Information"), in each such case whether disclosed by Wind Company or discovered by Landowner. Excluded from the foregoing is any such information that either (i) is in the public domain by reason of prior publication through no act or omission of Landowner or any Related Person of Landowner or (ii) was already known to Landowner at the time of disclosure and which Landowner is free to use or disclose without breach of any obligation to any person or entity. Landowner shall not use Confidential Information for its own benefit, publish or otherwise disclose it to others, nor permit its use by others for their benefit or to the detriment of Wind Company. Notwithstanding the foregoing, Landowner may disclose Confidential Information to (1) Landowner's lenders, attorneys, accountants and other personal financial advisors, (2) any prospective purchaser of the Property or (3) pursuant to lawful process, subpoena or court order; provided that in making such disclosure Landowner advises the party receiving the Confidential Information of the confidentiality thereof and obtains the agreement of said party not to disclose such Confidential Information.

Section 10.5 Successors and Assigns. The Parties hereby agree that all of the covenants and agreements contained in the Lease touch and concern the real estate described in the Lease and are expressly intended to, and shall, be covenants running with the land and shall be binding and a burden upon the Property and each Parties' present or future estate or interest therein and upon each of the Parties, their respective heirs, administrators, executors, legal representatives, successors and assigns as holders of an estate or interest in the Property (including without limitation, any lender or other person acquiring title from any such person upon foreclosure or by deed in lieu of foreclosure), and shall benefit Wind Company and its respective heirs, administrators, executors, legal representatives, successors and assigns and the Wind Project Property and the Subsequent Wind Projects Property. To the extent any of the provisions of this Lease are not enforceable as covenants running with the land, the Parties agree that they shall be enforceable equitable servitudes.

Section 10.6 Attorneys Fees. In the event of any litigation for the interpretation or enforcement hereof, or for damages for a default hereunder, or which in any other manner relates to this Lease, the Easements or the Property, the prevailing Party shall be entitled to recover from the other Party an amount equal to its actual, reasonable and verifiable out-of-pocket expenses, costs and attorneys' fees incurred in connection therewith.

Section 10.7 Construction of Lease. This Lease, including any Exhibits and the Financing Addendum attached hereto, contains the entire agreement between the Parties in connection with any matter mentioned or contemplated herein, and all prior or contemporaneous proposals, agreements, understandings and representations, whether oral or written, shall be deemed to have been merged herein

and superseded hereby. Should any provision of this Lease be held to be invalid, void or unenforceable, the remaining provisions hereof shall remain in full force and effect, unimpaired by such holding. Except with respect to the rights conferred upon Sublessees and Lenders hereunder (which Sublessees and Lenders and their respective successors and assigns are hereby expressly made third party beneficiaries hereof to the extent of their respective rights hereunder), the covenants contained herein are made solely for the benefit of Landowner and Wind Company and their respective successors and assigns, and shall not be construed as benefiting any person or entity who is not a Party to this Lease. Any covenants contained in this Lease which could be interpreted as partially or wholly to be performed after termination hereof, and any indemnities, representations and warranties set forth in this Lease, shall survive the expiration or earlier termination hereof. Neither this Lease nor any agreements or transactions contemplated hereby shall be interpreted as creating any partnership, joint venture, association or other relationship between the Parties, other than that of landlord and tenant. Any rule of construction to the effect that ambiguities are to be resolved in favor of either Party shall not be employed in the interpretation of this Lease and is hereby waived. No waiver by a Party of any provision of this Lease shall be deemed to be a waiver of any other provision hereof. This Lease shall be governed by and interpreted in accordance with the Laws of the state in which the Property is located. The use of the neuter gender includes the masculine and feminine, and the singular number includes the plural, and vice versa, whenever the context so requires. The terms "include", "includes" and "including", as used herein, are without limitation. Captions and headings used herein are for convenience of reference only and shall not define, limit or otherwise affect the scope, meaning or intent hereof. As used in this Lease with respect to time of notice or performance, the term "day" shall refer to business days, which shall mean any day other than Saturdays, Sundays or days on which banks in the County are not open for business. This Lease may be executed with counterpart signature pages and in duplicate originals, each of which shall be deemed an original, and all of which shall collectively constitute a single instrument.

Section 10.8 Miscellaneous. This Lease may not be modified or amended except by a writing signed by both Parties. Concurrently with execution hereof, the Parties shall execute and deliver a memorandum of this Lease, and which Wind Company shall record in the Official Records of the County. Whenever in this Lease the approval or consent of a Party is required or contemplated, unless otherwise specified, such approval or consent shall not be unreasonably withheld, conditioned or delayed. If the Parties are unable to amicably resolve any dispute arising out of or in connection with this Lease, , all legal proceedings shall be held in Washington courts, State or Federal, which would have jurisdiction over the matter in dispute or the amount in controversy. If Landowner consists of more than one person or entity, then (a) each reference herein to "Landowner" shall include each person and entity signing this Lease as or on behalf of Landowner and (b) the liability of each such person and entity shall be joint and several. If this Lease is not executed by one or more of the persons or entities comprising the Landowner herein, or by one or more persons or entities holding an interest in the Property, then this Lease shall nonetheless be effective, and shall bind all those persons and entities who have signed this Lease. Landowner acknowledges that Wind Company has made no representations or warranties to Landowner, including regarding development of, or the likelihood of power generation from, the Property. Each of the signatories hereto represents and warrants that he/she has the authority to execute this Lease on behalf of the Party for which he/she is signing.

Section 10.9 Cooperation. Landowner shall fully support and cooperate (and shall cause each Related Person of Landowner to fully support and cooperate) with Wind Company and each Sublessee in the conduct of their respective Operations and the exercise of their rights hereunder, and in carrying out and otherwise giving full force and effect to the purpose and intent of this Agreement, including in Wind Company's or any Sublessee's efforts to obtain from any governmental authority or any other person or entity any environmental impact review, permit, entitlement, approval, authorization or other rights necessary or convenient in connection with Operations including but not limited to (i) the widening and

improving of public roads to a width (a) of up to thirty-three (33) feet with a fifteen (15) foot construction easement to windrow or stockpile the topsoil when extending the ditches of the roads, the width of which will vary depending on the topography, the width of the shoulder, buildings or other improvements, boulders, wetlands, roads, transmission facilities or lines, recreational areas, inhabited areas, leased lands (or other rights of third parties) or other obstacles or impediments, or (b) as required by the applicable governmental authority and/or (ii) the installation of utilities, private or public in the road right of way (the "Road Widening"); Landowner hereby consents to any such Road Widening and shall, without demanding additional consideration therefore, (a) execute, and, if appropriate, cause to be acknowledged, any map, application, document or instrument (including any document or instrument intended to correct an error in this Lease or to amend the legal description attached hereto) that is reasonably requested by Wind Company or any Sublessee in connection herewith or therewith, (b) execute a consent agreement and/or easement agreement regarding the Road Widening and any governmental authority's efforts in the Road Widening and (b) return the same (as executed) to Wind Company within ten (10) days after Landowner's receipt thereof. Without limiting the generality of the foregoing, in connection with any application by Wind Company or any Sublessee for a governmental permit, approval, authorization, entitlement or other consent, Landowner agrees (i) if requested by Wind Company or a Sublessee, to support (and cause each Related Person of Landowner to support) such application by filing a letter with the appropriate governmental authority in a form satisfactory to Wind Company or such Sublessee (ii) to support (and cause each Related Person of Landowner to support) Wind Company's or any Sublessee's position in regard to any requirement or condition of such permit, approval, authorization, entitlement or consent, including, in regard to bonding or security requirements or amount, mitigation, environmental impacts or monitoring, and (iii) not to oppose (or permit any Related Person of Landowner to oppose), in any way, whether directly or indirectly, any such application or approval at any administrative, judicial, legislative or other level.

Section 10.10 Certificates. Each Party (the "Responding Party") shall, within ten (10) days after written request by the other Party or any existing or proposed Sublessee or Lender (each, a "Requesting Party"), execute and deliver to the Requesting Party an estoppel certificate (a) certifying that this Lease is in full force and effect and has not been modified (or if modified stating with particularity the nature thereof), (b) certifying the dates to which the Rent has been paid, (c) certifying that to the best of the Responding Party's knowledge there are no uncured Events of Default hereunder (or, if any uncured Events of Default exist, stating with particularity the nature thereof) and (d) containing any other certifications as may reasonably be requested. Any such certificates may be conclusively relied upon by the Requesting Party. The failure of the Responding Party to deliver any such certificate within such time shall be conclusive upon the Responding Party that (i) this Lease is in full force and effect and has not been modified, (ii) the Rent has been paid through the date of such written notice, (iii) there are no uncured Events of Default by the Requesting Party hereunder and (iv) the other certifications so requested are in fact true and correct. Landowner acknowledges that such certificates, as well as the certificates contemplated by Section 10 of the Financing Addendum will likely be required of Landowner in connection with each transaction relating to a Project.

[SIGNATURES ON NEXT PAGE]

IN WITNESS WHEREOF, Landowner and Wind Company have caused this Lease to be executed and delivered by their duly authorized representatives as of the Effective Date.

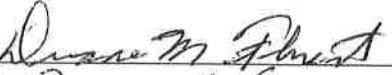
“WIND COMPANY”

Sagebrush Power Partners, LLC,
a Delaware limited liability company

By: 
Name: Hilary Foote
Title: Sr. Project Manager 015

“LANDOWNER”

Cascade Field and Stream Club,
a Washington non-profit corporation

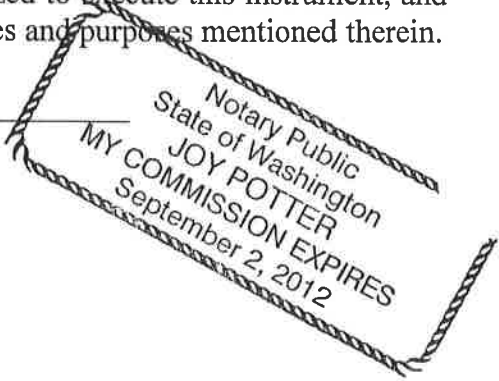
By: 
Name: DUANE M. FLUHENT
Title: PRES, CASCADE F&S

ACKNOWLEDGMENTS

STATE OF Washington :
Hittitas County :SS
COUNTY:

I certify that I know or have satisfactory evidence that Dianellavent is the person who appeared before me on April 2, 2009, and said person(s) acknowledged that he/she signed this instrument, on oath stated that he/she was authorized to execute this instrument, and acknowledged it to be his/her free and voluntary act for the uses and purposes mentioned therein.

Notary Public in and for the State of Washington
Joy Potter



STATE OF Oregon :
Multnomah :SS
COUNTY:

On this 9th day of April, 2009, the foregoing instrument was acknowledged before me by Hilary Korte, the Sr. Project Mgr of Sagebrush Power Partners, LLC, a Delaware limited liability company.

J Mathis
Notary Public in and for the State of Oregon

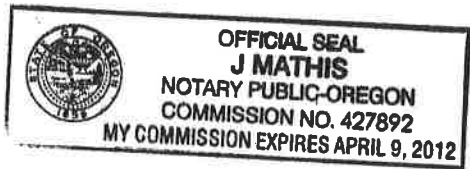


EXHIBIT "A" –

Description of the Property

THE FOLLOWING REAL PROPERTY LOCATED IN THE COUNTY OF KITTITAS, STATE OF WASHINGTON:

PARCEL A:

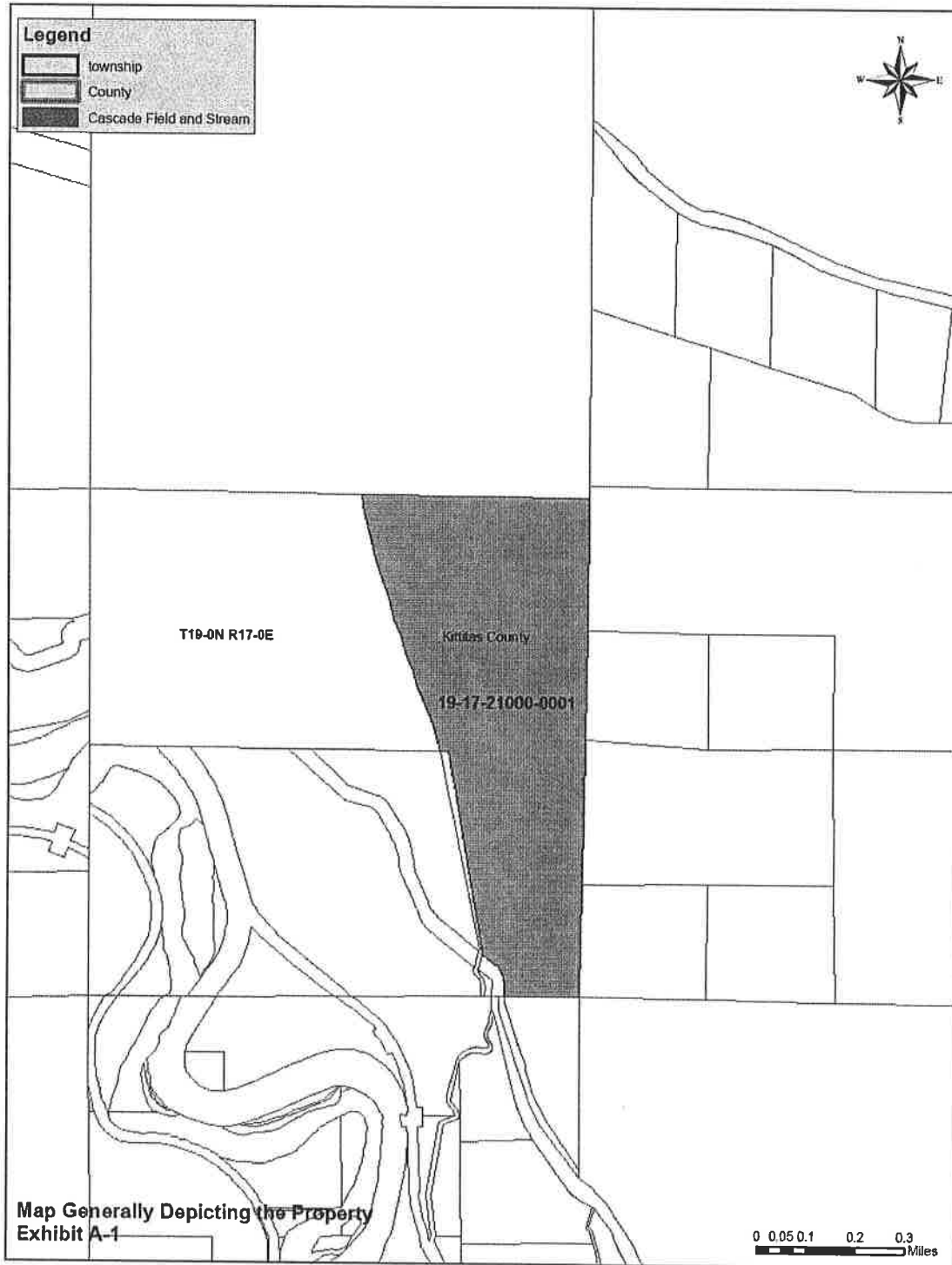
All of that portion of the Southeast Quarter of the Southeast Quarter, and of the Northwest Quarter of the Southeast Quarter and of the Northeast Quarter of the Southeast Quarter lying East of the County road and lying East of the Easterly boundary of the Kittitas Reclamation District Canal, in Section 21, Township 19 North, Range 17 East, W.M.

PARCEL B:

All of the Northeast Quarter of Section 21, Township 19 North, Range 17 East, W.M., lying East of the county road.

EXHIBIT "A-1"

Map Generally Depicting the Property



KV Wind Lease – Approved 071707
Cascade Field and Stream Lease
Execution Copy 031609

EXHIBIT "B"

Site Map

TO BE ATTACHED AND APPROVED BY LANDOWNER PRIOR TO COMMENCEMENT OF
CONSTRUCTION

EXHIBIT "C"

Schedule of Increases

| YEAR | Fee Based on Gross Revenues | MINIMUM PAYMENT Per Megawatt Per Year |
|-------------|------------------------------------|--------------------------------------------------|
| 01 | 2.750% | |
| 02 | 2.805% | |
| 03 | 2.861% | |
| 04 | 2.918% | |
| 05 | 2.977% | |
| 06 | 3.036% | |
| 07 | 3.097% | |
| 08 | 3.159% | |
| 09 | 3.222% | |
| 10 | 3.287% | |
| 11 | 3.352% | |
| 12 | 3.419% | |
| 13 | 3.488% | |
| 14 | 3.557% | |
| 15 | 3.629% | |
| 16 | 3.701% | |
| 17 | 3.775% | |
| 18 | 3.851% | |
| 19 | 3.928% | |
| 20 | 4.006% | |
| 21 | 4.086% | |
| 22 | 4.168% | |
| 23 | 4.251% | |
| 24 | 4.336% | |
| 25 | 4.423% | |
| 26 | 4.512% | |
| 27 | 4.602% | |
| 28 | 4.694% | |
| 29 | 4.788% | |
| 30 | 4.884% | |
| 31 | 4.981% | |
| 32 | 5.081% | |
| 33 | 5.182% | |
| 34 | 5.286% | |
| 35 | 5.392% | |

EXHIBIT "C"- continued

Schedule of Increases

| YEAR | Fee Based on Gross Revenues | MINIMUM PAYMENT Per Megawatt Per Year |
|------|-----------------------------|------------------------------------------|
| 36 | 5.500% | |
| 37 | 5.610% | |
| 38 | 5.722% | |
| 39 | 5.836% | |
| 40 | 5.953% | |
| 41 | 6.072% | |
| 42 | 6.194% | |
| 43 | 6.317% | |
| 44 | 6.444% | |
| 45 | 6.573% | |
| 46 | 6.704% | |
| 47 | 6.838% | |
| 48 | 6.975% | |
| 49 | 7.114% | |
| 50 | 7.257% | |

SCHEDULE 5.8

Mineral Leases or Other Agreements Regarding Minerals

None. Landowner represents that it does not have any mineral rights related to the Property.

**SPECIAL FINANCING AND LENDER PROTECTION AND OTHER PROVISIONS
ADDENDUM**

1. Division Into Separate Leases. Wind Company may use the Property for one or more Projects on the Property and designate such Projects in its sole discretion. If Wind Company elects to divide the Property into multiple Projects, Landowner shall, within twenty (20) days after written request from Wind Company, and without demanding any additional consideration, bifurcate this Lease by entering into and delivering to Wind Company two or more new leases (which shall supersede and replace this Lease) that provide Wind Company with separate Leasehold Estates (as defined below) in different portions of the Property, as designated by Wind Company. Each of such new leases shall: (a) specify the portion(s) of the Property to be covered thereby, (b) contain the same terms and conditions as this Lease (except for any requirements that have been fulfilled by Wind Company prior to the execution of such new leases, and except for any modifications that may be required to ensure that each Party's combined obligations under such new leases do not exceed such Party's obligations under this Lease) and be in a form reasonably acceptable to Wind Company; (c) be for a term equal to the remaining term of this Lease; (d) contain a grant of access, transmission, communications, utility and other easements for the benefit of the bifurcated Leasehold Estates, covering such portion or portions of the Property as Wind Company may designate; (e) require payment to Landowner of only a proportionate amount of the Rent; and (f) enjoy the same priority as this Lease over any lien, encumbrance or other interest created by Landowner. Further, notwithstanding any other provision of this Lease, in the event of any uncured default under any such new lease, such default shall not affect, or cause a termination of, any other such new lease or any rights or interests granted under any other such new lease.

2. Separate Easements. Upon the request of Wind Company at any time and from time to time during the term of this Lease, Landowner shall deliver to Wind Company, duly executed and in recordable form, (i) stand-alone easements of one or more of the Easements and (ii) a subeasement of any Landowner Easement requested by Wind Company or a Sublessee, to the extent Landowner has the right to grant same under said Landowner Easement.

3. Lender's Right to Possession, Right to Acquire and Right to Assign. A Lender shall have the absolute right to do one, some or all of the following things without further consent from Landowner: (a) assign its Lender's Lien; (b) enforce its Lender's Lien; (c) acquire title (whether by foreclosure, assignment in lieu of foreclosure or other means) to the leasehold estate created by this Lease (the "Leasehold Estate") or any Sublease (including any lease created pursuant to Sections 8 and 11 of this Financing Addendum); (d) take possession of and operate the Property and the Wind Power Facilities or any portion thereof in accordance with this Lease and perform any obligations to be performed by Wind Company or a Sublessee hereunder or under a Sublease (as applicable), or cause a receiver to be appointed to do so; (e) assign or transfer the Leasehold Estate or Sublease to a third party; or (f) exercise any rights of Wind Company or a Sublessee hereunder or under a Sublease (as applicable). Upon acquisition of the Leasehold Estate or a Sublease by a Lender or any other third party who acquires the same from or on behalf of the Lender, Landowner shall recognize the Lender or such other party (as the case may be) as Wind Company's or such Sublessee's proper successor, and the Lease or the Sublease (as the case may be) shall remain in full force and effect.

4. Notice of Default. As a precondition to exercising any rights or remedies as a result of any default or alleged default by Wind Company or a Sublessee, Landowner shall deliver a duplicate copy of the applicable Notice of Default to each Lender and Sublessee concurrently with delivery of such notice to Wind Company.

5. Cure. A Lender shall have the same period after receipt of a Notice of Default to remedy an Event of Default, or cause the same to be remedied, as is given to Wind Company or a Sublessee after

Wind Company's or such Sublessee's receipt of a Notice of Default hereunder or under a Sublease (as applicable), plus, in each instance, the following additional time periods: (i) thirty (30) days in the event of any monetary Event of Default; and (ii) sixty (60) days in the event of any non-monetary Event of Default; provided, however, that (a) such sixty (60)-day period shall be extended for the time reasonably required by the Lender to complete such cure, including the time required for the Lender to obtain possession of the Property (including possession by a receiver), institute foreclosure proceedings or otherwise perfect its right to effect such cure and (b) the Lender shall not be required to cure those Events of Default which are not reasonably susceptible of being cured or performed by such party ("Non-Curable Defaults"). The Lender shall have the absolute right to substitute itself for Wind Company or any Sublessee and perform the duties of Wind Company or such Sublessee hereunder or under the Sublease (as applicable) for purposes of curing such Event of Default. Landowner expressly consents to such substitution, agrees to accept such performance, and authorizes the Lender (or its employees, agents, representatives or contractors) to enter upon the Property to complete such performance with all of the rights and privileges of Wind Company or such Sublessee hereunder or under the Sublease (as applicable). Landowner shall not terminate this Lease or any Sublease prior to expiration of the cure periods available to a Lender as set forth above. Further, (x) neither the bankruptcy nor the insolvency of Wind Company or any Sublessee shall be grounds for terminating this Lease as long as the Rent and all other amounts payable by Wind Company or such Sublessee hereunder or under the Sublease (as applicable) are paid by the Lender in accordance with the terms thereof and (y) Non-Curable Defaults shall be deemed waived by Landowner upon completion of foreclosure proceedings or other acquisition of the Leasehold Estate or such Sublease (as applicable).

6. Deemed Cure; Extension. If any Event of Default by Wind Company or a Sublessee under this Lease or under the Sublease (as applicable) cannot be cured without obtaining possession of all or part of (a) the Wind Power Facilities, (b) the Leasehold Estate and/or (c) the Sublease, then any such Event of Default shall nonetheless be deemed remedied if: (i) within sixty (60) days after receiving notice from Landowner as set forth hereinabove, a Lender acquires possession thereof, or commences appropriate judicial or nonjudicial proceedings to obtain the same; (ii) the Lender is prosecuting any such proceedings to completion with commercially reasonable diligence; and (iii) after gaining possession thereof, the Lender performs all other obligations as and when the same are due in accordance with the terms of this Lease or the Sublease, as the case may be. If a Lender is prohibited by any process or injunction issued by any court or by reason of any action of any court having jurisdiction over any bankruptcy or insolvency proceeding involving Wind Company or a Sublessee, as the case may be, from commencing or prosecuting the proceedings described above, then the sixty (60)-day period specified above for commencing such proceedings shall be extended for the period of such prohibition.

7. Liability. A Lender that does not directly hold an interest in this Lease or in a Sublease, or that holds a Lender's Lien, shall not have any obligation under this Lease or such Sublease prior to the time that such Lender succeeds to absolute title to such interest. Any such Lender shall be liable to perform obligations under this Lease or such Sublease only for and during the period of time that such Lender directly holds such absolute title. Further, If a Lender elects to (a) perform Wind Company's obligations under this Lease or a Sublessee's obligations under a Sublease, (b) continue Operations on the Property, (c) acquire any portion of Wind Company's or a Sublessee's right, title, or interest in the Property, in this Lease or in a Sublease or (d) enter into a new lease or new Sublease as provided herein, then such Lender shall not have any personal liability to Landowner in connection therewith, and Landowner's sole recourse in the event of default by such Lender shall be to execute against such Lender's interest in the Property and the Wind Power Facilities. Moreover, any Lender or other party who acquires the Leasehold Estate or a Sublease pursuant to foreclosure or an assignment in lieu of foreclosure shall not be liable to perform any obligations thereunder to the extent the same are incurred or accrue after such Lender or other party no longer has ownership of the Leasehold Estate or such Sublease.


8. New Lease to Lender. If this Lease or a Sublease (a) terminates because of Wind Company's or any Sublessee's uncured Event of Default or (b) is rejected or disaffirmed pursuant to bankruptcy law or any other law affecting creditors' rights then, so long as a Lender has cured any such monetary Event of Default and is making commercially reasonable efforts to cure any such non-monetary Event of Default as provided herein, Landowner shall immediately, upon written request from such Lender received within ninety (90) days after any such event, without demanding additional consideration therefor, enter into a new lease or new sublease (as the case may be) in favor of such Lender, which new lease or new sublease shall (i) contain the same agreements, terms, provisions and limitations as this Lease or the applicable Sublease (except for any requirements that have been fulfilled by Wind Company or any Sublessee prior to such termination, foreclosure, rejection or disaffirmance [hereinafter referred to as a "Terminating Event"]), (ii) be for a term commencing on the date of such Terminating Event, and continuing for the remaining term of this Lease or such Sublease (as the case may be) before giving effect to such Terminating Event, (iii) contain a lease (or other subordinate interest similar to said Sublease) of the Property or such portion thereof as to which such Lender held a Lender's Lien on the date of such Terminating Event, (iv) contain a grant to the Lender of access, transmission, communications, utility and other easements covering such portion or portions of the Property as such Lender may reasonably designate and (v) enjoy the same priority as this Lease or such Sublease over any lien, encumbrance or other interest created by Landowner; and, until such time as such new lease or sublease is executed and delivered, the Lender may use the Property and conduct Operations thereon as if the Lease or Sublease (as the case may be) were still in effect. At the option of the Lender, the new lease or sublease may be executed by a designee of such Lender, without the Lender assuming the burdens and obligations of Wind Company or the Sublessee thereunder.

9. Lender's and Sublessees' Consent. Notwithstanding any provision of this Lease to the contrary, (a) Landowner shall not agree to a modification or amendment of this Lease if the same could reasonably be expected to materially reduce the rights or remedies of a Lender or of a Sublessee, materially increase the obligations of a Sublessee, or impair or reduce the security for its Lender's Lien and (b) Landowner shall not accept a surrender of the Property or any part thereof or a termination of this Lease or a Sublease; in each such case without the prior written consent of each Lender and Sublessee, as applicable.

10. Further Amendments. At Wind Company's or any Sublessee's request, Landowner shall amend this Lease to include any provision that may reasonably be requested by an existing or proposed Lender, and shall execute such additional documents as may reasonably be required to evidence such Lender's rights hereunder; provided, however, that such amendment shall not materially impair the rights or materially increase the burdens or obligations of Landowner under this Lease, or extend the term of this Lease beyond the term set forth in Article 2 of this Lease. Further, Landowner shall, within ten (10) days after written notice from Wind Company, a Sublessee or any existing or proposed Lender, execute and deliver thereto (i) a certificate to the effect that Landowner recognizes a particular entity as a Lender or Sublessee, as the case may be, under this Lease and will accord to such entity all the rights and privileges of a Lender or Sublessee hereunder and (ii) an estoppel certificate (a) certifying that this Lease is in full force and effect and has not been modified (or if modified stating with particularity the nature thereof), (b) certifying the dates to which the Rent has been paid, (c) certifying that to the best of the Landowner's knowledge there are no uncured Events of Default hereunder (or, if any uncured Events of Default exist, stating with particularity the nature thereof) and (d) containing any other certifications as may reasonably be requested. Any such certificates may be conclusively relied upon by the party requesting same. Landowner's failure to deliver any such certificate within such time shall be conclusive upon Landowner that this Lease is in full force and effect and has not been modified, the Rent has been paid through the date of such written notice, there are no uncured Events of Default by the Requesting Party hereunder and the other certifications so requested are in fact true and correct.

11. Sublessee Protection. Subject to any limitations provided in its Sublease, each Sublessee shall be entitled to exercise all of the rights and privileges of Wind Company hereunder, including but not limited to the right, but not the obligation, to pay any or all amounts due hereunder and to perform any other act or thing required of Wind Company hereunder. Sublessees shall collectively have the same period of time to cure said Event of Default as is given to Wind Company pursuant to this Lease, which period shall commence to run at the end of the cure period given to Wind Company in Section 8.1 of this Lease. If a Sublessee holds an interest in less than all of the Property, then any Event of Default by Wind Company shall be remedied or deemed remedied, as to such Sublessee's interest (and Landowner shall not disturb such interest), if such Sublessee shall have cured such Event of Default as to the portion of the Property and the Wind Power Facilities in which it holds an interest. In the event of termination of this Lease upon a default, by agreement, by operation of law or otherwise, or if this Lease is rejected by a trustee or debtor-in-possession in any bankruptcy or insolvency proceeding, each Sublessee shall have the right (but not the obligation) to demand, and (a) contain the same covenants, agreements, terms, provisions and limitations as this Lease (except for any requirements that have been fulfilled by Wind Company or any Sublessee prior to the execution of such new lease, and except for any modifications that may be required to ensure that such Sublessee's obligations under such new lease do not exceed its obligations under its Sublease), (b) include the Property and the Wind Power Facilities (or such portion thereof) in which said Sublessee had an interest on the date of such default, termination or rejection, (c) be for the full remaining term of this Lease, as set forth in Section 2, or such shorter term to which said Sublessee may otherwise be entitled pursuant to its Sublease, (d) contain a grant to said Sublessee of access, transmission, communications, utility and other easements covering such portion or portions of the Property as such Sublessee may reasonably designate (which shall not be less than the grant, if any, contained in its Sublease) and (e) enjoy the same priority as this Lease over any lien, encumbrance or other interest created by Landowner. Until such time as such new lease is executed and delivered, the Sublessee may continue to use the Property (or such portion thereof) and conduct Operations thereon as if the Lease were still in effect. If an Event of Default by Wind Company is not cured as set forth hereinabove or a new lease is not demanded or is not entered into and this Lease is terminated upon a default, by agreement, by operation of law or otherwise or is rejected by a trustee or debtor-in-possession in any bankruptcy or insolvency proceeding, then so long as a Sublessee is not in default under its Sublease (beyond any period given such Sublessee thereunder to cure such default) and such Sublessee attorns to Landowner, Landowner shall, for the full term of this Lease or such shorter term to which said Sublessee may be entitled under such Sublease, recognize such Sublease as if it were an agreement between Landowner and said Sublessee and not disturb, diminish or interfere with said Sublessee's possession of the portion of the Property covered by such Sublease. Landowner and Wind Company shall cooperate in amending this Lease from time to time to include any provision that may reasonably be requested by any Sublessee for the purpose of implementing the provisions contained in this Lease or of preserving such Sublessee's interest in the Property; provided, however, that such amendment shall not materially impair the rights or materially increase the burdens or obligations of Landowner under this Lease, or extend the term of this Lease beyond the period of time stated elsewhere herein. Further, Landowner shall, within ten (10) days after written notice from Wind Company or any existing or proposed Sublessee, execute and deliver thereto a certificate to the effect that Landowner (a) recognizes a particular entity as a Sublessee under this Lease and (b) will accord to such entity all the rights and privileges of a Sublessee hereunder.

Landowner:

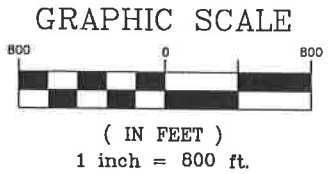
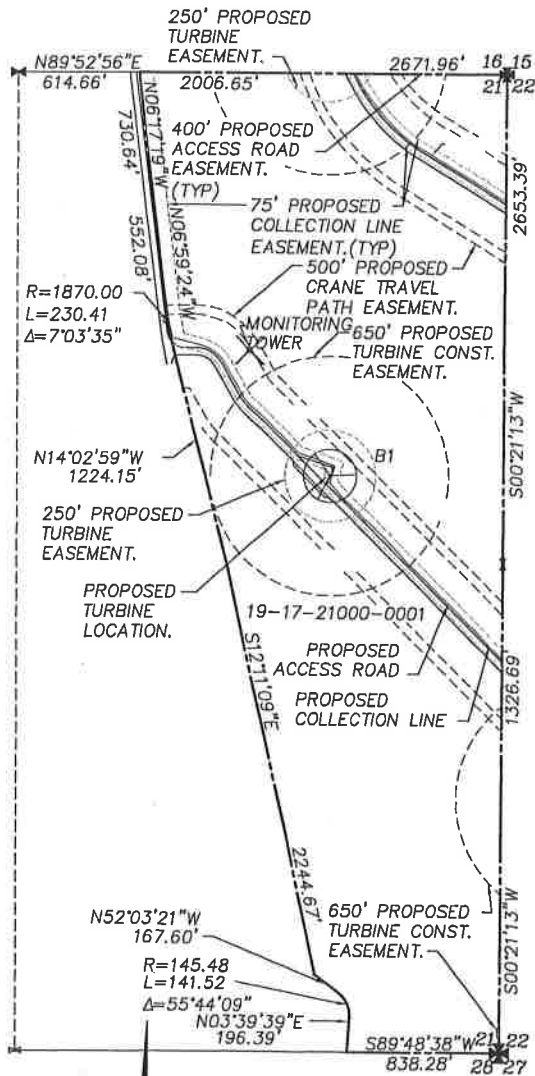

PRD, CASCADE F&S

Wind Company:



W

LEASE EXHIBIT B



AGREED: *[Signature]* 21 May 2010
LESSOR DATE

KITTITAS VALLEY WIND FARM
E 1/2 SEC. 21, T. 19 N., R 17 E., W.M.

CASCADE FIELD AND STREAM CLUB
PARCEL NO. 1917210000001
(217734)
KITTITAS COUNTY, WASHINGTON



EASTSIDE CONSULTANTS, INC.
ENGINEERS-SURVEYORS
1320 NW MALL ST. SUITE B
ISSAQUAH, WASHINGTON 98027
PHONE: (425)392-5351
FAX: (425)392-4676
PROJECT NO. 07074
DRAWN BY:RSF DATE: 5/19/10

EXHIBIT 6

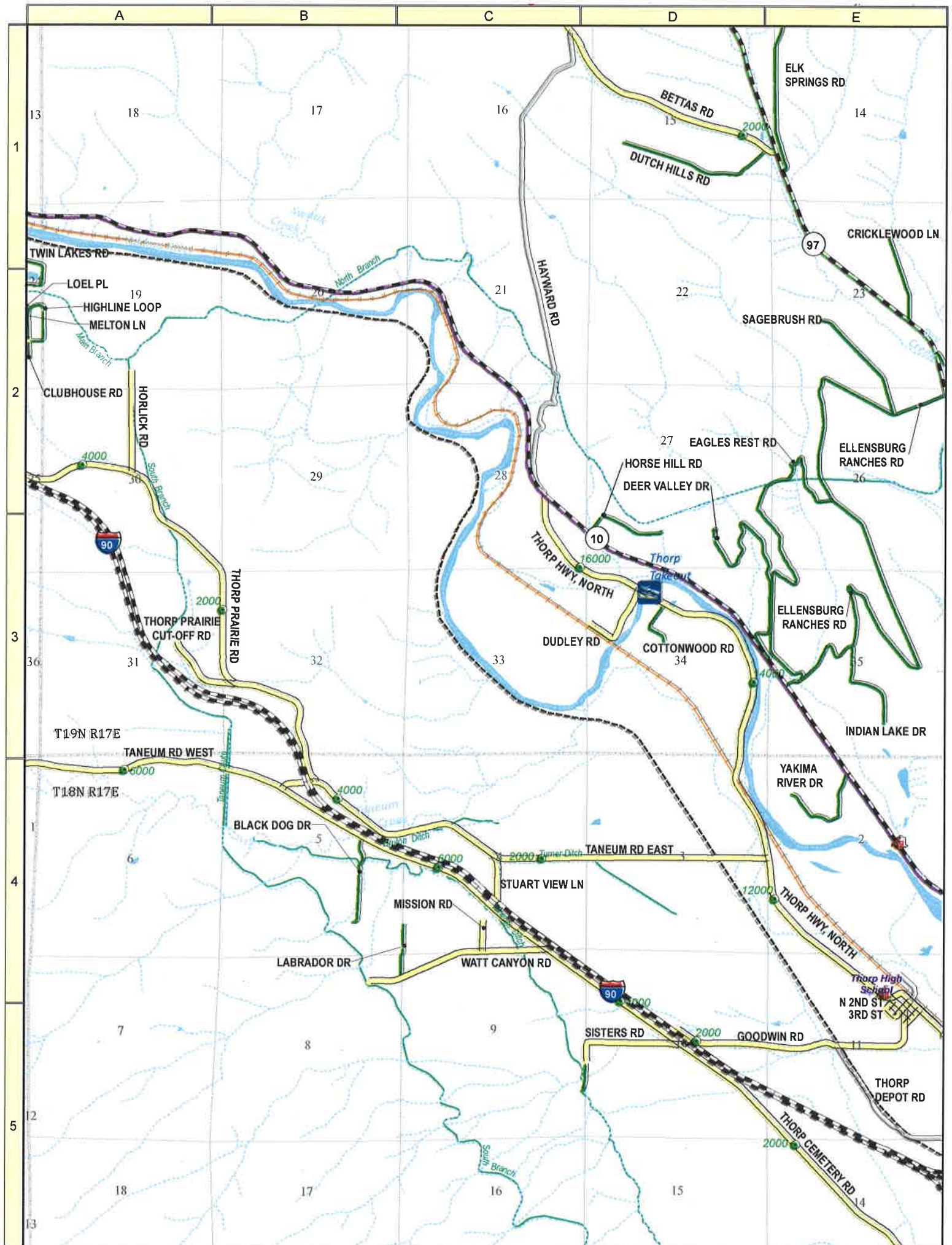
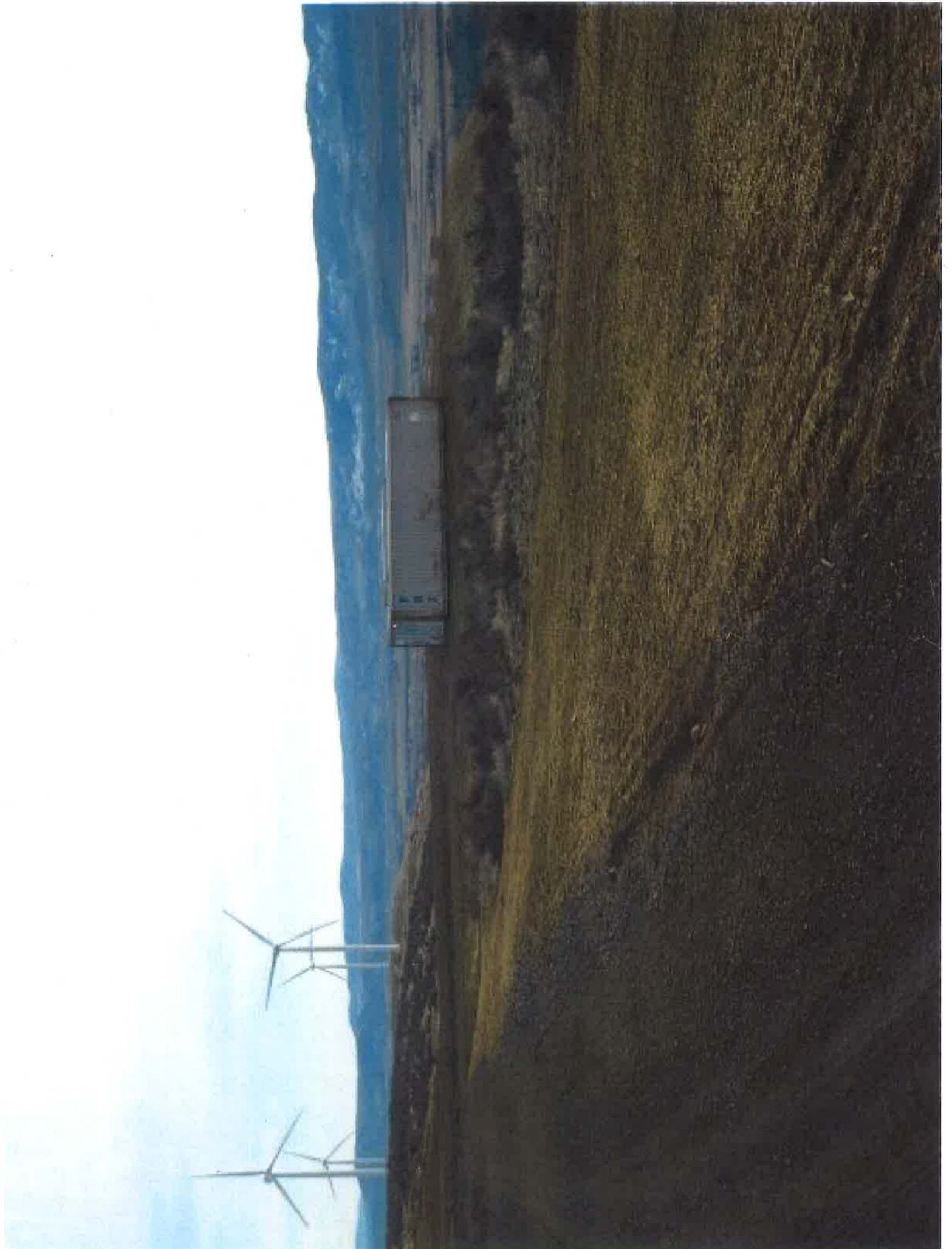


EXHIBIT 7









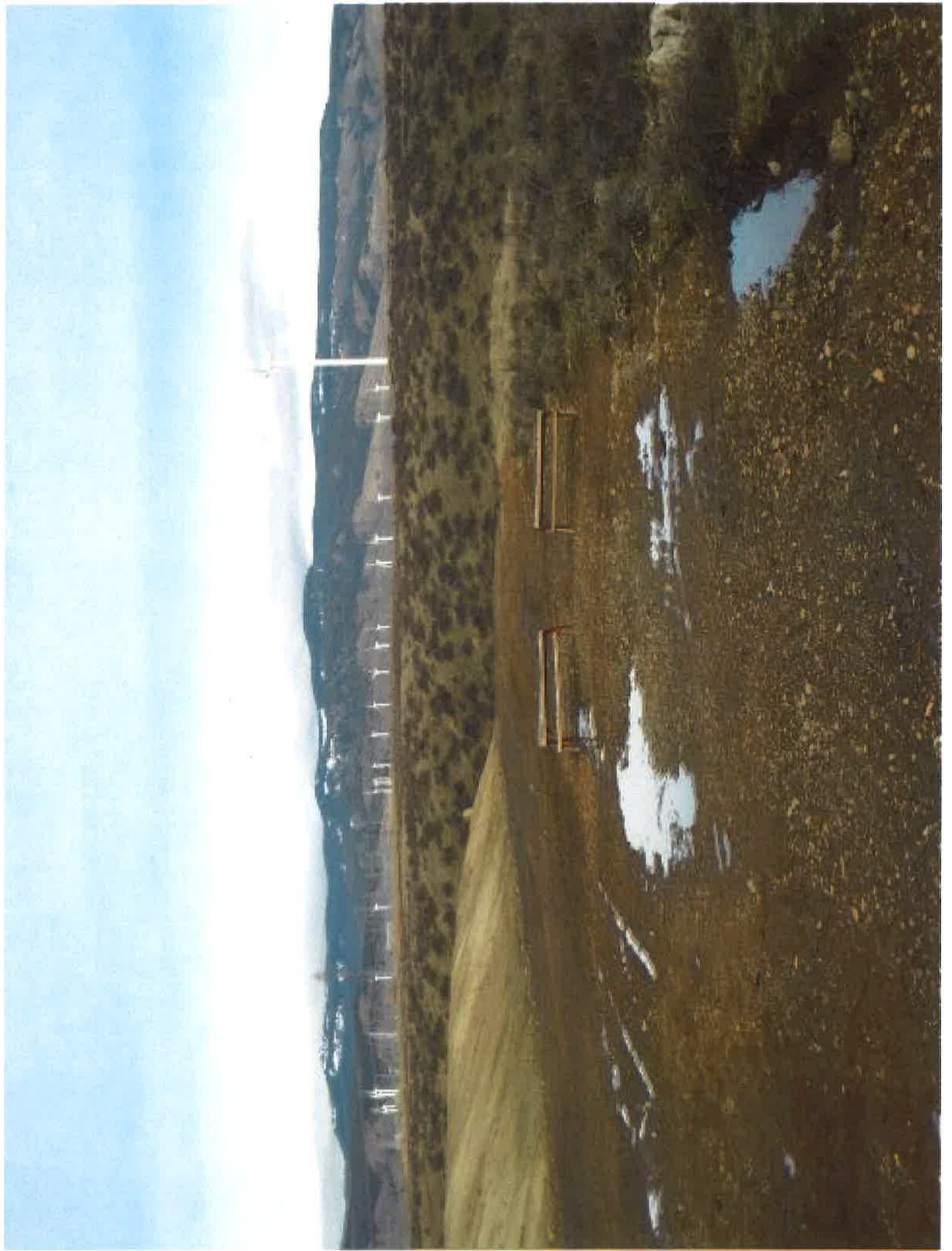
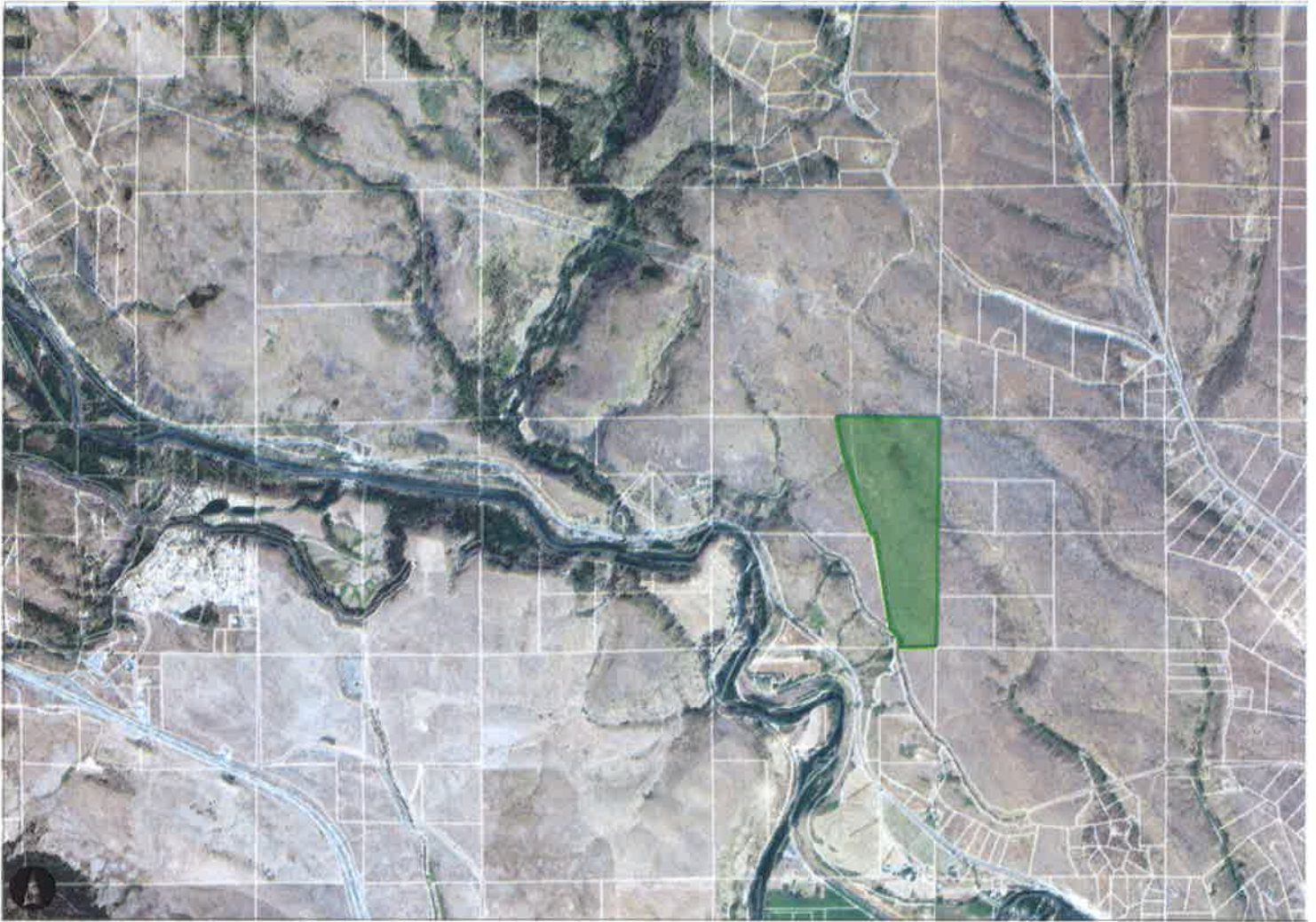






EXHIBIT 8

Enter title here



Map Center: Township:19 Range:17 Section:21

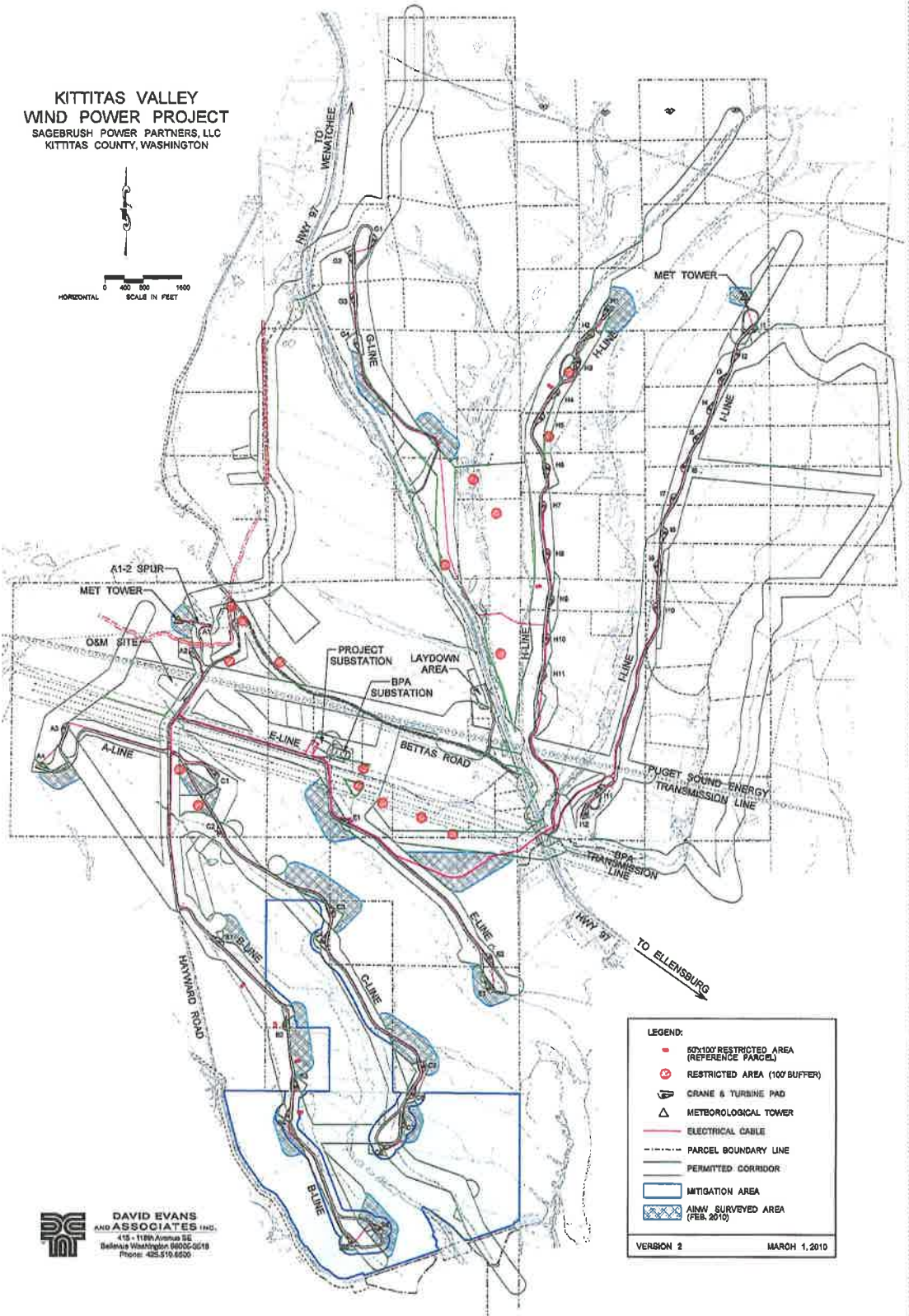
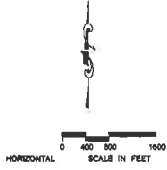
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EXHIBIT 9

**KITTITAS VALLEY
WIND POWER PROJECT**
SAGEBRUSH POWER PARTNERS, LLC
KITTITAS COUNTY, WASHINGTON



LEGEND:

- 50'x100' RESTRICTED AREA (REFERENCE PARCEL)
- ⊕ RESTRICTED AREA (100' BUFFER)
- ⊕ CRANE & TURBINE PAD
- △ METEOROLOGICAL TOWER
- ELECTRICAL CABLE
- - - - - PARCEL BOUNDARY LINE
- PERMITTED CORRIDOR
- ▭ MITIGATION AREA
- ▨ AIRM SURVEYED AREA (FEB. 2010)

VERSION 2 MARCH 1, 2010

DAVID EVANS ASSOCIATES
AND ASSOCIATES, INC.
415 - 118th Avenue SE
Bellevue Washington 98002-0518
Phone: 425.510.6500

EXHIBIT 10

appearance as defined in this chapter. The intent of this requirement is to assure that such external appearance be substantially identical with the style and character of dwellings presently existing in the unincorporated townsite of Liberty in Kittitas County. (Res. 83-10, 1983)

17.59.080 Architectural standards.

In conformity with the foregoing, no dwelling, business, accessory building, fence or other structure shall be erected, placed or permitted on a lot unless its external appearance conforms to the following:

1. Exterior siding must be rough-sawn lumber or logs. Board or batten shakes or single siding is also permitted. All exterior surfaces must be natural or clear stain.
2. Windows. Wood frame windows are permitted. Window frames of other material may be permitted if it resembles wood.
3. Doors. All exterior doors must be wood with natural or clear stain permitted.
4. Chimneys. Brick or metal stovepipe chimneys shall be permitted.
5. Fences. Only natural wood fences are permitted.
6. Other. No plywood or metal siding is permitted. Metal roofing is permitted only if it is galvanized color. (Res. 83-10, 1983)

17.59.090 Interpretation.

Compliance with the intent of this chapter shall be the determination of the building inspector for Kittitas County. (Res. 83-10, 1983)

Chapter 17.60A CONDITIONAL USES*

Sections

- 17.60A.010 Review criteria.
- 17.60A.020 Conditions.
- 17.60A.030 Application and accompanying data.
- 17.60A.040 Fees.
- 17.60A.050 Repealed.
- 17.60A.060 Hearings - Appeal.
- 17.60A.070 Repealed.
- 17.60A.080 Transfer of Ownership.
- 17.60A.090 Expiration.
- 17.60A.100 Revocation or modification.

* Prior history: Ords. 71-5, 2.

17.60A.010 Review criteria.

The Board of Adjustment, upon receiving a properly filed application or petition, may permit and authorize a conditional use when the following requirements have been met:

1. The Board of Adjustment shall determine that the proposed use is essential or desirable to the public convenience and not detrimental or injurious to the public health, peace, or safety or to the character of the surrounding neighborhood.
2. The Board of Adjustment shall determine that the proposed use at the proposed location will not be unreasonably detrimental to the economic welfare of the county and that it will not create excessive public cost for facilities and services by finding that (1) it will be adequately serviced by existing facilities such as highways, roads, police and fire protection, irrigation and drainage structures, refuse disposal, water and sewers, and schools; or (2) that the applicant shall provide such facilities or (3) demonstrate that the proposed use will be of sufficient economic benefit to offset additional public costs or economic detriment. (Ord. 2007-22, 2007; Ord. 88-4 § 11 (part), 1988; Res. 83-10, 1983)

17.60A.020 Conditions.

1. In permitting such uses the board of adjustment may impose in addition to the regulations specified herein, such conditions as it deems necessary to protect the best interests of the surrounding property or neighborhood or the county as a whole.
2. Uses subject to conditions which exist in an R or S zone on the effective date of the ordinance codified herein shall not be changed, expanded nor structures used in connection therewith altered without first applying to the board of adjustment for review and under provisions of this chapter.
3. Any change, enlargement or alteration in such use shall require a review by the board of adjustment and new conditions may be imposed where finding requires. (Ord. 2007-22, 2007; Ord. 88-4 § 11 (part), 1988)

17.60A.030 Application and accompanying data.

Written application for the approval of the uses referred to in this chapter shall be filed in the Community Development Services department upon forms prescribed for that purpose. The application shall be accompanied by a site plan showing the dimensions and arrangement of the proposed development or changes in an existing conditional use. The administrator and/or board of adjustment may require other drawings, topographic surveys, photographs, or other material essential to an understanding of the proposed use and its relationship to the surrounding properties. (Ord. 2007-22, 2007; Ord. 96-19 (part), 1996; Res. 83-10, 1983)

17.60A.040 Fees.

The fees for such application shall be as established annually by the board of county commissioners under separate action. Fees shall be payable to the Kittitas County treasurer and shall not be returnable in any case. (Ord. 2007-22, 2007; Ord. 88-4 § 11 (part), 1988; Res. 83-10, 1983)

17.60A.050 Affected area of use.

Repealed by Ord. 96-19. (Ord. 2007-22, 2007; Ord. 88-4 § 11 (part), 1988; Res. 83-10, 1983)

17.60A.060 Hearings - Appeal.

Any such hearings shall be held pursuant to Title 15A of this code, Project permit application process. (Ord. 2007-22, 2007)

17.60A.070 Appeal.

Repealed by Ord. 96-19. (Ord. 2007-22, 2007; Ord. 88-4 § 11 (part), 1988; Res. 83-10, 1983)

17.60A.080 Transfer of Ownership.

The granting of a conditional use permit and the conditions set forth run with the land; compliance with the conditions of the conditional use permit is the responsibility of the current owner of the property, the applicant and successors. (Ord. 2007-22, 2007)

17.60A.090 Expiration.

A conditional use permit shall become void five years after approval or such other time period as established by the Board of Adjustment if the use is not completely developed. Said extension shall not exceed a total of ten years and said phases and timelines shall be clearly spelled out in the application. (Ord. 2007-22, 2007)

17.60A.100 Revocation or modification.

The Board of County Commissioners may hold a hearing to revoke or additionally limit a Conditional Use Permit granted pursuant to the provisions of this Chapter. Ten days prior to the hearing, notice shall be delivered in writing to the applicant and/or owner of the property for which such Conditional Use Permit was granted. Notice shall be deemed delivered 3 days after being mailed, first class postage paid, to the owner as shown on the current tax rolls of the County.

A Conditional Use Permit may be revoked or modified by the Board if any 1 of the following findings can be made:

1. That circumstances have changed so that 1 or more of the Conditions of 17.60A.020 are no longer met;
2. That the Conditional Use permit was obtained by misrepresentation or fraud;
3. That one or more of the conditions of the Conditional Use Permit have not been met;
4. That the use for which the Conditional Use Permit was granted had ceased or was suspended for twelve or more consecutive calendar months;
5. That the actual or permitted use is in violation of any statute, ordinance, law, or regulation; or
6. That the use permitted by the Conditional Use Permit is detrimental to the public health, safety or welfare or constitutes a nuisance.

The Board's decision shall be subject to judicial appeal under the provisions of Chapter 15A.08 KCC.

The Board's decision shall not be effective for 21 days after being entered. The Superior Court in reviewing the Board's decision to revoke a CUP may grant a stay during the pendency of any appeal upon a finding that such a stay is necessary to avoid manifest injustice or upon stipulation by the County. (Ord. 2009-22, 2009)

Chapter 17.60B
ADMINISTRATIVE USES

Sections

- 17.60B.010 Applicability.
- 17.60B.020 Purpose.
- 17.60B.030 Administrative Authority.
- 17.60B.040 Fees.
- 17.60B.050 Administrative Review.
- 17.60B.060 Administrative Action.
- 17.60B.070 Permit Processing and Notice.
- 17.60B.080 Effect.
- 17.60B.090 Transfer of Ownership.
- 17.60B.100 Expiration.
- 17.60B.110 Appeal of Administrator's Decision.

17.60B.010 Applicability.

The provisions of this chapter shall apply to all uses listed as an administrative use in the applicable zoning district. Administrative uses are those uses subject to standards that are applicable for all permits and those that require the exercise of limited discretion about non-technical issues and about which there may be limited public interest. The proposed development may or may not be subject to SEPA review. (Ord. 2007-22, 2007)

17.60B.020 Purpose.

The purpose of this chapter is to establish criteria and procedures for uses, which due to their unique qualities may require additional regulations or other special degrees of control. The administrative use process, which includes public notice and comment, is required to ensure that the activity, if established, will be in full compliance with the applicable regulations and that such uses are compatible with the comprehensive plan, adjacent uses, planned uses and the character of the vicinity. (Ord. 2007-22, 2007)

17.60B.030 Administrative Authority.

The director of Community Development Services is authorized to approve, approve with the conditions stated in this chapter and additional conditions deemed necessary to satisfy the purposes of this chapter and the criteria found in Section 17.60B.050 an administrative use permit. Any additional requirements obtained from other sections of the Kittitas County Code above those specified in this title, or modification of the proposal to comply with specified requirements or local conditions is also authorized. At the discretion of the administrator or by request of interested parties, the request for an administrative use permit can be heard by the Board of Adjustment.

The Board of Adjustment may deny an application for an administrative use permit if the use fails to comply with specific standards set forth in this title and if any of the required findings in Section 17.60B.050 are not supported by evidence in the administrative record. (Ord. 2007-22, 2007)

17.60B.040 Fees.

The fees for such application shall be consistent with the most updated fee schedule as established annually by the board of county commissioners under separate action. Fees shall be payable to the Kittitas County Treasurer and shall not be refundable in any case. (Ord. 2007-22, 2007)

17.60B.050 Administrative Review.

The development standards of this title shall be used by the applicant in preparing the administrative use permit application, and by the administrator in determining the acceptability of permitting a use in a certain location. The applicant has the burden of proving that the proposed use meets criteria set forth below in this section. An administrative use permit may be approved only if all of the following findings can be made regarding the proposal and are supported by the record:

1. That the granting of the proposed administrative use permit approval will not:
 1. Be detrimental to the public health, safety, and general welfare;
 2. Adversely affect the established character of the surrounding vicinity and planned uses; nor
 3. Be injurious to the uses, property, or improvements adjacent to, and in the vicinity of, the site upon which the proposed use is to be located.
2. That the granting of the proposed administrative use permit is consistent and compatible with the intent of goals, objectives and policies of the comprehensive plan, and any implementing regulation.
3. That all conditions necessary to mitigate the impacts of the proposed use are conditions that are measurable and can be monitored and enforced.
4. That the applicant has addressed all requirements for a specific use. (Ord. 2007-22, 2007)

17.60B.060 Administrative Action.

A decision by the administrator shall include the following:

1. A statement of the applicable criteria and standards in the development codes and other applicable law.

EXHIBIT 11

17.59.080 Architectural standards.

In conformity with the foregoing, no dwelling, business, accessory building, fence or other structure shall be erected, placed or permitted on a lot unless its external appearance conforms to the following:

1. Exterior siding must be rough-sawed lumber or logs. Board or batten shakes or single siding is also permitted. All exterior surfaces must be natural or clear stain.
2. Windows. Wood frame windows are permitted. Window frames of other material may be permitted if it resembles wood.
3. Doors. All exterior doors must be wood with natural or clear stain permitted.
4. Chimneys. Brick or metal stovepipe chimneys shall be permitted.
5. Fences. Only natural wood fences are permitted.
6. Other. No plywood or metal siding is permitted. Metal roofing is permitted only if it is galvanized color. (Res. 83-10, 1983)

17.59.090 Interpretation.

Compliance with the intent of this chapter shall be the determination of the ~~building inspector~~Director for Kittitas County. (Res. 83-10, 1983)

Kittitas County Code, Chapter 17.60A Conditional Uses is amended as follows:

**Chapter 17.60A
CONDITIONAL USES***

Sections

- 17.60A.010 Review criteria.
- 17.60A.020 Conditions.
- 17.60A.030 Application and accompanying data.
- 17.60A.040 Fees.
- 17.60A.050 Repealed.
- 17.60A.060 Hearings - Appeal.
- 17.60A.070 Repealed.
- 17.60A.080 Transfer of Ownership.
- 17.60A.090 Expiration.
- 17.60A.095 Modification.
- 17.60A.100 Revocation or modification limitation.

* Prior history: Ords. 71-5, 2.

17.60A.010 Review criteria.

The ~~Hearing Examiner~~Board, upon receiving a properly filed application or petition, may permit and authorize a conditional use when the following requirements have been met:

1. ~~The Hearing Examiner shall determine that the~~The proposed use is essential or desirable to the public convenience and not detrimental or injurious to the public health, peace, or safety or to the character of the surrounding neighborhood.
2. ~~The Hearing Examiner shall determine that the~~The proposed use at the proposed location will not be unreasonably detrimental to the economic welfare of the county and that it will not create excessive public cost for facilities and services by finding that
 - A. ~~(1) it~~The proposed use will be adequately serviced by existing facilities such as highways, roads, police and fire protection, irrigation and drainage structures, refuse disposal, water and sewers, and schools; or
 - B. ~~(2) that the~~The applicant shall provide such necessary facilities; or
 - A.C. ~~(3) demonstrate that the~~The proposed use will be of sufficient economic benefit to offset additional public costs or economic detriment. (Ord. 2007-22, 2007; Ord. 88-4 § 11 (part), 1988; Res. 83-10, 1983)

3. The proposed use complies with relevant development standards and criteria for approval set forth in this title or other applicable provisions of Kittitas County Code.
4. The proposed use will mitigate material impacts of the development, whether environmental or otherwise.
5. The proposed use will ensure compatibility with existing neighboring land uses.
6. The proposed use is consistent with the intent and character of the zoning district in which it is located.
7. For conditional uses outside of Urban Growth Areas, the Board shall determine that the proposed use:
 - A. Is consistent with the intent, goals, policies, and objectives of the Kittitas County Comprehensive Plan, including the policies of Chapter 8, Rural and Resource Lands;
 - B. Preserves "rural character" as defined in the Growth Management Act (RCW 36.70A.030(15));
 - C. Requires only rural government services; and
 - D. Does not compromise the long term viability of designated resource lands.

17.60A.020 Conditions.

In permitting such uses the ~~Hearing Examiner~~Board may impose in addition to the regulations specified herein, such conditions as it deems necessary to protect the best interests of the surrounding property or neighborhood or the county as a whole. These conditions may include, but are not limited to, the following:

1. Increasing the required lot size, setback or yard dimensions;
2. Limiting the height of buildings or structures;
3. Controlling the number and location of vehicular access points (subject to approval by the reviewing authority with jurisdiction to issue approach or access permits);
4. Requiring the dedication of additional rights-of-way for future public street improvements;
5. Requiring the designation of public use easements;
6. Increasing or decreasing the number of required off-street parking and/or loading spaces as well as designating the location, screening, drainage, surfacing or other improvement of a parking area;
7. Limiting the number, size, height, shape, location and lighting of signs;
8. Requiring or limiting view-obscuring fencing, landscaping or other facilities to protect adjacent or nearby properties;
9. Designating sites for and/or the size of open space or recreational areas;
10. Requiring site reclamation upon discontinuance of use and/or expiration or revocation of the project permit;
11. Limiting hours and size of operation;
12. Controlling the siting of the use and/or structures on the property;
13. Requiring mitigation measures to effectively reduce the potential for land use conflicts with agricultural and resource lands, such as: landscape buffers, special setbacks, screening, and/or site design using physical features such as rock outcrops, ravines, and roads.
 1. ~~_____~~
 2. ~~Uses subject to conditions which exist in an R or S zone on the effective date of the ordinance codified herein shall not be changed, expanded nor structures used in connection therewith altered without first applying to the Hearing Examiner for review and under provisions of this chapter.~~
 3. ~~Any change, enlargement or alteration in such use shall require a review by the Hearing Examiner and new conditions may be imposed where finding requires. (Ord. 2007-22, 2007; Ord. 88-45-11 (part), 1988)~~

17.60A.030 Application and accompanying data.

Written application for the approval of the uses referred to in this chapter shall be filed in the Community Development Services department upon forms prescribed for that purpose. The application shall be accompanied by a site plan showing the dimensions and arrangement of the proposed development or changes in an existing conditional use. The administrator, ~~and/or~~ Hearing Examiner ~~and/or~~ Board may require other drawings, topographic surveys, photographs, or other material essential to an understanding of the proposed use and its relationship to the surrounding properties. (Ord. 2007-22, 2007; Ord. 96-19 (part), 1996; Res. 83-10, 1983)

17.60A.040 Fees.

The fees for such application shall be as established annually by the ~~Board of county commissioners~~ under separate action. Fees shall be payable to the Kittitas County ~~treasurer~~ and shall not be returnable in any case. (Ord. 2007-22, 2007; Ord. 88-4 § 11 (part), 1988: Res. 83-10, 1983)

17.60A.050 Affected area of use.

Repealed by Ord. 96-19. (Ord. 2007-22, 2007; Ord. 88-4 § 11 (part), 1988: Res. 83-10, 1983)

17.60A.060 Hearings - Appeal.

Any such hearings shall be held pursuant to Title 15A of this code, Project permit application process. (Ord. 2007-22, 2007)

17.60A.070 Appeal.

Repealed by Ord. 9619. (Ord. 2007-22, 2007; Ord. 88-4 § 11 (part), 1988: Res. 83-10, 1983)

17.60A.080 Transfer of Ownership.

The granting of a conditional use permit and the conditions set forth run with the land; compliance with the conditions of the conditional use permit is the responsibility of the current owner of the property, the applicant and successors. (Ord. 2007-22, 2007)

17.60A.090 Expiration.

A conditional use permit shall become void five (5) years after approval or such other time period as established by the ~~Hearing Examiner~~ if the use is not completely developed. Said extension shall not exceed a total of ten (10) years and said phases and timelines shall be clearly spelled out in the application. (Ord. 2007-22, 2007)

17.60A.095 Modification.

Any change, enlargement or alteration in such use shall require a review by the Board and new conditions may be imposed where finding requires.

17.60A.100 Revocation or ~~modification~~ limitation.

The ~~Board of County Commissioners~~ may hold a hearing to revoke or additionally limit a Conditional Use Permit granted pursuant to the provisions of this Chapter. Ten (10) days prior to the hearing, notice shall be delivered in writing to the applicant and/or owner of the property for which such Conditional Use Permit was granted. Notice shall be deemed delivered ~~3-three~~ (3) days after being mailed, first class postage paid, to the owner as shown on the current tax rolls of the County.

A Conditional Use Permit may be revoked or ~~modified~~ limited by the Board if any one of the following findings can be made:

1. That circumstances have changed so that 1 or more of the Conditions of 17.60A.020 are no longer met;
2. That the Conditional Use permit was obtained by misrepresentation or fraud;
3. That one or more of the conditions of the Conditional Use Permit have not been met;
4. That the use for which the Conditional Use Permit was granted had ceased or was suspended for twelve or more consecutive calendar months;
5. That the actual or permitted use is in violation of any statute, ordinance, law, or regulation; or
6. That the use permitted by the Conditional Use Permit is detrimental to the public health, safety or welfare or constitutes a nuisance.

The Board's decision shall be subject to judicial appeal under the provisions of KCC Chapter 15A.08 KCC.

The Board's decision shall not be effective for twenty-one (21) days after being entered. The Superior Court in reviewing the Board's decision to revoke a CUP may grant a stay during the pendency of any

appeal upon a finding that such a stay is necessary to avoid manifest injustice or upon stipulation by the County. (Ord. 2009-22, 2009)

Kittitas County Code, Chapter 17.60B Administrative Uses is amended as follows:

Chapter 17.60B

PERMITTED ADMINISTRATIVE USES

Sections

- 17.60B.010** Applicability.
- 17.60B.020** Purpose.
- 17.60B.030** Administrative Authority.
- 17.60B.040** Fees.
- 17.60B.050** Administrative Review.
- 17.60B.060** Administrative Action.
- 17.60B.070** Permit Processing and Notice.
- 17.60B.080** Effect.
- 17.60B.090** Transfer of Ownership.
- 17.60B.100** Expiration.
- 17.60B.110** Appeal of Administrator's Decision.

17.60B.010 Applicability.

The provisions of this chapter shall apply to all uses listed as an administrative use in the applicable zoning district. Administrative uses are those uses subject to standards that are applicable for all permits and those that require the exercise of limited discretion about non-technical issues and about which there may be limited public interest. The proposed development may or may not be subject to SEPA review. (Ord. 2007-22, 2007)

17.60B.020 Purpose.

The purpose of this chapter is to establish criteria and procedures for uses, which due to their unique qualities may require additional regulations or other special degrees of control. The administrative use process, which includes public notice and comment, is required to ensure that the activity, if established, will be in full compliance with the applicable regulations and that such uses are compatible with the comprehensive plan, adjacent uses, planned uses and the character of the vicinity. (Ord. 2007-22, 2007)

17.60B.030 Administrative Authority.

~~The dDirector of Community Development Services~~ is authorized to approve, approve with the conditions stated in this chapter and additional conditions deemed necessary to satisfy the purposes of this chapter and the criteria found in Section 17.60B.050 an administrative use permit. Any additional requirements obtained from other sections of the Kittitas County Code above those specified in this title, or modification of the proposal to comply with specified requirements or local conditions is also authorized.

~~At the discretion of the administrator or by request of interested parties, the request for an administrative use permit can be heard by the Hearing Examiner.~~

~~The Hearing Examiner may deny an application for an administrative use permit if the use fails to comply with specific standards set forth in this title and if any of the required findings in Section 17.60B.050 are not supported by evidence in the administrative record.~~ (Ord. 2007-22, 2007)

17.60B.040 Fees.

The fees for such application shall be consistent with the most updated fee schedule as established

EXHIBIT 12



STATE OF WASHINGTON
DEPARTMENT OF FISH AND WILDLIFE

1701 S 24th Avenue • Yakima, Washington 98902-5720 • (509) 575-2740 FAX (509) 575-2474

July 28, 2011

Cascade Field and Stream Club
PO Box 424
Cle Elum WA 98922
Attn: Steve Rogers, Vice-President

Dear Steve:

The potential of having a safe shooting range in Kittitas County that could be utilized by Washington State Department of Fish and Wildlife (WDFW) enforcement staff for training purposes is very desirable. Currently, WDFW enforcement staff in Region 3 are conducting the majority of their firearms training at the Richland PD Range in Benton County. This is due to the limited options for ranges that are available when needed. The addition of a safe, usable option in Kittitas County could be beneficial to meeting our training location needs.

There is also always a need for a location to provide safe firearms handling and use instruction through WDFW's Hunter Education Program. A safe location for instructors to teach potential hunters would be very beneficial from a Hunter Education standpoint.

Should the Club be successful in its efforts to build a shooting range on its Hayward Hill property, I believe we would be interested in exploring options for occasional use of the range.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Mann", followed by a long horizontal line extending to the right.

Richard Mann, Captain
Washington Department of Fish and Wildlife
Region 3 Yakima
Enforcement Program



GENE DANA, SHERIFF
KITTITAS COUNTY SHERIFF'S OFFICE

307 W. Umptanum Rd ♦ Ellensburg, WA 98926
(509) 962-7525 ♦ (509) 674-2584
FAX (509) 962-7599

July 28, 2011

Steve Rogers,
Vice-President
Cascade Field & Stream Club
P.O. Box 424
Cle Elum, WA 98922

Dear Steve,

Please consider this letter of support in your efforts at developing a shooting range in Kittitas County.

This county is seriously lacking a safe and adequate range for law enforcement and the public. I receive frequent requests from citizens looking for someplace to practice their skills or site their weapons. A well planned range would support firearms safety programs and reduce the number of shooting complaints we receive on public and private lands caused by well intention gun enthusiasts.

The Kittitas County Sheriff's Office could certainly use this range for our regular firearms qualifications.

Sincerely,

A handwritten signature in black ink that reads "Gene Dana".

Gene Dana,
Sheriff

GD:kd

IN THE HEART OF THE CASCADES

**SCOTT FERGUSON
CHIEF OF POLICE**

**CLE ELUM-ROSLYN-S. CLE ELUM
POLICE DEPARTMENT
700 East 1st Suite B.
CLE ELUM WA 98922**

*PRIDE IN
COMMUNITY*

July 28, 2011

To Whom It May Concern:

The Cle Elum/Roslyn Police Department, similar to all other police agencies, is required to perform weapons qualifications several times a year. With the rapid growth and development we have experienced in the upper county, this has become absolutely impossible. No longer do we have access to an upper county range, or even a safe and suitable area to perform this training.

For over the past decade, our department has utilized the Tom Scott Range. We have been appreciative for the use of this range; however, it does not meet many of our needs. Tom Scott Range is established primarily for handgun use, which prevents us from training with our long guns or long range shooting.

If the Cascade Field & Stream Club were successful in establishing an alternative gun range, our agency would be excited about having the opportunity to safely expand our training needs.

Sincerely,



Scott Ferguson



ELLENSBURG

**Dale L. Miller
Chief of Police**

POLICE

(509) 962-7280 • FAX (509) 962-7281 • 100 N. Pearl Street • Ellensburg, WA 98926

August 6, 2011

To whom it may concern;

My name is Anthony Venera and I am a police officer with the Ellensburg Police Department and one of the department's firearms instructors. I am writing this letter in support of the Cascade Field and Stream Club's efforts to build a new firearms training shooting range in upper Kittitas County.

Currently, the Ellensburg Police Department along with other law enforcement agencies in Kittitas County use the Tom Scott Range. The Tom Scott Range is located on property controlled by Ellensburg Cement Products. This range and land has been generously offered for law enforcement use for many years. Due to the size of the Tom Scott Range we are limited in many ways as to the type of training we can provide our officers. This range is not available to the general public for use.

From the perspective of a person tasked with the training of police officers, our current range is one of the biggest limiting factors to our training. A larger range would expand the types of training available to our officers and ultimately make them more proficient in the skills officers need to keep themselves and the public safe. I have used numerous ranges operated by other law enforcement agencies, and I can say without question that our current range places the most limitations on training of any of them.

As of now there are limited options for the general public to be able to shoot in a structured environment. The range proposed by Cascade Field & Stream would be a place where the public can shoot in a safe, clean environment. There are many citizens in Kittitas County who own and use firearms. Due to the lack of a viable range, many citizens drive out into the hills to shoot because there is no other option. I can tell you from firsthand experience some of the locations that are used are unsafe and violate very basic firearm safety procedures.

In conclusion, I believe the citizens and law enforcement agencies of Kittitas County need a better place to use firearms. The Cascade Field and Stream Club range is a huge step in that direction. If you have questions about our current range and training limitations please feel free to contact me by calling the Ellensburg Police Department at (509) 962-7280.

Sincerely,

Officer Anthony Venera

EXHIBIT 13



STATE OF WASHINGTON
WASHINGTON STATE PARKS AND RECREATION COMMISSION
Iron Horse State Park

P.O. Box 26 • Easton, Washington 98925 • (509) 656-2586

February 19, 2013

To Whom It May Concern:

I am writing this letter to support the approval of the Conditional Use Permit Application being submitted by the Cascade Field & Stream Club of Upper Kittitas County, WA to build a shooting range on their property on Hayward Hill, east of Cle Elum. I have been employed by the Washington State Parks and Recreation Commission as a duly commissioned Ranger at Iron Horse State Park and resident in Kittitas County for 22 years.

As of today, myself and two other commissioned Rangers employed within our park area do not have an agency approved shooting range to train at within Kittitas County. We must travel to King and Grant counties, to agency approved ranges, in order to discharge our duty weapons. This takes us far away from our duty stations and from the resource and visitors we are charged to protect. The Cascade Field and Stream Club range would allow us to be more efficient with our time and taxpayer dollars, and safer and more proficient by allowing us to shoot more often.

As a Park Ranger, I contact many park visitors, county and out of county residents, who are discharging or are preparing to discharge firearms illegally on State Park land. The overwhelming answer I get to "why", is that they do not have a range to shoot at. Most of these people explain that if there were a safe range to shoot at, such as the Field and Stream Club range proposal, they would pay any amount for the opportunity.

I am an avid hunter, shooter, and father of eight. I desperately want to carry on the hunting, shooting, and conservation traditions and disciplines that I feel are important. It has been difficult for us to find safe areas to shoot. I feel confident that building and developing the proposed range will allow my family to learn and improve their shooting discipline in a controlled, safe environment.

Lastly, I would like to commend and acknowledge the board members and regular members of the Cascade Field and Stream Club who have tirelessly committed their time and energy to the long process of building this range. They have sacrificed much so that others may benefit.

Thank you for the opportunity to comment.

Sincerely,

Keith Wersland, Parks #274
Park Ranger, Iron Horse State Park

EXHIBIT 14

Dan Valoff

From: bretdaugherty@aol.com
Sent: Friday, January 06, 2012 5:14 PM
To: Dan Valoff
Subject: shooting range

I am in support of the shooting range. This location would be a great place to take my 4 children & shoot in a safe, controlled environment; without worry of who's property I may be on, or public property where there may be other, unannounced recreationists, potentially down range but out of sight. This range is a much needed sight for Kittitas County.

Thank you for your time.

Regards,
Bret Daugherty
P.O. Box 795
Ellensburg, WA 98926
(509)607-9426

Dan Valoff

From: Brooke [bjdrexler@elltel.net]
Sent: Friday, January 06, 2012 6:55 PM
To: Dan Valoff
Subject: Cu-11-00003

I'm writing in favor of the approval of the cascade f&S cup. The lower county badly needs a place where responsible shooters can shoot and maintain a safe area,with the control a shooting area needs. Unlike the eye sore sight of all the garbage the pigs leave upon Durr rd. and umptanum rd.,which I would think would eventually would be shut down. Thank you, Brooke Drexler , Ellensburg

To: Mr. Dan Valoff
Fm: Steve Rogers, South Cle Elum
Re: Cascade Field & Stream Club Conditional Use Permit (CU-11-00003).
Dt: 01/07/2012

Mr. Valoff,

I am a retired Fish & Wildlife Police Officer and an avid hunter/sportsman/shooter. I am also an active (Life) member of the Cascade Field & Stream Club and have been a member since 1985. I know a lot of history about the club and would like to see a long future for it.

When the Club was started in 1934 it was a hub of activity for the Upper County with 300 plus members. It was a place, located on Bullfrog Road, where people could shoot their firearms, sight them in for hunting season, and gather for other community-related activities (Socials, potlucks, fundraisers, etc).

The club still had approximately 300 members when the shooting range was closed due to the Trendwest Resort development. An awful lot of members quit at that time as they had no Club to support and no range to use. However, the Cascade F&S Club is still very much alive and well, thanks to a handful of very dedicated and tenacious members.

We searched for several years to locate a suitable location to "rebuild" the Club. We finally found the perfect location, 184 acres atop Hayward Hill. This location had never been used for anything but cattle grazing and hunting. At the time of purchase the nearest human habitation was to the West (and upwind), down in the bottom of Swauk Creek Canyon a couple miles away. Since then there have been a few changes (a few homes built in the area and a new wind farm) but nothing that would seem to hinder a small sportsmen's club from having a shooting range.

Kittitas County needs a proper shooting facility, not only for Club members but, also for the many law abiding firearms owners in the area. An awful lot of people go shooting "out in the woods" without any regulation. Some areas see damage and litter and are being closed off to public use. The Cascade F&S Club has always promoted safe firearm use with strict Range Rules to prevent injuries, damage, and littering. It is the Club's intention, after issuance of the CUP, to have certain days available to the general public to use the range. On those days there will be a Range Master on site to control activities and enforce the Range Rules. The Cascade F&S Club also sponsors at least 4 Hunter Education classes each year which include a "Range Day" where young people are taught safe firearm handling. Please bear all this in mind when deciding whether to issue the permit to the Club. We need a central location in the County where people can shoot safely.

Steve Rogers
(509) 674-8653
South Cle Elum, Wa.

Dan Valoff

From: Joe Rotter [joe@redsflyshop.com]
Sent: Monday, January 09, 2012 5:34 AM
To: Dan Valoff
Subject: Shooting Range Proposal

Hi Dan,

Please note my support for the Cascade Field and Stream Club Conditional Use Permit (CU-11-00003) as it applies to the shooting range proposed on the Hayward Hill property. For more reasons than I can begin to list I think this is a good idea for the community and would like to see it approved. That is one of the more ideal properties in the valley for such activity and having this shooting range closer to Ellensburg will make it much more accessible to the general public. I also think it will cut down on free lance target shooting throughout the lower Kittitas Valley as there is not currently a shooting range available here. This will result in safer shooting practices and enhance aesthetics for non shooters enjoying the outdoors surrounding the valley.

I would also like to point out that there is a large demand for a shooting range near Ellensburg. Within the community there are LOTS of sportsman that would appreciate the opportunity to shoot and teach others to shoot in a safe, comfortable, and educational environment. It will increase the quality and accessibility of hunter's education classes, promote safe firearm handling, and add a nice component to the recreational opportunities in our valley.

Thank you for your time and consideration,

Joe Rotter
Ellensburg, WA

.... "fish more... you will never regret it"



Joe Rotter

www.redsflyshop.com

509.933.2300 Office
509.929.1169 Mobile

Dan Valoff

From: Anthony Robins [anthonyrobins@msn.com]
Sent: Monday, January 09, 2012 5:05 PM
To: Dan Valoff
Subject: CU-11-00003 Support

Hello Dan,

I am writing in support of the Cascade Field and Stream Club proposal for the shooting range. This is a growing sport, and more importantly, a sport that gets parents and their children in the outdoors together shooting and hunting, (and away from video games!). I know many of the people involved, good folks, and would be happy to see such a facility in Kittitas County. Such facilities are critical to properly teach people of all ages the importance of gun safety and proper handling of firearms.

I am an owner of Red's Fly Shop and Canyon River Ranch, where I live 2 - 3 days per week.

In short, thumbs up! Thank you for your consideration.

Respectfully,

Anthony J. Robins
509.962.8856

Dan Valoff

From: DennisC [dchapman@fairpoint.net]
Sent: Monday, January 09, 2012 6:29 PM
To: Dan Valoff
Subject: Cascade field and Stream conditional use permit CU-11-00003

Gentlemen:

We would like to take this opportunity to urge you to support the Cascade Field and Stream use permit(CU-11-00003). We believe having a safe, organized shooting sports location is important for this and future generations of Kittitas County.

In addition to the safety aspect of the range, we believe it may also help to alleviate some of the pressure and misuse of public lands. From a safety, conservation, and use standpoint it just makes sense.

So, please we urge you to support the use permit. Thank you for your time and service.

Dennis and Jenny Chapman
1471 Killmore Road
Ellensburg, WA. 98926

Dan Valoff

From: Eric Panattoni [eric_panattoni@hotmail.com]
Sent: Monday, January 09, 2012 4:10 PM
To: Dan Valoff
Subject: Cascade F and S Conditional Use Permit (CU-11-00003)

Dan,

I believe that our county would greatly benefit from the addition of a formal shooting range. Hunting and target shooting are a big part of many peoples lives around here. I would personally love to be able to use a shooting range with targets and marked distances. A formal shooting range would also be a more safe and cleaner option than what we currently have. Hayward hill is very centrally located between the upper and lower county which would really cut down on the drive time for many. Thanks for your time and I hope that we will be target shooting up there soon.

Eric Panattoni

Dan Valoff

From: Kimberli Green
Sent: Monday, January 09, 2012 3:41 PM
To: Dan Valoff
Subject: FW: Cascade F & S CU-11-00003

From: Kimberli Green
Sent: Monday, January 09, 2012 3:38 PM
To: '.wa.us'
Subject: Cascade F & S CU-11-00003

KCCDS

Dan,

Just a brief response to the Conditional Use Permit requested for a shooting range off Hayward Hill RD. Both my husband & I would be in favor of such a range here in the County. Currently the 'favorite' place to shoot is off the Durr RD. This is not in a controlled environment, is profusely littered with broken glass, cans, bottles, burned and un-burned couches, old tv's and other garbage. The spot is barely off a well used back road and has the potential to be very dangerous if those "shooting" have been drinking. There are herds of Elk that migrate thru this area as well as a local deer population and range cattle that are in danger from this type of activity.

A controlled safe environment is what is really needed in Kittitas County that will benefit all land owners, local and non-local outdoor / hunting enthusiasts, gun collectors and those that are recreational target shooters. This CUP will also help keep trespassers off local lands and state lands not designated for this purpose.

*Kimberli Green
Kittitas County Auditor's Office
509-962-7504*

Notice: All email sent to this address will be received by the Kittitas County email system and may be subject to public disclosure under Chapter 4.01.01 RCW and to archiving and review.

messageID: 201201090846d1c74846719d004c14

Dan Valoff

From: c.shearer@gcfd5.org
Sent: Monday, January 09, 2012 2:07 PM
To: Dan Valoff
Subject: Shooting Range

Hello Mr. Valoff, I support a shooting range in Kittitas County. My Nephew attends collage at Central Washington and a shooting range would provide a quality place for us to shoot together. Thank You, Corey Shearer

Dan Valoff

From: Gary [green58@kvalley.com]
Sent: Monday, January 09, 2012 3:10 PM
To: Dan Valoff
Subject: in favor

Hi Dan,

We are in favor of the proposed shooting range near Hayward Hill Rd for Kittitas County sportsmen.
Thank you, Gary & Connie Gilligan

Dan Valoff

From: Rori [rm7mm08@gmail.com]
Sent: Monday, January 09, 2012 1:57 PM
To: Dan Valoff
Subject: Cascade F and S Conditional Use Permit (CU-11-00003)

I support this project as the county could benefit from a safe public range for practicing, for clubs, and for hunters and instructors. Shooting sports are extremely safe and popular when there is a range designated for shooting and the shooters do not have to compete with wildlife viewers, hunter, hikers, etc on public lands. Public ranges are good for the local economy and promote guns and shooters in a good light to the general public. A range could have the benefit of bringing more tourist dollars into the community by hosting events. I for one would love to have a public range please support this permit.

Rori McCrackin
CWU art student and shooting enthusiast

Dan Valoff

From: Darren Allen [fishunfool@charter.net]
Sent: Tuesday, January 10, 2012 6:25 AM
To: Dan Valoff
Subject: Support For Shooting Range

I give my complete support to pass a conditional use permit for the Cascade Field and Stream club to develop a shooting range at their hayward Hill property.
Kittitas is in great need of a place to safely shoot firearms.

Dan Valoff

From: Bryan Nelson [bryan@belsmith.com]
Sent: Tuesday, January 10, 2012 6:00 PM
To: Dan Valoff
Subject: Cascade F and S Conditional Use Permit (CU-11-00003)

Dan,

I'm writing this email in support of the Cascade Field & Stream Club's proposed shooting range on Hayward Hill. I am not currently a member of the Club, but I appreciate what they are trying to do here. I am an avid outdoorsman and enough of an environmentalist that I can't stand to see public landscapes littered with shooting targets and the untrained kids who are usually the ones leaving the mess. Organized shooting areas such as this support a clean image for shooters and provides an environment for firearm safety. The County and local community should really support this type of pro-active approach to cleaning up lands and gun safety. I know the Club has spent several years seeking an appropriate area for the range, and I believe this to be a perfect location.

Thanks,
Bryan Nelson
1930 Umptanum Rd
Ellensburg, WA 98926

Dan Valoff

From: Brandon Drexler [brandon@belsmith.com]
Sent: Tuesday, January 10, 2012 11:27 AM
To: Dan Valoff
Subject: Cascade Field and Stream shooting range

Mr. Dan Valoff,

This email is in regards to supporting the Conditional Use Permit for the proposed shooting range on the Cascade Field and Stream Club property located on Hayward Hill Rd. This proposed shooting range would be a benefit to our community and help create other family outdoor recreation opportunities. Along with that, I believe a designated shooting range provides better safety for the public, potential less debris and garbage spread across the county, and helps consolidates lead contamination and liability to one location and entity. I am a supporter of this conditional use permit.

Thank you,

Brandon Drexler
160 Deloria Drive
Ellensburg WA 98926
509-929-1156

January 10, 2012

Kittitas County Community Development Services
411 N Ruby Street Suite 2
Ellensburg, WA 98926
Attention: Mr. Dan Valoff
Kittitas County Staff Planner

RE: Cascade Field & Stream Club Conditional Use Permit (CU-11-00003)

Dear Mr. Valoff

Hi my name is Sean Jeffries and I am a resident of Kittitas County. Also I am a member of the Cascade Field and Stream club for some time now.

I am in support of having a shooting range permitted in the proposed location off Hayward Rd. A shooting range is needed very much not only by the residents of this county but also by the recreationists who come to Kittitas County for the vast recreation opportunities. The people would benefit by this due to the safe and controlled shooting of firearms at a designated range. Otherwise people are forced to find a place on public land. The problems with everyone going to target practice or shoot on public land, your probably fully aware of but are worth mentioning. Litter and/or garbage are being left where people are shooting. It can be very difficult to find a place to safely shoot on public land where others are not endangered or bothered by the shooting. Having a shooting range helps keep this county safer and cleaner.

The proposed location of this shooting range is very fitting for the county. As you know the proposed location is on property surrounded on three sides by an industrial wind farm that has acknowledged the possibility of a shooting range on this property. The other side of the property there are no residents or dwellings in close vicinity. So the impact to private property of neighbors is very limited at this location. The property is also centrally located between Upper and Lower County allowing residents thru out the entire county a place to shoot safely.

Best regards,

Sean Jeffries
51 Stone Tree Ln
Ellensburg, WA 98926
509-607-4549

As both hunters and
out-door enthusiasts, we
fully support the Cascade
Field & Stream Conditional
use permit (CU-11-00003)
to establish a shooting
range on the Hayward Hill
property in Kittitas County.

We desperately need an
area where we can
safely have shooting act-
ivity - not randomly
around the county.

We are slowly being
pushed out of our favorite
pastimes.

Marcy Bogachus
Ed Bogachus



Jan. 11, 2012



Ed & Marcy Bogachus
2680 Nelson Siding Rd.
Cle Elum, WA 98922-9472



Dan Valoff

From: wade hamlin [wadehamlin@hotmail.com]
Sent: Wednesday, January 11, 2012 11:29 AM
To: Dan Valoff
Subject: Support for Hayward Hill shooting range

Dan
This is regarding the Cascade F and S Conditional Use Permit (CU-11-00003)
I'm a lifelong Kittitas County resident, sportsman and parent of up and coming young sportsman.
The problem I have is with available areas to take my family shooting that's safe, accessible and won't cause conflict with landowners.
There's a huge need for this kind of facility, I know there's alot of people in the valley who have the same issues as I.
Thank you
Wade Hamlin

Dan Valoff

From: Jeff Thorpe [jeff.thorpe@yahoo.com]
Sent: Thursday, January 12, 2012 11:27 AM
To: Dan Valoff
Subject: CU-11-00003

Dan,

I am in support of the Cascade Field and Stream Club Shooting Range. This range is essential for law enforcement and hunter safety training. It will be of great benefit to the community. CU-11-00003 should be approved.

Jeff Thorpe

Dan Valoff

From: David Kuhn [Rockin_k@charter.net]
Sent: Thursday, January 12, 2012 8:38 AM
To: Dan Valoff
Subject: Shoting range.

I have lived in Kittitas County for almost twenty years and have target practiced at various locations in the rural areas. I am not a member of the field and stream club. I do support the request for a shooting range closer to Ellensburg. One trip to the area of Durr road will show anyone that we need a shooting range very badly. That area is so littered with empty rifle, pistol, and shotgun casings and other litter that it's a real mess. I don't think all of this litter can be eliminated by establishing a shooting range but I believe it would be greatly reduced. I do think that a shooting range can be effectively used to teach young people firearm safety and also used in the hunter education program.

Respectfully submitted,

Kuhn

Dave

Dan Valoff

From: Brent Mallon [Brent.Mallon@anderson-hay.com]
Sent: Thursday, January 12, 2012 11:22 AM
To: Dan Valoff
Subject: Cascade Field and Stream shooting range

Hello Dan,

Since the closure of several official outdoor shooting ranges in Roslyn, Ellensburg, etc it has been increasingly difficult to find safe locations to take my kids shooting. I fully support the idea to establish a new location where safety and respect of firearms can be passed down to younger enthusiasts.

Best Regards,

BRENT MALLON

Dan Valoff

From: Robert Hemmingson [rhemmingson@fairpoint.net]
Sent: Friday, January 13, 2012 5:39 PM
To: Dan Valoff
Subject: Shooting Range

There are several members of the Hemmingson family who would very much enjoy a shooting range in Kittitas. We all believe that it will bring us together as a community, it could be a place to teach others of safety and the handling of a weapon. Friends and family all could participate in a social activity. Kittitas is away from the main town of Ellensburg; therefore we believe that the sound issue will not be as much of a problem as some might believe. I know, and my entire family knows an amazing amount of our community that would love to be a part of this club. Therefore, we support this shooting range. I hope you take our opinions into consideration. Thank you very much for your time.

The Hemmingson Family

**Robert Hemmingson
Jamie Hemmingson
Marvin & Fern Hemmingson
Micheal Hemmingson
Jonathon Hemmingson
Katie Hemmingson
Rod & Emily Hemmingson
Joshua Daivd Egts Hemmingson**

Dan Valoff

From: Dave Duncan [huntabig1@eburg.com]
Sent: Friday, January 13, 2012 12:57 PM
To: Dan Valoff
Subject: Cascade Field & Stream Conditional Use Permit

Dan Valoff I fully support Cascade Field and Stream receiving a Conditional Use Permit (CU-11-00003) for a shooting range on their Hayward Hill Rd. property. A formal shooting range is greatly needed in Kittitas County at this time and into the future as there are few safe places to shoot.

Thank You

Dave Duncan
4636 Weaver Rd.
Ellensburg, Wa

Dan Valoff

From: Kendra [kballen@fairpoint.net]
Sent: Friday, January 13, 2012 4:13 PM
To: Dan Valoff
Subject: Shooting range

Hi Dan, I am very much in support of a formal shooting range. Our family would like to have a safe, managed place to shoot.

Thank you for donating your property and time to this cause.

Kendra Allen

Kendra B. Allen
Producer
Cruse, McCune & Assoc. Inc.
(509) 925-1811
(509) 925-1113 fax

Dan Valoff

From: schweitz1@q.com
Sent: Friday, January 13, 2012 9:56 AM
To: Dan Valoff
Subject: Cascade Field and Streams Conditional Use Permit (cu-11-00003)

I, Rebecca Schweitzer, fully support Cascade F and Streams conditional use permit (cu-11-00003) so they can establish a shooting range on the Hayward Hill Road Property located in Kittitas County. I believe in shooting ranges for safety, controlled target shooting, litter, etc. Thank you for your consideration.

Rebecca Schweitzer, 340 Scott DR. Cle Elum, WA. 98922

Dan Valoff

From: Duane Fluent [gdfluent@inlandwireless.com]
Sent: Friday, January 13, 2012 9:02 AM
To: Dan Valoff
Subject: Cascade Field & Stream CUP (CU-11-00003)

To: Kittitas County Community Development Services
Attn. Dan Valoff

From: Duane Fluent
650 Goat Peak Ranch Road
Cle Elum, WA 98922
509-674-7621

This e-mail is to formally express my support for the Cascade Field & Stream Club's request for a CUP (CU-11-00003). Please keep me informed its progress, hearing notices, etc.

The people of Kittitas County have had a long and complex relationship with nature, natural resources and the "Outdoors" in general. For much of the county's history the people were economically dependent on minerals, coal, timber, agriculture, and the railroads. For recreation and often survival the people turned to the "Outdoors".

Today we have agriculture, some light manufacturing, a very good university and tourism to support our economy. Most residents still turn to nature and the outdoors for recreation and rejuvenation. Outdoor recreation has become a prime attraction and a major economic factor in Kittitas County.

Since 1934 the Cascade Field & Stream Club has provided a facility and education source for people to pursue the sports of hunting, fishing, shooting, archery and other related outdoor activities. The people need and want this service. The Club needs approval of this CUP to provide this service to the people of the county.

Thank you for your consideration of this proposal.

Dan Valoff

From: schweitz1@q.com
Sent: Friday, January 13, 2012 9:22 AM
To: Dan Valoff
Subject: Cascade Feild and Streams Conditional Use Permit (CU-11-00003)

I Joe schweitzer at 340 Scott DR. Cle Elum 98922. fully support Cascade F and Streams conditional use permit (cu-11-00003) so they can establish a shooting range on the Hayward Hill Road Property located in Kittitas County.

. I believe in shooting ranges for safty, controlled target shooting,etc. Joe Schweitzer

Dan Valoff

From: Russ Belsaas [belsmith@kvalley.com]
Sent: Friday, January 13, 2012 8:42 AM
To: Dan Valoff
Subject: shooting range

Dan, I am 4th generation here in the Kittitas valley and an avid hunter, fisherman and outdoorsman. I support the proposal by the Field and Stream Club for the Hayward Hill shooting range. It is becoming more and more difficult find a place near Ellensburg to target shoot or just sight in a new firearm without feeling you are trespassing or breaking some law. Thank You, Russ E. Belsaas

February 17, 2013

Nicholas C. Henderson

PO Box 757

South Cle Elum, WA 98943

To Whom It May Concern:

I am writing this letter in favor of the permits being granted to Cascade Field and Stream Club to be able to provide a range for shooting and other outdoor activity. This would be a safe and secure place for recreational shooting of all kinds, youth and adult training of operation of firearms and a place that our police personnel from all over the state could train. The permitting of the range would also help with the economy of the county with the people using the range staying in our hotels and motels and eating in our restaurants. I urge you to please grant the permit.

Sincerely,

A handwritten signature in cursive script that reads "Nicholas C. Henderson". The ink is dark and the signature is fluid and legible.

Nicholas C. Henderson

EXHIBIT 15



KITTTITAS COUNTY COMMUNITY DEVELOPMENT SERVICES

411 N. Ruby St., Suite 2, Ellensburg, WA 98926

CDS@CO.KITTTITAS.WA.US

Office (509) 962-7506

Fax (509) 962-7682

"Building Partnerships – Building Communities"

NOTICE OF DECISION SEPA ACTION AND PUBLIC HEARING

RECEIVED

FEB 11 2013

To: Interested County Departments & Agencies with jurisdiction
Adjacent Property Owners
Applicant

From: Robert "Doc" Hansen, Planning Official

Date: February 8, 2013

Subject: Cascade Field & Stream Conditional Use Permit (CU-11-00003)

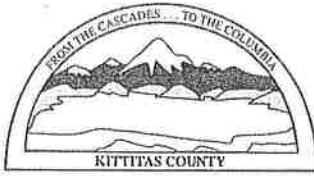
**LATHROP, WINGAUER, HARREL,
SLOTHOWER & DENISON L.L.P.**

Please find the attached Mitigated Determination of Nonsignificance (MDNS) for the above referenced project. A Notice of Application for the submitted application was mailed on December 16, 2011.

NOTICE IS HERBY given that pursuant to 43.21(C) RCW, Kittitas County Community Development Services did on February 8, 2013 make a Mitigated Determination of Non-Significance (MDNS) for the Cascade Field & Stream Conditional Use Permit. The proposal is a request for a Conditional Use Permit for the placement of a shooting range in the Agriculture 20 zone. The project is located approximately 1.33 miles south from its junction with Bettas Road, Cle Elum, WA, located in a portion of the East ½ of Section 21, T19N, R17E, W.M. in Kittitas County. Assessor's map number: 19-17-21000-0001. The complete application file may be viewed at Kittitas County Community Development Services, 411 N. Ruby St. Suite 2, Ellensburg, WA 98926. Staff Planner: Lindsey Ozbolt.

Any action to set aside, enjoin, review, or otherwise challenge such administrative SEPA action on the grounds of noncompliance with the provisions of chapter 43.21RCW shall be commenced on or before February 22nd, 2013 at 5:00 p.m. to the Kittitas County Board of Commissioners, Rm. 108, County Courthouse, Ellensburg, WA 98926. Appeals of SEPA threshold determinations shall be consolidated with appeals of final permit approval, according to 15A.04.020, Chapter 43.21C RCW and Chapter 15.04 KCC (such as a decision to require particular mitigation measures or to deny a proposal). A single simultaneous hearing before one hearing body will consider the agency decision on a proposal and any environmental determinations made, with the exception of the appeal, if any, of a threshold determination of significance.

NOTICE IS HEREBY given that a hearing on said application before the Kittitas County Hearing Examiner has been scheduled for **February 28th, 2013** at 6:00 p.m. in the Kittitas County Courthouse Auditorium, Ellensburg, WA. 98926. Anyone with an interest in this matter is urged to attend said hearing where testimony will be taken. Written comments will be received and documents may be viewed at the above address prior to the hearing. Interested persons are encouraged to verify prior to attending.



KITTITAS COUNTY COMMUNITY DEVELOPMENT SERVICES

411 N. Ruby St., Suite 2, Ellensburg, WA 98926

CDS@CO.KITTITAS.WA.US

Office (509) 962-7506

Fax (509) 962-7682

State Environmental Policy Act MITIGATED DETERMINATION OF NONSIGNIFICANCE

- Description:** Cascade Field and Stream Conditional Use Permit (CU-11-00003) is a request for a Conditional Use Permit for the placement of a shooting range in the Agriculture 20 zone.
- Proponent:** Chris Cruse, authorized agent for Cascade Field and Stream, property owner.
- Location:** The project is located on Hayward Road, approximately 1.33 miles south from its junction with Bettas Road, Cle Elum, WA, located in a portion of the East ½ of Section 21, T19N, R17E, W.M. in Kittitas County. Map number: 19-17-21000-0001.
- Lead Agency:** Kittitas County Community Development Services

The lead agency for this proposal has determined that the proposal will not have a probable significant adverse impact on the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030 (2) (c) and WAC 197-11. This decision was made after review of a SEPA environmental checklist and other information on file with the lead agency, after considering voluntary mitigation measures which the lead agency or the applicant will implement as part of the proposal, and after considering mitigation measures required by existing laws and regulations that will be implemented by the applicant as part of the Kittitas County permit process. The responsible official finds this information reasonably sufficient to evaluate the environmental impact of this proposal. This information is available to the public on request.

The lead agency has determined that certain mitigation measures are necessary in order to issue a Mitigated Determination of Non-Significance (MDNS) for this proposal. Failure to comply with the mitigation measures identified hereafter will result in the issuance of a Determination of Significance (DS) for this project. The mitigation measures include the following:

Transportation

1. The site is accessed from Hayward Road which is a primitive road and receives minimal maintenance. Improvements to Hayward Road will not be required because the Average Daily Traffic is expected to remain below 100. If future traffic to the club raises the ADT above 100, mitigation to offset the impacts of the increased traffic may be required.
2. Access to Hayward Road shall be from Bettas Road. The club shall implement procedures to prevent users from accessing Hayward Road from SR 10.

Noise

- 10. Development and construction practices during building of this project shall only occur between the hours of 7:00 am to 7:00 pm to minimize the effect of construction noise on nearby residential properties
- 11. Berms and other noise deflecting construction, as described in the Noise Study prepared by Acoustical Engineer dated 10-15-12, shall be implemented to deflect the noise from surrounding residences.

The above stated mitigation conditions listed above will be provided within conditions of the decision of the conditional use permit approval.

**Responsible
Official:**


Robert "Doc" Hansen

Title:

Planning Official

Address:

Kittitas County Community Development Services
411 N. Ruby Street, Suite 2
Ellensburg, WA. 98926
Phone: (509) 962-7506 Fax: (509) 962-7682

Date:

February 8, 2013

This Mitigated DNS is issued under WAC 197-11-355 and WAC 197-11-390; the lead agency will not act on this proposal for 10 working days. Any action to set aside, enjoin, review, or otherwise challenge this administrative SEPA action's procedural compliance with the provisions of Chapter 197-11 WAC shall be commenced on or before 5:00 pm, February 22, 2013.

Pursuant to Chapter 15A.04.020 KCC, this MDNS may be appealed by submitting specific factual objections in writing with a fee of \$500.00 to the Kittitas County Board of Commissioners, Kittitas County Courthouse Room 110, Ellensburg, WA 98926. Timely appeals must be received within 10 working days, or no later than 5:00 PM, February 22, 2013. Aggrieved parties are encouraged to contact the Board at (509) 962-7508 for more information on appeal process.

EXHIBIT 16

10/15/2012

Jeff Slothower, Attorney
LWHSO, LLP
201 W 7th Ave
Ellensburg, WA 98926

RE: Cascade Field and Stream Club

Cascade Field and Stream Club ("CFSC") has requested a conditional use permit ("CUP") (the "2011 Application") to allow the club to operate a shooting range open to members and invited non members on their property on Hayward Road in unincorporated Kittitas County. Accompanying the application was a SEPA (State Environmental Policy Act) Checklist, which acknowledged the potential for noise impact and included a noise study prepared by Dr Piacsek (2003).

Documents which oppose the creation of a shooting range on the site were submitted in response to this application, in which various acoustic issues were raised. *A list of documents used in this report are found in Appendix 1.* This report addresses and resolves objections raised with respect to the environmental noise impact from the proposed shooting range. By adding basic noise mitigation measures to the property, noise impact on surrounding residential property can be reduced to meet or fall below environmental noise acceptability standards. The Executive Summary below is supported by a series of engineering Sections found in the *Appendix*.

A) Executive Summary

The applicant included in their submittal a noise report done by Dr. Andrew Piacsek to satisfy the requirement that noise impact be included in the SEPA Checklist for this proposed change in land use to allow CFSC to locate a shooting range on their property. Objections based on noise were raised in the form of comments submitted in response to the land use application. Each of these comments is acknowledged and responded to below:

- 1) Response to comments and inclusion of suggested additional work needed before any evaluation of any proposed fit between the proposed shooting range and the livability aspects of the surrounding homes.
- 2) The definition of livability in the vicinity of a shooting range is given, followed by measurements and calculations which define the extent of site modification needed to fit the proposed shooting range to the livability standard.
- 3) Mitigations are discussed which describe the site modifications needed to fit the shooting range into the ambience of the neighboring community during the most quiet times of the day, which is when there is no wind noise nor is there the operational wind turbine noise.

B) Overview of Concerns Raised about Shooting Range Noise

Comments have been submitted which question noise aspects of the CFSC shooting range. Those from attorneys James Carmody, Travis Misfeldt, Roger Leed, acoustic engineer Jerry Lilly and David Holmquist represent the basic issues, which are listed below and accounted for in the following section.

1) Attorney James Carmody: The Jan 13, 2012 letter refers to Mr Lilly's report, comments on the number of gunshots used for testing, Peak detection, Class of receiver property, proposed violation of 80 dB,A measurement and that a comprehensive noise study be done.

2) Attorney Travis Misfeldt: The Dec 16, 2003¹ letter does not mention Mr. Lilly's report. It is an independent response to the application. It does ask for a more complete, EIS type noise impact analysis, specifically that the then existing environmental conditions be quantified and then the impact to this conditions be quantified.

3) Attorney Roger Leed: The Dec 16, 2003² letter is also a response to the earlier 2003 Application. He comments on the Piacsek report, questioning his qualifications to produce a noise study. He presents a noise study done by VGO, an acoustic engineering group in Oregon, for another shooting range in Washington which recommends noise limits for shooting ranges. Mr. Leed also asks that the applicant submit a noise study, done by a qualified acoustic engineer, which includes an inventory of all firearms that will be used on the range and their impact on the ambience of the surrounding environment.

4) Acoustic Engineer Jerry Lilly: submitted comments in a report dated Dec 13, 2003³ in which he reviewed acoustic aspects of the application. He did not visit or make tests at the site or immediate neighborhood. His report is basically a review of the Piacsek report, plus a review of a number of concepts or topics on psychoacoustics (the science covering how humans perceive and interpret the sounds they hear). He states that the Washington state noise regulations WAC 173-60-050 are based on EDNA (Environmental Designation for Noise Abatement) criteria which limits the maximum noise exposure allowed to impact neighboring property based on the use of the property, which in this case is Class C for industrial property. Mr. Lilly states that lacking any other directive (in the Washington state noise code) the absolute maximum (dB,Peak) noise level produced by gunfire should be used to establish environmental acceptability. He also suggests that a comprehensive ambient (background noise level) noise study be done.

5) David Holmquist: Suggests that the applicant did not supply evidence that the proposed use will not be detrimental to existing uses in the surrounding neighborhood, that a qualified acoustic engineer conduct a noise study, questions mitigation value due to limiting time of day for shooting and cites the VGO noise study to justify the implementation of a one mile buffer between homes and the shooting range.

This report provides a noise impact study and relied, in part, on an ambient noise study taken on 2005, a survey of gunfire from the shooting range at various distances and directions and a noise impact

¹ This letter was a comment to an application submitted by CFSC in 2003. That application was not processed. The application is referred to as the "2003 Application."

² Id.

³ Id.

assessment. In addition, other issues raised in comments which responded to the application are addressed.

C) Responses to Comments

Numerous topics with respect to noise were brought up in the comments both in favor and against locating the shooting range as proposed. Each has been recognized and responded to in the following section.

1) Background Ambient Noise Study

Several documents were submitted in opposition of the shooting range, including letters from attorneys James Carmody, Travis Misfeldt, Roger Leed and acoustic engineer Jerry Lilly. One comment in common was that they asked for a background noise study.

Acoustic engineer Arthur Noxon, PE of Oregon completed an extensive background noise study throughout the neighborhood of the proposed shooting range as presented in his report dated 10/24/2005.

The 2005 background noise study took place before any wind turbines were in the area. It is included in *Appendix 2*. Background noise levels in the area around the proposed shooting range registered between 40 and 45 dB(A) during quiet morning and evening hours of the day, with no wind.

2) Qualifications of Dr. Piacsek

Questions were raised by Attorney Leed as to the qualifications of Dr. Piacsek to do the noise study used in the application. His resume was not attached to his initial noise study. It is available on line and a copy of it is contained in *Appendix 3*. He has both a Master's and PhD degrees in Acoustics. He teaches physics, does acoustic research and publishes papers on his studies. He was well qualified and equipped to measure the noise impacts of gunfire.

3) Measurement Units in Dr. Piacsek Noise Report

Concerns have been raised by acoustic engineer Jerry Lilly about the units of measurement used Dr. Piacsek. A review of his report is contained in *Appendix 4*. He measured the noise of gunfire using dB (A,Peak) and added a few measurements using the Impulse setting, dB (A, Impulse). Acoustic Engineer Jerry Lilly reviewed his report and suggested that the readings should have been made in dB (Peak) instead of dB(A, Peak). The difference between these two measurements is about 1 dB, which is negligible from any practical point of view. Unfortunately, when a non-acoustic trained person reads the Lilly report it can appear to say that Dr. Piacsek simply took the wrong measurements, when in reality he took essentially the same measurement. See the Review of Dr. Piacsek's Noise Study in *Appendix 4*.

A second issue occurs here. Measuring the dB (Peak) values of gunfire is an OSHA type of noise measurement, used when risk of hearing damage is being assessed. In this situation, environmental noise is being assessed and the standard unit of measurement is dB(A,Fast). Fortunately there are mathematical relationships between all these forms of measurement. The result from one form of measurement can be easily converted to any other, hence there is no problem with the type of measurement made by Dr Piacsek. *Appendix 5* contains an explanation with calculations that explains more about this conversion process.

4) Single vs Multiple Gunshots

Concerns were raised that not enough gunshots were used. Each gunshot was recorded. There was only one shot per data point. It is my experience that the variation between multiple identical gunshots at a fixed distance is about 3 dB. The purpose for the noise study was to develop a general idea about the noise from gunfire as it is heard at neighboring properties.

His measurements coincide with typical gunfire noise measurements at a distance. During my background noise study at the shooting range I also measured the noise from rifle fire at distances from the firing point at the range and my data is consistent with that obtained by Dr. Piacsek. See *Appendix 5*.

5) Noise Level of 80 dB at Neighboring Home

Noise levels measured by Dr. Piacsek near the closest homes to the north and south of the range registered in the range of 80 dB(A,Peak). Comments point out these two measurements and propose that this noise level is too loud. The standard for measuring hearing risk is dB (A, Peak). The standard for measuring environmental noise is dB(A,Fast), including the impulsive sounds from shooting ranges. These are different types of noise readings and cannot be confused or misused.

The dB(A,Peak) reading can be mathematically converted to a dB(A,Fast) reading by subtracting 30 dB. To the uninitiated the 80 dB(A,Peak) measurement seems to be an alarming noise level for a home. However, that same sonic event when measured by an environmental sound meter will actually register the event to be in the range of 50 dB(A,Fast) which is in the range of acceptability for community noise exposure to that from a shooting range. See *Appendix 6C*.

6) WAC Noise Code Applicability

Baul Bennet, PE states that WAC noise code applies to existing, not new shooting ranges. A careful reading of the language of the code does not reveal any opportunity for differentiation by the noise code as it applies to the exemption of gunfire noise emitted from existing or new shooting ranges. WAC 173-60-050 (1, b) is the shooting range exemption clause for the Washington state noise code. It states that sounds created by the discharge of firearms on authorized shooting ranges shall be exempt from WAC 173-60-040 between the hours of 7 am to 10 pm. See *Appendix*

7) Audible Gunfire Miles Away

Comments include the observation that the noise of gunfire on the proposed shooting range site is plainly audible for miles. There is a difference between being able to hear a shooting range miles away and living next to a shooting range. At a distance of over a mile, atmospheric effects which include being downwind and overhead thermal inversion layers do act to turn sound back towards the ground which otherwise would have escaped into the sky.

The ability to hear a distant gun range also depends on the local background noise levels. This type of noise exposure may be audible but it has been dulled out by the atmospheric absorption of higher frequencies of the sound, replacing the uncomfortable sounding crack of a nearby shot with the dull, non-threatening thud of a distant shot. The livability standard is not compromised just because someone can hear the distant thud of gunfire at a shooting range.

8) VGO Noise Study

Comments include a 1997 noise study on a shooting range in Washington by VGO. The report cites that they measured a loud rifle in the 100 to 116 dB(A,Peak) range (dB(A,Peak)). The photo of their test shows they were behind the shooting range, not to the side. See *Appendix 6* for a discussion of the VGO report. Directional diagrams are commonly available for pistols and rifles. They show how loud the gun is in different directions. These diagrams regularly demonstrate that the noise from gunfire when measured behind the gun is 10 to 15 dB lower than when measured to the side of the gun. It is also 10 dB louder when measured along the line of fire compared to when measured to the side. This means they would have measured around $116 + 15 = 130$ dB(A,Peak) at 50' to the side of their unspecified rifle or 125 dB(A,Peak) at 100' to the side which is close to the Piacsek report which documented 130 dB(A,Peak) at 100' to the side.

VGO report suggests the upper limit of 57 dB,A should be used for gun noise exposure at the nearest outdoor use area, which is achieved if the shooting range is out in the open and located 1 mile away. This recommendation can be calculated based on the expansion of sound from 50' to one mile plus the typical atmospheric attenuation effects of 2 to 3 dB/1000 feet. The next sentence of the VGO report states that "Any hilly terrain between the shooting range and any proposed use area would increase the sound loss and reduce the distance of separation required."

The presently proposed shooting range has homes on the order of one mile distant in any direction. Homes to the east and west are located over hilly terrain. Homes to the north and south are located along the slightly sloping, fairly flat ridge top. Based on measurements and calculations, see *Appendix 7*, the VGO report appears to confirm that the proposed shooting range location is appropriate.

9) Property Classification

The WAC noise code is a property line noise code and provides for different noise limits depending on the type of property the noise comes from and again, the type it impacts. The comments against the proposed shooting range location are based on the concept that a home located on a huge piece of land means the entire piece of land is classified as residential, regardless what the land is being used or not used for. See *Appendix 8*.

The proposed shooting range site is bounded by property lines. A neighboring property owner claims that all of their property is residential because there is a home located on it. On the surface, this might seem to be a reasonable claim but in fact the claim is unreasonable because the home is located over one mile away from the property line, across barren undeveloped land. Another comment brings up the issue of possible future residential developments on property located next to the shooting range, where the developed land is next to the shooting range. In land use decisions, it is the issue of currently existing, not potential future developments that must be considered.

10) Proper Units of Measurement for Noise similar to a Shooting Range

Noise from gunfire off shooting ranges is exempt from noise regulations. However, it is of interest to evaluate how much noise comes off a shooting range when determining the livability aspect of locating a shooting range near existing homes. Acoustic Engineer Jerry Lilly commented in his review of Dr. Piacsek's noise study for Attorney Leed that the WAC noise code does not specifically define what units the noise off a shooting range or other similar sounding noise source should be measured in. He

recommends that lacking guidance, the most conservative test be used in the interest of public welfare, which is the Unweighted, Peak type of noise reading. Detailed study of the noise code however reveals that it does specify the type of test to be done.

The WAC noise code defines an impulse noise, an impulse sound level meter and differentiates it from a sound level meter. The code does not specify when an impulse sound level meter should be used. However, the code does specify what type of sound meter is to be used for enforcement of the noise code: It is a Type 1 or 2 sound level meter, that complies with ANSI S1.4.1971 performance standards, and set to the A weighting. The noise code defines the not-to-exceed levels during any given hour, with overage allowances for short duration noise. Of particular interest here is that the regular noise code can be exceeded by 15 dB for an aggregate of 90 seconds in any given hour as measured by the above defined meter. The ANSI compliant meter has two measuring speeds Fast and Slow. Fast is always used for environmental noise readings.

The WAC noise code in effect states that an impulse noise is measured by a sound meter set to dB(A,Fast). A sound meter set to dB(A,Fast) will measure a short lived noise, like gunfire, at a level that is 30 dB below the dB(A,Peak) level. Dr. Piacsek measures gunfire noise at 80 dB(A,Peak) near a home to the south and another to the north, both about one mile away. This corresponds to the WAC defined sound meter registering 50 dB(A,Fast) for the same event, at the same time. This reading is well below even the most protective noise limit of 55 dB(A,Fast) for daytime noise.

11) Property Line Noise Level

The WAC noise code is also based on noise crossing between two types of property. Comments promote the idea that a large piece of undeveloped land is residential Class A because a house is located on the land, even though it may be one mile or more from the property line in question.

The shooting range may fall under the Commercial (recreational) land use Class B. Comments suggest that it is an Industrial (hearing protection) land use Class C. The conservative case would be Industrial next to Residential and the property line limit is 60 dB(A,Fast). There is an allowance for short periods of noise during the hour where the noise exceeds the limit. Noise can exceed the limit by 15 dB(A,Fast) for an aggregate of not more than 90 seconds during any given hour.

A gunshot measured by a dB(A,Fast) sound meter requires 1/8th second to take the reading. There can be an aggregate of 90 seconds of noise that exceeds the standard noise limit by 15 dB(A,Fast). This can be created by 90 x 8 or 720 gunshots during any given hour, or on average, one gunshot every 5 seconds.

If the limit is 60 dB(A,Fast), and 15 dB(A,Fast) is added, then we have each shot at the property line limited to 75 dB(A,Fast) which is equivalent to $75 + 30 =$ each shot not exceeding 105 dB(A,Peak) at the shooting range property line. The property line is typically about 500 to 600' from gunfire locations. Noise measurements include 130 dB(A,Peak) @ 100'. At 500' the noise will be lowered by $20 \text{ Log } (500/100) = 14 \text{ dB}$, which is $130 - 14 = 116 \text{ dB(A,Peak)}$, only 10 to 12 dB louder than state noise code for equivalent noise.

In general, 10 to 12 dB mitigation is needed to limit noise to comply with State noise code at its property line, which is a mile from the nearest home, for a shooting range that is exempt from the state noise code.

D) Livability Fit for Shooting range

The noise from gunfire on approved shooting ranges during the daytime is exempt from noise regulation. However, there is the issue of livability with respect to homes in the neighborhood of the shooting range. Usually people think about how loud something is. But what they are actually talking about is how loud it is compared to the background noise level. The noise of an air conditioner may be unnoticed on property located near a freeway but deemed to be loud if it is located in the quiet of a rural residential setting. So, it is with shooting ranges.

1) Gunfire and Background Noise Levels

The livability at home which neighbors a shooting range depends on how loud the noise from the shooting range is compared to the background ambient levels. Dr. Piacsek measured both how loud gunfire at the range is and what the background noise levels were in various directions and distances around the proposed shooting range site.

In addition I made a set of measurements, again on how loud gunfire is at various distances from the range and of the ambient noise levels at residential locations around the shooting range. Noise fills the air of the area surrounding the proposed shooting range due to high flying and low flying airplanes overhead and traffic on the various roads that run through the area. The train also is noisy but intermittent and excluded from ambient noise tests.

Ambient noise tests were done when the wind was still or at a very low speed, years before the population of wind turbines were added to the area. When the wind blows, the ambience raises due to wind noise and wind turbine noise. When the wind is still, as in early mornings and evenings, the ambience returns to the baseline quiet, which is what has been measured. The result of the tests are that the background noise during the quiet times of the day average 40 dB,A while ranging between 35 and 45 dB,A. Refer to *Appendix 1*.

2) Livability Standard

Noise regulations place upper limits on intruding noise. Some are based on absolute noise level and others are based on relative noise level. So it is for livability standards and shooting ranges. The VGO engineering report cited in a number of comments suggested that the noise from shooting ranges should not exceed 57 dB,A. This suggestion is an absolute noise limit.

Tests have been done which show that the impulse noise, specifically from dog barking and gunfire are livable if the intruding noise near the home is less than 5 dB (A,Fast) above the background noise level around the home. The units of (A,Fast) means the spectrum of the intruding noise has been (A) adjusted to correspond to the efficiencies of human hearing and the event averaging time is set to 1/10th second (Fast). This means the intruding noise levels from the shooting range should be no louder than 45 dB (A,Fast) for the quietest locations and 50 dB(A,Fast) for the noisier locations around the range.

3) Mapping the Livability Standard

Dr. Piacsek report combined with my own noise studies provides sufficient information with which to predict how loud gunfire at the range will be near the neighboring homes compared to the quiet times of the day. The noise of gunfire to the east and west is heavily attenuated by the rough terrain and the

background noise is raised in these directions because the roads nearby run in the north south direction. There is no livability risk to the east or west of the proposed range site. See *Appendix 8*.

However, the closest homes to the north and south, although over one mile away, are at risk with respect to meeting the livability standard. The terrain is slightly sloping, smooth and flat. To achieve the livability standard to the north and south, a reduction of shooting range noise by 12 dB is needed.

4) Mitigation to Achieve Livability

The noise off the shooting range is 12 dB over the livability standard for closest homes to the range along the ridge. Background noise levels are 40 dB,A and the livability standard would be for gunfire noise to not exceed +5 dB or 45 B,A. Based on measurements and calculations, the noise of gunfire registers 57 dB(A,Fast). Although it meets the VGO recommendation, because of the level of quiet in this area, the current recommendation is to reduce the noise levels from 57 to 45 dB,A, a noise reduction of 12 dB,A.

Shooting range mitigation for noise frequently appears as a sound berm. Other sound attenuation measures can be taken near the source of the gunfire noise, in addition. Berms can provide up to 25 dB,A attenuation. Here we need the attenuation of 12 dB,A for gunfire.

5) Mitigation Specified

All firing points in a shooting range at fixed locations and the direction the gun is aimed is limited. Because the location of the gunfire noise is known and controllable, the sound path between the noise source and receiver is also known. Mitigation can be predictably applied to this type of situation.

The basic mitigation used in shooting range projects are berms. How high a berm has to be primarily depends on how close it is to the shooter. To achieve 12 dB attenuation of gunfire, a berm that is 150' away from the point of gunfire has to be about 15' high, see table below.

| | | | | | |
|----------|------|------|-----|-----|-----|
| Distance | 300' | 150' | 80' | 40' | 20' |
| Height | 20' | 15' | 12' | 10' | 8' |

Other forms of mitigation can also be used. A sound absorbing wall can be used. The problem with most sound absorbing surfaces is that they are not strongly held together and they decompose under the shock wave pressures of nearby gunfire. However, if the surface is located about 10' away from the blast of gunfire, the pressures are low enough that the material can withstand the loads without decomposing.

Another form of mitigation is to reflect the noise away from the undesired direction. These reflecting walls need no sound absorption on their surface and can be located closer to the source of the noise. The noise could be reflected to the east or west because sound attenuation is so strong in these directions. The wall needs to have an STC 25 or better rating, which would be a metal stud wall covered with Hardy board to the outside, plywood to the inside and building insulation within the stud cavity.

Mitigation is also accomplished by locating firing points over sound absorbing areas, typically dug out ditches filled with gravel, drained at the bottom for water control. Typically 3' wide and 2' deep is sufficient to remove 4 to 6 dB of noise from gunfire.

Usually mitigation is accomplished by means of a combination of efforts. Often preliminary efforts produce valuable results but not enough. Secondary mitigation measures are developed and implemented. A third round of work can also produce useful results. Noise control in shooting ranges can be an ongoing evolution because how the range is setup is to some degree itself an ongoing evolution.

E) Conclusions

For the most part the shooting range is well fit to its proposed location, from a noise control perspective. The range does need to be physically developed in coordination with the range staff and an acoustic engineer so that cost saving opportunities can be implemented before the work begins. The requirement for a 12 dB attenuation of noise from the range in either a north or south direction is achievable by using any number of noise control methods.

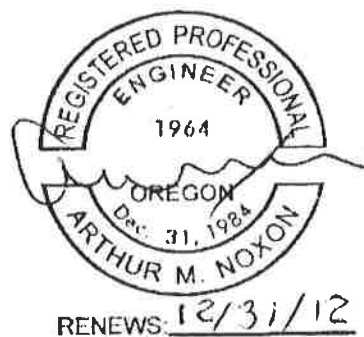
As a suggestion, if a berm system is to be used, it should run along the northern property line and down Hayward Rd for the upper 25% of the property, stopping at the entrance. On the other side of the entrance, the berm would start at Hayward Road and run along the SW side of the 4 wheel drive road that runs diagonally through the property. The long rifle range firing point does need to be wrapped by a berm to block the expansion of noise to the south. The material in the NE corner of the property could be used as a berm resource.

Frequently, ranges are built out of a number of shooting galleries that are separated by and outlined with berms. This type of construction reduced visibility across the range site but increases mechanical separation between adjacent shooting areas. Regardless of how the range is planned, each step in the evolution of the range should be with the signed approval of an acoustical engineer, including follow up tests at the nearby properties to the north and south.

Respectfully Submitted



**Arthur Noxon, PE
State Licensed Acoustical Engineer**



APPENDIX - Cascade Field and Stream Acoustic Report May 2012

Section 1) List of Documents Reviewed for this Report

Section 2) Ambient Noise Readings

Section 3) Resume of Dr. Andrew Piacsek

Section 4) Review of Dr. Piacsek Noise Study

Section 5) Sound Level Conversion Process

Section 6) Evaluation of Acoustic Engineer Jerry Lilly's Report

Section 7) Evaluation of the VGO Report and Atty Leed's Interpretation

Section 8) Environmental Impact Study – Noise from Gun Fire

Section 9) Review and Discussion of Local and State Noise Codes

Section 10) Definition of Acceptable Gunfire-like Noise Levels

Section 11) Property Line Noise Measurements

Section 12) Subjective Criteria for Outdoor Noise from Gun Ranges

Section 13) Neighborhood Exposure Levels and Mitigation Levels

Appendix - Section 1: List of Documents Reviewed for this Report

Preliminary Noise Measurements... dated Nov 1, 2003 by Andrew Piacsek, PhD of Central Wash Univ
Report to Roger Leed dated Dec 13, 2003 by Jerry Lilly, PE of JGL Acoustics Inc, Issaquah, WA
Firing Range Noise Study dated June 30, 1997 by VGO Engineers, Lake Oswego, OR
Exhibit 25, Appl. No. 2003-01, State of Washington by Mark Bastasch of CH2M Hill, Corvallis OR
Comment Letter dated Jan 13, 2012 by James C Carmody of Velikanje Halverson PC, Yakima, WA
Washington State Noise Codes, WAC 173-58-xxx and WAC 173-60-xxx
Comment Letter dated Dec 16, 2003 by Travis W Misfeldt of Velikanie, Moore & Shore, Yakima, WA
Comment Letter dated Dec 16, 2003 by Roger Leed, PS of Seattle, WA
Comment letters dated Jan 13 and 16, 2012 by David Holmquist
Numerous comment letters dated Jan xx, 2012 by neighbors and concerned parties
EllensBurg Trap and Skeet Noise Study dated June 12, 2003 by W. Kaminski, PhD, Cent Wash Univ
Presentation slides, Exhibit 9 dated Aug 27, 2003 by Jerry Lilly PE of JGL Acoustics Inc, Issaquah, WA
Kittitas County Noise Code, Title 9 Public Peace, Safety and Morals, Chapter 9.45 Noise.
Proposed Gun Range in Bret Pit, Grand Coulee Dam dated 7/15/2003 by Art Noxon, PE, Eugene, OR
Environmental Impulse Noise Study, May 1991 by R. Niedzielski for Minn Pollution Control Agency,

Appendix - Section 2: Ambient Noise Readings around gun range in 2005 (prior to wind turbines)

A total of 24 noise readings were taken of the rural environment that surrounds the shooting range location on Wed evening and Thurs morning, Oct 19 and 20, 2005. Each data run lasted at least 5 minutes. Transient, extra loud noise due to overhead airplanes, trains or vehicles passing by were excluded from the ambience measurements. No wildlife noise was noted besides one groundhog and a few birds passing overhead.

The readings measured were Leq, L1, L10, L50 and L90. Leq is essentially the time averaged noise level. L90 identifies the noise level that equaled or was exceeded 90% of the time during the time period of each 5 minute test. In most cases the Leq and L90 are within a few dB of each other which illustrates how steady the quiet is in this area.

The noise is measured in terms of dB(A,Fast). People hear bass range sounds (below middle C) with less efficiency than treble range sounds, and so the “A weighting” is used to simulate human hearing. Sound levels generally range between 10 and 110 dB(A). Examples include whispering at 35 dB(A), conversation at 60 dB(A), face to face yelling at 90 dB(A).

The noise study covered the accessible parts of an elliptical area that is 4 miles in the N/S direction by 2.5 miles in the E/W direction, centered on the shooting range. Noise readings were taken along a north-south line made accessible by the north end of Thorp Rd near Hwy 10, Hayward Road, between Hwy 10 and Bettas Road and along Bettas Road, between Horse Canyon and Hwy 97. A few east-west readings were also taken. One along Horse Canyon Rd, at Puckerbush Ranch, near Hwy 97 and another was taken off Hwy 10, up a gravel road, near where it crosses Swauk Creek, about ¼ mile WNW of the end of the Kittitas Reclamation District (“KRD”) North Branch Canal.

| Thrs evening, Oct 20, 2005, | Time | Duration | Leq | L90 | Notes |
|-------------------------------------|-------------|-----------------|------------|------------|--------------|
| Entrance to Gun Range | 5:10 | 5m3s | 43.8 | 38.7 | Hwy 84 |
| Hayward Rd cross Canal | 5:30 | 5m9s | 40.3 | 37.7 | |
| 1616 N Thorp, Rosehill Farm | 5:45 | 1m59s | 51.6 | 43.8 | Airplane |
| 1616 N Thorp, Rosehill Farm | 6:05 | 5m19s | 45.0 | 39.4 | Hwy 10 |
| Hayward Rd cross Canal | 6:20 | 5m19s | 43.7 | 39.6 | |
| Entrance to Gun Range | 6:35 | 5m22s | 49.2 | 41.1 | |
| Hayward, 4wd gate, 1500' N of PL | 6:40 | 4m32s | 39.4 | 37.1 | dist plane |
| + 1000' Bettas, Aspen Ranch ent. | 6:50 | 5m6s | 39.7 | 36.4 | |
| -1500' S of Quarry on Bettas, house | 7:00 | 5m11s | 38.6 | 36.8 | |
| 1 mile S of 97 on Bettas | 7:15 | 5m8s | 43.5 | 37.9 | Hwy 97 |

| Fri Morning, Oct 21, 2005. | Time | Duration | Leq | L90 | Notes |
|-----------------------------------------|-------------|-----------------|------------|------------|--------------|
| 500' S of Hwy 97 on Bettas | 6:55 | 5m8s | 53.9 | 38.1 | Hwy 97 |
| 1 mi S of Hwy 97 on Bettas | 7:15 | 5m11s | 41.2 | 37.2 | Hwy 97 |
| 3111 Bettas | 7:30 | 5m8s | 39.4 | 38.1 | |
| Aspin Ranch road and Bettas | 7:45 | 5m18s | 42.5 | 36.8 | 2 high jets |
| Hayward, between PL and Bettas, at gate | 7:55 | 5m20s | 41.5 | 38.6 | |
| At Gun Range Entrance | 8:05 | 5m15s | 39.7 | 38.8 | Hwy 10 |
| Hayward at canal | 8:15 | 5m26s | 40.5 | 38.8 | Hwy 10 |
| 700' off Hayward towards Overlook | 8:30 | 2m42s | 61.4 | 55.3 | Train, +69.3 |
| In middle of Overlook, 4 pipers, 3 jets | 8:35 | 5m4s | 44.1 | 41.2 | Plane noise |
| 1616 N Thorp, Rosehill Farm | 8:55 | 5m6s | 44.7 | 41.1 | |
| 3000' off Hayward, along canal at Swauk | 9:15 | 5m16s | 38.4 | 36.8 | |
| Off Hayward, at Overlook | 9:45 | 5m22s | 45.3 | 41.1 | Hwy 10 |
| Hayward at canal | 9:55 | 5m9s | 38.8 | 37.9 | Hwy 10 |
| Hayward at Gun Range entrance | 10:00 | 5m9s | 38.0 | 37.2 | Hwy 10 |
| Hayward, 4wd gate, 1500' N PL | 11:35 | 5m11s | 40.6 | 36.9 | |
| Bettas Rd, Alpine Ranch | 11.45 | 5m9s | 40.0 | 36.8 | |
| 3111 Bettas Rd | 11:50 | 5m40s | 39.3 | 36.7 | |
| 1.3 mi S of Hwy 97 on Bettas | 12:00 | 5m4s | 38.4 | 36.8 | Hwy 97 |
| 1.0 mi S of Hwy 97 on Bettas at sign | 12:10 | 5m26s | 43.5 | 38.2 | Hwy 97 |

The baseline noise floor in this area is due to noise existing in the natural environment plus traffic on the nearby roads. To the northeast lies Highway 97. To the southwest lies Highway 10, train tracks and a little further, the freeway, I-90. Traffic from each of these noise sources is clearly audible as the source of the basic background noise. On top the ridge, near the shooting range, the distant din of noise fills the air but without a sense of direction. In areas not so high and equidistant from the 3 roads, the background noise source is easily recognized to be from the nearby road(s).

The quietest background noise readings Leq of 38 to 39 dB(A) were near the shooting range and equidistant from all roads. Areas more directly exposed to traffic noise registered Leq of 45 to 46 dB(A). Note that in most cases L90 is just a few dB below Leq, which means the quiet is fairly steady. Overall, the ambient noise level during quiet daytime hours is Leq 40 dB,A with 5 dB variation due to proximity to roads

Since this data was taken in 2005, wind turbines were added to the site and the surrounding properties. Now the wind turbine noise dominates the neighborhood ambience. However, during the still air times of the day, wind turbines do not operate and the ambience returns to the existing levels such as were measured here.

Appendix - Section 3: Resume of Dr. Piacsek

The qualifications of Dr Piacsek to do the noise study and report were not included in his report. It is readily available on line and is presented here. He has a Master's degree in Acoustics from Penn State, as does the acoustic engineer Jerry Lilly. Additionally, he has a PhD in Acoustics from Penn State. He researches and is well published in any number of acoustical areas.



Andy Piacsek

Assistant Professor

Coordinator, STEP Bridging Program for Transfer Students

Lind 117A

509-963-2723

piacsek@cwu.edu

Educational Background

B.A., Physics, Johns Hopkins University, 1986

M.S., Acoustics, Penn State University, 1991

Ph.D., Acoustics, Penn State University, 1995

Teaching

These are the classes that I teach on a fairly regular basis:

- PHYS 101 Introductory Astronomy
- PHYS 103 Physics of Musical Sound
- PHYS 111-113 Introductory Physics
- PHYS 181-183 General Physics
- PHYS 351-352 Analytical Mechanics
- PHYS 361 Computational Physics
- STEP 301 Bridging Seminar I - Research Opportunities
- STEP 302 Bridging Seminar II - Research Skills
- I have also taught seminars for the Douglas Honors College and the Science Honors program.

Research Interests

My primary area of interest and expertise is physical acoustics, which is the study of mechanical waves and related phenomena. I am interested in waves of all kinds, from sound waves in a trumpet to sonic booms to tsunamis; that such disparate phenomena are united by similar mathematics is especially intriguing. Most of my experience is theoretical: I like to develop and work with computer models to explore how one thing depends on another. However, I am currently developing an acoustics laboratory at CWU to study vibrations in unusual structures and to investigate the properties of musical instruments.

Another area of interest is the epistemological basis of science, the role of science and society, and how to improve scientific literacy and understanding among non-scientists. I am interested in the ways in which society develops its perceptions of science, including the perseverance of pseudo-scientific and unscientific beliefs. My main work in this area is developing curriculum at the university level that specifically addresses our understanding of how science works and why this is important.

Selected Publications and Presentations

undergraduate co-authors are underlined

- Piacsek, A., "Numerical modeling of weak shock propagation: Past, present, and future," *J. Acoust. Soc. Am.*, **125**, 2599 (2009). [*invited*]
- Piacsek, A., "My voice looks like that? A hands-on, textbook-free approach to learning physics," presented at the 11th Annual meeting of the Northwest Section of the American Physical Society, Vancouver, B.C. (2009). [*invited*]
- Piacsek, A., "Numerical simulation of sonic boom propagation through atmospheric turbulence," *J. Acoust. Soc. Am.*, **124**, 2591 (2008).
- Piacsek, A., Locey, L., and Sparrow, V., "Time-domain modeling of atmospheric turbulence effects on sonic boom propagation," 29th AIAA Aeroacoustics Conference, Vancouver, BC, paper 3032 (2008). [pdf]
- Locey, L., Sparrow, V., and Piacsek, A., "Sonic boom post processing to include atmospheric turbulent effects," 29th AIAA Aeroacoustics Conference, Vancouver, BC, paper 3035 (2008).
- Piacsek, A., "Investigating musical sound as a model for the scientific process," *J. Acoust. Soc. Am.*, **123**, 3519 (2008). [*invited*]
- Piacsek, A., and Wright, I., "Effectiveness of physlet computer animations for enhancing student learning of acoustic principles in a course for non-science students," *J. Acoust. Soc. Am.*, **121**, 3157 (2007).
- Smith, A., and Piacsek, A. "Elastic and vibrational properties of a regular tensegrity structure," *J. Acoust. Soc. Am.*, **119**, 3390 (2006).
- Piacsek, A., and Wagner, G., "Environmental impact of modern wind farms," *J. Acoust. Soc. Am.*, **115**, 2414 (2004).
- Piacsek, A., "Using acoustics to lure high school students into a career in science," *J. Acoust. Soc. Am.*, **114**, 2311 (2003).
- Grogan, J., Braunstein, M., and Piacsek, A., "An experimental study of changes in the impulse response of a wood plate that is subject to vibrational stimulus," *J. Acoust. Soc. Am.*, **113**, 2315 (2003).
- Piacsek, A.A., "Using computers to overcome math-phobia in an introductory course in musical acoustics," *J. Acoust. Soc. Am.*, **112**, 2344 (2002).
- Piacsek, AA, "Atmospheric turbulence conditions leading to focused and folded sonic boom wave fronts," *J. Acoust. Soc. Am.*, **111**, 520-529 (2002). [pdf]
- Piacsek, AA, and Roberts, K., "Influence of wall curvature on the resonance behavior of glass bowls," Proc. of 17th International Congress on Acoustics, Rome (2001).
- Piacsek, AA, "Measurements of wineglass resonance using a fiber-optic probe," *J. Acoust. Soc. Am.*, **108**, 2623 (2000).
- Piacsek, A. A., "Nonlinearity vs. diffraction within a focusing weak shock," *J. Acoust. Soc. Am.*, **99**, 2539 (1996).
- Clarke, D. B., Piacsek, A. A., White, J. W., "Propagation of signals from strong explosions above and below the ocean," *J. Acoust. Soc. Am.*, **99**, 2525 (1996).

Appendix – Section 4: Review of Dr. Piacsek Noise Study

This is a review of Andrew Piacsek's Noise Study of gunfire from the shooting range measured at numerous locations around the shooting range. Ambient noise for each reading was also measured and reported. The lowest ambient noise reading reported was 45 dB(A). Six of the tests registered a background noise level of 50 dB(A) or less and two tests were above 50 dB(A).

Wind is always a factor to be considered when making noise measurements. Seven tests had NR (No Reading) for wind speed. Standard recommendation is to not measure noise when the wind is over 10 mph (Oregon DEQ NPC-1 Sound Measurement Procedures Manual). A total of 8 out of the 16 measurements note that wind speed exceeded 10 mph. Wind creates noise which raises the background noise level. During my own background noise tests in the same area there was no wind and the readings were usually less than 40 dB(A) unless highways 97 or 10 were nearby, which raised the background noise levels.

Sound intensity diminishes with the expanded surface of a spreading sound wave. This report uses the correct calculation of $-20 \log(r/r_0)$ to account for the effect of geometric spreading over flat hard ground. This calculation is normally used to predict the noise impact on neighboring sites. When the actual noise is measured at these sites, the geometric spreading prediction is usually additionally reduced due to the effect of attenuation of sound as it passes through the atmosphere and over the ground.

It can additionally reduced or amplified due to terrain effects such as a berm reduces sound while the raised ground of an amphitheater increases sound. Over large distances, one mile and more, wind and thermal gradients also have an impact, increasing or decreasing the noise at the receiving property, but these effects are normally not included in noise impact studies.

In all cases, except those measurements along Thorp Hwy, the measured noise levels were significantly louder (over 10 dB) than the ambience. This means that the gunfire noise measured was the noise of the gunfire itself, and not the noise of the gunfire + ambience.

This report did register both the A weighted, Fast, Peak and Impulse (35ms averaged) sound levels. The sound level impact predictions in the report were based only on the A weighted Peak SPL, sound pressure level. Recommended measurement for environmental situations is to use dB(A, Fast) and to not use Peak measurements. However, Peak and Fast data can be converted one to the other.

The Actual Loss (measured SPL @ 100' minus measured SPL @ receiver distance) was always more than the Spread Loss (calculation based only on the effect of distance: $20 \log 100/\text{receiver distance}$), which is how field data of this sort usually is. The natural mitigation effects, which include atmospheric damping, soft ground, irregular ground, sound reflecting rocks and the rise and fall of the ground level account for the difference between the measured Actual Loss and the calculated Actual Loss.

Dr. Piacsek took noise readings of gunfire in dB,A, Peak. Acoustic engineer Jerry Lilly's recommended dB,Peak or un-weighted measurements be applied to the exceeding section of the code. I monitored gunshots at the range and recorded simultaneously the dB,Peak and the dB,A,Peak readings. The dB,Peak was about 2 dB stronger than dB,A,Peak for the largest bore gun, and less for regular rifles. All in all, making measurements in dB Peak vs dBA, Peak is a relatively insignificant difference, and essentially a mute point.

Appendix - Section 5: Sound Level Conversion Process

Impulse: In the WAC and many other noise codes the word “impulse” means a very short lived loud sound. It includes a rapid sequence of very short lived sounds that occur within one second. A noise impulse is measured with a Peak Hold sound meter setting, which is Unweighted. An impulse or peak sound meter shall be peak or impulse, unweighted sound level meter capable of measuring impulse sound with type 1 or 2 meter compliant to ANSI S1.4-1971.

It is important to differentiate between the word “impulse” used interchangeably to describe the “peak” noise level of a very short lived sonic event and the “Impulse” form of sound measurement, particularly available on older style sound meters, where the sound reading is averaged over 35ms. This time averaging reflects the time it takes for our hearing system to collect sound, the Haas Effect. The Impulse measurement is generally not used for environmental work.

A sound meter set to Impulse (not Peak) averages sound energy over a 35ms time window. If it is used to measure a gunshot that lasts as long as 0.35ms then it will register a noise level that is $10 \text{ Log } 0.35/35 = -20$ dB below the actual peak noise level of the gunshot. On a few occasions Dr. Piacsek measured both Peak and Impulse levels of gunshots. There is a 20 to 25 dB difference between dB,Peak measurements and dB,Impulse measurements in Dr Piacsek’s data and the averaging of a short lived gunshot noise over 35ms accounts for the difference.

The consensus is that environmental noise measurements of gunshots and other similar type noises are done using a sound meter set to “dB(A, Fast)”, which has an averaging time of $1/8^{\text{th}}$ second.

The Impulse reading has a short time averaging time window, the Haas sound fusion time window, 35ms. The difference between Impulse (35ms average) and Fast (1/8 second average) readings for a very short lived noise pulse is related to the ratio of the width of their averaging time windows. The Fast reading is averaged over more time than the Impulse reading. The difference between the two readings can be calculated; $10 \text{ Log } (35\text{ms}/125\text{ms}) = -5.5$ dB. If we have the dB(A,Impulse) reading of a gunshot, we can subtract 5.5 dB from it to get the dB(A, Fast) equivalent reading.

The difference between L_{peak} and L_{fast} is $10 \text{ Log } (0.35/125) = -25.5$ dB. This can vary between -25 and -30 dB depending on how short or sharp is the noise of the gunshot. I measured an independent set of tests on this shooting range, some 300’ to the side of the firingpoint of a with a powerful 30.06 rifle. It registered L_{peak} 114.7 dB, L_{peak} 112.9 dB,A and L_{max} (Fast) of 82.8 dB,A. The difference between L_{peak} dB and L_{max} dB(A,Fast Hold) was 30.1 dB which includes a - 2 dB difference between weighted and A weighted measurement of the noise from small arms.

In general, Peak noise readings of gunfire will be 30 to 35 dB louder than if the measurement was made with a sound meter set at dB(A,Fast). Specifically, the noise of gunfire measured by Dr Piacsek at 80 dB(A,Peak) will register around 50 dB(A,Fast) on a sound meter set up for environmental noise testing.

Appendix - Section 6: Evaluation of Acoustic Engineer Jerry Lilly's Report

Mr Lilly was asked to review and comment on Dr Piacsek's noise study report. He addressed the following points, which are responded to.

1) Qualifications: Dr. Piacsek is well qualified to make and report on the measurements he took. He has a PhD in Acoustics. He has performed numerous acoustic tests and written a number of papers related to acoustics. See *Appendix 2*.

2) Units of Measurement: Dr. Piacsek took measurements in dB(A, Peak). Engineer Jerry Lilly reviewed his noise study and suggested that the units of measurement should be dB(Peak), which is an unweighted version of the dB(A,Peak) reading. With gunfire, there is negligible difference between dB(Unweighted, Peak) and dB(A weighted, Peak) noise measurements. The work by Dr. Piacsek essentially complies with the recommendation by Engineer Jerry Lilly. See *Appendix 5*.

I have measured rifle reports on numerous occasions and find there is negligible difference between dB(Unweighted,Peak) and dB(A,Peak) readings. These two readings differ only in accordance with the amount of energy contained in the noise below 250 Hz, which for small caliber arms such as rifles is negligible. For example, high power rifle shots simultaneously registered 139 dB(Unweighted, Peak) and 138 dB(A weighted, Peak), during work on the Environmental Noise Study: Proposed Gun Range in Bret Pit, Grand Coulee Dam, Washington State, 7/15/2003 by Arthur Noxon).

3) Environmental Measurement of Gunshots:

Engineer Jerry Lilly reported that the Washington noise code did not specify what type noise reading should be used for assessment of noise similar to gunfire and that gunfire noise levels are reported in terms of dB(Unweighted,Peak) by the manufacturers. His recommend using dB(Unweighted,Peak) for environmental noise measurements.

There are two areas of concern with respect to human exposure to noise. One is OSHA, on-the-job noise exposure, which is measured in dB(Unweighted, Peak) noise levels. Gun manufacturers are primarily concerned with OSHA based noise exposure, how loud gunfire is at the ear of the shooter, and provide that type of information. The other is DEQ, environmental noise exposure, which is basically field measurements in terms of dB(A,Fast), a time averaged noise reading.

His recommendation to use Peak noise levels for environmental work is in conflict with environmental noise studies which relate to gunfire. A study of 49 independent papers, state regulations and books on environmental noise concludes that dB,(A,Fast) as the applicable measurement for impulse noise events. Furthermore it specifically states that the Peak Hold measurement is dismissed as being irrelevant to the environmental noise setting. See *Appendix 11* for reference.

Furthermore, WAC does specify that all noise testing is to be done using A weighted sound meter. *Appendix 9,B,3*. Fast or Slow is not specified, but environmental noise is done using the Fast speed.

The subjective standards of livability with respect to the noise from gunfire is based on the dB(A,Fast) measurement. Any measurement of gunfire noise can be converted into the dB(A,Fast) equivalent version of that noise. *Appendix 5*. Noise measurements expressed in terms of dB(A, Fast) are the standard to be used when determining livability for homes near the gunfire noise.

Appendix – Section 7: Evaluation of the VGO Report and Atty Leed’s Interpretation

The Dec 16, 03 letter from Atty. Roger Leed was submitted in opposition to the CUP application by Cascade Field and Stream Club. A noise study in 1997, by VGO, was sited and a copy of the report was included. At the onset of this review VGO Inc was contacted about the possibility of discussing their report. They stated that the people who did the report are no longer working there and they could not comment on the report. By studying their report it becomes obvious that there is not enough factual information in it to be useful in the siting of the present shooting range.

Their study involved two tests, one was done at the property line of the range and the other was at 50’ from the shooting line, behind the shooting line. At 50’ behind the firing line, pistol registered 100 to 111 dB,A and a rifle registered 100 to 116 dB,A. Unfortunately, what was not stated was the speed setting of the meter; Fast, Slow, Impulse or Peak. This means no one can really know how to interpret their data or recommendations.

1) Unspecified Units of Measurement: They used a B&K 2209 sound meter, which has the following speeds: Peak Hold and Impulse Hold along with 3 running meter speeds; Impulse, Fast and Slow. Impulse averages the noise spike over 35ms or about 1/30 second, Fast averages over 1/8 second and Slow over 1 second. Impulse registers + 5 dB over Fast measurements (B&K Master Catalogue, 1977 Pg 236, Fig 10) when measuring short lived sonic events..

What is clear in the VGO report is that outdoor domestic sounds of birds, cars, children playing, dog barking registered between 41 and 66 dB,A at a known location, and where the shooting range measured registered between 47 and 54 dB,A. The data was given in a low to high data spread range. Neighborhood noise measurements are always done with the meter set at dB(A,Fast). However, the VGO report does not state it was set at Fast speed. However, standard practice (Harris, Handbook of Noise Measurement, 3rd Edition) is that if there is no speed stated, then the meter was set at “Fast” and if the speed is different than Fast, then it must be so stated. From this perspective, one can reasonably assume that the noise of the shooting range measured in the neighborhood was with a weighting and speed of dB(A,Fast).

Noise at the shooting range in the VGO report was only stated to be in terms of dB,A. No speed was indicated, and the use of Peak or Impulse Hold was not indicated. The only conclusion that is consistent with sound measurement practice is that all the readings were taken with dB(A,Fast) setting, including that on the shooting range. This is consistent with standard practice, environmental noise readings are taken with dB(A,Fast).

Peak sound levels (Unweighted, Peak) of gunshots is typically about 20 dB louder than dB(A,Fast) measurements. (Harris, Handbook of Noise Measurement, 3rd Edition).

I have measured the difference between dB(Unweighted, Peak) and dB(A,Max Fast Hold) using a 38 special at 50 feet. The difference between the two readings was 29 dB,A. The gunshot registered 139 dB (Unweighted, Peak), 138 Peak dB(A, Peak) and 110 dB(A, Fast Max). (see Environmental Noise Study: Proposed Gun Range in Bret Pit, Grand Coulee Dam, Washington State, 7/15/2003 by Arthur Noxon).

The noise of gunfire is 5 to 10 dB louder when measured down the line of fire and 5 to 10 dB quieter when measured behind the shooter than when measured to the side of the shooter. At 50’ to the side, noise from a loud pistol I measured 139 dB(Unweighted Peak). If we subtract 5 to 10 dB for being behind

the shooter plus 20 to 29 dB for being set on dB(A,Fast) we predict a reduction of 25 to 39 dB for the pistol measurements which results in the pistol shot being measured in the range of 100 to 114 dB,A. What was measured were pistol shots in the range between 100 and 111 dB,A which is consistent with a Fast measurement setting.

2) Two paragraphs of Atty Leed submission contained reference to the VGO report. One is the 3rd paragraph page 1, and the other is the 1st full paragraph on page 2.

A) In paragraph 3, page 1, the issue of woodland screening or berms is raised. The property surveyed in the VCO report has woodland screening and berms while the present property does not have woodland screening or berms. Further, noise from the range was restricted to 57 dB,A along with a 1 mile open space buffer for the nearest "outdoor use" land. An exception would be made only if a medium dense wooded land separates the shooting range and the outdoor use area, and then the separation could be reduced to 2000 feet.

The VGO report cites WAC 173-60 as the noise regulation that applies to their study. They state that a commercial noise source impacting a residential receiver in the daytime is obligated by WAC -173 to not exceed 57 dB,A.

Atty Leed presents this recommendation as being relevant and applicable to the present application. In so doing, he is suggesting that a firing range is a Class B (commercial) activity. There is one subcategory in commercial that could apply to a shooting range: Recreational activities. However, what is missing in the VGO report and subsequently in Atty Leed's proposal is the exceedence part of the WAC regulation. Noise levels can exceed the maximum allowed level, provided the exceeding noise does not last too long. The aggregate exceeding noise limits are found in subsections (i, ii, iii) where the level can be exceeded by 5 dB for no more that a collective 15 minutes of any hour, 10 dB for a collective of 10 minutes or 15 dB for 1.5 minutes. Gunfire, being intermittent noise, strong peaks of sound interspersed with relatively local periods of ambient quiet, easily fits into the exceedence rules.

A gunshot noise might last 1/30 second or less in duration. For a collective 1.5 minutes each hour, the noise from 2700 gunshots could impact the residential neighborhood at a level of $57 + 15 = 72$ dB,A. To ignore detail allowances built into the WAC regulation, that are very applicable to the present application, and state that the WAC regulation cites 57 dB,A as the upper limit is to misrepresent the code.

Gunshots measured by VGO registered 54 dB,A at the residence in question. Since 54 dB,A is well below the commercial/residential limit of 57 dB,A there was no need to call out the exceeding noise limit part of the code.

VGO recommends 2000 feet of medium wooded forest or 1 mile distance to achieve the outdoor limit of 57 dB,A from gunfire. Their wooded forest insertion loss averaged for the loudest octaves of gunfire (1k to 2k) about 3.5 dB/100 feet with the restriction that the loss generally cannot exceed about 23 dB. Gunfire at 50' is averages 108 dB. Expansion to 2000' reduces the noise by 32 dB, to 76 dB. Subtracting the maximum insertion loss of 23 dB leaves noise impact of 54 dB,A, safely below the 57 dB,A limit. However, using 3.5 dB per 100', 23 dB forest insertion loss is reached after 650 feet of wooded forest. Additional forest, according to VGO adds nothing to the loss. VGO could have been more accurate and say that a set back distance of 2000 feet with a minimum 650 foot thick woodlot (medium dense woods) will suffice as a noise barrier for a shooting range.

At a distance of one mile, noise from a shooting range is reduced by volumetric expansion from 108 dB at 50 feet by 40.5 dB to 67.5 dB at a distance of 5280 feet. Atmospheric attenuation in the range of 1 and 2k is about 2 dB per 1000 feet. Ground attenuation is also about 2 dB per 1000 feet. In addition to the weakening of sound as it expands, sound is additionally attenuated by as much as 20 dB over one mile distance from the site of shooting.

B) Ambient Noise not Specified: In paragraph 1, page two again refers to the VGO report, this time with reference to ambient noise measurements.

A reading of the VGO report finds that of the two sites tested, only one, Site 1 had any ambience measurements. At Site 1, the data taken ranged from 41 dB, A to 66 dB, A and was specifically defined and presented as a record of the various types of noise generating activities that took place in that area. It was not an ambience measurement. It was a record of 6 different noise sources, 5 local sources and 1 distant: Birds, dog barking, car drive by, children playing, overhead airplane and distant rifle fire. The point being made here was that the rifle fire was well within (in the middle) the range of other local, nearby noise generating activities found at that location.

This was not an ambience noise reading. A true ambience noise reading goes to great pains to exclude most everything this study recorded: Close by and loud specific and not constant noise sources, such as loud birds in a nearby tree, dog barking outside the house being monitored, car drive bys, children playing nearby and overhead airplanes.

At Site two, no ambience noise reading was taken of any sort, only the levels of nearby rifle fire.

Atty Leed misunderstood what he was reading, misinterpreted what was presented and gave his own and inaccurate version of what the VGO report did with respect to gathering and presenting "ambience" data. It is always important that an expert in the field would read and translate works in the field to interested but non-experts in the field. Using the VGO report to suggest that the Piacsek report is deficient in ambient reading is an erroneous conclusion, based on a misunderstanding of the VGO report.

Appendix – Section 8: Environmental Impact Study – Noise from Gunfire

Dr. Piacsek took measurements of rifle fire at 30m (100') and found it registered on average 131 dB(A, Peak). This was a sound level "Peak" reading which means it is the absolute maximum noise level reached during the gunfire event. It is unlike most versions of noise readings, which have been averaged over some defined period of time.

The basic acoustic model used to predict how loud sound will be at a distance is based on a free field, flat hemispherical expanding wave front. To this basic attenuation calculation is added other effects such as atmospheric and ground effects, which usually but not always additionally reduce the strength of a sound over distance.

As sound expands it's intensity weakens 6 dB(A) per doubling of distance. This equally applies to dB(A,Peak) abbreviated dB(A,P) measurements. The farther one moves away from a noise source the larger is the area over which the energy of the sound is spread. At 200' distance the sound level due to expansion should be $131 - 6 = 125$ dB(A,P). At 400' it should be $125 - 6 = 119$ dB(A,P). At one mile the sound loudness weakening effect due to free field expansion of this same wave front is predicted to be 34.5 dB(A,P) lower than at 100' or 96.5 dB(A,P). At 2 miles the predicted level is 90.5 dB(A,P) and at 4 miles it is 84.5 dB(A,P) and so on. These levels seem intolerably high but this calculation is based exclusively on the expansion of sound pressure over flat hard ground in dry air. However the excess attenuation effects on sound traveling through the atmospheric and over the ground have yet to be factored in.

Excess attenuation (A_e) are natural losses in sound energy in addition to the hemispherical expansion of sound. Dr. Piacsek took sufficient data to be able to plot out the total atmospheric + ground + barrier + scattering effects for the area surrounding the shooting range. His data establishes that for this region the total excess attenuation over the rough terrain to the east and west of the shooting range to be -30 dB @ 1000 feet and -3 dB additional per each doubling of distance. At 2000' in the east-west directions excess attenuation is -33 dB, 4000' it is -36 dB and 8000' is -39 dB.

Atmospheric attenuation for gunfire in dryer climates is generally around 5 to 10 dB(A) per 1000 feet (Beranek, Noise and Vibration Control, Fig 7.5) . At one mile, atmospheric attenuation reduces gunfire from 96.5 dB,A to between 70 and 46 dB(A). At 2 miles the noise is reduced from 90 dB(A) to something between 46 and zero dB(A). This is not inconsistent with what Dr. Piacsek measured.

According to Dr. Piacsek's measurement, gunfire heard at one mile distant to the east or west the sound level should be that due to expansion plus the excess attenuation effect, $96.5 - 37.2 = 59.2$ dB(A, P). At two miles the level should be $90.5 - 40.2 = 50.3$ dB(A, P). This excess attenuation equation is only applicable over the irregular terrain that exists predominantly to the west and east from the shooting range.

However, an entirely different type of terrain is to the north and south. It is fairly flat and gently sloping. Noise measurements made uphill, at the crest of the hill along Hayward Rd to the north, with a clear line of sight to the shooting range, registered 92 dB,A Peak, which means there is only -6 dB for excess attenuation over an uphill distance of 3500 feet. At one mile, the excess attenuation should be about -10 dB. Uphill sound has the amphitheater effect, which compensates for the excess attenuation effect.

Noise measurements were also made at the nearest home to the south, the Pearson residence, which is located slightly downhill, but still has a clear line of sight to the firing range. Noise tests there registered

gunfire 81 dB(A, Peak) which means there is -13 dB excess attenuation over a distance of 5500 feet, a little over one mile.

These measurements have documented the behavior of gunshot noise in all directions away from the shooting range. The nearest homes to the shooting range are one mile or more distant. Those in the north/south directions are less protected from the noise of gunfire compared to homes in the east/west directions due to terrain differences.

The stretch of land in the north/south direction is fairly smooth ground, sloping gradually up or downhill and here is where the ground provides a minimum of excess attenuation, in the range of 10-12 dB at one mile. In the east /west direction the terrain rises and falls, the excess attenuation of gunfire is significant and in the range of -35 dB at one mile.

It is important to remember that Peak noise measurements have to be converted into dB(A,Fast) equivalent measurement in order to be applicable to environmental impact studies. This reduction is on the order of -30 dB. Noise registering 80 dB(A,Peak) in the north south directions will register $80 - 30 = 50$ dB(A,Fast). Noise in the east west directions will register $60 - 30 = 30$ dB(A,Peak).

Although the noise of gunfire is exempt from noise codes, its impact on the livability in residential areas around the range does matter. In order to meet a livability standard, sound mitigation can be used in the form of sound berms or shooting enclosures to reduce noise that is considered intrusive in neighborhoods around the range.

The environmental impact study produces noise levels around 50 dB(A,Fast) near homes one mile distant to the north and south of the range and noise levels around 30 dB(A,Fast) at homes one mile distant to the east and west.

Appendix - Section 9: Review and Discussion of Local and State Noise Codes

Applicable noise regulations must be conformed to in any land use. Citation of applicable noise codes is required and evidence of compliance is expected in any land use application. In a rural setting, outside a city or town, there will be two types of noise codes that apply. The State noise code and the county noise code.

A) County Noise Code

Kittitas County noise code is found in Kittitas County Code, Title 9 Public Peace, Safety and Morals, Chapter 9.45 Noise. This noise regulation is a “subjective noise code” in that no dB levels are specified. What is specified is that “it is unlawful to create or allow one’s property to be used to create any loud, unpleasant or raucous noise which unreasonably disturbs the peace, comfort or repose of others.” Examples of prohibited noise sources include fire crackers. There is no mention of “shooting range” either as a source of prohibited or exempt noise. However, noise emitted from legitimate training activities located within the Yakama Training Center, a military base, is exempt. It should be noted that restrictions on “quarry shooting” (KCC 9.45.032) has been repealed but whether noise was a factor or issue is not known.

B) State Noise Code

The guiding set of regulations for the state noise code is found in RCW 70.107 Noise Control. In the *Exemptions* section gunfire noise from shooting ranges is included as exempt. (RCW 70.107.080). The noise measurement procedure is covered in WAC 173-58 Sound Level Measurement Procedures. WAC 173-60 is where the Washington State Environmental Noise Control Regulations are located. The state noise code is a coordination of two aspects of noise. One is to determine where the noise code is applied. Second is to define what the noise code actually is.

1) Classification of Property

To apply the WAC noise rules, one must first determine the Noise Class for the properties involved which then determines the level of protection. There are two noise related types of properties, those that produce (Source) noise and those that receive (Receiver) noise.

There are three types of property; A,B or C, which correspond to Residential, Commercial and Industrial land uses. Class A, residential, used for human habitat, sleeping, camping or otherwise. The Class B covers commercial property. The third is Class C: Industrial land includes production of durable goods, farming and forest practice. Class C lands would also include land used for the production of electricity from wind turbines. (WAC 173-60-030(1)).

WAC 173-60 is a property line noise code. What noise limit applies to which property line depends on the uses of the land on either sides of the property line. And so we can have three types of noise source properties; Class A, B and C and three types of noise receiving property; Class A, B and C. Each unique combination has its own noise limit.

The shooting range is on a desolate, undeveloped piece of property. It contains and is surrounded by wind turbines. There are a number of rock quarry locations in the area. There is no farming, ranching or forest practice visible in this area other than seasonal livestock grazing on select properties. The ground is dry,

barren except for sparse scrub brush and strewn with rocks. It is possible that this area in general and the shooting range in particular is classified as basic industrial land due to the presence of quarries that surround it and the wind turbines that have been installed throughout the area.

The consensus of involved parties is that the noise source property, the shooting range, is a Class C property. The primary concern is when the receiving property is a home, a Class A site. The opposition claims that a receiving property can be classified as residential; Class A, even when the house that is on the property is physically located thousands of feet away from the boundary of concern and between the house and boundary of concern lies nothing but barren unusable land.

The language in the Washington classification definition does not limit the extent of a residential property. Some judgment is needed here. For example a home is located in one corner of a 1000 acre tract of farmland. Is the entire 1000 acres Class A land? Or is the corner 1 acre of the land that wraps around the house Class A and the rest of the land Class C?

Before any discussion about what noise regulations might be used to define livability, this discrepancy in the land classification scheme needs to be sensibly ironed out, by using common sense or even better, already established case law.

WAC 173-60-30 (1,d and e) provides for local authorities or WAC officer involved in a case to determine the classification of the land involved. Sections 173-60-30 (2 and 3 include zoning and comprehensive use plans as a means to define the zone classification of any given section of EDNA land. Clearly local authorities have the mandate to determine the appropriate classification of the lands involved in the potential noise impact around the shooting range.

It could be argued that because there are rock quarries in the area, Class C property, that contiguous land some distance away is also of the same nature and Class C. But this circumvents application of common sense to the definition of Class A property. Consider how a real working farm is setup. Most of the land is dedicated to farm use, the farm house and yard is fenced off from the surrounding farm land. A house typically would have about one acre of space dedicated to the homestead Class A, and the rest of the land is dedicated to farming, Class C.

The current consensus is that the shooting range is Class C land. The land that surrounds the shooting range is undeveloped except for wind turbines. The land surrounding the shooting range appears by all visible signs to be Class C land.

2) Types of Measurements

WAC 173-58 is the standardization code for noise measurement in the state.

WAC 173-58 -020 Definitions contains:

- (6) *“Impulse Sound” means either a single pressure peak or a single burst of multiple pressure peaks which occur for a duration of less than one second as measured on a peak unweighted sound level meter.*
- (15) *“Sound level meter” means a device or combination of devices which measures sound pressure levels and conforms to Type 1, Type 2 or Type 3 standards as specified in the ANSI S1.4-1971,*

An impulse sound level meter shall be a peak or impulse, unweighted sound level meter which is capable of measuring impulse sound in conformance with the Type 1 or Type 2 specifications of ANSI S1.4.1971.

WAC 173-58 -030 Instrumentation contains:

- (1) *Sound level meter. The sound level meter shall meet the Type 1, Type 2 or Type 3 requirements of ANSI S1.4.1971. The meter weighting and response mode will be set as required in the specific procedure used.*

WAC 173-58 -070 Environmental noise measurement procedure (Reserved). This is blank

WAC 173-60-040 specifies:

- (2,a) *the "maximum permissible noise level" crossing the property line between Class C lands to be 70 dB,A during the daytime, between 7:00 am through 10:00 pm.*
- (2,c) *Short bursts of noise can exceed the basic limit by (i) 5 dB,A for an aggregate of 15 minutes, (ii) 10 dB,A for an aggregate of 5 minutes or (iii) 15 dB,A for an aggregate of 1.5 minutes in any given hour*

WAC 173-60-090 Enforcement policy.

Noise measurement for the purposes of enforcing the provisions of WAC 173-60-040 shall be measured in dBA with a sound level meter with the point of measurement being at any point within the receiving property.

3) Type of Sound Level Meter: Comments have been raised as to what type of sound measurement is to be used for sounds of very short duration, of sounds which are like those of gunfire. Acoustic Engineer Jerry Lilly states that the WAC noise code does not specify what type of measurement is to be used. He chose to err on the conservative side, recommending that the worst case, the Peak sound level be used for environmental noise measurements.

Engineer Lilly is partially correct but not completely correct. The state noise code differentiates between a regular sound level meter and an impulse or peak hold sound level meter. It also specifies what type of sound meter is to be used to enforce the state code which indirectly leads to specifying what type of noise readings will be taken. This sequence is outlined below:

- a) WAC 173-58-020 Definitions: The difference between a sound level meter and an impulse sound level meter is delineated.
- b) WAC 173-60-090 Enforcement: Code specifies that a sound level meter is to be used to enforce noise regulation WAC 173-60-040. It does not specify that an impulse sound level meter is used.
- c) WAC 173-58-030 Instrumentation section states that the meter weighting (A or C) and response mode (Slow, Fast or Peak) will be set as required in the specific section.
- d) WAC 173-60-040 states a "sound level meter" is to be used, in contrast with an "impulse sound level meter".
- e) WAC 173-60-040 calls for dBA weighted sound readings, in contrast with Impulse tests such as a Peak, unweighted Peak Hold readings.

The code specifies that enforcement is to be done by a "sound level meter" set on A scale. It also specifies that a Peak sound level is to be measured by a different type of instrument, an impulse sound level meter, and the units of measurement are unweighted. There is no provision in the state noise code

that allows an unweighted peak sound level meter to be used for enforcement. The only sound meter allowed to enforce the Washington noise code is the A weighted Fast sound level meter. Mr Lilly's conclusion that Peak Hold, Unweighted sound level meter should be used to evaluate gunshot type noise is inconsistent with the language of the state noise code.

4) Property Line Noise Limits: The State noise code establishes that the property line noise limit between a commercial noise source property adjacent to residential properties is to not exceed 57 dB,A in the daytime and 47 dB,A at night. For purposes of comparison, Oregon Noise Code OAR 340-35-030 limits existing commercial noise impact on a neighboring residential property line, if the home is close to the property line, to not exceed L50 = 55 dB,A in the daytime and 50 dB,A at night. The OAR noise readings are dB(A,Fast) readings and are of the same magnitude as the Washington regulations.

a) Noise Bursts: The WAC noise code not only establishes a basic noise limit based on the types of land on either side of the property line, it also provides for regulation of intermittent noise bursts. This is found in subsection 173-60-040(c). Short bursts of noise can exceed the basic limit by (i) 5 dB,A for an aggregate of 15 minutes, (ii) 10 dB,A for an aggregate of 5 minutes or (iii) 15 dB,A for an aggregate of 1.5 minutes in any given hour. The base noise limits and the short time exceeded noise limits in the WAC noise code are all written terms of dB,A. However, there is no specification as to what type of time averaging is to be used when measuring the short bursts of noise, outside of it being measured by a sound level meter set on dB,A Fast.

b) Exemption: The state noise code is section WAC 173-60 Maximum Environmental Noise Levels. In this section is found the exemption sub-section *173-60-050 (b) [s]ounds created by the discharge of firearms on authorized shooting ranges*, which lists the noise from shooting ranges as being exempt from the code. (WAC 173-60-050(1)(b) exempts sound emanating from shooting ranges between the hours of 7:00 a.m. and 10:00 p.m.).

WAC 173-60-060 also states that local ordinances can prohibit nuisance noise from any source that is not exempted by the state code.

Appendix – Section 10: Definition of Acceptable Gunfire-like Noise Levels

WAC 173-60-040 Maximum Permissible Environmental Noise Levels are regulations that do not apply to gunfire from a shooting range, however they have been cited as possibly applying to the livability standard that must be included during land use change considerations.

Noise from shooting ranges is exempt from noise regulation. However, part of the CUP analysis is to evaluate whether the proposed conditional use and specifically the noise from the proposed use is detrimental or injurious to the public health, peace or safety or to the character of the surrounding neighborhood. Opponents to the proposed CUP argue that expanded use of the shooting range will degrade the outdoor ambience component of the neighborhood. In that this is a debatable subjective issue, it cannot be formally defined, and yet some measure of livability needs to be defined.

1) Allowed Noise Bursts: Short bursts of noise are allowed to exceed the standard property line noise limits by as much as 15 dB(A, Fast) for an aggregate time of 1.5 minutes, 90 seconds during any given hour's time. A gunshot is a short burst of noise. This section of code could be used to help define a livability limit for exposure to the noise from a shooting range.

For a gunshot to be measured as a separate event, using a dB(A, Fast) sound meter any single shot would be averaged over a 1/8 second time period. During an aggregate 90 seconds, this would comprise $90 \times 8 = 720$ separate gunshots per hour, which is an average of one shot every 5 seconds.

2) Property Line Limits: The state noise code can be used to define the upper limit of tolerable noise exposure to short lived noise bursts, which sound like gunfire, with respect to livability.

For a Class C source and Class C receiver property line, the noise limit is 70 dB,A. Short lived high noise burst events up to +15 dB is allowed for an aggregate duration of 1.5 minutes in any given hour. WAC states allows along this type of property line as many as 720 separate gunshot like noise bursts per hour which are as loud as 85 dB(A, Fast).

If this regulation is applied to a Class A, residential property receiver, then the noise burst limit is $60 + 15$ dB,A = 75 dB,A along the property line. Up to 720 gunshot like noise bursts, as loud as 75 dB(A, Fast) each, are allowed to cross the property line.

3) Conversion to Peak Hold: This dB(A, Fast) version of noise exposure can be converted to Impulse or Peak Hold, A weighted noise levels of gunfire by adjusting the dB(A, Fast) reading upwards by 25 to 30 dB,A.

This means Class C/C property lines are allowed to be exposed to gunfire like noise levels which register $85 + 25$ to 30 dB = 110 to 115 dB,(A, Peak) noise levels. Class C/A property lines are allowed to be exposed to $75 + 25$ to 30 dB = 100 to 105 dB(A, Peak) noise levels.

Appendix – Section 11: Property Line Noise Measurements:

The noise study by Dr. Piacsek measured dB,A Peak noise levels of from gunfire at the property line.

At the property line 1000' due east, to the side of the line of fire, he measured two shots, one registering 95 and the other 96 dB(A, Peak). Down range noise levels are typically 10 dB higher than when measured to the side for the same distance setback. Gunfire directed toward the East property line would measure in the range of 105 dB(A,Peak), which is within the Class C/A property line noise burst limit.

Other locations were not as loud; NW corner 2000' from the firing point registered 75 dB,A Peak, NE corners 2000' from the firing point registered 80 and 86 dB,A Peak, slightly exceeding the 85 dB limit. The SE corner 3500' from the firing point registered two shots at 74 and 78 dB,A Peak.

Dr. Piacsek took noise readings of gunfire in dB,A, Peak. The “dB,A” measurement is consistent with state standards for noise measurement WAC 173-60-040.

Acoustic engineer Jerry Lilly's recommended dB,Peak or un-weighted measurements be applied to the exceeding section of the code. I monitored gunshots at the range and recorded simultaneously the dB,Peak and the dB,A,Peak readings. The dB,Peak was about 2 dB stronger than dB,A,Peak for the largest bore gun, and less for regular rifles. If the impulse event had been a blast, which typically contains relatively high amounts of low frequency energy, there would be a significant difference between dB, Peak sound level and dB,A Peak sound level. But in this case, the difference is a mute point.

In conclusion, noise from gunfire on the range does not exceed WAC noise code limits for short lived noise bursts. Based on WAC noise code for allowed short noise bursts, the livability of neighboring property is not at risk.

Appendix – Section 12) Survey of Subjective and Objective Criteria for Noise from Gun Ranges

The noise from shooting ranges that are located near residential areas has been studied and debated for many years. Some regulations have been developed in this and other countries.

1) Ventura County, CA: Deemed acceptable if noise from shooting range near home over 15 minutes does not exceed SEL 59 dB,A. Background noise level was 30 to 35 dB,A. SEL is noise of gunshot averaged over one second. It was comprised of 1 shot @ 60 - 60 dB,A, 4 shots @ 55 – 60 dB,A, 13 shot @ 50 to 55 dB,A and 18 shots @ 45 – 50 dB,A. Each shot was estimated to physically last 1/10th second. Gun range was “audible but not annoying” A “fast” sound level meter was used to record the data.

Reference:

2) Placerville, CA: New commercial shooting ranges shall not produce a maximum noise level that exceeds 65 dB,A at the receiving property line of a noise-sensitive use. The sound level meter should be set on Fast Response when evaluating Impulsive levels as those associated with shooting ranges.

3) Oregon: Noise code 340-35-015 (21) defines Impulse Sound as Single pressure peak or burst, multiple peaks for a duration of less than one second as measured on a Peak Unweighted or C weighted, Slow Response and specified by dB or DBC respectively. Limits are 100 dB Peak day and 80 dB Peak night. Slow response is a one second time averaged level.

4) Oahu, HI:

OAR 43 s1143-3 (d) Impulse noise limit at property line is L10 during any 20 minute period, to not exceed 10 dB,A above allowed noise levels, 55 dB,A day and 45 dB,A night, measured Slow.

5) Illinois: 35 H Ch I Sect 901.104 Impulsive Sound from Class A, B or C land onto Class A or B land measured at least 25' from property line, residential limit is 45 dB(A,Fast) night and 50 dB(A,Fast) day.

6) Maine: 375.10 A regulated short sound event is at least 6 dB(A,Fast) above the ambient level that proceed and follow the event. From new developments, will not exceed +5 dB over background noise due to new development. Any residential or similar location, add +5 dB to meter reading and the combination cannot exceed 65 dB(A,Fast) day or 55 dB(A,Fast) night. Meter set to dB(A,Fast).

7) Maryland: 26,02.03.01 Definition...Periodic noise measured at or within property line of receiver, with sound meter on dB(A,Fast).

8) Minnesota: Environmental Impulse Noise Study...Primary issue is to define the “speed” for measuring impulse or short duration noise. Peak Hold is not an option, not relevant to environmental assessment of impulsive sounds. Measure with dB(A,Fast). Secondly, the threshold for aggressive or alerting type of impulse noise is when the impulse is 5 to 10 dB(A,Fast) above the background Leq noise level. Impulse noises below this threshold are audible but not alarming.

9) New York: Article 10 Section 150 Shooting Range noise limited to not exceed 90 dB(A,Impulse) for 1 hour per day or 85 dB(A,Impulse) for 8 hours per day measured at or adjusted to 100 feet beyond the property line of the shooting range, Impulse means Peak Hold

10) Netherlands: Residential/rural limits to not exceed single shot level of 75/73 dB Impulse during the day time. For multiple shots L_r is to not exceed 50/45 dB, where L_r = L_s + 10 log N - 33, where N is the

number of shots per hour. If each shot is maximum 75/73 dB Impulse, then 6/3 shots/hour are allowed. If each shot is 70/68 dB Impulse then 20/10 shots per hour are allowed

11) Lane County, OR: County commissioners on field trip judged that gunfire measured with a dB(A, Fast) sound meter that exceeds +5 dB over ambience is considered annoying.

Consensus: Gunfire that registers between 5 and 10 dB above the ambience should be considered objectionable to the livability of residential or rural residential areas. Measurements are made with sound level meter set at dB(A, Fast). Peak Hold noise readings are not good indicators of environmental impact, but still, the limit of 75 to 85 dB Peak should not be exceeded in residential areas.

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Appendix – Section 13: Neighborhood Exposure Levels and Mitigation Levels

The acceptable livability criteria is for the impulse noise to not exceed a level that is 5 dB(A, Fast) over the mean ambient noise level. I have measured the quiet ambient daytime levels and Dr. Piacsek has measured the sound level of gunfire throughout the neighborhood. By combining these two data sets the conclusion is reached that an additional 12 dB(A) of excess attenuation in the north/south direction is sufficient to achieve the ambient + 5 dB(A, Fast) outdoor livability standards for homes in all directions.

The needed -12 dB of extra attenuation to sound of gunfire expanding to the north and south directions is easily attainable by adding mitigation attenuation (Am). This is an engineered design and construction, a permanent modification that reduces the noise levels emitted north and south. Sound berms work well in this setting but also the shelters that are built at the gunfire positions can be construction to absorb sound from guns.

Pearson Residence

Dr. Piacsek's report measured gunshots at the Pearson residence. At 5500 feet south of the gun firing location, it is the closest property to the gun range and gunshots were recorded there at 81 dB,A Peak, and 66 dB,A Impulse. We can subtract the 4.6 dB conversion factor between Impulse and Fast readings and get an impact of 61.4 dB,A Fast. The average (Leq) background noise level measured there, due to Highway 10 is around 45 dB,A. This location can tolerate gunshot noise that does not exceed +5 dB,A Fast or 50 dB,A Fast. By this, the needed mitigation attenuation for livability is 61.4 dB,A Fast – 50 dB,A Fast = 11.4 dB,A Fast.

If a mitigation measure is put in place which reduces the noise of gunshot fired towards the east and measured to the south by around 12 dB, the outdoor livability standard will be met at the Pearson residence.

Driveway 16530 Route 10

This residence is located 4000' SE from the gun range. Dr Piacsek measured 79 dB,A Peak and 52 dB,A Impulse at this location. This is right on Highway 10 and the ambience fluctuates greatly between the ambience and the rush of passing vehicles. Ambient noise level of 38.6 was measured at the location titled Swauk, 3000' NW off Hayward along the canal road, 2000' NE of Hwy 10. Noise levels were measured at 44.7 dB, at Rosehill Farm on Thorp, which is 1000' off Hwy 10. We'll allow that the ambience at this location is about 42 dB,A, and the gun noise should not exceed 47 dB,A Fast. If we subtract 4.6 dB from the Impulse (35ms) measurement of 52 dB,AI we get 47.4 dB,A Fast as the intruding dB,A, Fast level. The intruding level is about the same as the maximum allowed +5 dB above ambience, intruding level to retain livability, 47 dB,A Fast.

Other Residences

All other residential locations are exposed to noise levels lower than those discussed here and are by default, well within outdoor livability criteria.

EXHIBIT 17



KITTTITAS COUNTY COMMUNITY DEVELOPMENT SERVICES

411 N. Ruby St., Suite 2, Ellensburg, WA 98926

CDS@CO.KITTTITAS.WA.US

Office (509) 962-7506

Fax (509) 962-7682

"Building Partnerships – Building Communities"

NOTICE OF APPLICATION

Project Name: Cascade F and S Conditional Use Permit (CU-11-00003)
Notice of Application: December 16, 2011
Application Received: October 17, 2011

Applicant: Chris Cruse, authorized agent for Cascade Field and Stream, property owner.

Proposal: Conditional Use Permit for the placement of a shooting range in the Agriculture 20 zone.

Location: The project is located approximately 3/4 of a mile up Hayward Road from its junction with State Route 10, Ellensburg, WA, located in a portion of the East 1/2 of Section 21, T19N R17E WM in Kittitas County. Map number: 19-17-21000-0001.

Materials Available for Review: The submitted application and related filed documents may be examined by the public at the Kittitas County Community Development Services (CDS) office at 411 N. Ruby, Suite 2, Ellensburg, Washington, 98926, or on the CDS website at <http://www.co.kittitas.wa.us/cds/current/>. Phone: (509) 962-7506.

Written Comments on this proposal can be submitted to CDS any time prior to 5:00 p.m. on January 3, 2012. Any person has the right to comment on the application, receive notice of and participate in any hearings, and request a copy of the decision once made. Appeal procedures can vary according to the type of decision being appealed, and are described in Kittitas County Code, Title 15A.

Environmental Review (SEPA): The County expects to issue a Determination of Non-Significance (DNS) for this proposal, and will use the optional DNS process, meaning this may be the only opportunity for the public to comment on the environmental impacts of the proposal. Mitigation measures may be required under applicable codes, such as Title 17 Zoning, Title 17A Critical Areas, and the Fire Code, and the project review process may incorporate or require mitigation measures regardless of whether an EIS is prepared. A copy of the threshold determination may be obtained from the County.

Public Hearing: An open record hearing will be scheduled before the Kittitas County Board of Adjustment after the SEPA environmental threshold determination has been issued. A Public Hearing Notice will be issued establishing the date, time and location of this hearing.

Required Permits: Conditional Use Permit,

Required Studies: None.

The following development regulations will be used for project mitigation and consistency:

- Kittitas County Comprehensive Plan & Zoning Ordinance.