

September 17, 2009

Ms. Anna Nelson
Kittitas County Community Development Services
411 N. Ruby, Suite 2
Ellensburg, WA 98926

Re: Application of Teanaway Solar Reserve LLC
For Conditional Use Permit (CUP)
Teanaway Solar Reserve (CU-09-00005)

Statement of Position: The Application to site a massive photovoltaic solar generating project, including 400,000 solar panels on 1.5 square miles of beautiful and productive forest land which is prime habitat for many birds and animal species, including the large Teanaway elk herd, is inappropriate and should be denied. A 15 day public comment period for this Application is totally inadequate and should be extended to 90 days. In addition, the expanded SEPA checklist filed by the Applicant is inadequate and flawed. The Applicant should be required to conduct a full environmental impact study (EIS) for its proposed project with ample opportunity for public review and comment before any determination on the Conditional Use Permit is made.

Dear Ms. Nelson:

This letter is written in response to the Notice of Application of Teanaway Solar Reserve LLC for a CUP to build a major industrial solar reserve power plant on 982 acres of land, which is located on land zoned Forest and Range. Pine Hills Ranch is the owner of 500 acres immediately adjacent to the east boundary of the proposed solar site. While we recognize the importance of solar and other alternative energy technologies for meeting our future energy needs, we believe the site chosen is inappropriate and incompatible with the historical character of the whole area, with the current uses of the site, with the important wildlife habitat that the site and surrounding area provide and with the current uses of the surrounding property ownerships.

The project area as described by the Applicant consists of 982 acres, or about 1.5 square miles. The surface of the panels alone would cover about 160 acres (400,000 panel x 17.1 square feet per panel / 43560 square feet per acre) without even considering the added panel structures, posts, concrete footings, substations, access roads and other infrastructure related to the project, which will be sited on south sloping (in some cases steep) terrain. This industrial project will have a devastating impact upon the wildlife and mixed Ponderosa forest and meadows on the site and cause severe impacts on its surrounding neighbors and the general area, including potentially the Teanaway River.

In light of these impacts, it is totally inappropriate to allow only 15 days for comment on the CUP Application and expanded SEPA checklist for this project, which will be huge in scope and, according to the Applicant, will be the largest of its kind in the United States and possibly

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world. The current comment period should be enlarged to 90 days to give the public reasonable opportunity to comment. It is also inappropriate for the County to apparently prejudge the SEPA review by stating in the Notice that “the County expects to issue a Determination of Non-Significance (DNS)” when the Application with its hundreds of pages of documentation was just received on August 18, 2009, and other parties have not even had a chance to comment, let alone read it. This statement is particularly egregious because the Applicants filing contains many “conceptual” representations, which make analysis of the impacts of where and how the proposed improvements will actually be constructed difficult, if not impossible, for both the County and impacted property owners to evaluate. Many of the SEPA responses provided by Applicant are either incomplete or inaccurate, and the Applicant has made no attempt to verify their data. The construction of a huge industrial energy production facility in the middle of a beautiful and productive forest and meadow ecosystem which hosts a large wildlife population is not appropriate. This type of project requires the undertaking of a full environmental impact review (EIS) for the project.

Given the short time period for responses and the unclear dividing line between issues relating to the Conditional Use Permit, the Development Agreement, and the SEPA review, our comments will be general and will apply to all of these documents. Pine Hills Ranch, specifically and without limitation, reserves the ability to raise new issues as they arise. Further, Pine Hills Ranch, specifically and without limitation, reserves and does not waive its ability to appeal all aspects of this project, including the County’s procedural and substantive SEPA decisions, the Board of Adjustments approval of the project and the County’s entry into the Development Agreement.

A. Pine Hills Ranch. Pine Hills Ranch LLC consists of 3 cabins located on about 500 acres of forest and meadow, extending from Weihl Road on the south to the Teanaway River on the north. Our road access is from Weihl Road. We abut the solar reserve as proposed on its east and northeast borders. Our property, which has been used for forestry, open space, agriculture and recreation is owned by 11 families. The property was acquired in the late 1960s, so we have a long term familiarity with the proposed solar site, as well as our own property. In the early years, cattle were grazed on our property and the solar site (Boise Cascade property then) by a local rancher. Over the years we have hiked, skied, and biked on the proposed site. We have also held or hosted a number of orienteering meets using the site in conjunction with our own property. In fact, the Cascade Orienteering Club created a very detailed and expensive map (with several recent updates) of the whole area for a national meet held there and for many subsequent meets, all done with the permission of the land owner. In excess of 2000 participants have crossed the site during these events. A copy of the revised 1994 orienteering map with Applicant’s Figure 5 Conceptual Site Layout placed on it is provided as Attachment A. (Please note that an arrow indicates True North, while the map’s vertical lines are oriented to magnetic north for orienteering purposes). Over the years, Boise Cascade did some of the logging on our property, and on several occasions we allowed them to move their logs across our property. We love the land and try to manage it in an environmentally sound manner. We do not allow hunting on our property, and it therefore is somewhat of a sanctuary for the abundant wildlife that lives on and crosses our property, much of it coming from or going to or through the proposed solar site.

B. Proposed Solar Site. Contrary to the discussion in some of the Applicant's supporting materials, the proposed site is a special property with an open pine forest with lovely wetlands and meadows. In the spring, the land is green and full of flowers. As discussed in a later section, birds and animals can be found throughout the area. This land has always been used as commercial forest with some cattle grazing. In recent years, the pine forest has been badly overcut in our opinion, and particularly on the south, dry slopes it has suffered. Trees grow slowly at this elevation, but the property is beginning to heal, with many new seedlings coming up. Aerial photographs of the site provided by the Applicant give the appearance of very few trees, but there is much more cover when viewed from ground level. As noted previously, the site has been overcut, but there are still many trees of various ages, and it remains an open Teanaway ponderosa forest. Looking at aerial photographs in the Applicant's filing, our property line is obvious because of the denser forest cover on our side. See Attachment B (Applicant's Figure 5, Conceptual Site Layout). Forestry requires a long term horizon in the Teanaway area. As detailed in the next section, in addition to its uses as a commercial forest, the property has been and is continuously used for recreation by neighbors and many in the Cle Elum community.

C. Recreational Uses. As opposed to the discussion in Applicant's Application (see SEPA Checklist p.36), the site area has been used by neighbors and people from the Cle Elum community for recreation in ways that don't interfere with forestry operations for as long as we have been neighbors, and probably long before. The site is often hiked, biked and visited by bird and flower enthusiasts. Many ride horses through it, including Flying Horseshoe Ranch down in the valley and other horse groups. Hunters frequent the site during hunting season, looking for deer, elk and bear, which has on occasion caused us problems when they stray on to our property where we do not allow hunting. As previously discussed, many orienteering meets have been held on the property. Thus, if the Applicant actually enforces a prohibition on public access to the site, there will be a significant loss of public access and recreational opportunities.

D. Plant Life. We are not in a position in this short comment period to comment on endangered plants on the site (unlike the Applicant, we have not had unlimited time to prepare materials for this proceeding). However, as noted by Applicant, there are a number of meadows and wetlands on the site. Some of these areas dry up with the heat of late summer and some stay wet. In many areas the plant life stays green and the soil damp long after the surface water is gone. They again recharge with the fall rains. These areas are frequented by wildlife. If these areas are surrounded by arrays of solar panels, roads and other solar infrastructure, they will be substantially impacted either by the flash run-off of water from solid surfaces or by the diversion of water resulting from these structures. (See also G. Hydrology). It is also doubtful that these sites will continue to attract the deer and elk, and this issue should be studied as part of an EIS.

E. Animals. The area of the proposed solar site has sizable populations of birds, reptiles and mammals. The site is generally similar to our property in terms of the wildlife on the site. Wildlife are not concerned with property lines, unless there is fencing, and there currently is no fencing. During the day, one regularly sees red-tail hawks soaring over the site looking for mice or other small animals, and at night it is the sound of owls hooting. All sorts of birds, raptors including hawks, owls and occasional eagles, quail, wild turkey, deer, elk, coyotes, cougar and bear frequent the site. We do not know if there are spotted owls or other endangered birds on the

site, but Applicant's brief and superficial survey does not adequately address this possibility.

Applicant's wildlife field studies also failed to establish wildlife baselines for the different seasons of the year, even though the variety and numbers of a given species can change dramatically by season. For example, that is a major reason why in Applicant's SEPA checklist, its consultants found few deer and elk on the site. They conducted animal field studies on June 16-19 and July 9, 2009, which is the beginning of the hot summer months, particularly on the site's south facing slopes. While the many small mammals may stay put during the day and wait for cooler evenings, the larger mammals such as deer and elk that do stay around simply move back and forth to avoid the heat of the day. They will then move through Applicant's site, as they do on our property, in the evening or in the early morning and then move to the cooler, more heavily forested areas on the north facing slopes or down to the Teanaway River during the heat of the day. Consequently, it is not surprising to see few deer or elk, let alone predators, during the day during hot summer months.

Of course, some of the deer and many of the elk do migrate to the higher country during the summer months, but they are on the proposed solar site and our property more months than they are gone. We typically see the larger herds move back in early October, and many remain into June, with some stragglers staying through most of the summer. Animal field studies done in late June and July will therefore miss, as they did in this case, the big herds that are resident for much of the year.

Applicant's characterization that the elk winter down by the Teanaway River is also only partially true, and it depends a great deal on the snow cover. With increasing development in the valley and along the Teanaway River, they appear to have moved more into the uplands, which include the solar site. The south facing slopes of the solar site often lose their snow cover early which provides easier access to food. It is not unusual to count 40-50 elk in our field, and on one occasion I lost count at 130 elk. The elk don't care about property lines, and they move daily across our property and the solar site, as well as other properties. The tracks from the herd leading in to the solar site are easy to spot in the snow.

The solar site also provides habitat for predatory animals such as coyotes, cougar and bear, which frequent the proposed site along with our property. I have observed a coyote den on the site within the proposed eastern setback area near our property line. We have also observed cougar tracks and bear scat on the site. Cougar have large territories and tend to follow the movements of the deer and elk herds. We have seen them on our property, and I have confirmed their presence on our and the adjacent site through the tracking program of Project CAT. We found 5 winter kills of deer or baby elk on our property alone this spring.

The bottom line of this discussion is that deer and elk and their associated predators are far more prevalent on the solar site for much more of the year than indicated by Applicant's field studies. And the species and number of birds will also vary with the season. For example, we see and hear more owls in the late fall and winter when the Great Horned Owls move south. If the Applicant's animal study had been done at various intervals throughout the year, there would have been significantly more large mammals observed. We believe that Applicant's study conducted over a five day period in one year is wholly inadequate to truly gauge the impact of this huge project on animals in the area .

F. Fencing/Access. The issue of fencing is a very important issue in the discussion of the effects of the project on wildlife. As we have already discussed, there are large populations of deer and

elk, as well as the predators that follow them, that move on a daily basis on and across the site. Some of these animals also seasonally migrate in the late spring to the higher country and return in early fall. The 982 acre project site extends from the populated south side located around the upper end of Wehl Road up across Cle Elum ridge and down to the Teanaway River, or about a mile. The site extends east-west almost 2 miles at its widest point. If the site was fenced, the wildlife on and around the site would be decimated.

On the other hand, Applicant states that there will not be public access to the site and that the gate will be locked. Without fences, how will the Applicant keep out the same public that has traditionally used the site in the past, when they state that the same 'no public access' policy was in effect?. A major difference, of course, is that in the past there were only trees on the site. The proposed project will place millions of dollars of solar panels, wiring, buildings, transmission lines and other equipment on the site. How will this be protected from vandalism, theft, target shooting? Will Applicant seek to change this policy in the future?

This issue cannot be addressed in a 'conceptual' manner. If Applicant agrees that no fences will ever be built on the site, this must be explicitly stated as an enforceable condition of the permit.

Even in the absence of fencing, Applicant has provided no evidence that deer and elk will spend much time walking or grazing under huge arrays of solar panels and between thousands of supporting structures, with maintenance and security vehicles in the area. Fire protection will require cleared areas around and under the equipment. Thus wildlife, both birds and mammals will effectively be displaced from 500+ acres of the site. The impacts of this displacement must be evaluated as part of an EIS, which addresses the issues of wildlife corridors, buffers and open areas in designing the project. We have been informed by WFW that the elk herd is currently below target levels and that there is a shortage of habitat. Applicant's project would further reduce that habitat.

In an attempt to be more specific about elk movements, regardless of the season, I have marked on attachment B (Applicant's Figure 5 Conceptual Site Layout) our general observations of the main elk movements, both daily and seasonally, which cross our property on to the east/northeast corner of the solar site. Although they cross at virtually all points, in a general sense they move up Cle Elum ridge to the upper meadows and also onto the north facing slopes above the Teanaway River. The deer cross on to the site in more random fashion.

As attachment B shows, Applicant's "conceptual" design shows about a 500 foot setback along its eastern boundary and very little development proposed in the northeast part of their site. This fact is probably due primarily to the north facing nature of the land as it slopes down toward the Teanaway River in much of this area. Regardless of the reason, if the CUP is approved, this setback along its boundary and the northeast part of the site should be left in its natural state and set aside as wildlife corridor and wildlife open space to protect the elk, deer and predator populations. We are not very familiar with the western portions of Applicant's site and therefore do not comment on it specifically, other than to note that it is all part of the same ecosystem, and it also should be studied as part of an overall EIS.

G. Forestry. As discussed previously, the solar site has been used over the years primarily to grow timber, and the site has been logged many times. The site currently suffers the result of over-aggressive logging, but it remains valuable for forestry as well as habitat, as long as one takes a long term view of forestry. It is our understanding that the land owner wanted to cut more aggressively on the south facing slopes of the site, but was not allowed to do so. Consequently,

there remain quite a few trees serving both as seed trees and animal habitat. The solar project would presumably remove most of the remaining trees on these slopes to make way for solar panel arrays, roads and other solar infrastructure, thus eliminating valuable animal habitat, eliminating views and buffers, and creating substantial water run-off issues, which have not been addressed by Applicant.

The "artist's conception" pictures of the site distributed by Applicant as part of its public relations program show a lovely pine forest with intermingled solar panels. This is not the real life view of what this industrial site would look like after construction.

H. Hydrology. Applicant's depiction of the developed portion of its site places the majority of its panel arrays on the south facing slopes, which makes sense for photovoltaic power generation. In fact, some of these south facing slopes are quite steep. However, Applicant hardly mentions the water run-off and siltation issues that will result from the construction and maintenance of this solar facility. This run-off and silt will ultimately end up in the Teanaway River, a river that has species of fish, including Bull Trout, that are listed as threatened and/or endangered under the Endangered Species Act. Both the Teanaway and Yakima Rivers are also currently the focus of state and federal efforts to restore salmon runs.

Picture a heavy rain or snowfall, or even a combination of the two, falling on these slopes denuded of most of their trees and covered with about 160 acres of solar panels plus many additional acres of impervious surfaces for roads and other structures. The water will sheet off of the site on to properties downhill and ultimately to Red Bridge Road, the valley and the Teanaway River.

If this scenario sounds familiar, it is exactly what happened last January when the large Chinook or Pineapple Express hit the upper County, causing extensive damage to Red Bridge Road, Wehl Road, and surrounding properties and access roads, including our road. The whole hillside was a river of water and snow flowing toward the Teanaway and Yakima Rivers. And this occurred before any solar project was built! Although last January's 'event' was extreme, we have seen a number of January/February Chinooks over the years, and global warming projections indicate that there will be more of them.

The flash run-off effect of the project may also negatively impact ground water recharge. Water running rapidly off of this huge site, which has been denuded of tree cover, will not percolate slowly into the ground water, where it slowly will work its way to the valley and the Teanaway River, feeding wells along the way. This issue is already a major issue of contention between the County and the Department of Ecology, with the resulting ban on new wells.

Finally, we also have serious concerns with pollutants from the metal, alloys, plastics, lubricants, glues, etc. which may wash off of the solar structures from this huge scale project into surface water, into the wetland areas, and potentially into ground water. We have the same concern with the herbicides used to control brush and grass around and under the panels that will wash off the site.

Applicant has failed to address these issues in any meaningful way and they need to be addressed in an EIS..

I. Access. The proposed road access to the solar site comes up the lower portion of Wiehl Road and then branches west on to Loping Lane past a number of homes and undeveloped properties before reaching Applicant's gate. Wehl Road continues beyond Loping Lane for a substantial distance and provides access to a large number of homes, plus a number of subdivided lots which

have not yet been developed. Weihl Road is a public right-of-way, but it is not currently maintained by the County. It is a gravel road maintained intermittently by various land owners, but it has been in very poor condition since the January storm. We do not know the ownership of Loping Lane. Applicant paints a picture of very few homes and very little traffic on Weihl Road, which is not correct.

The proposed development of the solar site would have a very damaging impact on both Weihl Road and Loping Lane. The transit of large numbers of trucks and other heavy equipment making thousands of vehicle trips on these gravel roads over a number of years of construction and then ensuing maintenance of the facility will tear them up in the long mud and ice season and will turn them to dust storms in the dry season.

If the County decides to approve the solar project, it must require the developer to improve Weihl Road to paved County standards and the County should then accept the road and maintain it. Logic would suggest that the same should be done for Loping Lane, but we will let those owners address that issue. It should also require that Applicant provide a secondary access to its site as it requires in other developments.

J. Proposed Setbacks. Applicant has only provided a "conceptual" view of the actual solar panel placement on its site and the related project setbacks from its property lines. This conceptual representation is included as Attachment B. This attachment shows about a 500 foot setback along our joint property line. Because this is only a conceptual representation, we have no way to determine if this setback is adequate to mitigate the impacts to our property.

We believe that a larger setback will not only help to shield our property from some of the negative effects of the project but also help to provide a buffer and corridor for deer, elk and other wildlife to move up the slope to the north facing areas of the site, where Applicant shows no construction and where we have observed the most deer and elk activity. These setbacks should be made a condition of any permit and not something to be applied in Applicant's discretion.

Applicant also shows only a minimum setback of 100 feet along portions of its southern boundary which pass close to a number of substantial homes. Although we assume that this issue will be addressed by those neighbors, this minimum setback seems unreasonable in light of its direct visual impact.

K. Noise. Applicant is silent on issues about noise resulting from the project. Obviously, if the project is approved, there will be considerable machinery noise from excavators, cement trucks, dump trucks and other equipment working on, in some cases, steep hillsides during the years of the construction phase. This issues needs to be addressed.

However, nothing has been said about the noise that might be generated by 15,000 solar panel arrays moving to track the sun, resetting at the end of the day, and potentially turning in unison to dump snow load in the winter. And do 400,000 solar panels producing power on a sunny day produce a sound?

In addition, anyone familiar with the upper County is aware of the strong winds that regularly blow through the area and along the hillsides of the proposed site. Just the afternoon wind is almost a daily occurrence. What noise does the wind make when it blows through 400,000 solar panels and 15,000 solar panel arrays? Does it whistle, shriek or just sound like the wind? We don't know the answer, and Applicant hasn't addressed it, but it could have a very serious impact on neighbors, surrounding land values and wildlife.

Applicant has bragged about the size of this project as being the biggest in the United States

and maybe the world, yet it has said nothing about the noise which may be generated by the size of its project. The noise issues are required to be addressed now under our understanding of the SEPA process. Applicant should be directed to address these noise issues as part of a full Environmental Impact Study.

L. View. Applicant downplays the visual impact of its constructed solar facility in its Application. This is definitely not the case for neighbors along the south line of the project who will be looking directly at a hillside lined with solar arrays with minimal setbacks or screening. As best as we can ascertain, the visual impact of the project should not be a major issue for us, once we are on our property, provided that adequate setbacks are imposed. However, it will be very apparent to us or anyone driving on the upper portion of Weihl Road. Attachment C is a panorama picture taken from our gate on Weihl Road looking up the ridge in a northwest direction. It shows several of the homes along the south border of the project, and more are out of sight up the hill to the west. It appears that most of the trees on and close to the ridge line in the right center portion of the picture will be removed and replaced with solar panel arrays.

In addition, since we can see our property from several high points along I-90 going to or from Ellensburg, the site will be visible from a large distance once the trees adjacent to us are replaced with massive arrays of solar panels. The site will also be visible to many properties that have an elevated view of Cle Elum Ridge, which covers a considerable territory. These issues should also be evaluated in the context of a full EIS.

M. Fire Danger. Fire is a concern to all who live in or near the woods and grasslands in the Teanaway area, particularly with its summer hot, dry and windy conditions. Applicant will have a huge number of wires, electrical connections, transformers, electric substations, a transmission intertie and other electrical equipment in close proximity with acres of dry grass under its approximately 160 acres of solar panels. What facilities such as water storage, pumping facilities and fire response equipment will Applicant have on site to respond to any fires that may start on its site, so that they do not quickly spread to adjacent properties before the fire district can respond? Applicant should be required to respond to this concern as part of a full environmental impact study.

Conclusion: Applicant promotes this huge solar project as a 'green' project. We submit that it is not a 'green' project, since it displaces a productive, carbon-fixing forest and meadow ecosystem containing important and healthy wildlife habitat, including large herds of deer and elk. If this project were located in the open, arid lands by Vantage or further east or on the Hanford Reservation, it would be 'green'. Since Applicant has chosen to place its project on this inappropriate site, its proposed project and the many damaging impacts that it would create must be fully examined with a thorough environmental impact statement.

Respectfully submitted,



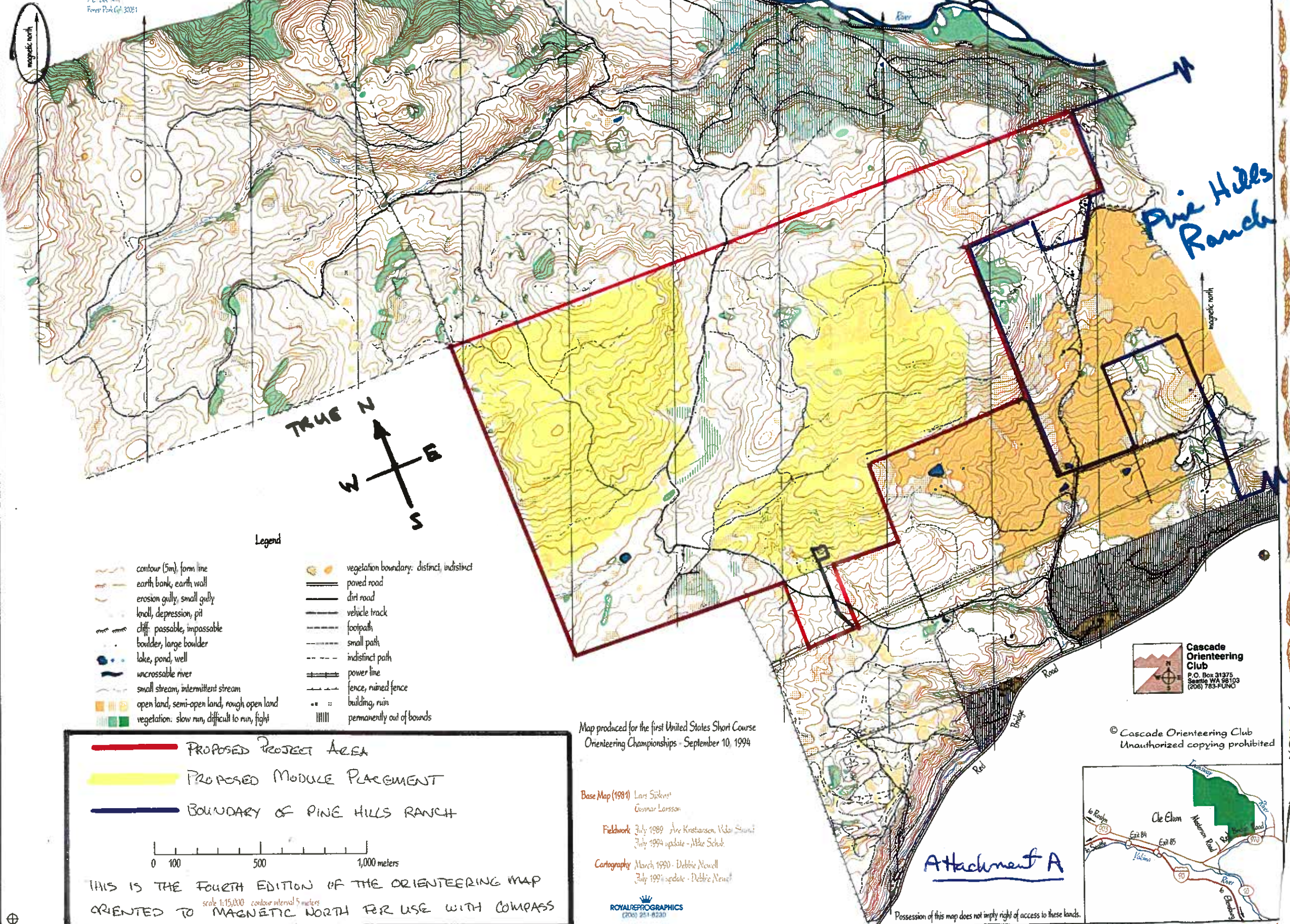
Charles Adams
General Manager
Pine Hills Ranch LLC

Cle Elum Ridge

Cle Elum, Washington
 scale 1:15,000 contour interval 5 meters

RECREATION MAP
 WA 1 July 1994

This map has been produced with assistance from the United States Orienteering Federation with the purpose of promoting orienteering in the United States. For more information about USOF, write:
 United States Orienteering Federation
 P.O. Box 1444
 Forest Park, GA 30051



Pine Hills Ranch

Legend

- | | |
|-----------------------------------------------|-------------------------------------------|
| contour (5m), form line | vegetation boundary: distinct, indistinct |
| earth bank, earth wall | paved road |
| erosion gully, small gully | dirt road |
| knoll, depression, pit | vehicle track |
| cliff: passable, impassable | footpath |
| boulder, large boulder | small path |
| lake, pond, well | indistinct path |
| uncrossable river | power line |
| small stream, intermittent stream | fence, ruined fence |
| open land, semi-open land, rough open land | building, ruin |
| vegetation: slow run, difficult to run, fight | permanently out of bounds |

— PROPOSED PROJECT AREA
 PROPOSED MODULE PLACEMENT
 BOUNDARY OF PINE HILLS RANCH

0 100 500 1,000 meters

THIS IS THE FOURTH EDITION OF THE ORIENTEERING MAP
 ORIENTED TO MAGNETIC NORTH FOR USE WITH COMPASS
scale 1:15,000 contour interval 5 meters

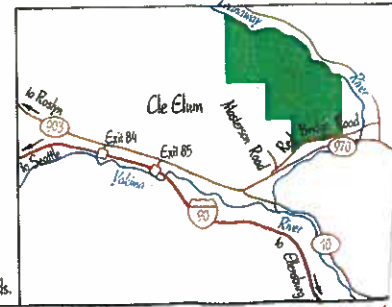
Map produced for the first United States Short Course Orienteering Championships - September 10, 1994

Base Map (1984) Lars Sjöberg, Gunnar Larsson
 Fieldwork July 1989 Åke Kristansson, Valer Strand
 July 1994 update - Mike Schulz
 Cartography March 1990 - Debbie Newell
 July 1994 update - Debbie Newell

ROYAL REPROGRAPHICS
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 Seattle WA 98103
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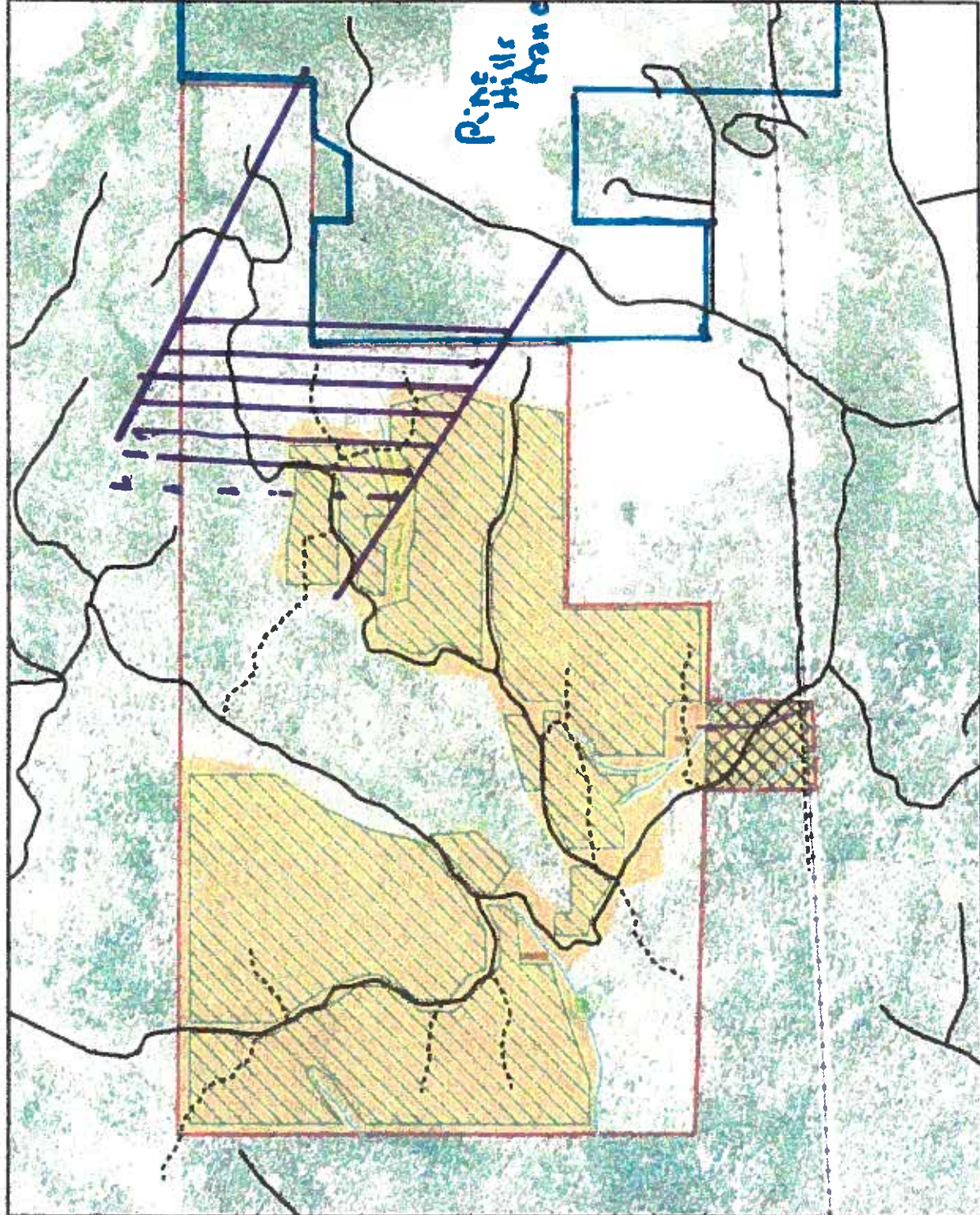


Attachment A

Possession of this map does not imply right of access to these lands.



- LEGEND**
- Proposed Project Area
 - Proposed Project Site (560 acres)
 - Proposed Powerline Route to Grid
 - Potential Module Placement Area
 - Proposed O&M Facility
 - Proposed Substation
 - Proposed Switchgear
 - Transmission and Access Corridor
 - - - Existing Transmission Line
 - Road
 - - - Minor Dirt Road
 - Wetland
 - Wetland Buffer
 - Stream
 - Stream Buffer



Map
1. Aerial Imagery: 2005 1m NAIP.



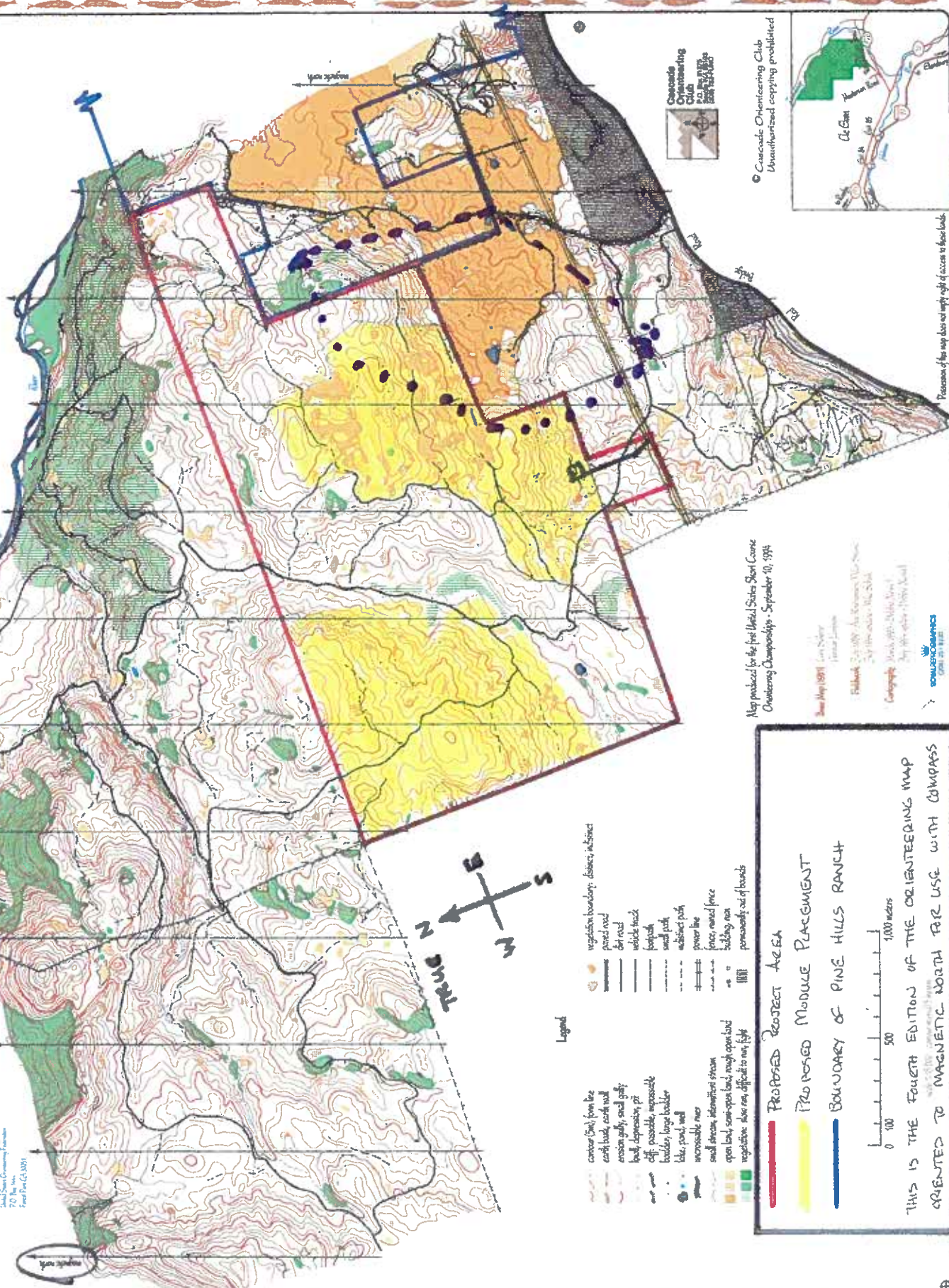
FIGURE 5
Conceptual Site Layout
Tenney Solar Reserve
Kitsap County, Washington

Cle Elum Ridge

Cle Elum, Washington
Scale: 1:50,000 (approximate) 5 meters



This map has been produced and reviewed by the United States Orienteering Federation, with the support of the University of Washington. For more information contact USOF, c/o Forest Service, 2700 1st Ave., Forest Park, CA 95028.



- Legend**
- contour lines from the center line, creek wall
 - erosion gully, small gully
 - rock depression, pit
 - off, possible, unpassable
 - hazard, large boulder
 - lake, pond, well
 - accessible river
 - small stream, intermittent stream
 - open land, semi-open land, rough open land
 - vegetation, also see difficulty in our field
 - vegetation boundary, distinct, indistinct
 - paved road
 - dirt road
 - vehicle track
 - footpath
 - sand path
 - access path
 - power line
 - fence, metal fence
 - building, ruin
 - permanently out of bounds

PROPOSED PROTECT AREA

PROPOSED MODULE PLACEMENT

BOUNDARY OF PINE HILLS RANCH

0 100 500 1000 meters

THIS IS THE FOURTH EDITION OF THE ORIENTEERING MAP CREATED TO MAGNETIC NORTH FOR USE WITH COMPASS

Map produced for the first United States Short Course Orienteering Championships - September 10, 1994

June 1991: Lisa Selzer, James Johnson
 February 1992: Ann Korman, Willa Nee
 July 1992: Mike, Mike, Steve
 August 1992: Mike, Steve
 July 1993: Mike, Steve

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Portion of this map does not imply right of access to these lands.

March 23, 2010

Ms. Anna Nelson
Kittitas County Community Development Services
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Re: Application of Teanaway Solar Reserve LLC
For Conditional Use Permit (CUP)
Teanaway Solar Reserve (CU-09-00005)

Dear Ms. Nelson:

This letter is filed in response to the supplemental application materials filed by the applicant TSR. We originally filed comments on September 17, 2009 and those comments are incorporated by reference. In spite of the many hundreds of pages of supplemental materials, the filing is still essentially the same proposal with a few 'tweaks' to address certain agency and public concerns. It is still a proposal to build a large industrial energy facility on a special and functioning forest/meadow/wetland habitat. The project has questionable economic viability and substantial negative impacts. If this type of project is to be built, it should be sited at a lower elevation in more arid conditions, such as in the Vantage or Hanford areas, where the power generation would be somewhat higher with fewer environmental impacts. If a project of this impact is to proceed, it requires a detailed environmental impact statement to consider in depth the full impacts of the project, not just the limited studies that TSR has filed to support its request for a determination of non-significance.

As previously mentioned, this filing includes hundreds of pages of supplemental materials and discussions of 'deals' made with agencies such as the Washington Departments of Fish and Wildlife (DFW) and Ecology (DOE). We have neither been included in these discussions nor have we seen the agreements. Given the short time for review, our comments will be directed only at certain underlying and mitigation issues.

1. Alternatives. There has been virtually no examination of alternative sites or even the basic business model that supports this proposed project in the supplemental materials, other than that the project is 'solar' and 'green' and thus presumably good. To the best of my knowledge, neither the county nor the public have even been provided with a copy of the ground lease between TSR and the related landowner, AFLC, Morton Timber, or whatever newly created company now in theory owns the underlying property.

However, even without the ground lease terms and conditions, some of the basic economic inputs of this proposal can generally be determined. First, TSR brags that their project

will provide 75 MW of green solar power to the power grid. This 75 MW is presumably the name plate or maximum rated output of the project at full power production on a clear, sunny day at noon, with no snow, dust, smoke or other factors interfering with solar electric production. This number does not factor in the many 'real world' conditions that affect energy production of an actual operating facility, such as the hours of daylight (it doesn't generate in the dark) which vary by season, the time of day (sun angle), rain, snow, clouds, fog, maintenance, etc. An optimistic estimate of the actual energy output of this proposed plant would be about 30% of nameplate output (called a capacity factor) or about 22.5 MW of output over a full year. The Northwest Power and Conservation Council uses a capacity factor of 25% for this type of plant. Coal and nuclear thermal plant capacity factors generally range between 75% and 90% on an equivalent basis. At an estimated construction cost of \$300 million (and it could be much higher), TSR's plant cost alone is about \$13.3 million per MW. Attachment 1 is a cost comparison conducted by the Council for different types of generating plants displayed on a cost per MWh basis which was recently adopted in the Council's 2010 plan. Note the very high cost of energy of solar on the far right, even when compared with local wind power in the center. While there are public policy reasons why solar and other alternatives such as wind and geothermal, as well as natural gas, are favored over coal plants, this cost disadvantage is huge, even with federal and state tax benefits, and presumably will be passed on to the state's electricity consumers, if there are utility buyers in the first place. This analysis does not even consider the increasing value being placed on forested sites for carbon sequestration and carbon credits.

The bottom line is that there are many unanswered questions about the economic viability of this proposal which have gone unquestioned by the county. The fact that the county has not seen, let alone demanded, a copy of the underlying land lease is astounding. If the county proceeds to approve this application, it behooves the county to protect itself and its citizens with iron-clad bond and decommissioning provisions.

2. Ecological Factors. TSR's supplemental response contained in both the Expanded SEPA checklist and Wildlife Mitigation discussion are full of contradictions. First, although TSR provides additional information based on DFW reports on elk which do not deal specifically with the TSR site (nor with our property), TSR continues to rely on the one flawed and only on-site study that it performed on several days in late June and early July of last summer. They appear to have done no follow-up studies for the October-April time period, which they agree is the over-winter season when elk are most often on the site. They then make statements such as the closest wintering habitat is across the Teanaway River, while at the same time that some of this area is typically used as a calving and fawning area during the spring and summer. They even mention that DFW even stated that this is an area that it "would submit for designation as a critical area and a habitat of local importance for wintering deer and elk". However, the problem is apparently resolved by making a mitigation deal with DFW for a 2 for 1 acquisition of an additional 761 acres of habitat.

The record reflects that elk and deer do reside on and move across the TSR site, sometime in substantial numbers, primarily during the over-winter season. Calving and fawning does occur there during the spring and they use the wetland meadows. As a result of their

presence, cougars, coyotes, black bears and other predators visit the site. All kinds of small mammals, reptiles and birds also frequent the site. Neighbors can and have attested to these facts, even in the absence of a complete biological study by TSR. Although TSR, to its credit, has apparently agreed to reserve areas in the northeast corner of the property for elk migration, we have never been contacted by a TSR biologist or DFW biologist to ask for information. A brief discussion with the DFW field office last fall revealed that they had never been to the site or our property and were unaware of the elk presence there. I invited them to visit but they did not contact me.

A 'deal' between TSR and DFW doesn't resolve the impacts of the project on the property without a more detailed study in an EIS. Copies of TSR's Proposed Site Layout (Fig 4) and Enlarged One Megawatt Field are Attachments 2 and 3. The individual panels are apparently about 3-4 feet off the ground suspended on 8000 to 145,222 posts (depending on plan). They will present a glass and metal wall to foraging elk and deer. TSR's comments indicate that elk avoid roads and would likely limit their use of riparian areas where there is narrow width between arrays or the areas are surrounded by arrays which is the case on much of TSR's project. Without reasonable access to these wetlands, calving and fawning as well as foraging by elk and deer will be substantially curtailed or eliminated. These impacts have not been studied.

3. Views. TSR has moved some of its solar arrays so that they have reduced some of the visual impacts on adjacent property owners along TSR's southern boundary. Those owners can comment on how the change affect them, but reviewers are cautioned to look at large photo simulations rather than reduced sizes, which virtually eliminate the visual impacts and can be misleading. Visual impacts from high surrounding areas such as I-90 and Lookout Mountain will continue to be substantial.

4. Drainage. TSR's discussion of drainage and water run-off issues frankly mystifies me. TSR states that it will use pole support systems instead of concrete footings to support its solar arrays, thus reducing the soil disturbance and creating only 1.17 acres of impervious surface. Presumably this impervious area would differ, depending on whether the 8000 pole plan or the 145,200 pole plan is used. However, virtually nothing is said about the effects of 400,000 solar panels (3/4 square mile of coverage), apparently because these panels are "a disconnected impervious surface". Water will sheet off these panels and land in concentrated amounts on the ground. With the tree coverage and large brush removed with their associated deep roots, the water will then sheet off the hillsides into the various drainways below. This impact will be even more pronounced when the ground is frozen or summer rock hard.

The Pineapple Express of a year ago resulted in flooding without any solar panels in place. With the addition of 3/4 of a square mile of impervious glass, it will be worse, damaging properties below and the Teanaway River. Warming climate projections suggest a simultaneous snow melt/heavy rain event is more likely in the future. It is interesting to observe that 100 year storms seem to happen more frequently these days.

5. Noise. We raise two issues relating to noise. First, TSR states that construction will be

limited to the hours of 7 am to 7 pm. That noise in those hours will be very disturbing, particularly in light of the very low noise levels currently. To reduce these impacts, all construction should be limited to weekdays only. The more long term concern is the noise that might be generated by the regular strong winds that often blow through the area. Will they generate noise or harmonics as they blow over 400,000 solar panels? We don't know the answer, and apparently TSR doesn't know either. Anyone who has heard the shrieking sound that wind makes blowing through the rigging of a sailboat or around certain buildings will be very aware of this concern. Further testing and investigation of this important issue should be conducted in the context of an EIS before considering project approval.

6. Road Access. It is our understanding that the county will require that Weihl Road up to the junction of Loping Lane be improved to 24 foot width with pavement. Such a requirement is not sufficient. If the county decides to approve this project and impose its many burdens on surrounding properties and the environment, the county should require TSR to improve this portion of Weihl Road to county paved road standards, and the county should then take over responsibility for the improved road and its maintenance. At least then the surrounding properties (taxpayers) will get some limited benefit from the added county tax base.

7. Critical Areas. It is my understanding that the county's Critical Area Ordinance (Title 17A) which is being applied in this proceeding was required by state law to be updated by December 1, 2007 and that has not been done. The current CAO lacks sufficient fish and wildlife protections, which relates directly to the DFW comment mentioned earlier that the site should be designated as a critical area and a habitat of local importance for wintering deer and elk. This is another reason that a full and complete EIS should be required for this project.

In conclusion, the TSR proposal is a project of questionable benefits and questionable economic viability with substantial adverse impacts. At the very least, an industrial project of this scale requires the preparation a full EIS, just as other large wind generation projects and the proposed Marian Meadows PUD project have been required to prepare. Although TSR wraps itself in 'green' cloth, this is not a green project. If this project is constructed, it will only produce about 22 MW of extremely expensive electricity which will raise rates to electric consumers while at the same time it destroys a special and important forest/wildlife ecosystem that additionally sequesters carbon dioxide.

Respectfully submitted,

Charles Adams
General Manager
Pine Hills Ranch LLC

Figure 6-1A: Levelized Lifecycle Electricity Cost for Generating Options Available in the Near-term (2010-14)⁹

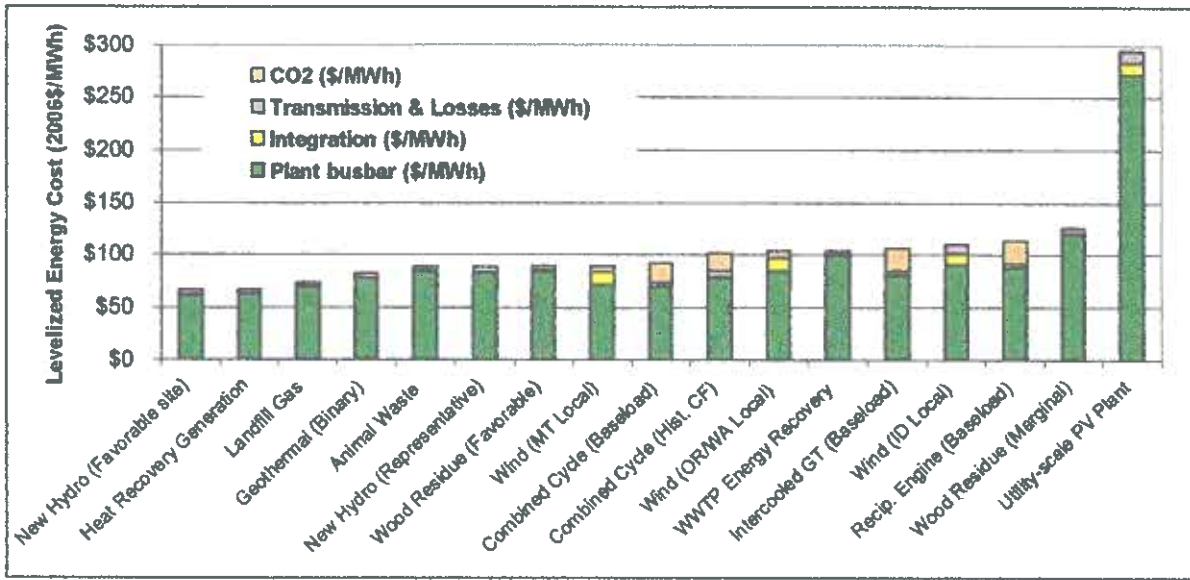
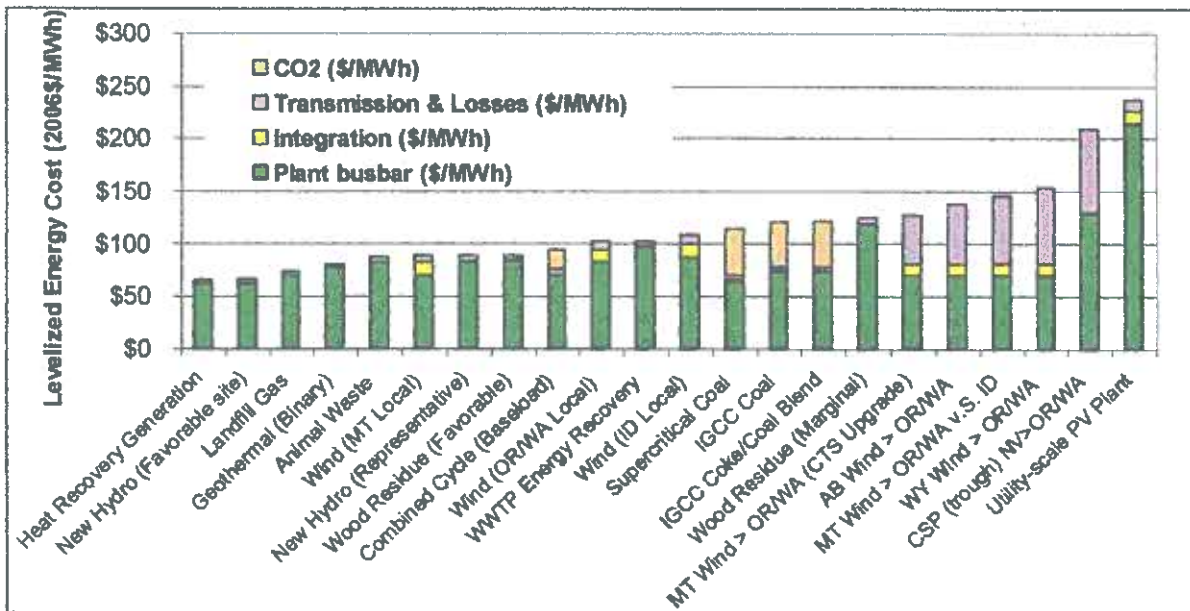
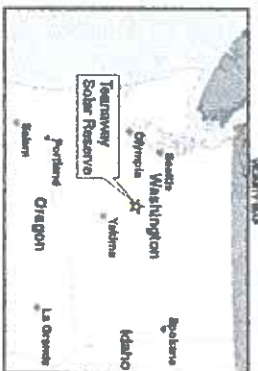
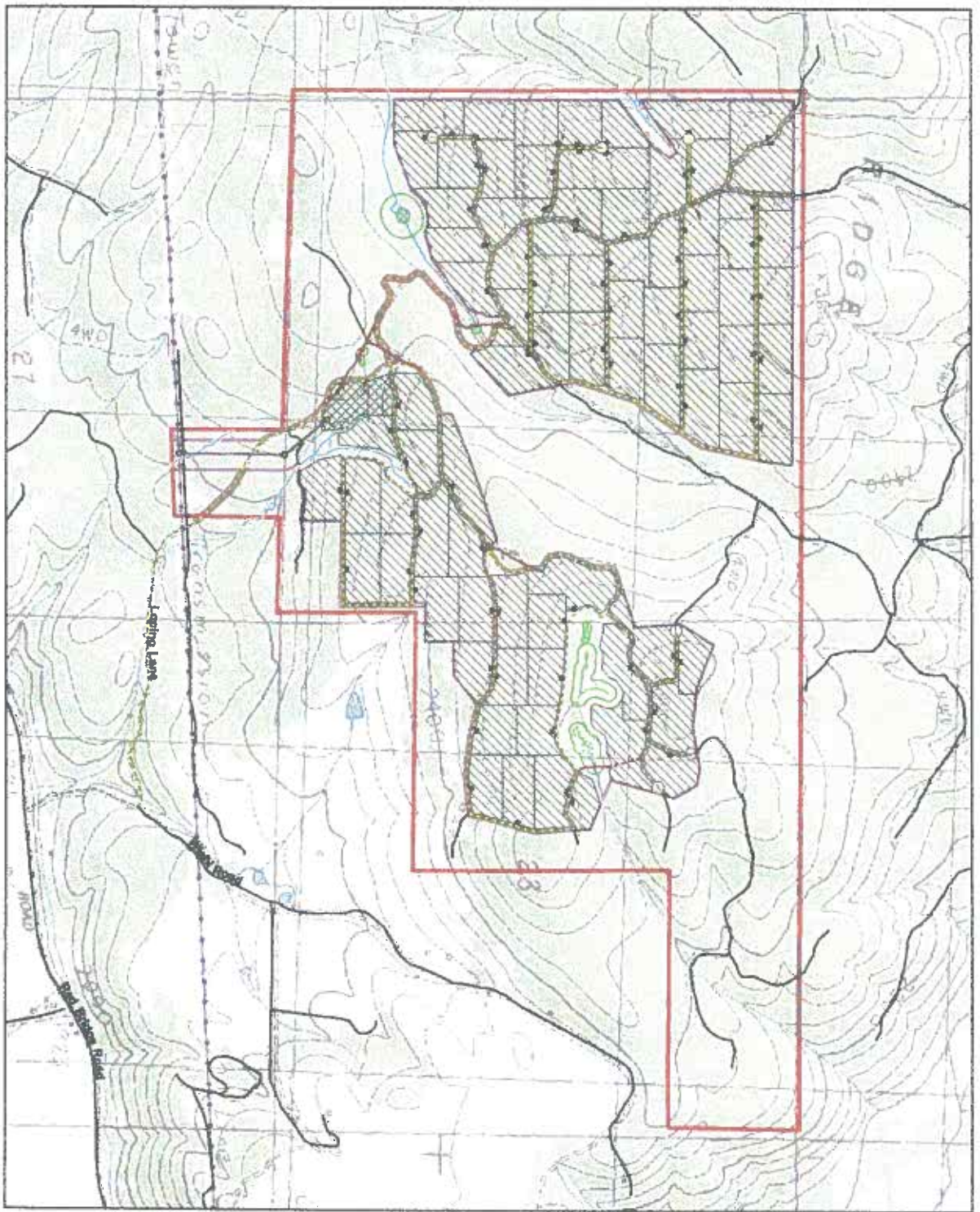


Figure 6-1B: Levelized Lifecycle Electricity Cost for Generating Options Available in the Mid-term (2015-19)¹⁰



⁹ Assumptions: 2015 service, investor-owned utility financing, medium fuel price forecast, wholesale delivery point. CO₂ allowance costs at the mean values of the portfolio analysis. Incentives excluded, except accelerated depreciation. Actual project costs may differ because of site-specific conditions and different financing and timing.

¹⁰ Assumptions as in Figure 6.1A except 2020 service.



LEGEND

- Proposed Project Features
- Proposed Project Area (932 Acres)
- Proposed Project Site (477 acres)
- Proposed PV Array Block
- Proposed PV Array Block and Field Transformer
- Proposed Substation/O&M Facility
- Proposed Transmission Line
- Proposed Transmission Structure
- Proposed Maintenance Road
- Proposed Improved Maintenance Road
- Existing Maintenance Road (Planned Decommissioning)
- Proposed Improved County Access Road
- Proposed Improved Private Access Road
- Existing Features
- Existing BPA Transmission Line and ROW
- Existing Road
- Stream
- Stream Buffer
- Wetland
- Wetland Buffer

Note:
 1. TSP has delineated a 300' area within which the BPA transmission line could be sited. Of this 300' area, a maximum of 200' will be cleared for the placement of the BPA transmission line. Final design and placement to be determined by BPA.

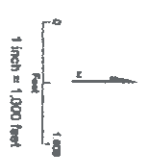


FIGURE 4
Proposed Site Layout
 Tea Run Solar Reserve
 Kootenai County, Washington

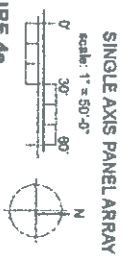
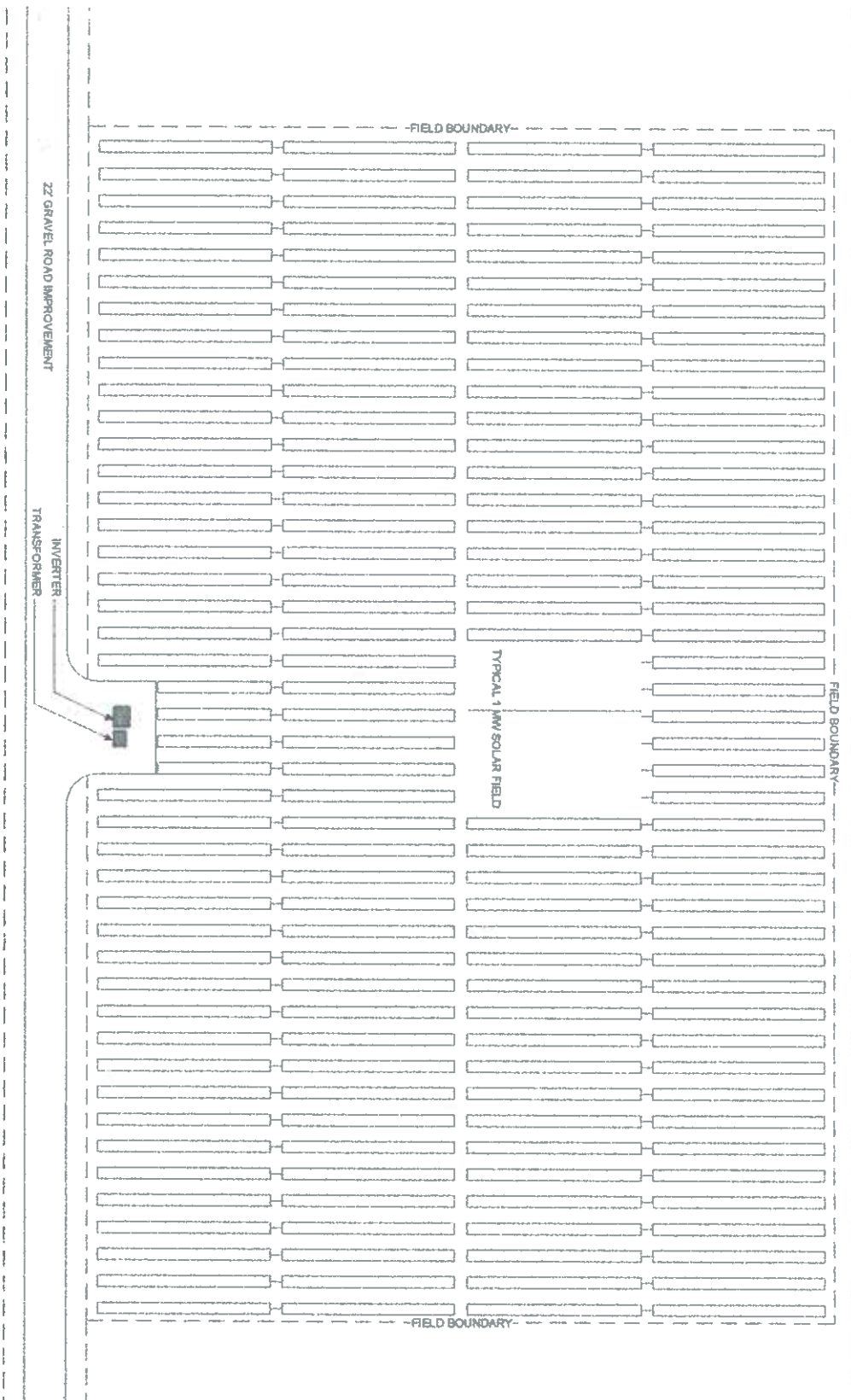


FIGURE 4e
 Enlarged One Megawatt Field
 Teanaway Solar Reserve
 Kittitas County, Washington

CH2M HILL

Attachment 3