

KITTITAS COUNTY DEPARTMENT OF PUBLIC WORKS

Kirk Holmes, Director

MEMORANDUM

TO: Dan Valoff, CDS
FROM: Christina Wollman, Planner II *sw*
DATE: April 2, 2010
SUBJECT: Marian Meadows PUD
EIS Comments

Public Works has reviewed the Marian Meadows Draft EIS and has the following comments:

1. Road Names and Locations: Throughout the EIS, in maps and descriptions, roads are either mislabeled or misnamed. Please see the attached Figure 3-10, edited by Public Works. Although none of these errors affects the integrity of the EIS, it should be noted that WSDOT has jurisdiction of the I-90 overpass, from the eastbound ramps to the intersection with Sparks Road. Public Works will work closely with WSDOT to develop the appropriate mitigation for the Sparks Road intersection. WSDOT may require additional mitigation for the on/off ramp intersections. Additionally, Country Drive is called Country Road on many pages, including 3-63, 3-64, 3-65, and 3-78.
2. ATVs Use of Sparks Road; Page 3-51: This section states ATVs "often use Sparks Road to access other areas." It should be noted that travel by ATV on any public road is illegal, except for travel by snowmobile on specific County Roads. The Kittitas County Sheriff's Office enforces this regulation and if caught is punishable with an infraction of up to \$124.
3. West Sparks Road: 2020 Peak Hour volumes show only 20 trips. There are currently almost 70 lots that access from West Sparks Road, and ADT for the past few years has averaged around 400. Based on ADT and future growth, 20 peak hour trips appears to be low.
4. LOS Delay; Table 3-13: The delay times for the 226-Lot subdivision plus existing rural zoning is not shown. Additionally, the bottom half of the table appears to be for Cumulative 2020 with PUD density, but it is not clearly labeled. As noted in the first comment, the main project access is not W Sparks Access.
5. Maintenance; Page 3-77: It should be noted that at intersections 1, 2 and a portion of 3, maintenance and upkeep is performed by WSDOT.
6. DNR Land; Page 3-89: I am unable to locate any DNR owned property surrounding the Easton airport or within the general vicinity of Easton. The previous paragraph states the DNR land was sold.

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7. Trail Standards; Page 3-98: This section states Kittitas County has standards that require trail systems within new developments. Please provide a reference to this requirement.
8. Hospital Districts; Figure 3-22: Hospital District 1 is incorrectly labeled in the legend as "3".
9. Stormwater Management; Page 3-167, 3-168: The Kittitas County Stormwater Code is located in 12.06, not 12.70. The Stormwater Manual for Eastern Washington has not been adopted in code. However, Public Works requires all stormwater plans, facilities and services to comply with the Eastern Washington manual. Stormwater may not be conveyed in County Road ditches.

Please feel free to contact me if you have questions on any of the comments.

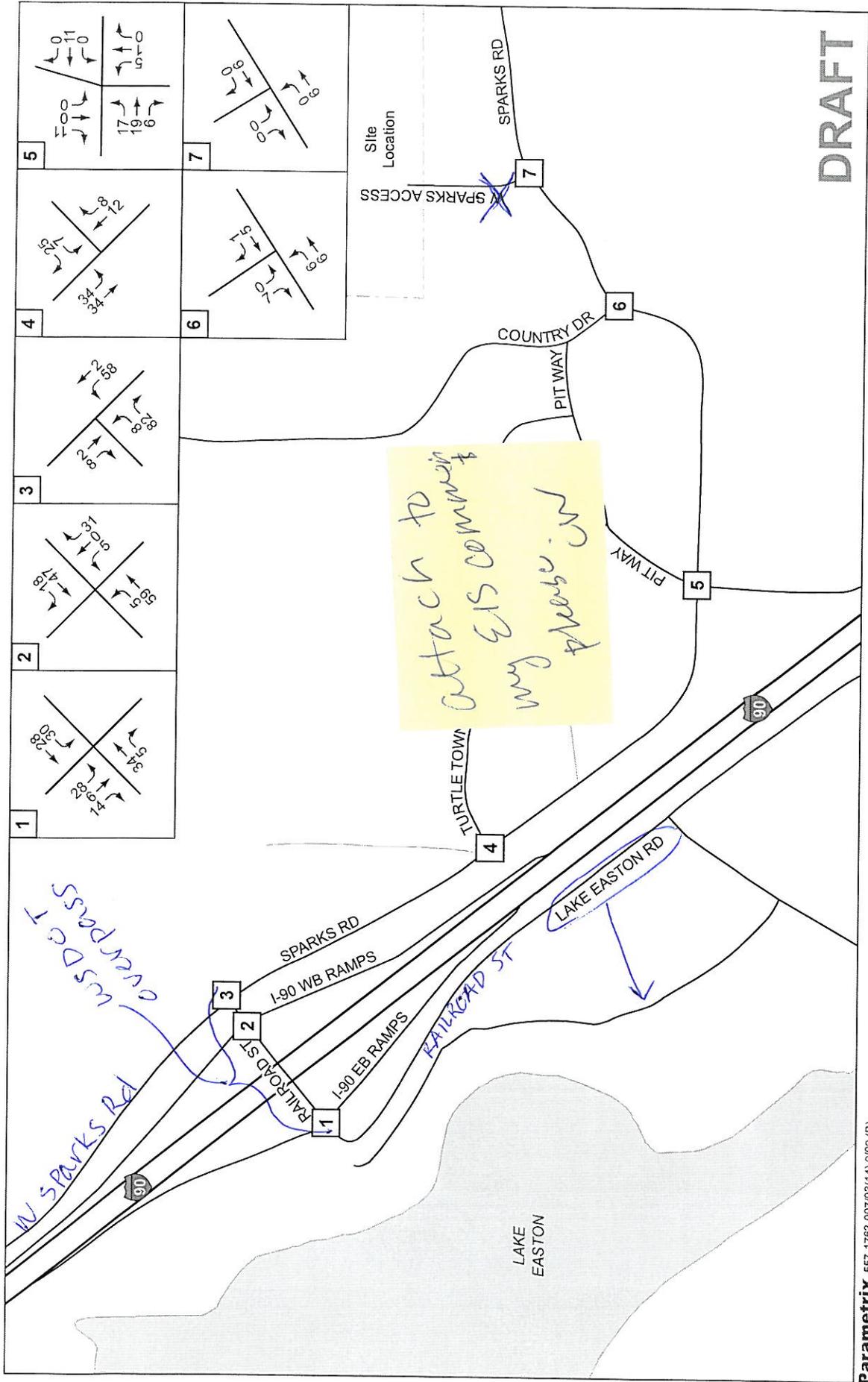


Figure 3-10
 Marian Meadows
 2020 No-Build PM Peak Hour
 Traffic Volumes



STATE OF WASHINGTON
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April 2, 2010

Mr. Kirk Holmes
Kittitas County Community
Development Services
411 N. Ruby Street, Suite 2
Ellensburg, WA 98962

Dear Mr. Holmes:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement for the Marian Meadows planned unit development and subdivision, proposed by Easton Ridge Land Company [RZ-06-00035/P-06-31]. We have reviewed the documents and have the following additional comments.

Shorelands/Environmental Assistance

Licenses, Permits and Approvals Fact Sheet

If there are impacts to wetlands, seeps or springs which require a 404 federal permit authorization from the US Army Corps of Engineers, then a 401 water quality certification from Ecology would be required.

Impacts to wetlands and other water features that are not under federal jurisdiction are still regulated by Washington State water quality laws. If wetland impacts are not appropriately mitigated in compliance with state law, then Ecology has the authority to require wetland mitigation under the authority of 90.48RCW and WAC 173-201A.

If any "associated" wetlands are directly impacted which are located in the 100-year floodplain of a shoreline of the state, then a shoreline permit will likely be required.

Wetland impacts

A wetland delineation report should be provided as part of the EIS documents / project review. The wetland delineation report should show the location of all wetlands, seeps and springs on a topographic map with a contour interval of 1 to 2 feet if possible. The wetland delineation report should include information about how site wetland reconnaissance was accomplished. Were all areas of the site surveyed on foot by qualified wetland scientists or were just specific areas of the site targeted (such as walking all drainages and other areas based on aerial photography review?) National Wetland Inventory (NWI) maps are only 60 percent accurate in forested environments, primarily because of canopy coverage of the ground surface. In addition, smaller wetlands would not show up because of the level of resolution.

Project maps should show existing site wetlands and other water features in greater detail. The location of all site wetlands, seeps and springs and their required buffers should be superimposed on a site map which also shows each proposed development alternative lot design. Doing this would help the reviewer



Mr. Kirk Holmes
Kittitas County Community
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determine the extent of both direct and indirect impacts on site wetlands for each alternative. Also, the category or type of each wetland on site should be described in the wetland report.

Wetland mitigation measures

Limiting the planting of non-native vegetation adjacent to wetlands and their buffers and combining that action with aggressive control of noxious weeds and non-native plants would help reduce impacts from construction and build-out. Mandatory participation in a homeowner's association would help assure that wetland information is provided to lot owners.

Another way to reduce permanent impacts to wetland wildlife function is to provide appropriately sized corridors (depending on type of wildlife use) to other wetlands and streams on site. These corridors should be placed in designated open space areas.

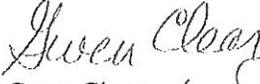
Since hydroperiod changes to wetlands are likely to occur with the development of any of the alternatives, it would be ideal to begin to monitor current wetland hydrologic regime as soon as possible to obtain "background condition". The applicant should begin monitoring as soon as possible.

If individual septic systems will be located on the property, the applicant should consider the use of artificial wetlands in conjunction with stormwater swales to help reduce nitrogen and other pollutants that could be generated on site.

Use of a Wetland mitigation bank for this project is not an option because there are no pending or approved mitigation banks for this service area. However, advanced wetland mitigation would be an option, pending approval of a plan submitted by the applicant and approved by the jurisdictional agencies. Ecology would be happy to discuss this option with the applicant.

If you have any questions concerning the Shorelands/Environmental Assistance comments, please contact Catherine Reed at (509) 575-2616.

Sincerely,


Gwen Clear
Environmental Review Coordinator
Central Regional Office
(509) 575-2012

by Julie Syman



CITY OF ROSLYN

National Historic District and Preserve America Community



Mr. Dan Valoff
Kittitas County Department of Community Services
411 N. Ruby Street, Suite 2
Ellensburg, WA 98962

April 2, 2010

Dear Mr. Valoff:

On behalf of the Roslyn City Council, I am writing to express our concerns with the adequacy of the draft environmental impact statement (DEIS) prepared for the Marian Meadows PUD proposal east of Easton. There appear to be several significant adverse environmental impacts associated with the proposed rezone and planned unit development that have not been adequately addressed and we are requesting that the DEIS be rewritten before it is issued in final form.

While we are pleased to see that an environmental impact statement is being required for this proposed action, we are concerned that the scoping process was completed two and a half years ago and that there was no recent opportunity to review and comment on the need to update the environmental documents that have been prepared. It would have been helpful if the original scoping documents were included with the DEIS so we could compare what was originally required with what was actually produced. We are also extremely disappointed to note that once again, despite our repeated written requests, that the City did not receive any notification from the County about the opportunity to review and comment on the DEIS. We only became aware that the DEIS had been circulated after the date of the public hearing when a private citizen brought it to our attention. Given the magnitude of the adverse impacts that the proposed project presents, we definitely could have benefitted from the full comment period to review the document and wish we had the opportunity to attend the public hearing.

In general terms we are also pleased to note that the document identifies several significant adverse environmental effects associated with the proposed action. However, given the time that has elapsed since the application was submitted over three and a half years ago, it is very difficult to discern when reading the DEIS whether the information provided and the referenced analysis is dated or not and whether it accurately analyzes the current conditions. If the document is to have value as a decision-making tool, then it must contain up-to-date information and the analysis must be complete. At a minimum, the document should be revised so that the dates of information on which conclusions are reached are clearly identified. More importantly, the document should be revised to incorporate more up-to-date information and analysis. For example, important documents on which the DEIS was based, such as the wetland study and the traffic analysis, both of which were prepared in 2006. Another example would be the County's recent adoption of amendments to its Comprehensive Plan to designate Easton as a Limited Area of More Intensive Rural Development (LAMIRD) and to establish boundaries in the immediate vicinity of the project where higher intensity development should and should not

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occur. There is no reference to this action in the DEIS and to our knowledge, no reference to the proposed development in the documents that supported the Comprehensive Plan amendment. This is particularly important since the proposed project is located outside of the Easton LAMIRD and is contrary to the requirements of the Washington State Growth Management Act and the findings of fact on which action on the LAMIRD was taken.

In general terms, we are also concerned that the DEIS does not adequately analyze the consequences of many of the potential adverse impacts that were identified, nor does it identify appropriate mitigating measures, and it does not clearly identify probable significant adverse effects that cannot be reasonably mitigated as required by state law. For instance, the document notes that the Project Sponsor has executed a Development Agreement with the Easton Water District to provide water service to the proposed Planned Unit Development but then acknowledges that the District does not have enough water to serve the development. Unfortunately, the document does not adequately analyze the consequences of inadequate water supply, the effects on downstream property owners with senior water rights, the difficulties associated with transferring water rights, nor does it identify mitigating measures that can reasonably be accomplished to address this matter. If there is not adequate water to serve the proposed PUD, then the DEIS document should clearly state this and clearly identify the consequences of inadequate water service.

In addition to our general concerns about the adequacy of the DEIS, we have a number of specific concerns that must be addressed before a final EIS that satisfies the requirements of state law can be issued, including but not limited to:

1. In Chapter 1, page 1 the insert entitled "What is an Environmental Impact Statement?" fails to acknowledge that an EIS can also be used to deny a proposal.
2. Starting with Figure 1-2 the DEIS consistently fails to identify the boundaries of the Easton LAMIRD and the location of the proposed project outside of the LAMIRD.
 - a. The maps in the document should also be revised to show the watershed for the City of Roslyn and the Roslyn city limits.
3. Starting on page 1-11 there is a summary listing of permits and approvals that are required. There is no mention of the pending water rights application submitted by the Easton Water District over twenty years ago or any additional actions that may be required to secure adequate water to serve the proposed development. Also, in this section:
 - a. Transportation concurrency is not mentioned;
 - b. No reference is made to the required environmental review of future phases of the project;
 - c. The requirements and significance of a Environmentally Critical Area Modification Approval should be explained; and

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- d. There is no mention of aviation easements, notices to title, or other measures that may be required in conjunction with the proposal to locate residential structures in airport safety zones.
4. Chapter 1, Project Summary does not include a summary of mitigating measures and significant adverse impacts that cannot be mitigated in accordance with the provisions of WAC 197-11-440 (4).
 - a. This Chapter should also be revised to include major conclusions and significant areas of controversy and any remaining uncertainties and issues to be resolved.
5. On page 2-1 the discussion of what is proposed by the Applicant refers to a "pro-forma" subdivision layout in the easterly portion of the site. The significance and consequences of this statement are not clear and the discussion should be elaborated. It should also be made clear throughout the document what if anything beyond Phase 1 was analyzed and what additional environmental review will be required for future phases. The document notes for instance that the lot arrangement on the easterly portion of the site is provided for illustrative purposes only and is only one potential lot arrangement. This begs the question, what are the other potential lot arrangements, and when will they be disclosed and fully analyzed?
6. The No Action Alternative described on page 2-5 is based on an assumption that Easton Water District No. 3 would provide water to the project. The project site is outside of the service area boundaries of the Easton Water District and the District does not have adequate water to serve properties within the district and the proposed development. This is not a reasonable assessment of what would happen if the proposed development did not occur. Nor is it reasonable to include development within an airport safety zone or in a geological hazard area. In order to be a meaningful decision-making tool, the No Action Alternative should be redefined and the corresponding analysis revised accordingly.
 - a. Have the environmental impacts of extending water service outside of the boundaries of the Water District been analyzed? If so, when did this occur?
7. On page 2-7 and elsewhere in the document is reference to tenure scenarios speculating on the characteristics of future residents in the PUD if approved. While this information is interesting, it is not relevant. Since the Project Sponsor cannot control the frequency or duration of the use of residential lots once they are created all of the analysis must be based on the full use or worse case scenario. This is especially true in the case of water service, since water use cannot be limited and commitments that exceed water rights cannot be made.
 - a. The importance of making this revision is reinforced by the example of Kendall Washington cited on page 3-24.

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8. On page 2-7 the project schedule and phasing is discussed. This section is out of date and must be updated. It also states that 45 lots would be placed on the market in each year over a five year period, but there is nothing in the application materials to corroborate this. Once final plat approval is obtained there is nothing that would limit the marketing and sale of lots. This section should be updated and the corresponding analysis updated.
9. Figure 2-1 and subsequent figures show development in airport safety zones in violation of WSDOT Guidelines and development in debris flow hazard areas. It should be clearly stated in the document if County Development Regulations permit this and if so, the environmental impacts associated with these actions should be clearly identified and appropriate mitigation required.
10. Starting on page 3-2 and throughout the document there is no reference to the proximity of the site to the City of Roslyn Watershed.
11. Starting on page 3-5 there is reference to the Kittitas County Comprehensive Plan designation of the site as Rural. As previously mentioned, there is no reference to the Comprehensive Plan designation of Easton as a Limited Area of More Intensive Rural Development. The DEIS also notes that the site is zoned R-3 and Forest and Range Land and that the purpose of R-3 zoning is to provide areas where residential development may occur on a low-density basis. The document fails to address however how the high densities of development that are proposed fit with this rural designation or meets the requirements of the Washington State Growth Management Act (GMA).
 - a. Figure 3-3 highlights the substantial number of vacant lots in the vicinity of the project, yet there is no discussion of the basis for the density bonus request or the environmental impacts of approving such a request without supporting evidence.
 - b. No distinctions are made in the document between the density of development permitted within the Easton LAMIRD and the density of development proposed for outside of the LAMIRD.
 - c. There are numerous references throughout the documents to development activities on .25, .5, and .75 acre lots as well as high density multi-family development. The DEIS should be revised to include further analysis of the environmental consequences of permitting these urban densities in a designated rural area and the cumulative effects county-wide of the precedent of allowing urban levels of development in designated rural areas contrary to the provisions of the County Comprehensive Plan and the requirements of the GMA.
 - d. There is no analysis in the DEIS of how the population projected for the proposed PUD correlates with the growth forecasts and population allocations on which the County Comprehensive Plan is based. It would also be appropriate

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to analyze the projected growth against the growth that is projected for the Easton LAMIRD.

- e. There is no analysis in the DEIS of how the capital facilities required to serve the proposed action correlates with the Capital Facilities Plan that the County is required to prepare in accordance with the provisions of the Growth Management Act.
- f. On page 3-18 there is a discussion of the definition of rural with the context of the GMA, yet there is no discussion of how the proposed project complies with the County's obligation to protect the rural character of the community. There are numerous statements throughout the document that are contrary to the definition of rural character that is provided, but these inconsistencies are not adequately addressed in the document. For instance, on page 1-23 is the statement "Regardless of the alternative, development in the area would represent a significant change in the visual character of Easton Ridge", and on page 3-28 "The size of the proposed lots and associated clearing would result in elements of the built environment such as buildings and ornamental landscaping being the dominant features". However the DEIS properly identifies rural character as patterns of land use and development "in which open space, the natural landscape, and vegetation predominate over the built environment". The document does not address the consequences of this apparent GMA violation. Or as previously noted, the proposed development is predicated on the extension of water service outside of the water district's service area boundaries, yet the criteria notes that rural development does not typically require the extension of urban governmental services. Once again, the consequences of this apparent GMA violation are not adequately addressed in the DEIS.
- g. There is an insert on page 3-18 that summarizes the results of a public meeting held in Easton in March 2005. The document does not clearly identify whether the proposed development is consistent with the expressed desires.
- h. It is noted on page 3-25 that factors related to proximity of work do not favor Easton as a location and that most employment opportunities are over 40 miles away in Ellensburg or on the other side of Snoqualmie Pass in the Seattle area. On page 3-29 the document notes that "Residents of Marian Meadows would be unlikely to derive significant support from traditional rural resource-based economies, and would likely be predominantly commuters to urban areas. However, the document fails to document how the development of a new bedroom community in a designated rural area fails to foster traditional rural lifestyles, rural based economies, and opportunities to both live and work in rural areas or how it promotes sprawl or the environmental impacts associated with failing to protect the rural character of the community.

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- i. On page 3-28 there is an insert that notes that the proposed development would more than triple the current number of existing parcels in the vicinity and more than triple the number of existing residences. The document fails to explain how this is in keeping with protecting the rural character of the area and does not adequately address the cumulative impact of the proposed action.
 - j. The document also notes on page 3-28 that the proposed development “represents a substantial change in density and open space in the vicinity (emphasis added), particularly the lots directly adjacent to the site, which are generally greater than 3 acres. The majority of the property in the vicinity consists of lots larger than 3 acres. Of the privately owned property in the vicinity of outside of Marian Meadows about 75 percent is in parcels larger than 3 acres”. The environmental consequences of introducing a much higher density into this designated rural area should be addressed as well as the GMA compliance issues that the action raises. In addition, the significant number of vacant lots, the high vacancy rates, and the basis for the requested density bonuses should also be assessed.
12. The DEIS makes frequent references to the magnitude of the proposed development. For instance, on page 3-97 the document states that Marian Meadows is the equivalent of adding a new small town in the County. The document notes on page 3-43 that the cumulative FTE population would increase by 2,630 residents which is 140% larger than the City of Cle Elum a designated Urban Growth Area and would be equivalent to adding to a designated rural area of the county a city comparable in size to the cities of Moxee or Warden. On page 3-34 it is noted that the population could increase by 2,350 full time residents or the addition of a city the size of Leavenworth or Westport. The DEIS does not adequately address the cumulative environmental effects of such an action nor does it address how this action preserves the rural character of the County, or how this action is consistent with the County’s obligation to implement the Growth Management Act. The document frequently makes reference to the precedent that the approval of the proposed action would set if approved (for example see the bottom of page 3-37), yet it does not analyze this impact of this precedent. This is particularly important as the Project Sponsor has submitted similar development proposals in other parts of the county that also do not comply with the provisions of the Growth Management Act or the County Comprehensive Plan.
13. On page 3-44 the discussion of measures to reduce the effects of the proposal and alternatives on land use is woefully inadequate and should be substantially expanded, with a particular emphasis on the importance of complying with the provisions of the GMA and given the significant number of adverse impacts that cannot be mitigated, of denying the application.
14. On page 3-44 passing reference is made to the potential need for new commercial development that would arise as a result of this proposed new urban development outside of the designated LAMIRD. How this need will be met is not addressed in the DEIS and it definitely should be. This is particularly important as the Project Sponsor has

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used in other instances the previous approval of PUD's as an argument for the County to approve new commercial development outside of designated Urban Growth Areas contrary to the GMA and the County Comprehensive Plan.

15. On page 3-55 it is noted that a background growth rate of 1.43 percent was used to forecast future traffic volumes. It appears that this may be a rate that was used in 2006 and it is not clear whether this is an appropriate growth rate that is consistent with more recent environmental analysis conducted by the County.
 - a. It is very difficult to understand the date of the data used in the traffic analysis and the baseline year used for the analysis. This section should be updated to use up to date information and to make it clear to the reader the age of the information that was used.
16. On page 3-62 the document indicates that the responsibility for road maintenance would generally be the same as they are today. On page 3-74 the document notes that there will be a nine-fold increase in traffic volumes on County roads. The document fails to address how much road maintenance costs will increase, how the County would pay for the increased maintenance costs especially since the factors that influence cost the most, use and weather are outside of the control of the County, or the environmental consequences of the homeowners association failing to adequately maintain the roads on site. In addition, the impact of the increased maintenance costs on the county budget should also be assessed.
17. The document identifies several mitigating measures that can be taken to address traffic impacts and increased maintenance costs attributable to the proposed project. The document fails to address the Project Sponsor's responsibility to pay for the mitigating measures required, such a new roundabout, new turn lanes, new stop signs, and merging lanes.
18. The discussion of the impacts associated with the proximity of the proposed development to the Easton State Airport is confusing and misleading. All aviation safety zones should be clearly identified and the impacts clearly assessed. The incompatibility of residential development with airports is well known both in terms of safety risk and noise conflicts. The WSDOT Aviation Risk Land Use Guidelines do not recommend residential development in zones 1,2,3,4, or 6 and only at a density of 1 dwelling unit to 5 acres in Zone 5. The proposed development creates new lots in these zones in clear violation of these guidelines. The consequences associated with the increased potential for animal strikes and additional visual hazards identified in the document were not adequately addressed nor were adequate mitigating measures fully addressed. More attention should be given to the importance of avoidance of adverse impacts by not allowing development in any safety zone as well as the through the denial of the proposed action.

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- a. The document should also include documentation of previous airplane accidents in the area, the hazards associated with flying in the area, and the critical role that the airport plays in fighting forest fires.
19. It is extremely important to note that the transportation analysis fails to clearly document the location of new roads that would be required to serve the PUD and the environmental impacts associated with constructing these roads to county standards on such steep slopes in known landslide hazard areas. The document also fails to assess the environmental impacts associated with the continued use of the existing logging roads on the site. Given the steep grades on the eastern portion of the site it is not clear whether roads can even be built to county standards and whether they can provide year round access or not. The public service implications of this should also be addressed.
 20. Starting on page 3-89 is a discussion of the impacts of the proposed project on parks and recreation facilities and services and on page 3-97 we note there is another reference to the magnitude of the proposed project, "**The size of the Marian Meadows development is equivalent to the population of a small town...**" (emphasis added). On page 3-99 the DEIS states that "The major effect of the project on adjacent public lands owned by the Forest Service and DNR is likely to be continued long-term chronic enforcement problems. Because of the difficulty of enforcing restrictions on highly mobile uses such as ORV and snowmobiles, in the absence of a designated trail system continued use of informal trails would likely result in impacts of erosion and disturbance of wildlife". In as much as the City of Roslyn watershed is surrounded by these lands, this section should be rewritten to also assess the impacts of inadequate onsite recreation opportunities and the potential impacts associated with unrestricted and unauthorized recreational activities in the City watershed. This assessment should include not only the additional enforcement costs to be incurred by the City of Roslyn, but also the costs of additional water treatment and the development of new water supplies. The mitigating measures should also be rewritten to more clearly identify the responsibility of the Project Sponsor to provide adequate opportunities for recreation onsite and to limit access to unauthorized areas. The costs of continuing long-term chronic enforcement problems should not be passed on to the general public or other public agencies.
 21. Starting on page 3-104 there is a discussion of the impact of the proposed development on public schools including "either a substantial expansion of the existing school would be needed, including the acquisition of a substantial amount of land, or one or more new school sites and new school buildings would be required". Unfortunately the document did not identify any measures to reduce this impact. Additional consideration should be given to measures that would require the Project Sponsor to mitigate the impact that the proposed development is causing and to more fully assess the impact on the current level of service if this does not occur.
 22. The proximity of the site to the City of Roslyn's watershed is of critical concern to the City. The document fails to acknowledge or assess the potential impacts of wildfires on the Roslyn watershed which is located over the ridge from the site of the project. The

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history of wildfires on the site should be discussed and the potential environmental impacts associated with a wildfire in the City's watershed should be addressed.

- a. On page 3-119 please review for accuracy the stated capacity of the equipment owned by Kittitas Fire District Number 3. In addition, the capabilities of the Fire District's equipment should be assessed, including an assessment as to whether the equipment will be able to travel on the steep slopes on the site, whether all weather access is possible, and whether the equipment has the capacity to ford Silver Creek as suggested in the document.
- b. On page 3-123 it is stated that the County Comprehensive Plan requires that when the use of a forested lands is changed, the party doing the changing is responsible for providing fire providing a fire-resistant buffer around the property. The document should be revised to include a determination of whether an adequate buffer can be established to protect the City watershed from disastrous impacts and if so included as a mitigating measure. Especially in light of the comment on page 3-127 that **"All of the factors for creating extreme hazard conditions are present in the Easton area, especially on the slopes surrounding the valley. Adding to the risk is the near constant wind from the west that quickly dries forests after snowmelt"** and on page 3-128 **"The proposed lot size and separation of buildings will add to the risk of fire spreading to adjacent buildings as compared to rural large development"** and on page 3-129 **"The steep easterly portion of the site provides an area of extreme wildfire hazard due to the location on a slope and the potential for wildfires to move more quickly up hill, heating fuels as it moves uphill and reinforcing the speed and heat as it moves"** and on page 3-132 **"Built in fire suppression system are of limited effectiveness in reducing risk of wildfire"** (emphasis added). If the City watershed cannot be adequately protected, then it should be clearly stated and discussion added regarding the need to deny the proposed project on that basis.
- c. The document states on page 3-127 that the addition of 443 new homes will increase the potential sources of residential fires by 30 percent. The document should be revised to address the additional increases associated with the cumulative impacts of the project as well as documentation of the frequency of fires historically in this area. An assessment of the potential damages and costs of a wildfire in the area should also be assessed. The mitigating measures should be revised to more clearly identify actions that can be taken to reduce the risk of fire spreading to adjacent lands
- d. The document indicates that it may be advantageous to establish a second station on the north side of I-90. The impacts of this action have not been assessed nor has the appropriateness of extending an urban service into a designated rural area. The need for new equipment was also discussed but the document fails to clearly identify that the Project Sponsor should be fully

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responsible for any new facilities, equipment, staff, and training that may be required by the proposed action.

- e. The DEIS also notes on page 3-128 that Sparks Road provides the only public access to the site and if access along Sparks Road is blocked there is no access to the site. The document also notes that if the bridge over Silver Creek is blocked that there would be no access to the site and that the upper easterly portion of the site could be rendered impassable for days by a snow storm. Reference is made to alternative access routes including fording Silver Creek by emergency vehicles or unauthorized crossings of private property. The DEIS must be revised to include an assessment of the consequences of not meeting the requirements of the International Fire Code, viable alternative forms of access must be identified, and the mitigating measures must include measures that can be realistically achieved to provide alternative access.
 - f. The document also notes on page 3-138 that "The volunteer fire department is less assured of the ability to add personnel because it relies on volunteers. The challenge of getting enough volunteers would be increased with the greater proportion of residents commuting outside of the area or being seasonal residences". The impacts of this should be more thoroughly assessed and mitigating measures identified.
23. On page 3-135 the assumptions made regarding the number of new residents requiring police service should be reconciled with the assumptions in other sections. In addition, the document should clearly identify the number of new law enforcement officers that will be required to serve to proposed development and clearly indicate that it is the responsibility of the Project Sponsor not the general public to pay for the increased costs. In addition, the effects of the decline of the level of service that was identified on the bottom of page 1-136 should also be more thoroughly assessed.
24. On page 3-138 the document notes that the "additional development in the area could result in demands equivalent to an additional small town with additional needs for response also based on population characteristics". The environmental impacts associated with creating a demand for yet another urban service in a designated rural area should be assessed and mitigating measures identified.
- a. On page 3-141 the document suggests that it would be the responsibility of all property owners to mitigate the impacts on the local fire and hospital district attributable to the proposed action. This section should be revised to more clearly identify the measures required of the Project Sponsor to mitigate these impacts and not pass them on to others that do not benefit from the proposed action.
25. On page 3-142 the document should be revised to more clearly indicate that it is the responsibility of the Project Sponsor to mitigate the identified impacts on postal service.

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26. Starting on page 3-144 the section regarding water service is of critical importance and is woefully inadequate. The document should be revised and substantially rewritten and at a minimum should address the following:
- a. The priority dates and certificates for the three wells owned by the Easton Water District should be attached to the document and analyzed to verify to confirm what water rights the District has and the extent to which they are junior to other downstream rights.
 - b. The discussion of the number of users served by the Water District, the ERU requirements, and the number of new users that may be permitted is of confusing and must be rewritten.
 - c. Since the Project Sponsor cannot restrict the frequency or duration of the use of new lots that are created, and the Water District cannot commit to provide water that it does not have the rights to, the entire section should be analyzed based on an assumption of full-time use.
 - d. On page 3-151 and on several other pages, the document makes reference to the potential approval of a water rights application submitted by the Water District over 20 years ago. Documentation should be provided as to why this is considered a viable alternative. More importantly, the document should assess the consequences of this application is not approved or remains in pending status.
 - e. There are several references to a Development Agreement that was executed between the Easton Water District and the Easton Ridge Land Company in 2004. No analysis is provided as to whether this is a legally binding and sound agreement or whether the measures included in the agreement will result in adequate service to Marian Meadows without a reduction in service to the rest of the District. There is also no indication that an environmental review of the extension of urban services to a designated rural area has been conducted or whether this action is GMA compliant.
 - f. The document should be revised to address whether the SEPA/NEPA review that was conducted for the Easton Water District in conjunction with the federally funded water system improvements included an analysis of the impacts of providing water service outside of the boundaries of the District's water service areas.
 - g. The document should be revised to address whether the Comprehensive Water System Plan for the Easton Water District has been formally amended to include the provision of water outside of its water service area boundaries. The document should also address whether this amendment has received all required local and state approvals and whether the County Comprehensive Plan

CITY OF ROSLYN

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and Capital facilities Plan has been amended to include this amendment to the water service area boundary.

- h. It is extremely important to note, that on page 3-152 and on other pages, the document indicates that the Easton Water District does not have adequate water rights to fully serve Marian Meadows, and that the more water it provides to this user outside of its water service area, the less water there will be for others within its boundaries. **In other words, if the Easton Water District provides water service to Marian Meadows which is outside of its service area and the Easton LAMIRD, then it would have no water available to serve any future development within its service area and within the Easton LAMIRD.** This is a critical consideration, as the Findings of Fact that were approved for the Easton LAMIRD in late 2009 states that the Easton Water District has adequate water to serve the future development within the LAMIRD and no mention was made of this proposed project or the possibility of extending water service outside of the water service area for the Water District. Unless the County intends to rescind the action approving the Easton LAMIRD, this section of the DEIS must be rewritten to analyze how an adequate supply of water to serve all development activities associated with the Marian Meadows PUD can be secured from a source other than the Easton Water District and the impacts of this action on other property owners.
 - i. The document notes that the development of individual wells could be an alternative source of water and on the bottom of page 3-152 that one of the disadvantages of this alternative is that individual well water supplies do not provide a source of water for hydrants and fire flow. The document should be revised to address the environmental consequences of inadequate water supply to provide fire service to the proposed project. The document should also be revised to include an analysis of the consequences of the current moratorium on exempt wells and the challenges associated with the transfer of water rights.
 - j. There are several references in the document that suggest a high degree of interconnectivity between ground water and the flows in fish bearing rivers in the vicinity of the project (see page 3-247). As a result, the environmental effect of the concentration of individual wells in general and on fish habitat in particular should be more fully analyzed.
 - k. The discussion of mitigating measures focuses on measures that can be taken to help reduce water demand. This misses the point of the preceding analysis, that an adequate source of water supply to serve the proposed development has not been identified and that the number of lots must be reduced or the proposed development must be denied.
27. Starting on page 3-156 is a discussion of the sewage disposal requirements and impacts associated with the proposed establishment of a new small town in a designated rural area. The application suggests that a small sewage treatment plant will be installed to

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serve the proposed new development and that the effluent will be applied to the ground. This section should be revised to address the consequences of extending yet another urban service into a designated rural area. In addition, the document should be revised to identify the sites where the discharge will occur and assess the environmental consequences of doing so. This is particularly important in light of the highly pervious soil conditions in some areas, the winter weather conditions, and the highly unstable slopes in the project area.

- a. On page 3-163 and on other pages, the document identifies the high cost of operating a sewage treatment facility and calls into question the viability of such an approach. Also on page 3-166 the risk of failure of operating a complex system by a homeowners association is referenced. As a result, much more analysis should be conducted of the consequences of concentrating individual septic services in the project area.
 - b. The mitigating measure identified on page 3-166 do not clearly identify measures that can be required of the Project Sponsor to ensure that adequate sewage treatment service is provided.
28. Starting on page 3-167 the document assesses the impact on storm water facilities and notes that the County has adopted the Storm Water Manual for Eastern Washington prepared by the Department of Ecology. The document indicates that this manual does not assess the potential for hazards such as debris flows and as a result, this section of the DEIS should be reviewed to make sure that it adequately assesses the environmental consequences of the proposed action and that the mitigating measures fully protects the public safety. This is particularly important in light of the frequent occurrence of rain-on-snow events in the project area and the reference on page 1-22 to the catastrophic effect that future debris flow and runoff could have on residents in the development and off site.
- a. The document refers to the typical 2- and 10-year storm event, but no mention is made of 25 year storm events. This section should be reviewed to make sure that DOE requirements have been accurately interpreted and assessed.
 - b. At least a preliminary engineering analysis should be conducted to confirm that the requirements of the Storm Water Manual for Eastern Washington can be met on site and that all potential impacts can be mitigated.
29. On page 3-174 it is noted that the existing electrical substation is near capacity and needs to be replaced. The fair share contribution that should be required of the Project Sponsor for this improvement should be addressed in the mitigating measures as well as the ability of the substation to serve future growth planned for the LAMIRD.
30. The mitigating measures identified on page 3-185 to address impacts on visual quality, light, and glare should be revised to also include such measures as the reduction of the number of lots that should be permitted or the denial of the proposed action.

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- a. This section should also be rewritten to more clearly assess the effectiveness of existing County regulations governing lighting and more specific mitigation measures that can be imposed on the Project Sponsor to ensure that “dark skies” are maintained.
31. The document includes a limited analysis of the land slide hazards in the project area. No geotechnical analysis of specific improvements was conducted which is a significant omission, particularly in conjunction with the need to construct new roads in areas with a moderate to high potential for rock fall and areas highly susceptible to landslide and erosion hazards. The document notes on page 3-232 that not enough is known about the steeper easterly portion of the site to accurately assess risk. Given the realistic potential for serious adverse consequences and the potential opportunity to avoid them, further analysis should be conducted now, and not deferred until after action has been taken on the proposed project. In addition the maps should be revised to more clearly identify hazard areas, no build areas, and required setbacks.
 32. It appears that there are several jurisdictional wetlands on the site, but the document fails to adequately identify their location and the impacts of the proposed project on them. The discussion of mitigating measures makes a passing reference to avoidance of adverse impacts, but this section should be expanded to include an assessment of required buffers, the identification of no build areas, and specific actions that can be taken to mitigate projected impacts and all maps should be revised accordingly.
 33. Starting on page 3-271 is an assessment of the proposed project on fish and wildlife, including a passing reference to the substantial public investment to improve wildlife corridors in the project area. The document should be revised to more clearly assess the impact of the proposed project on these wildlife corridors. In addition, the document does not make reference to the study that is currently being conducted on cougars in the vicinity of the project. The mitigating measures should be revised to more clearly identify actions that can be taken by the Project Sponsor to mitigate the adverse impacts that the proposed project will have on wildlife in the project area.
 34. Chapter 3 Environmental Consequences should be revised to include a summary of existing plans and regulations applicable to the proposal and how the proposal is consistent and inconsistent with them in accordance with the provisions of WAC 197-11-440 (6).
 - a. In addition, the document should include maps that clearly identify all environmentally sensitive or critical areas, required buffers and setbacks, and no build areas, and the adequacy of existing County regulations to protect these areas.
 35. The document should also be revised to more clearly identify and assess the financial impacts of the project on taxpayers within the County and on the County budget.

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In addition to our concerns about the adequacy of the DEIS document, we have several other concerns that may have a bearing on the adequacy of the environmental review. In particular, a letter from the applicant to the former County Director of Development Services, Darryl Piercy, and dated January 24, 2007 raises several concerns:

1. The letter states that "any instances where future development or site work (such as erecting a water tank) is likely to impact slopes will be addressed by best management practices identified in the Construction Stormwater Permit that the applicant will obtain from the Washington Department of Ecology". Given the presence of hazardous slopes, land slide hazard areas, and hazardous debris flows, these impacts should be fully identified now and fully assessed in the DEIS and all maps revised accordingly.
2. The letter refers to a Forest Practices Act permit that has been issued for the site. This permit should be included as an appendix to the DEIS and reference should be made to all SEPA mitigations that have already been required on the site.
3. The letter notes that two small quarries on the site are not a part of the proposed plat and will need to be addressed as the development of the property progresses. The DEIS should address whether these facilities have been designated as mineral lands and the compatibility of the proposed development with their ongoing operation. Current onsite activities cannot simply be excluded from the proposed development in order to avoid an analysis of them. The permits issued for these facilities should be included in the DEIS and an analysis of the conditions of approval should be incorporated into several sections of analysis.

A review of the SEPA checklist prepared by the Applicant also raises a number of concerns that may have a bearing on the adequacy of the DEIS, including:

1. The checklist indicates that there are no known indications or history of unstable soils in the immediate vicinity which is not substantiated by the DEIS and calls into question the veracity of other information provided by the Applicant.
2. The checklist refers to approximately 137,000 cubic yards of earthen material that will be excavated for grading, cutting, and filling of roads. This is not addressed in the DEIS. The checklist also refers to the importing of 37,000 cubic yards of material that may be imported for road surfacing, this was not addressed in the DEIS. The checklist also references 150,000 tons of rip rap and gravel to be produced at the on-site rock quarry for use on site. The DEIS does not address the need for rip rap or the environmental consequences of this activity, nor does it address the specific impacts associated with the production or use of this material.
3. The checklist states that some clearing will occur within 200 feet of one or more intermittent streams. The impacts of this action have not been assessed nor were the impacts associated with the referenced new stream crossings that may occur in conjunction with the proposed new development.

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4. The checklist indicates that water processed by the onsite sewage system is expected to be discharged for on-site irrigation and stream flow augmentation to a Type 5 stream located on the PUD property but not within the long plat boundaries. This site(s) has not been identified not analyzed in the DEIS.
5. The checklist states that the domestic sewage treatment will be provided by a reclaimed water facility operated as a private utility. As previously noted the viability of this is seriously questioned in the DEIS. Also, the checklist states that 60,000-80,000 gallons of effluent a day will be accommodated. The DEIS must be reviewed to make sure that it adequately assesses the environmental consequences of the operations of a facility of this magnitude, the location of discharge especially given the winter weather conditions, and the handling of any bio-solids that may be produced.
6. The checklist states that home construction will encourage Built Green concepts and Energy Star certified products as much as possible. How this will be determined has not been assessed.
7. The checklist states that the Kittitas County Water District Number 3 has a well house on the southwest corner of the site. The DEIS should be reviewed to determine if potential impacts on this well have been adequately assessed and whether adequate wellhead protection measures have been adequately identified. This is particularly important in light of the plans to use water from the onsite sewage treatment plant for onsite irrigation, and the risks that were identified in the DEIS of the effluent from the onsite treatment plant failing to meet health standards.
8. The checklist states that no part of the site has been designated as an environmentally sensitive area. Other application documents and/or the DEIS however reference landslide hazard areas, steep slopes, and jurisdictional wetlands and the checklist references 85% slopes on the site. The DEIS should be reviewed to ensure that all environmentally sensitive areas on or near the site have been identified, the potential impacts assessed, and appropriate mitigating measures identified.
9. The checklist fails to identify that the project will occur in the immediate vicinity of a state-owned airport.

All factors considered request that the DEIS be withdrawn and substantially rewritten and then re-circulated for review and comment. In doing so, greater emphasis should be placed on the identification and evaluation of additional mitigation measures and in noting that the adverse impacts that cannot be mitigated can simply be avoided by not approving the proposed action.

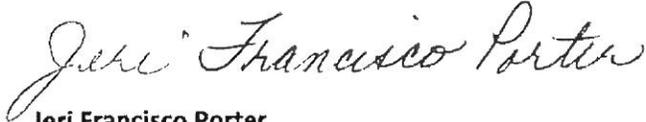
In closing, we look forward to your assistance in making sure that the record is clear and unambiguous regarding this totally unacceptable and unwarranted proposal. It is contrary to the provisions of the County Comprehensive Plan, the provisions of the Washington State Growth Management Act, the Washington State Environmental Policy Act, and sound planning principles, and we encourage the County to utilize your substantive SEPA authority to deny the proposed action. In addition, we once again respectfully request that the City be made a party of record for not only this development

CITY OF ROSLYN
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proposal but all other development proposals received by the County for the Northern portion of Kittitas County.

Sincerely yours,

CITY OF ROSLYN



Jeri Francisco Porter
Mayor

Cc: Kittitas County Commissioners
Roslyn City Council
George Martinez
Kenyon Disend PLLC
Roslyn Planning and Historic Preservation Commission
Adam Gravely
Gregg Dohrn
City of Cle Elum
Town of South Cle Elum
WSDOT
Washington State Department of Commerce
Futurewise
Suncadia
Eastern Washington Growth Management Hearing Board
North Kittitas County Tribune

Dan Valoff

From: Dan Valoff
Sent: Friday, April 02, 2010 10:49 AM
To: 'Teske, Mark S (DFW)'
Subject: RE: Request for comment deadline extension Marion Meadows

Thanks Mark, your request for an time extension is granted.

Dan Valoff
Staff Planner

Kittitas County Community Development Services
411 N Ruby Street Suite 2
Ellensburg, WA 98926
dan.valoff@co.kittitas.wa.us
P: 509.962.7637
F: 509.962.7682



All e-mail sent to this address will be received by the Kittitas County e-mail system and may be subject to Public Disclosure under Chapter 42.56 RCW and is subject to archiving and review by someone other than the recipient.

From: Teske, Mark S (DFW) [mailto:Mark.Teske@dfw.wa.gov]
Sent: Friday, April 02, 2010 10:47 AM
To: Dan Valoff
Subject: Request for comment deadline extension Marion Meadows

Per our phone earlier conversation, WDFW requests an extension of the Marion Meadows DEIS comment deadline. We believe that by the 8th of April, we will be able to have the information we need to comment. Thank you.

Mark Teske

April 2, 2010

Mr. Dan Valoff

Kittitas County Department of Community Services

411 N. Ruby Street, Suite 2

Ellensburg, WA 98962

Dear Dan:

I would like to take this time to thank you for the opportunity for comment on the Marian Meadows DEIS for the Easton Area. As a concerned resident and tax payer of Kittitas County, I appreciate this opportunity. I recognize the current struggle in our county regarding economic development, but this proposal is neither sustainable nor beneficial for the residents of the County or potential residents of Marian Meadows. After reading the Marian Meadows DEIS I have found serious issues with potential environmental hazards identified in this document. There needs to be more outlined and defined mitigation measures to adequately address these potentialities.

As a former Wildland Firefighter, I see fire as the most serious hazard for the proposed development, its residents, Firefighters, surrounding forest resources and communities as extreme fire behavior is mentioned in this document. There are no mitigating factors surrounding major safety concerns about access and entrapment. One way in one way out is completely unacceptable for safety of our public and public service employees. Asking a Firefighter to risk their lives for a home is unacceptable, especially when it is deemed a extreme hazard before it is even built. Additionally it is unacceptable to allow people to build a home thinking that they are adequately protected from the risks of wildfire.

As a resident of Roslyn I would also like to point out the inherent risks to our watershed. In the DEIS there was no mention of our forested watershed that is directly adjacent to the steepest and most hazardous easterly portion of this proposed development. While it is mentioned that avoiding developing this area would decrease the hazard to private property and human life, it does not reduce the risk of wildfire to the surrounding forest resources. A fire in the City of Roslyn's watershed would be no less than catastrophic to the citizens of Roslyn. Our water would no longer be potable and usable as a municipal source for decades after a fire. The costs to established residents of the county in the event of this type of incident would be more than the City of Roslyn could bear. The potential risks of wildfire in the City of Roslyn's watershed need to be adequately addressed and mitigated.

Water is a big issue in Kittitas County as you well know. The water rights of Easton Water District #3 are vague as mentioned in the DEIS and needs to be clearly identified. It is stated that the rights of the Easton Water District is inadequate to meet the needs of the proposed Marian Meadows Development, regardless of the fact that it is not included in the Easton LAMRID. With all the issues concerning water in the Yakima basin it is important for Kittitas County to begin to set a president to begin to uphold the rights of senior water rights holders. To do this you must make developers prove that they are not impairing senior water rights holders due to further withdrawals from either ground or surface sources. They must purchase and transfer senior rights like everyone else. There is no mention in the DEIS of proposing such an action.

Additionally, as a citizen of this county, I would like to see development start to pay for itself. The impacts to public services are addressed, but no mitigation measures are mentioned. We need to hold developers responsible for extending urban services to designated rural areas. It is stated in the DEIS for Marian Meadows that there will be a negative net impact to the county regarding providing public services for this new development. This is an unacceptable alternative for our county and should be addressed before moving forward with approval of this proposal. I feel that impacts from past developments to public services are passed on to current residents. Development needs to pay for itself. This is the way towards more sustainable economic environment for our county in the future.

There are a great many more reasons why the Marian Meadows DEIS needs further review and mitigation measures to move forward towards the development phase. I just pointed out some of the major issues that need to be addressed to meet with the concerns I feel as a citizen of this county and resident of the City of Roslyn. Our county needs to recognize the State GMA laws, Eastern Washington Storm Water Guidelines and others just to name a few, when it comes to development in our county. We are wasting our valuable resources by allowing this kind of development and putting our future at risk when we do. Thank you for this opportunity to express my concerns.

Mitchell Long

405 N "A" Street

Roslyn, WA 98941

PO Box 977

509-649-2352

banjomitch@gmail.com

March 22, 2010

Kittitas County Community Development Services
411 N Ruby St, Suite 2
Ellensburg, WA 98926

RECEIVED

APR 02 2010

Kittitas County
CDS

RE: Draft E.I.S. – Marion Meadows

To Whom It May Concern,

We the undersigned **PROPERTY OWNERS, CITIZENS and RESIDENTS** of Upper Kittitas County request that **Alternative 3 or 5 of the Draft E.I.S. for Marion Meadows P.U.D. be revised** or that a **6th Alternative is developed.**

We feel that the 5 alternatives presented in the Draft E.I.S. do NOT go far enough to protect the rural character of the Easton area as defined by the Growth Management Act.

We request a revised alternative 3 or 5 or a 6th alternative that protects the Easton State Emergency Airport as defined by WASDOT Aviation, will provide and protect the migration corridor for wild life, protect quality and quantity of clean water, avoid a large concentration of septic systems and avoid development of steep slopes in areas identified as extreme wildfire hazards. This alternative will not put unreasonable demand on the current level of service provided by Fire District #3 or the Easton School District.

We request an alternative that will protect the 3 acre zoning and not set a precedent for down zoning rural Upper Kittitas County into urban density.

Respectfully submitted,

See signatures attached – 6 pages

March 22, 2010

Kittitas County Community Development Services
411 N. Ruby St, Suite 2
Ellensburg, WA. 98926

Easton Ridge LLC
Draft E.I.S. - Marion Meadows

The undersigned request that Alternative 3 or 5 of the Draft E.I.S. for Marion Meadows P.U.D. be revised or that a 6th Alternative be developed.

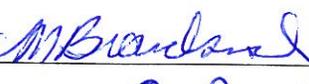
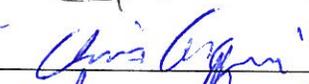
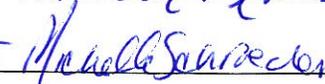
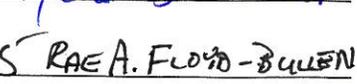
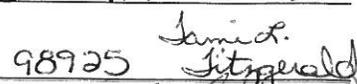
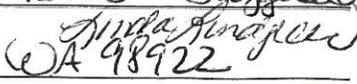
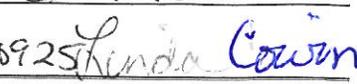
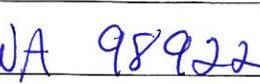
Name (Print)	Address	Signature
Vince Ennes	4031 SPARKS RD, EASTON	Vince Ennes
Hollie Stone	3692 SPARKS RD EASTON	Hollie Stone
Sam Stone	3692 SPARKS RD EASTON	Sam Stone
Carol Deneklan	3694 Sparks Rd Easton	Carol Deneklan
Grant Dencklau	3694 Sparks Rd Easton	Grant Dencklau
KEN EVERAERT	3314 SPARKS RD EASTON	Ken Everaert
Anne Everaert	3314 Sparks Rd Easton	Anne Everaert
STYRON FRIES	3320 SPARKS Rd. EASTON	Styron Fries
PATRICK FRIES	3320 SPARKS RD. EASTON	Patrick Fries
ROBERT BONNER	3310 SPARKS RD EASTON	Robert Bonner
Linda Bonner	3310 Sparks Rd Easton	Linda J. Bonner
STEVEN M. JENSEN	330 CABIN CR. Rd. EASTON	Steven M. Jensen
Tim Ryals	3780 SPARKS Rd EASTON	Tim Ryals
John Jensen	3910 EAST Spark Rd Easton	John Jensen
Tim Gail	411 NORTH ROAD, EASTON WA	Tim Gail
Joni Huskey	4211 Sparks Rd Easton WA	Joni Huskey
KENT SHOOP	4391 E. Sparks Rd EASTON WA	Kent Shoop
CATHY SHOOP	" " " " EASTON WA	Cathy Shoop
Melanie Huskey	4211 Sparks Rd Easton WA	Melanie Huskey

March 22, 2010

Kittitas County Community Development Services
411 N. Ruby St, Suite 2
Ellensburg, WA. 98926

Easton Ridge LLC
Draft E.I.S. - Marion Meadows

The undersigned request that Alternative 3 or 5 of the Draft E.I.S. for Marion Meadows P.U.D. be revised or that a 6th Alternative be developed.

Name (Print)	Address	Signature
LEE PRAZIER	P.O. BOX 1 EASTON WA 98925	
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Marjorie Brandsrud	PO Box 638 Easton WA 98925	
Jennifer Ervin	750 Talmadge Rd. Cle Elum WA	
MARTE KRAM	PO 559 EASTON 98925	
Scott Vincent	PO Box 617 EASTON 98925	
Betty Vincent	PO Box 617 EASTON 98925	
Chris Arguin	P.O. box 586 Easton 98925	
TOMY FITZGERALD	P.O. Box 45 EASTON 98925	
Brad Niebuhr	P.O. Box 511 Easton 98925	
Amanda Fitzgerald	P.O. Box 45 Easton 98925	
Michelle Schroeder	P.O. Box 643 Easton 98925	
Rae A. Floyd-Bullen	P.O. Box 464 Easton 98925	
Tami Fitzgerald	POB 556 EASTON WA 98925	
Linda Linegreen	691 Upper Peak Rd Cle Elum WA 98922	
LINDA Cowin	PO Box 474 EASTON WA 98925	
John Engstrom	PO Box 172 EASTON WA 98925	
Colleen Clark	PO Box 172 Easton WA 98925	
Claudia Guilford	362 Heron Drive Cle Elum WA 98922	

March 22, 2010

The undersigned request that Alternative 3 or 5 of the Draft E.I.S. for Marion Meadows P.U.D. be revised or that a 6th Alternative be developed.

Name (Print)	Address	Signature
Brian Todd	771 C. St. N.W. Ephrata, WA	Brian Todd
Melissa Parker	P.O. Box 502 Easton WA	Melissa Parker
William R. Lutz ^{WILLIAM R. LUTZ}	P.O. Box 476 Easton WA	William R. Lutz
Jennifer Jensen	PO BOX 435 Easton WA	Jennifer Jensen
Patricia Dehuff	PO Box 529 Easton, WA	Patricia Dehuff
Tim Schmidt	5610 Nancum Rd Ellensburg	Tim Schmidt
Maurya Broadsword	691 Bighorn Way (PO Box 787) Cle Elum, MAURYA BROADSWORD	Maurya Broadsword
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Jeri Lombardy	3631 E. Sparks Rd Easton, WA	TERRI Lombardy
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Keith Wersland	5931 Upper Peon Pt. Rd Cle Elum	Keith Wersland
Mark Sederstrom	209 Cleveland St. Cle Elum WA	Mark Sederstrom
Greg Wallace	Po Box 201 Cle Elum WA	Greg Wallace
Anna Dodge	PO Box 446 Cle Elum WA	Anna Dodge
Duane Houle	P.O. Box 1018 So Cle Elum	Duane Houle
Dave Ray	P.O. Box 154 Easton WA	Dave Ray
Paul Mooney	P.O. Box 537 EASTON WA	Paul Mooney

March 22, 2010

The undersigned request that Alternative 3 or 5 of the Draft E.I.S. for Marion Meadows P.U.D. be revised or that a 6th Alternative be developed.

Name (Print)	Address	Signature
MARIN SHREVER MOONEY	P.O. Box 537	Marin Shrever Mooney
ULMA LOUISE FRONSDAK	PO Box 179	Ulma S Fro ^{ns} dak
Don FRONSDAK	P.O. Box 179	Don Fro ^{ns} dak
Larry Yates	P.O. Box 482	Larry Yates
DAVE CASSIDY	PO 427	Dave Cassidy
Alvin Gilbert	P.O. Box 126	Alvin Gilbert
Joseph Prosser	81 Norton Rd	Joseph Prosser
Gina Prosser	81 Norton Rd	Gina Prosser
Dorothy Miller	4131 Sparks Rd.	Dorothy Miller
Barbra Gordon	P.O. Box 603	Barbra Gordon
KENNY GRUBE	PO Box 538	Kenny Grube
ROBERT K. ROGERS	PO Box 538	Robert K. Rogers
Doug Williams	PO Box 662	Doug Williams
Baub Lowrey	PO Box 705	Baub Lowrey
Jeff Lowrey	PO Box 705	Jeff Lowrey
Nen Cooper	P.O. Box 432	Nen Cooper
Brigid Cooper	PO Box 432	BRIGID COOPER
Terese M. Meehan	PO BOX 3	TERESA M. MEEHAN
Terrance J. Hill	PO Box 530	Terrance J. Hill
Becky Christensen	PO Box 693	Becky Christensen

March 22, 2010

Kittitas County Community Development Services
411 N. Ruby St, Suite 2
Ellensburg, WA. 98926

Easton Ridge LLC
Draft E.I.S. - Marion Meadows

The undersigned request that Alternative 3 or 5 of the Draft E.I.S. for Marion Meadows P.U.D. be revised or that a 6th Alternative be developed.

Name (Print)	Address	Signature
JOHN M. CARLSON	P.O. Box 632 EASTON WA 98925	John M. Carlson
SHARON F. CARLSON	P.O. Box 632 EASTON, WA 98925	Sharon F. Carlson
DAVID M. HALL	250 Tjossem Ellensburg, WA 98926	David M. Hall
Ben J. Thomas	4271 Kachess Lake Rd, 98925	
Judi A White	PO Box 582 EASTON-WA-98925	
Rachael Seitelbe	130 Old Cedars Rd Ellum 98922	
Terry Schliebe	130 Old Cedars Rd Ellum 98922	
WAYNE Frisk	360 Pit Way EASTON Wen. WA 98925	
Debbie Frisk	360 Pit way Easton 98925	Debbie Frisk
TOM PENTIN	305 PIT WAY EASTON 98925	
CARRIE PENTIN	305 PIT WAY EASTON 98925	
Cornie McKee	140 PIT WAY EASTON	Cornie McKee
LARRY McKEE	140 PIT WAY EASTON	Larry McKee
MIKE SWEET	1860 RAILROAD ST EASTON	Mike Sweet
Johnny Cunningham	PO Box 592 EASTON WA 98925	
Margaret Cunningham	PO Box 593 Easton WA 98925	
Chester D. Laurent	PO Box 654 EASTON WA 98925 (Bud)	
Lawrence Graham	PO. Box 115 EASTON WA. 98925	
Bernice J. Graham	PO. Box 115 EASTON, WA. 98925	

March 22, 2010

The undersigned request that Alternative 3 or 5 of the Draft E.I.S. for Marion Meadows P.U.D. be revised or that a 6th Alternative be developed.

Name (Print)	Address	Signature
PAUL LOHVES	202 HAWTHORN LN	
JACK PRICE	PO BOX 32 EASTON WA 98925	Jack Price
ROBERT T GARR	550 FERMINE LIND	Robert Garr
JOHN LIDRAL	PO BOX 589 EASTON WA	John Lidral
TOM FUSHER	PO Box 731 Easton	Tom Fusher
GRAHAM MOORE	PO Box 542 EASTON	Graham Moore
CHARLES F BROWN	PO Box 55 EASTON	Charles F Brown
GEORGE BOULS	PO Box 105 ZIP 98943 SO. CLEELUM	George Bools
MERLYN R. SCHMELZER	P.O. BOX 427 SO. CLEELUM 98943	Meryl R Schmeler
M. E. DODGEMAN	PO BOX 733 Easton	M E Dodgeman
Susan E. McKee	PO Box 161 Easton	Susan E. McKee
Kelita R Rogers	P.O. Box 144 Easton	Kelita R Rogers
S. Kanga McLaren	1341 Sunlight Dr. Clellum	Kanga McLaren
Steve Eims	P.O. Box 801 Easton	Stephen Eims



Kittitas County Fire District #3

P.O. Box 52 • Easton, WA 98925

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Kittitas County
CDS

March 29, 2010

Kittitas Country Community Development Services
411 N. Ruby St., Suite 2
Ellensburg, WA 98926

RE: Draft E.I.S. – Marian Meadows

To Whom It May Concern,

Please accept our comments regarding **3.4.2 Public Services - Fire Protection**. Some corrections need to be made –

1. P. 3-119 **Our 2004 HME pumpers capacity is 1250 gpm not 3200 gpm**
2. P. 3-119 **We currently have 6 volunteers who are certified EMT, 4 First Responders and 7 fire fighters**
3. P. 3-128 **There is no access through Easton State Airport to Silver Creek Road.**
 - Access would be possible via West Sparks Road to FSR 4818 and then East on the BPA power line which is extremely rough and primitive and then onto a 2 track trail that would have to be widened and trees removed in order to access Silver Creek Road. Currently there is a locked gate in this location and there is no winter access. Access via this route would be extremely slow.
4. P. 3-128 **No access is available for our equipment by fording Silver Creek either in low or high flow conditions.**
5. P. 3-131 **We agree whole heartedly that development on the steep easterly portion should be avoided due to the potential risk for wildfires.**
 - Residents and fire fighters would be at extreme risk as any fire on the steep slope would move very rapidly uphill due to the updraft.

Respectfully submitted,

Steven M. Jensen, Chairman
Board of Commissioners
Kittitas County Fire District #3

March 22, 2010

Kittitas County Community Development Services
411 N Ruby St, Suite 2
Ellensburg, WA 98926

RECEIVED
APR 02 2010
Kittitas County
CDS

RE: Draft E.I.S. – Marian Meadows

To Whom It May Concern,

Please accept my comments on the Draft E.I.S. for Marian Meadows P.U.D.

First I would like to thank Kittitas County Community Development Services for listening to our concerns and requiring the EIS on this project.

Second I commend Parametrix on the thoroughness of the document they produced in addressing our concerns and the additional information they have assembled. I think the document clearly identifies the cumulative impacts of urban development proposed for a rural community and addresses the mitigation requirements well.

I do however disagree with the statement on **Air Quality** regarding **wood stoves**. There are many windless days, especially in the winter, and a high density development with a high density of wood stoves would certainly affect air quality. Easton does NOT experience wind like the rest of the county.

I also do not think the **Misc. Tenure Scenarios** can be considered, as recreational residences most generally become full time residents. Sun Island, Elk Meadows and Easton Village are prime examples.

Rural zoning is suppose to protect rural lands from Urban Growth including lot sizes that result in intensive use of land that is NOT compatible with rural character and that require urban levels of service.

Rural lands are meant to conserve fish and wildlife habitat and **avoid** intense urban development that fragment wildlife habitat.

Rural lands MUST include densities that protect water quality by avoiding a concentration of septic systems.

I believe the 5 alternatives presented in the Draft E.I.S. do NOT go far enough to protect the rural character as defined by the Growth Management Act.

I propose either modifying Alternative # 3 or # 5 or making a 6th Alternative that protects the airport safety zones per WSDOT Aviation and that leaves a clearly defined wildlife corridor with NO development in the N.W. corner where the elk move from the Lake Kachess area through Silver Creek and down the power line.

The remainder of the site should be developed at 3 acres minimum with NO development in the steep portion of the property. It is an extreme wildfire hazard area. The scar from the last fire that ran up the ridge is still quite visible. Residents and fire fighters should not be placed in harm's way.

Developing 3 acre minimum lots will go a long way towards mitigating the concerns that have been identified in the Draft E.I.S.

Easton Water District 3 will have enough water to provide for Marian Meadows and will have water remaining for other developments in the District. I believe the 100,000 gallon water storage tank should still be included in this option.

Developing at this density would have minimal impact on the school, emergency services, air quality, wildlife movement, quality and quantity of water and protect wells adjacent to the development and rural quality of life of current and future residents of the area.

I believe it would also attract more full time residents that will become PTSA members, school board members, volunteer firefighters and who will contribute to the community of Easton.

Anyone who is a full time resident here knows we already over recreated at times as it is.

Marian Meadows is bordered on 1 side by 5 acre lots and on 1 side by 3 acre lots. If ½ or 1/3 acre lots are approved for this development I assume my property rights will allow my neighbors and myself to subdivide our lots as well.

Allowing that to happen sets a precedent for the development of Easton Ridge from Easton to Bullfrog and **must not be allowed.**

The rural character of Easton, quality of life issues, wildlife habitat and movement corridors, health and safety issues of current and future residents including EMS provider and volunteer firefighters and wildland fire fighters should NOT be compromised to allow maximum profits for one developer.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John R. Jensen". The signature is fluid and cursive, written in a professional style.

John R. Jensen

PO Box 602

3910 E Sparks Rd

Easton, WA 98925

509 656-0040

jensenjohnr@yahoo.com

RECEIVED

APR 02 2010

Kittitas County
CDS

Marge Brandsrud
PO Box 638
Easton, WA 98925

March 31, 2010

Kittitas County Community Development Services
411 N Ruby Street Suite 2
Ellensburg, WA 98962

Marian Meadows Draft Environmental Impact Statement Comments:

My comments on the Marian Meadows PUD and Subdivision DEIS are as follows.

Although there is a great deal of very good information contained in the DEIS, there is information that is incorrect and information that must be added or further studied.

There are several mapping errors. There is a road shown crossing lots four and five of Easton Acres. Figure 3-22 illustrates this clearly. That road no longer exists. Several maps also indicate Hawthorne Lane extending well past Thistle Down. Again this is not true. Please make corrections to maps included in this document.

The water district boundary is incorrect. This must be corrected in order to have an accurate understanding of the water districts obligations and service area. Please contact the water district for up to date correct information and include that information in this document.

Additional information is needed to assess possible future water use. The water districts resources must not be over allocated. As the school is a major user in the water district, calculations of water rights, availability and quantity related to expansion of the school must be included for each alternative and cumulative impact. Consideration must also be given to parcels already platted within the water district but not currently serviced by the water district. There will be negative impacts to owners of those parcels. If the applicants development or alternatives go forward and water availability is diminished to the point water is not available to these property owners from the water district their properties would become virtually worthless. Water district regulations prohibit individual well drilling within its boundaries further complicating property owners ability to develop their property. Infill of currently vacant parcels must be prioritized for water service. Information regarding water does not include enough discussion on well head protection zones. Further information regarding these zones along with the effects of each sewer disposal method and the inter- relationship of water quality and sewer disposal specifically addressing this projects geology must be provided to assess impacts and protect public and private water service of the Easton area.

None of the maps or information includes the recently approved Conditional Use Permit granted to the applicant for the 40 Acres excluded from the PUD request. I understand that this approval took place only a short time before the publication of this document but it is pertinent information. There are references in this document to possible use of the BPA easement as a wildlife corridor as well as a trail area. The Conditional Use Permit approved will allow a 250 to 300 unit mini warehouse to be built on the 40 acres excluded from this proposal in the area of the BPA easement at the foot of the steep hillside running parallel to that easement. Natural vegetation on the southwest side of the BPA power lines is designated in the CUP to serve as the aesthetic screening required for the CUP. Development of all proposed alternatives for the PUD would allow development of this area for residential use there by eliminating the aesthetic screen required for the CUP. Ingress and egress to the mini warehouse facility is designated in the CUP to be through the Marian Meadows PUD and across the BPA easement at two places. The CUP will adversely affect the proposed use of the BPA easement for wildlife, trail use and required aesthetic screening. By allowing extensive human activity in the area wildlife will avoid the area there by further degrading habitat and migration opportunities. The proposed ingress and egress roads to the mini warehouse will create safety issues for users of the suggested trail. The easement and trail would cross at 90 degree angles requiring users of the access road and trail to cross paths. A trail passing by a 250 to 300 unit warehouse would not reflect the rural quality of life expected in a rural setting. A trail in this area would feel and look more like a commercial or industrial urban trail similar to ones developed in King County urban areas.

References to the CUP should be added and considered as a changed circumstance and newly available information. *The majority of the BPA easement has been excluded from this application and should not be considered for beneficial uses related to this application. I ask that all references related to beneficial uses be deleted from this document and impacts of the CUP be included as a consideration in this document.*

Maps must also be revised to reflect this new information. Statements on page 2-3 and again on page 2-6 of this document indicate a possible wildlife corridor in the area of the BPA easement. Again I will restate that a CUP has been approved for a 250-300 unit mini warehouse in that area, which will degrade if not eliminate use as a wildlife corridor. Additional statements relating to the BPA easement on page 2-6 discuss the use of the easement as a shared drain field for on-site-sewer systems on the upper portion of the proposed development. This use would eliminate the BPA easement use as an informal motorized vehicle trail and a wildlife corridor. Such uses would compact the soil in the drain field and there by render it inoperative. Impacts related to this changed circumstance must be considered as it relates to all alternatives as well as the cumulative impacts discussed in this document. Traffic, light and glare from security lighting, wildlife habitat and migration corridors, additional impervious surfaces and surface water run off, additional water and sewer requirements and rural character are only a part of the impacts this change in circumstance will affect as it relates to the applicants proposed PUD and alternatives. During the comment period for the CUP I requested that the CUP be included in this document and was ignored. DOE also made reference to the inclusion of the CUP in this document and was also ignored. There has been a substantial change

in the development plans for the 40 acres excluded from the proposed PUD. Because the CUP is totally surrounded by the proposed PUD, inter related impacts of the CUP must be taken into consideration in this document.

This document does not address the impacts of access to the Easton area. Ingress and egress to the Easton Area is limited to travel on Interstate 90. In the event of an emergency, earthquake, flood, heavy snow, avalanche, rock slide or other disaster Easton is easily isolated. Historically the winter months have demonstrated this risk on a regular basis. Not only are the residents of Easton often isolated there are times the traveling public is unable to travel to a more appropriate location. During such times the roads in the Easton area are blocked by travelers who have no option to go elsewhere. During these types of events the health safety and welfare of the traveling public as well as residents of the Easton community is threatened. Movement in the community for emergency vehicles, schools and residents comes to a stand still. The addition of several hundred or even several thousand residents, as illustrated in this document, would serve to intensify such situations. I believe that with increased population as described in this document the County will find it necessary to develop an alternate means of ingress and egress to the Easton area to preserve the health safety and welfare of the community. This is an impact associated with the applicant's proposal, the alternatives and cumulative impacts. This must be addressed and evaluated.

The development of the applicant's proposed PUD and the proposed alternatives would have extremely adverse effects on the rural character of the Easton vicinity. Rural character is describe by RCW 36.70A.030, the Upper County Vision Plan the Eastern Washington Growth Hearings Board and the Counties own GPOs, as quoted on pages 3-18 through 3-22 of this document, all describe something other than what is being proposed by the applicant and the alternatives. The precedent that would be set by development other than the R3 zone would certainly lead to more urbanization of the area. The rural character of the area must be retained for numerous reasons. Open space natural landscape and vegetation must predominate over the built environment. The compatible use of land for wildlife habitat and migration corridors in the area must be preserved. The incompatible use of lands adjacent to resource lands will be furthered by the applicant's proposal and cumulative impacts. Recreational opportunities would severely impacted by the urbanization of the area. The installation of a sewer treatment facility would establish an urban service in a rural area. Water quality would be impacted by increased water use, the risk of sewer treatment facility failure and increased surface water runoff into Silver Creek .The use septic systems could very well be an adverse effect on the water supply in the area due to the high rate of infiltration in to the soil in the area and the proximity of wells. Allowing intense urban type development to be hidden or screened from view of the traveling public is not preserving the rural character of the area it is merely hiding the urban development from the public at large. Residents and visitors to the area would be exposed to and affected by the urbanization of the area. Residents and visitors value the current rural character of the area as it is and want it preserved as outlined and required by state and local regulations. The cumulative impacts discussed in this document would certainly require substantial need for urban services which would essentially destroy the rural character of the area. Development of

land at urban or even suburban intensities is not part of any definition of rural character and must be avoided.

The tenure illustrations while interesting should not be used to determine any of the impacts. Tenure is fluid and can and will change with the economy, the real estate market, employment opportunities and many other conditions. Even in the small rural area of Easton there are examples of dramatic changes in tenure. Easton Village was developed in the 1970's as a recreational community. Easton Village is now occupied by mostly full time residents. The same is true of the Sun Island and Elk Meadows communities where full time residency has become the norm. Basing any decision making upon any expected tenure scenario other than 100% full time residents would be irresponsible. Tenure as it relates to any of the impacts discussed in this document must be considered to be 100 % full time. If any other scenario is the basis for decision making the opportunity for mitigation of all possible impacts would be lost. The citizens of the County would in the end be responsible for future impacts as tenure changes.

It is assumed the final EIS will be an integral part of any future development of possible additional phases of the proposed PUD or any alternative to the PUD. What assurances will be in place to see that conditions recognized in the final EIS document will be applied to future development of these parcels?

Alternate 2 also does not indicate the location of the proposed sewer treatment facility.

A description of three roads stubbed to the east to provide access to the remainder of the site is stated on page 2-4. I do not see this statement reflected on the maps.

A statement on page 2-2 indicates that lot sizes for Alternate 1 would be less than 0.5 acre. And a statement on page 2-4 indicates that lot sizes for Alternate 1 would allow for individual on-site-sewer disposal systems. Kittitas County Code 13.04.070 requires a minimum lots size of .05 acre for on-site-sewer disposal. The two statements appear to conflict. Corrections must be made to this document to clarify how lots smaller than .05 acre would be allowed on-site-sewer or corrected to state that Alternate 1 would not allow on-site sewer disposal per KCC 13.04.070.

The discussion of on-site-sewer disposal does not include enough information regarding infiltration as it relates to the well head protection zones established by the Department of Health. I believe further information must be developed to better understand the geology and aquifer relationship of the project vicinity. I believe additional study is necessary to determine possible impacts for the proposal, the alternatives and cumulative impacts.

Page 2-6 states that the use of Alternative 5 higher public service costs could be avoided by limiting development to lower elevations. Public services included in this discussion included road maintenance and snow removal. Road maintenance and snow removal related to development of the upper portions of the proposal would not be public costs as the proposal indicates the road system would be private. References to these public services must be deleted from the discussion on this page.

Statements on page 2-7 regarding schedule and phasing clearly demonstrate the impact of this development on the growth rate of the Easton School District. 225 units are proposed to be on the market in the next 5 years. When that is compared to the 43 units built in the past 10 years it represents an 80% increase in the rate of available housing units within the School district. That rate of growth for a small school district could potentially be devastating if impacts are not taken seriously and mitigated for properly.

On page 3-46 the stated speed limit for Railroad street is 25 mph. The speed limit on railroad street east bound from exit 70 off of Interstate 90 is 35 mph to the bridge crossing the Yakima River. The speed limit east of the bridge becomes 25 mph and a few blocks east of that a school zone 20 mph limit is imposed. Please correct and clarify this information.

The discussions regarding traffic safety on page 3-53 and collisions on page 3-64 do not address the issue of winter ingress and egress to and from established private driveways. During winter months snow removal often restricts site distance greatly at residential driveways along Sparks Road. Additional motor vehicle and snowmobile traffic on Sparks Road will create a dangerous situation when visibility is greatly restricted. This is especially true of driveways in the vicinity of Country Drive where Sparks Road has two sharp curves and there are driveways with limited sight distance a short distance from the curves. Photos on pages 9 and 10 demonstrate this hazard. Additional consideration must be given regarding this hazard.

Collision mitigations proposed for pedestrian, bicycle and other off road use indicate the need for urban types of accommodation such as sidewalks and developed trail systems. The mitigations proposed do not preserve the rural character of the area. The placement of improvements would serve to urbanize road side views and characteristics. Side walks and urban pathways are not a part of the rural character currently enjoyed by residents of the Easton area and are generally associated with urban development.

The Airport Safety Zone information provided clearly states that by Kittitas County Zoning Code 17.58.05 only Alternative 3 can be developed. If WSDOT Aviation recommendations are applied there can be no development on the lower portion of the area. RCW 36.70.547 and RCW 36.70A.510 as stated, requires cities and counties to protect airports from incompatible development. The WSDOT Aviation Airport Land Use Compatibility Program offers valuable information and insight into risks and liabilities associated with incompatible development in each Airport Safety Zone. A quote from the liability section of the program states, "The program typically states, when evidence warrants it, that is the opinion of the Washington State Department of Transportation Aviation Division that a proposed incompatible development would be in direct conflict with RCW 36.70A.510 and development adjacent to the airport would clearly be an incompatible land use." I believe this statement is true for the proposed and alternate proposals for this property. *Because Kittitas County is aware of the risks of allowing incompatible development in Airport Safety Zones the County would be held responsible for any damage or injury caused by aircraft in those zones. The County*

would be engaging in excessive risk taking and negligent decision making. The County would be making a discretionary decision to allow such development in spite of regulations, recommendations, statistics and historical data, there by allowing tort claims against the County. The WSDOT Aviation Airport Land Use Compatibility Program, which I am including a copy of, clearly states this fact and quotes court decisions that affirm this liability.

Additional runoff from the proposed development, alternatives and possible cumulative impacts will increase the risk and occurrence of flooding in the area has not been addressed adequately. Rain on snow events are of particular concern. Such events have in the recent past caused flooding of residences along Silver Creek. Frozen ground in the winter months does not allow natural infiltration and dispersal of rain water or melting snow. Additional run off will certainly be created by the increase in impervious surfaces related to this proposal or alternatives. Additional information regarding current storm water provisions outside of the proposed PUD must be developed. The statement on page 3-168 that the ditch conveyance system along Sparks Road conveys water run off to Silver creek is incorrect. Ditch systems along Sparks Road do not currently extend to Silver Creek. Additional storm water run off created by this proposal could have devastating impacts to residents and property owners along Sparks Road. The storm water system along Sparks Road will require improvement to avoid damage to the roadway and private property. Such improvements would be representative of urban levels of government service in a rural area. As stated on page 3-157 “Rural government services do not include storm or sanitary sewers”.

Discussion regarding the possible use of reclaimed water for irrigation does not include details about how such water would be disposed of during winter months when the ground is frozen and irrigation is not taking place. There is also no information regarding the proposed stream augmentation initially proposed by the applicant. Issues such as where is the stream located, what are possible down stream impacts and risks are not included in this document. Additional details regarding use and disposal of reclaimed water must be included.

Statements on page 3-181 should be clarified to reflect the fact that Easton State Airport lighting is low intensity and the airport is not structured for night time use.

On page 3-185 there is a statement regarding the establishment of roadway lighting standards. Roadway lighting discussions should also be related to the discussion of rural character. Roadway lighting is considered an urban feature. Roadway lighting will have a substantial negative effect on the rural character of Easton and must be included in that discussion.

The statement on page 3-199 stating the closest residence to the southeast is about 100 feet from the project boundary is incomplete. There are residences to the west of the project boundary much closer. Information should be included relating to the distance of all residential development bordering the project boundary. Information regarding the project boundary and its relationship to the Wenatchee National Forest and the Roslyn

Water Shed must also be expanded. There are regulations in place that will effect the proposal and alternatives relating to development bordering the National Forest. The proximity to the Roslyn Water Shed is very important to the municipal water source of that city.

Fire and wild fire risks and consequences are of utmost concern to the residents of Easton. The evaluation in this document is for the most part very good. However there are a couple of areas which require further information. Currently the parcel upon which the applicant has proposed a PUD would have fire services provided by wildland fire fighting crews. Wildland fire fighting professionals are highly skilled and have tremendous resources at their disposal. They have man power, heavy equipment, aircraft and advanced technology at their finger tips. When structures are erected the fire fighting responsibility falls to the Easton Fire Department. With a few corrections regarding access and equipment this document describes the capabilities of the local services available for fire fighting. The ability to provide fire fighting services will be diminished substantially due to staffing and equipment levels. It is abundantly clear that residential development of this property will increase the risk of fire and wild fire substantially while reducing the ability to fight and control fires. The addition of information regarding the proximity of the Roslyn water shed must be included in this document. Any fire that goes up the slope before it is extinguished will cause irreparable harm to the Roslyn water shed which directly abuts the property at the top of the steep slope. The Roslyn water shed is of critical importance to the citizens of Roslyn and Kittitas County. An evaluation of impacts to the water shed must be included in this document.

Air quality evaluations are fatally flawed in this document. Easton is surrounded by high ridges and is in very close proximity to several bodies of water. The Ridges protect Easton from constant winds and create ideal conditions for inversions. Weather data from Ellensburg, Thorp and Stampede Pass do not in any way reflect the weather that occurs in Easton. The implication that the wind blows more in Easton than Ellensburg or Thorp is absurd. Air quality information in this document must be restated and evaluated to reflect actual conditions in the Easton area. Also of note the wind actually blows more often and stronger on the south side of I-90 than it does on the north side of I-90. Easton is truly a micro climate and does experience often long term (more than a week at times) inversions especially in the winter months.

Wildlife information is not complete. Among the birds occurring on and near the sight are pileated and other woodpeckers. Doves grouse and quail have also been observed on the site. Hawks, ravens, crows and blue jays also frequent the site. There have been wild turkeys observed with in 500 feet of the site.

I would like to restate that elk and to a lesser degree deer are frequently seen moving to and from the site. They are less often seen during winter months, but are visible most other times of the year. Around July 4th groups of cows with the current year's calves and usually several yearlings are regular visitors to the residential areas surrounding the site. These groups move through the residential areas to and from the site frequently.

Most resident respect their presence and try not to disturb their movement. The animals are most sensitive to traffic on Sparks Road. I have observed that while vehicles are moving at a regular pace they tend to ignore the vehicles. When vehicles stop the elk immediately leave the area for a more protected area. We have actually had elk on our property when returning home and have found that if we use the remote garage door opener, drive into the garage and close the door before exiting the vehicle, the elk are only minimally disturbed and return to foraging almost immediately. Additional traffic high density and perhaps insensitive residents will certainly strain the energetic demands placed on the animals and disturb one of the few migration corridors available to them.

This concludes my comments at this time. I urge Kittitas County to use the utmost care and due diligence in its review and decision making regarding this proposal, the alternatives and associated cumulative impacts.

Respectfully,



Marge Brandsrud



Winter view of Sparks Road facing west. Location is just east of Country Drive which is in the back ground of this photo. There is one drive way on the left of the photo.



Winter view of Sparks Road facing east. Location is just east of Country Drive. Although not distinguishable there are five drive ways in this photo.



AIRPORTS AND

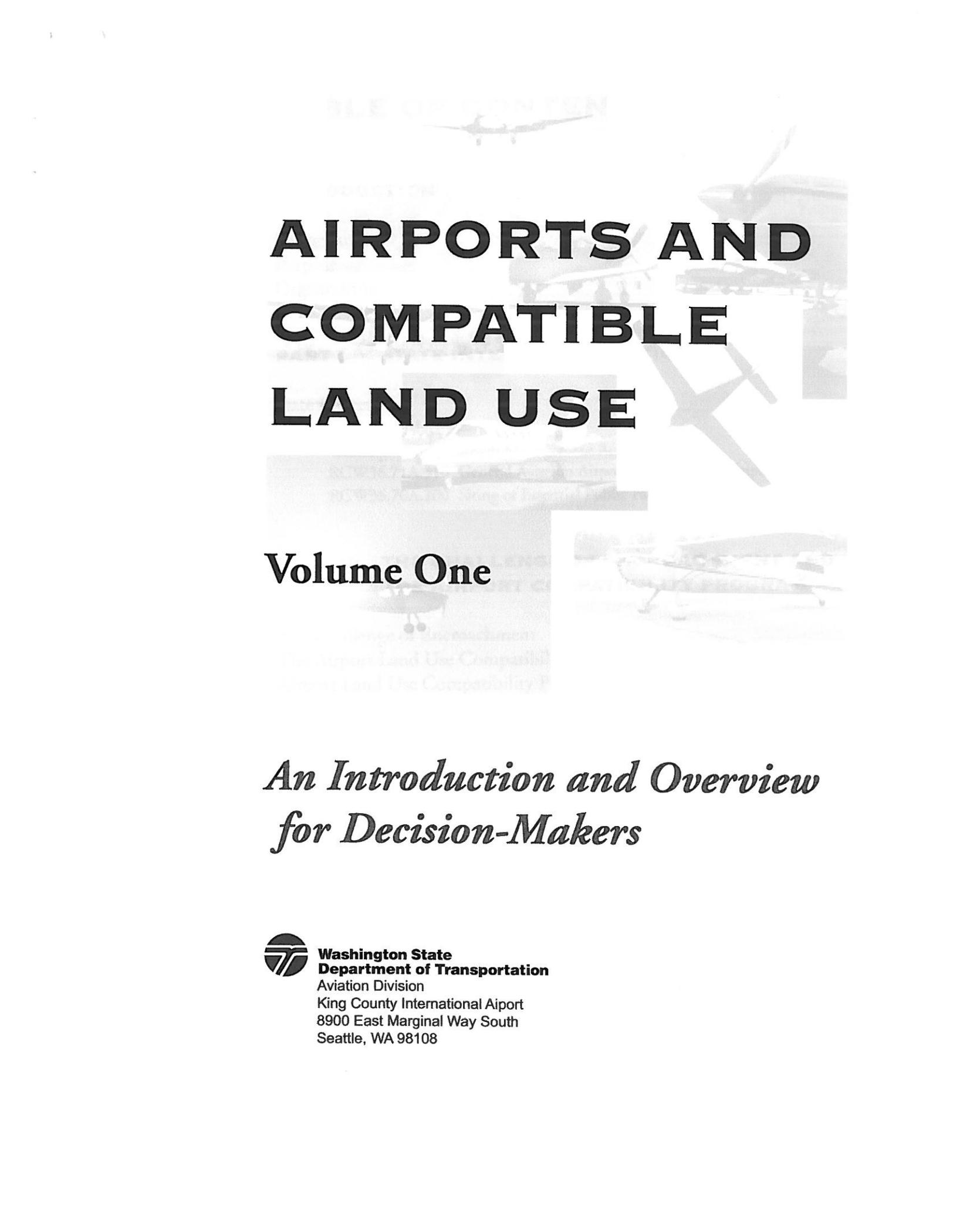
COMPATIBLE

LAND USE **VOLUME 1**



Washington State
Department of Transportation
Aviation Division

Revised February 1999



AIRPORTS AND COMPATIBLE LAND USE

Volume One

*An Introduction and Overview
for Decision-Makers*



**Washington State
Department of Transportation**
Aviation Division
King County International Airport
8900 East Marginal Way South
Seattle, WA 98108

**PART IV DIMENSIONS OF THE CHALLENGE:
UNDERSTANDING RISK AND LIABILITY**

Risk

Possibility and Probability
Risk Perception and Risk Acceptability
Risk Comparisons and Acceptable Risk
Communicating Risk

Liability

Insurance and Risk-Taking
The Airport Land Use Compatibility Program and Liability
Liability and Negligence: Reminga v. US

Taking Responsibility

Taking Responsibility: Jurisdictions
Taking Responsibility: WSDOT Aviation — The Airport Land
Compatibility Program

PART V CONCLUSION

Summary

Shaping the Future

REFERENCES

ADDITIONAL RESOURCES

**APPENDIX A ACCIDENT SAFETY ZONE DIAGRAM AND
ACCIDENT CAPTURE RATES**

**APPENDIX B AIRPORT COMPATIBLE LAND USE
MATRIX**

APPENDIX C RCW36.70.547 AND RCW36.70A.510

INTRODUCTION



BACKGROUND

Aviation is important to the economic health of Washington and the quality of life of its citizens, businesses and visitors. One of the major challenges of our day is to balance aviation needs with the needs of local communities. In Washington State, there are 129 public use airports identified in the *Washington State Aviation System Plan*. All of the airports are available for general aviation use and thirteen facilities offer scheduled commercial service. The state has an interest in a healthy aviation system. However, because the state has an ownership interest in only a small percentage of aviation facilities in Washington state, its actual role is most frequently one of partnership and advocacy.

Sponsorship of the public use airports contained in the *Washington State Aviation System Plan* are largely under the authority of local governments, which invest resources to preserve the aviation infrastructure and to keep these airports operational for the aircraft which use them. Of the 129 public use airports in the *Washington State Aviation System Plan*, sponsorship is greatly decentralized and breaks out as follows:

- 40 (31%) are owned by cities,
- 13 (10%) are owned by counties,
- 31 (24%) are owned by public port districts,
- 24 (19%) are owned privately,
- 17 (13%) are owned by the state,
- 04 (03%) are jointly owned by cities and counties or between cities.

Protection of these valuable facilities is of paramount importance to both the economic viability and the quality of life in Washington State. With population and development increases experienced in our state, airports are coming under increasing pressure from encroaching development. Through the *Washington State Aviation Policy*, the Washington State Transportation Commission finds three areas in which the loss, or potential loss of airports will be played out: lack of funding for investment in basic infrastructure preservation and safety improvements, incompatible land uses, and inappropriate environmental mitigation. In 1996, the Washington State Legislature also recognized the importance of protecting aviation facilities from incompatible land uses.

Through Washington State *Senate Bill 6422*, which amended the Washington State Growth Management Act and associated provisions in the act, the state recognized the inherent social and economic benefits of aviation. The law requires every city and town, code city, charter city and county having a general aviation airport in its jurisdiction to discourage the siting of land uses that are incompatible with the airport. The policy to protect airport facilities must be implemented in the comprehensive plan and development regulations as they are amended in the normal course of land use proceedings. Formal consultation with the aviation community is required and all plans must be filed with the Washington State Department of Transportation WSDOT Aviation Division. Further, the law requires the establishment of an airport land use compatibility technical assistance program available to local jurisdictions.

Finally, some administrators and policy makers believe that the challenges facing airport preservation — incompatible land use decisions, competing priorities for local funding, and incompatible environmental mitigation policies — may result from of a lack understanding among their colleagues and the general public about the importance of airports to state and local economies

The Washington State Growth Management Act recognizes airports as essential public facilities and local jurisdictions are required to plan accordingly to protect these facilities. However, much resource information is needed by jurisdictions to ensure opportunities for informed land use decision-making. This challenge is being met by the WSDOT Airport Land Use Compatibility Technical Assistance Program through the development of resource information regarding safety; economic dependence of airports on local, regional and state economies; risk and liability and their affect on incompatible land use decision-making; and a desktop reference guide for cities, counties and airport sponsors to provide technical examples and model approaches to protecting aviation infrastructure and balancing quality of life.

PURPOSE

The State of Washington is not the local land use authority nor empowered to make land use decisions. *The Washington State Growth Management Act* establishes land use planning requirements upon cities and counties and through the Airport Land Use Compatibility program, the law empowers the state to offer technical assistance and policy advice to cities and counties. In offering resource information and the facilitation of the program's advocacy and partnership role, the Airport Land Use Compatibility Program presents the following:

- An introduction to the Airport Land Use Compatibility Program;
- A working knowledge of the history, mandates processes, and issues surrounding this program;
- An introduction to the technical vocabulary and conceptual framework necessary to enable decision-makers to make the best use of the tools and resources offered by the Airport land Use Compatibility Program in it's best practices handbook.

ORGANIZATION

- *Part One* of this volume will examine the roots of state interest in aviation planning and outline the enabling legislation.
- *Part Two* of this volume will introduce the Airport Land Use Compatibility Program, it's functions, and the challenges facing it.
- *Part Three* of this volume will cover the technical attributes of the challenges facing airport preservation and planning.
- *Part Four* of this volume will introduce the concept of risk and risk assessment, and discuss the current understating of liability issues.
- *Part Five* of this volume is the conclusion which takes a quick look at the challenges presented to decision-makers in the State of Washington relative to airport compatible land use planning.

PART ONE

STATE INTEREST IN AVIATION AND AUTHORIZING LEGISLATION

STATE INTEREST

The state has broad interests in transportation to promote economic vitality, to improve the quality of life, and to protect the environment. The state government's authority in meeting state interest is achieved primarily through advocacy and partnership. In Washington, with decentralized ownership of the transportation system by local governments, federal agencies, regional agencies and the private sector, much of the state interest is accomplished by these other governments or private business. The state has an interest that is carried out by the owners of the transportation systems and, at a minimum, has a role in advocating for the state's interest.

State interest in aviation is guided by the adopted policy objectives of the Washington State Transportation Commission which is charged with broad oversight of transportation. The eight policy objectives, adopted in 1996, are as follows:

- ***Protect Our Investments*** by keeping transportation infrastructure in sound operating condition.
- ***Operate Transportation Systems*** to work reliably and responsibly for the customer.
- ***Improve Safety*** through continuous reduction in the societal cost of accidents.
- ***Provide Viable Mobility Choices*** for the customer and expand the system to accommodate growth.
- ***Support the Economy*** through reduced barriers to the movement of people, products, and information.
- ***Meet Environmental Responsibilities.***
- ***Cooperate and Coordinate*** with public and private transportation partners so that systems work together cost effectively.
- ***Continuously Improve*** the efficient and effective delivery of agency programs.

PRIMARY AREAS OF STATE INTEREST

The primary areas of aviation interest for the State of Washington are airport preservation, safety, capacity, and environmental preservation:

Preservation

It is the State's interest to preserve a system of airports which provides access for all regions of the state to the nation's air transportation system, provides for emergency management, and supports local economies.

Safety

It is the State's interest that travel by air be safe.

Capacity

It is the State's interest to insure sufficient airport capacity to respond to growth in demand in order to provide air access within the state, and between the state and points in the nation and the world.

Environmental Protection

It is the state's interest that negative environmental impacts of airports on people, communities, and the environment be minimized.

AUTHORIZING LEGISLATION

In addition to these statements contained in the *Washington State Aviation Policy*, the state's interest in various modes of transportation is defined in **RCW 47.06**. This statute requires the Department of Transportation to develop a balanced and multimodal transportation plan. This plan is to include transportation facilities and services provided directly by the state, including highways, state ferries, and state-owned airports. It also must address state-interest modes of transportation. These state-interest modes are defined to include public transportation, freight rail, intercity passenger rail, marine ports and navigation, non-motorized transportation, and aviation. The plan must define the extent of state interest in these modes, and propose investments and advocacy actions needed to meet this state interest.

Further, **RCW 47.68** outlines the authority of the Aviation Division and presents its mandate. In 1947, the state created a new agency, the Aeronautics Commission (now the WSDOT Aviation Division). The agency's task is to perform state functions in air transportation, in cooperation with federal authorities and local governments in the state.

The major functions of the agency have been to: advocate for the development of an adequate system of public use airports in Washington State, implemented through local government; promote aviation safety, airmark towns and cities; provide tourist information; activate and manage air search and rescue for civilian aircraft; promote aviation legislation; and promote aviation in general, through close liaison with aviation clubs and associations. The authorizing language in **RCW 47.68** drives the Aviation Division's role in aviation advocacy through the Airports Program (Local Airport Aid), State Airports, Aviation Planning, Air Search and Rescue Management, Pilot and Aircraft Registration, Aviation Education, State Aircraft Fleet Management, Aviation Outreach, and Administration.

MATRIX OF STATE INTEREST AND AUTHORITY IN AVIATION

State Interest	Primary Responsibility	Supporting Responsibility
Preservation of a system of airports	Airport Owners	FAA, WSDOT Aviation Division, and Local Governments with zoning authority
Safe air travel	Federal Aviation Admin. Airport owners Airlines	WSDOT Aviation Division
Adequate Airport Capacity	Airport owners	FAA, and WSDOT Aviation Division
Minimizing the negative impacts of airport operations	Airport owners	State and Federal environmental protection agencies

STATE AVIATION POLICY

The Washington State Transportation Commission adopted Resolution 567 on March 24, 1998 thereby establishing *The Washington State Aviation Policy*. The Transportation Commission adopted the recommendations of the Aviation Policy Advisory Committee which identified aviation issue areas and recommended an expanded state role in the following areas:

Preservation

Issues areas and expanded state role included land use encroachment, economic role of airports, wetland mitigation strategies, and general aviation airport preservation funding. The Transportation Commission identified that the extent of state's system of airports are at a minimum level of service. This means the airports contained in *The Washington State Aviation System Plan* are critical facilities, essential to providing access to the air transportation system, meeting needs for emergency response, and rural isolation.

Safety

Issue areas included safety improvements at general aviation airports, and the importance of airports in emergency response.

Capacity

One of the major aviation challenges of our day is to balance aviation capacity needs with the needs of local communities. Meeting the state interest of adequate capacity is carried out on the local level by airport sponsors and their host jurisdiction. It is the responsibility of local decision-makers to plan for increased capacity needs for their constituencies at their airport facilities.

In most cases, local governments recognize the economic benefit of meeting airport capacity needs and work together to provide the necessary capacity. When local governments disagree on an appropriate solution, or when they fail to address an airport capacity need, the state interest of adequate air capacity may not be met. The state role in meeting its interest in adequate air capacity now includes:

- Advocating the position that airports are essential public facilities and communicating the importance of these facilities to local jurisdictions;
- Establishing a mechanism allowing the mitigation of impact from regional and statewide transportation facilities through a broader regional approach;
- Coordinating and communicating surface transportation connection needs relative to airport activity growth.

Environmental Protection

The Transportation Commission did not recommend any changes in this area of interest since compliance with *SEPA*, *NEPA* and the federal *Airport Noise and Capacity Act of 1990* is expected.

WASHINGTON STATE GROWTH MANAGEMENT ACT

In 1990, the Washington State Legislature determined that uncoordinated and unplanned growth, together with a lack of common goals expressing the public's interest in the conservation and the wise use of our lands, pose a threat to the environment, sustainable economic development, and the health, safety and high quality of life enjoyed by the residents of Washington State. The Legislature concluded that it is in the public interest that citizens, communities, local governments, and the private sector cooperate and coordinate with one another in comprehensive land use planning. Further, they found that it is in the public interest that economic development programs be shared with communities experiencing insufficient economic growth.

RCW 36.70A.510 General Aviation Airports — Siting of Incompatible Uses

Through Washington State *Senate Bill 6422*, which amended the Washington State Growth Management Act and associated provisions in the Act, the state recognized the inherent social and economic benefits of aviation. The law requires every city and town, code city, charter city and county having a general aviation airport in its jurisdiction to discourage the siting of land uses that are incompatible with the airport.

The policy to protect airport facilities must be implemented in the comprehensive plan and development regulations as they are amended in the normal course of land use proceedings. Formal consultation with the aviation community is required and all plans must be filed with the Washington State Department of Transportation Aviation Division. Further, the law requires the establishment of an airport land use compatibility technical assistance program, by the Aviation Division, and available to local jurisdictions.

RCW 36.70A.200 Siting of Essential Public Facilities

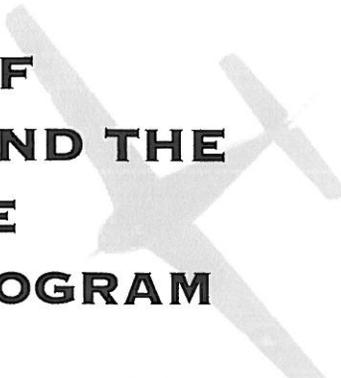
The Washington State Growth Management Act requires that the comprehensive plan of each county and city that plans under GMA include a process for identifying and siting essential public facilities. Essential public facilities include those facilities that are typically difficult to site, such as airports, state education facilities and state or regional transportation facilities, state and local correctional facilities, solid waste handling facilities, and inpatient facilities including substance abuse facilities, mental health facilities, and group homes. The Office of Financial Management will maintain a list of facilities that are required or that are to be built within six years; no local comprehensive plan or development regulation may preclude the siting of essential public facilities.

In their final decision and order, *Port of Seattle v. City of Des Moines, Case No. 97-3-0014*, the Central Puget Sound Growth Management Hearings Board provided further clarity on this issue. They stated that there are two duties imposed under **RCW 36.70A.200**: 'A duty to adopt in the comprehensive plan a process to site essential public facilities, and a duty not to preclude their siting in the plan or implementing development regulations.'

Airports are specifically identified as Essential Public Facilities. There is no credible argument that an existing EPF is not an EPF, even though it predates the GMA. In addition, there is no credible argument that expansion of an existing EPF is not within the scope of **RCW 36.70A.200**. Likewise, **RCW 36.70A .200** does not support the notion of precluding necessary support activities for the expansion of the EPF that occur within the jurisdiction.'

PART TWO

THE CHALLENGE OF ENCROACHMENT AND THE AIRPORT LAND USE COMPATIBILITY PROGRAM



THE CHALLENGE OF ENCROACHMENT

Airports are unique facilities in that they tend to occupy large parcels of land, have unique siting requirements, produce noise, and generate complex safety concerns all of which impact neighboring communities. Because of their unique characteristics, airports cannot be easily relocated.

Local land use authorities are responsible for ensuring compatible land use and appropriate zoning requirements around airports. The Washington State Transportation Committee noted a disturbing trend of disregard relative to the unique siting and use characteristics of airports by local land use jurisdictions. This disregard, or in some cases, a lack of information on the particular needs of airports, is evidenced in the number of approved, incompatible adjacent land uses.

The continuance of accepted, incompatible land uses adjacent to airport lands — irrespective of their relationship to the operational needs of airports — may result in the loss, or significantly impede, of some of the airports within the state aviation system. This loss would endanger the state's mission to preserve a system of essential public facilities that provides access for all regions of the state to the nation's air transportation system, emergency management, and needed support for local economies.

These concerns form the basis for the creation and enactment of *Senate Bill 6422*. This bill requires local jurisdictions to protect airports from encroachment by incompatible land use, and provides the mechanisms by which this may be accomplished.

THE AIRPORT LAND USE COMPATIBILITY PROGRAM

To meet the challenge posed by encroachment upon public use airport lands, Washington State sponsors a progressive land use compatibility program protecting airports from encroachment by incompatible land uses. The law, Washington State *Senate Bill 6422*, codified as **RCW 36.70. 547** and **RCW 36.70A.510** requires cities and counties to protect airports from incompatible development. As previously mentioned, the law includes the formation of a land use compatibility technical assistance program for cities and counties. The law, which went into effect June 1996, has significantly changed the approach to land use planning adjacent to airports and the service provided by the WSDOT Aviation Division.

To meet the challenge of airport encroachment head on, WSDOT Aviation Division created the Airport Land Use Compatibility Program. Although the state has a vested interest in promoting a healthy and vital aviation system, it is not empowered with the authority to make land use decisions to prevent the encroachment of aviation facilities. The primary authority for meeting this state interest rests with the owners of Washington's airports. The Airport Land Use Compatibility Program's charge is both forging partnerships with and between jurisdictions and airport sponsors, and with acting as an advocate for compatible land uses surrounding airports.

The assumptions within the Airport Land Use Compatibility Program are based upon *Title Fourteen, Code of Federal Regulations, Subchapter C, Part 77, Objects Affecting Navigable Airspace* and data from the National Transportation Safety Board, analyses performed on the NTSB data, case law, and other general resource areas. Comprehensive research data on land use compatibility and the risks associated with incompatible development are quite limited.

The Airport Land Use Compatibility Program recognizes the value of the scientific analysis performed by Hodges and Shutt plotting accident locations identified by the NTSB. The plotted NTSB data from the years 1983-1994 indicates a significant trend of aircraft accidents concentrated at an airport's runway end to five thousand feet. The safety data serves as a guide in identifying possible situations of reduced safety and potential incompatible land use development.

AIRPORT LAND USE COMPATIBILITY PROGRAM IMPLEMENTATION

The Airport Land Use Compatibility Program is identified in four areas: General Technical Assistance, Best Practices Handbook and resource development, Comprehensive Plan Review, and Technical Outreach.

GENERAL TECHNICAL ASSISTANCE

The primary function of the technical assistance program is to provide technical guidance to customers through advocacy. Requests for assistance continue at an accelerated rate. A large percentage of requests relate to facilitating communication between airport sponsors and neighboring communities. The program emphasizes bridging communication linkages where gaps exist, and is intended to encourage a cooperative spirit between local governments and airport sponsors to work through issues.

BEST PRACTICES HANDBOOK

In providing information assistance and easing the burden of program implementation on cities, counties and airport sponsors, the Airport Land Use Compatibility Program will offer a "best practices" handbook to serve as a desktop reference to cities, counties and airport sponsors. The handbook will provide supportive information, model ordinances, and examples of ordinances presently used by communities utilizing the program.

COMPREHENSIVE PLAN REVIEW

In relation to RCW 36.70A.510, the Airport Land Use Compatibility Program conducts reviews and provides comments on local comprehensive plans. The comments are coordinated with the Washington State Department of Community, Trade and Economic Development and considered by the Growth Management Hearings Boards, when appealed.

TECHNICAL OUTREACH

WSDOT Aviation, in partnership with the Department of Community, Trade and Economic Development (DCTED), offers general outreach workshops for cities, counties and airport sponsors to inform them about the program in order to foster informed decision-making. Contact DCTED or the WSDOT Aviation Division if your area is interested in participating.

CRITICAL COMPATIBILITY AREAS

The Airport Land Use Compatibility Program identified three areas which embody critical quality of life and safety issues relevant to airport operation and community health and welfare; they are concerns surrounding height hazards, safety and noise.

These critical compatibility areas form a nexus around which decision-makers and stakeholders must craft responsible land use policies to preserve airports and to protect the health, safety and welfare of communities.

HEIGHT HAZARDS

The Airport Land Use Compatibility Program assists in long range and current planning decision-making. In Washington state, the state standard for height hazards accepts the national standard, *14 CFR Part 77 Objects Affecting Navigable Airspace*. Any object which penetrates these imaginary surfaces is considered an obstruction.

Imaginary surfaces are defined in relation to the airport and to each runway. The size of these imaginary surfaces is based on the category of each runway according to the current approach, and to any future approach planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise instrument approach existing or planned for that runway. The height hazards element of the Airport Land Use Compatibility Program supports the parameters of the Federal Aviation Administration (FAA) 7460-1 Program and supplements where FAA authority is limited by the Federal Communications Commission.

14 CFR Part 77 clearly identifies the boundaries which constitute the imaginary surfaces for an airport. The federal authority under the FAA Obstructions Evaluation program, identified under *Part 77*, is limited in scope, however. Under *14 CFR Part 77*, the FAA is required to meet the airspace needs of all users, aviation related or not, and as far as possible, revise aeronautical procedures and operations to accommodate antenna structures to fulfill broadcast requirements. Further, the authority of the FAA is limited to requiring mitigation for lighting and marking an obstruction. In rendering a decision of No Hazard, the findings issued by the FAA are advisory in nature and provisions for enforcing mitigation measures do not exist. The provisions of *14 CFR Part 77* do not empower the FAA to recommend alternate sites, options for site revision, or no build.

APPROACH TO HEIGHT HAZARDS

The role of the program is to provide the best available information to the jurisdiction prior to their land use decision-making. The best available technical information provided to the jurisdictions relies on the parameters of *14 CFR Part 77*, the findings of the courts, and guidance provided by the Washington State Municipal Attorneys Association and the Municipal Insurance Boards. In *Reminga v UNITED STATES*, the courts offered clarity on the effectiveness of the obstructions evaluation program, the limitations and scope of the federal recommendations, and the responsibility of parties to ensure adequate levels of safety are met.

The courts clearly stated that a “No Hazard” determination does not mean the obstruction is safe to construct. On the contrary, the finding means the FAA has the ability to steepen the approach to the airport without closing the approach. The only finding the FAA is empowered to give is a finding of “No Hazard” unless the approach to the airport is not able to support the steepened access to the airport.

Obstructions are typically located on land outside the airport boundary and found on county or city land. This land is insured through the jurisdiction’s self-insurance or through the city or county insurance pools. In relation to cellular phone services, the program recommends a removal clause requiring the provider remove the facility within six months of abandonment. This provision recognizes the reality of next generation satellite dependence for cellular phone systems.

Land use decisions are long term decisions. Incorporating development regulations which fan obstructions outside of the imaginary surface help to preserve the integrity of the airport, preserve quality of life and protect the jurisdiction in the case of a challenge.

SAFETY

From the perspective of safety, there are factors that determine which areas around an airport need to be protected from incompatible land uses based upon historical data. The factors include 1) the phase of aircraft operation when accidents most often occur (approach, descent, landing, takeoff, climb and cruise), 2) the major cause of accidents and incidents, 3) the location of these accidents in relation to the proximity to an airport. Based upon historical data from the National Transportation Safety Board

(NTSB) the areas adjacent to airports are more susceptible to aircraft accidents. Therefore, caution must be exercised when land is zoned and construction permits are issued in areas adjacent to airports in an effort to reduce the severity of an accident, loss of life or injury, based upon historical trends.

According to the NTSB, during the years 1984-1993, approximately 47% of all air carrier and commuter accidents occurred during the approach, descent and landing at an airport. During the same time period, approximately 64% of all general aviation accidents occurred during approach, descent, landing and takeoff climb phase of operation at an airport. It can be concluded that many of the risks inherent in air transportation are associated with the takeoff and landing phase of flight. Therefore, for purposes of maintaining safety and implementation of good land use planning, the most critical areas to protect from incompatible land use are those areas below the approach and departure paths to an airport.

GENERAL AVIATION ACCIDENT TRENDS

According to the NTSB's *Annual Review of Aircraft Accident Data*, United States General Aviation, Calendar Year 1994,

“Single reciprocating engine airplanes accounted for 77 percent of all of the general aviation accidents that occurred in calendar year 1994; with a total of 1,539 accidents, 281 fatal accidents, and 494 fatalities, resulting in an accident rate of 9.76 and a fatal accident rate of 1.78 per 100,000 hours flown. By far, the highest accident rates (31.18 accidents and 6.18 fatal accidents per 100,000 hours flown) in the eleven years tabulated in this report occurred in reciprocating engine rotorcraft.”

In addition, the report stated that between the years 1983-1993, the broad causes or factors leading to aircraft accidents were as follows:

Pilot Error	82.6%
Terrain/Weather Conditions	24.7%
Weather	23.7%
Engine System	22%
Objects	14.1%
Other Person (not aboard)	8.9%
Light Conditions	6.8%
Landing Gear	4.5%
Instrumentation	4.4%
Airframe	1.9%
Flight Control System	1.6%
NAVAIDs	0.8%
Other Person (aboard)	0.6%

Note: There is typically more than one cause or factor leading to an aircraft accident.

HISTORIC ACCIDENT ZONES ADJACENT TO AIRPORTS

In 1993, the firm Hodges and Shutt, sponsored by the California Transportation Institute, conducted scientific analyses to illustrate where aircraft accidents were more likely to occur. The foundation of the analyses was National Transportation Safety Board (NTSB) data collected on 400 general aviation aircraft accidents occurring within 5 miles of an airport. Aircraft accidents were separated into categories based on runway length, pilot control, multi/single engine, VFR (visual flight rules), IFR (instrument flight rules) and accidents occurring on approach or departure.

PLOTTING OF ACCIDENTS: METHODOLOGY

Accident locations were plotted and safety zones were applied to represent areas capturing the accidents within the particular cluster areas. In developing these zones, the adopted strategy focused on having greater land use restrictions where accident risks are higher.

Two basic research objectives were used to evaluate the historical accident location data. The first objective focused on identification of the particular shape of the zones, to encompass the greatest cluster of accident sites within the smallest acreage. The second objective identified points on the continuum where the ratio of accidents per acre changes noticeably, for example, the point of diminishing marginal returns for accidents captured within a zone. While repeat occurrence of an accident in the same location was not assumed, it is reasonable to predict that the broad cluster areas where accidents have occurred in the past reflect the same areas where accidents will likely occur in the future.

WHAT TO DO WITH THIS INFORMATION?

The program is designed to react to current planning issues, such as construction requests, and encourages cities and counties to create proactive policies and development regulations which protect the airport from incompatible development in the future.

Recognizing that one size does not fit all, WSDOT Aviation and DCTED developed a matrix offering a menu of recommendations for compatible development adjacent to an airport. The recommendations are based upon the accident rate per acre within the particular zone. The matrix is designed for airports other than primary airports. Since the accident rate differs for commercial and primary airports, an additional matrix is under development to present recommendations for compatibility reflecting the revised accident rate and extended runway length.

NOISE

Cities and counties seek to protect the health, safety and welfare of its citizens. Striking a balance between infrastructure preservation and preserving quality of life is a challenge jurisdictions and airport sponsors must strive for. The FAA has an extensive and exhaustive program relating to aircraft noise at commercial airports and the opportunities for mitigating the impact of commercial uses. The documentation of noise contours is clear and serves as a formidable tool in identifying the varying degrees of noise impacts.

The Airport Land Use Compatibility Program expects jurisdictions and airport sponsors to work together to balance the preservation of airport infrastructure and the impacts of noise. It is the responsibility of the jurisdiction to factor noise realities into land use decision-making for the protection of the health, safety and welfare of its constituents. It is the responsibility of the airport sponsor to commit to seeking a balance in the preservation of the facility and the quality of life of its neighbors prior to decisions for incompatible development. The commitment both parties make must include effective communication and the creation of an environment which lends itself to cooperation between the sponsor and the jurisdiction.

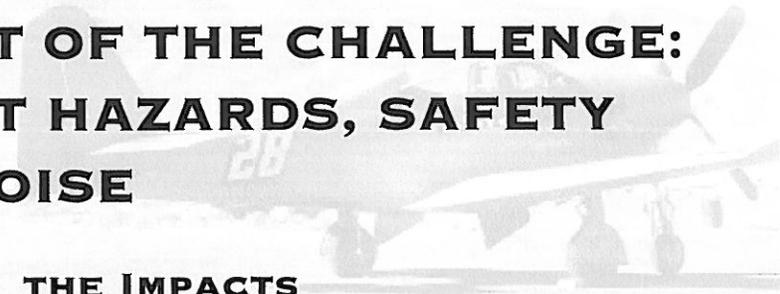
The Airport Land Use Compatibility Program has experienced attitudes by both airport sponsors and jurisdictions that neither cares to work with the other until absolutely necessary. This approach is archaic and ineffective. Land use decisions are long term decisions, and proactive policies and development regulations take much time and work, on the part of both parties, to create. It is in interest of both parties to incorporate proactive language, policies and procedures which protect the airport and the community from incompatible land use decision-making.

Appropriate land uses and densities which enable community identification and airport preservation must be incorporated into planning documents. The overlay of noise contour mapping with comprehensive plan mapping, the factoring of airports as essential public facilities, the fanning of incompatible uses and high densities away from noise affected areas is paramount to the protection of the health, safety and welfare of all parties.

The political realities associated with tough land use decision-making make good land use planning decisions exceedingly complex. The financial realities associated with these tough decisions do not evaporate when the baton is passed from party to party. The tough decisions come at a cost. WSDOT Aviation encourages jurisdictions and sponsors to recognize these financial realities prior to land use decision-making. Shifting costs from one party to the other is an ineffective approach. Advocacy, bridging communication, and utilizing valid research and current data are the components to moving land use decision-making to an effective level.

PART THREE

IMPACT OF THE CHALLENGE: HEIGHT HAZARDS, SAFETY AND NOISE



SCOPE OF THE IMPACTS

The challenge presented by the encroachment of incompatible land uses around Washington's airports and how the challenge is met, impacts the entire process of decision-making for local jurisdictions. The unique nature of airports - size, physical site requirements, and status as an essential public facility - often impacts the decision-making process in a community in basic areas of land use policy formation:

- determining the scale on which objectives can be measured or gauged,
- formulating land use strategies,
- establishing development and use criteria.

These basic components of the policy formation process, essentially craft the specific land use components which meet the requirements of law, address local social and economic needs, and, above all, protects the safety of the community as a whole.

CRITICAL COMPATIBILITY AREAS

This section examines the three critical areas in which airport land use compatibility issues occur. When balance is not achieved, land use challenges occur.

- *Safety.* Areas beyond the runway and other areas of the community routinely flown over by aircraft to and from the airport; these are the sites where accidents have historically taken place.
- *Height Hazards.* Flight takes place in a vertical environment, therefore, this space must be kept clear of natural or built objects that penetrate this airspace; these are areas surrounding an airport or under low level air routes where the penetration of structures will create hazards to aerial navigation.
- *Noise.* The measurable sound generated by aircraft flight or ground operations that is perceived by those on the ground as annoying.

Safety concerns, in general, present the greatest challenge to land use decision-makers. Since a majority of accidents occur within 5,000 feet of a runway, the ability of the pilot to bring the aircraft down in a manner that minimizes the severity of an accident is dependent upon the type of land use permitted within the adjacent zoning to an airport. It is the responsibility of local government to protect the health and general welfare of its citizens, and jurisdictions may be called upon to demonstrate that they exercised due diligence in permitting certain land uses adjacent to airports.

DUE DILIGENCE AND LIABILITY

Due diligence concerns become paramount should an accident or incident occur resulting in damage to property, loss of livelihood, injury, or death. Should an investigation show a jurisdiction ignored relevant safety data or best practices recommendations, that jurisdiction becomes liable to legal action for damage recovery.

The Airport Land Use Compatibility Program provides the best available information and best practice recommendations to jurisdictions in order to enable informed, responsible land use choices relative to compatible zoning. These zoning choices are important for two reasons:

- accidents will occur at some point during the life of an airport, the tools to minimize and perhaps avoid damage to persons or property should not be ignored;
- multiple use conflicts and property rights concerns generate additional legal challenges to zoning decisions. Using factual data rather than anecdote, provides a defensible basis for decision-making.

Many times, airport sponsors, host communities and constituencies expend valuable, and often scarce resources, to either engage in legal battles or to circumvent them. Basing land use decisions upon fact, historic data, and applying best practice recommendations supplied by the Airport Land Use Compatibility Program, assists jurisdictions in crafting defensible, objective zoning laws and aid in avoiding costly litigation.

OBJECTIVE BASIS FOR RECOMMENDATIONS AND BEST PRACTICES

Comprehensive research data on land use compatibility and the risks associated with incompatible development are quite limited. Given this reality and program expectation, the Airport Land Use Compatibility Program utilizes the best available objective information as a basis for sound technical assistance and informed advocacy. These resources include:

- National Transportation Safety Board (NTSB) data and analyses of this data;
- case law relative to liability and risk;
- current risk identification and assessment data and practices.

THINKING IN MULTI-DIMENSIONAL LEVELS

The space around airports is conceptualized as conical surfaces and depicted as a inverted cone superimposed over the dimensions of the airport. For the purposes of this discussion, it is helpful to think of the space above and around an airport, in multi-dimensional terms:

- The vertical element encompasses the space above the airport containing the approach to the airport and other flight critical elements;
- The horizontal element encompasses the ground space immediately underneath aircraft approach and transitional areas;
- Noise is often described as the subjective, unwanted, and annoying aspect of sound; since sound is a measurable phenomena it can be described in two dimensions, spatial as magnitude and frequency, and time as duration.

HEIGHT HAZARDS: ATTRIBUTES AND ISSUES

The loss of navigable airspace to non-aviation uses particularly within the flight critical airspace to an airport approach, creates a hazard to flight activity, aircraft passengers, and to people and property on the ground; additionally, these obstructions inhibit the safe and efficient operation of the airport, in general. As previously mentioned, the Washington State standard for height hazards is the national standard, *14 CFR Part 77*.

Two things are necessary to fully understand the seriousness of height obstructions: one, the concept of imaginary surfaces and their relation to runway approaches, and two, the nature of flight in the vicinity of an airport.

IMAGINARY SURFACES AND RUNWAY APPROACHES

As previously mentioned, the size of a runway's imaginary surface is determined by the type of approach established for each runway end:

- *Visual*

Visual approach is the most basic approach; no special navigational aids are required, reasonable weather conditions are necessary, and the approach slope is 20:1;

- *Non-Precision*

No special navigational needs are required, but this approach takes a longer corridor, has a required minimum descent altitude, and an approach slope of 20:1;

- *Precision*

Special navigational support; approach is always aligned with a specific runway and is related to a specific glide path; approach slope 50:1 for inner 10,00 feet, then 40:1 for outer 40,000 feet; weather conditions not as important as reliance for safe landing is upon instruments; often served by an Instrument Landing System, sometimes a Microwave Landing System, and soon a Global Positioning Satellite approach. Precision approaches are typically found at busier facilities.

Understanding imaginary surfaces puts thinking in multi-dimensional terms to the test and is critical for an understanding of the impact height obstructions have on an airport's operation.

NATURE OF FLIGHT IN AIRPORT VICINITY

Flight in the vicinity of an airport occurs at low altitudes. The majority of take-off and landing phases of flight follow a path defined along the center line of the runway. Runways are established on magnetic headings. Barring any extenuating circumstance such as air traffic or weather conditions,

- Approaching planes turn on to the magnetic heading roughly five miles from the airport;
- Conversely, a departing plane may turn from the runway's center line (magnetic heading) relatively soon after it becomes airborne and is in stable flight;
- Aircraft enter the air traffic area (a rectangular configuration) at lower altitudes in preparation for landing on a selected runway or a larger circular path (ILS approach) when visibility is restricted.

ROLE OF FAA IN REGULATING HEIGHT HAZARDS

As previously discussed, FAA has limited authority and scope to insure that imaginary surfaces are free of obstructions. Although FAA authority is limited in that their findings are advisory in nature only, they still have the ability to affect the status of a project. For example, should a determination of hazard be issued for a structure requiring an FCC license, and the structure would eliminate the FAA's ability to steepen the approach to the airport, the FCC may deny the permit.

LOCAL RESPONSIBILITY FOR REGULATING HEIGHT HAZARDS

With a lack of federal enforcement capabilities, it is up to local jurisdictions to see that height obstructions do not compromise the safety of air traffic, and that the safety of those on the ground is protected. Further, should a jurisdiction allow the construction of a structure to penetrate the imaginary surface, regardless of FAA recommendations, liability will increase for the jurisdiction on that project.

SAFETY: ATTRIBUTES AND ISSUES

Safety is synonymous with compatibility. An understanding of the following factors is crucial when crafting land use ordinances for airport districts:

- The nature of flight in the vicinity of an airport;
- Operational requirement of basic types of aircraft i.e., runway length, navigation instrumentation, approach slope;
- The phase of aircraft operation when accidents most often occur — approach, descent, landing, take-off, climb and cruise;
- The major cause of accidents and incidents;
- The location of accidents relative to an airport.

The most important factors are the areas most susceptible to accidents. Ironically, these areas are desired by developers for certain types of development, many times incompatible, because they have the same physical site requirements as airports or land is inexpensive.

As previously mentioned, historical data provided by the National Transportation Safety Board (NTSB) shows that the areas adjacent to airports are the most susceptible to aircraft accidents. NTSB data identified during 1984-1993 tell us that —

- Approximately 47% of all air carrier and commuter accidents occurred within 5,000 feet of the end of the runway during an approach, a descent or a landing at an airport;
- Approximately 64% of all general aviation accidents occurred within 5,000 feet of the runway end during approach, descent, landing, and take-off climb phase of operation at an airport.

It can be concluded from this data that much of the risk associated with air transportation is associated with the take-off and landing phase of flight. For purposes of maintaining safety and for the implementation of good land use planning, the most critical areas to protect from incompatible land use are those areas below the approach and departure paths to an airport.

GENERAL AVIATION ACCIDENT TREND DATA: WHAT TO DO WITH IT?

Along with understanding site factors and historical accident data, it is necessary to identify and examine future trends in aviation. Studying these trends will allow jurisdictions to assess the impact current zoning may have on future development. Once these impacts are identified, jurisdictions can then craft the revisions and amendments necessary to give their development and land use codes the flexibility to respond to future conditions.

HISTORIC ACCIDENT ZONES ADJACENT TO AIRPORTS

In addition to the information provided under Part Two of this document, the purpose of the Hodges and Shutt study was two fold:

- Identify and describe accurately from historical data provided by the NTSB, the particular shape of the accident zones to encompass the greatest cluster of accident sites within the smallest acreage;
- Identify points on a continuum where the ratio of accidents per acre changes noticeably, for example, the point of diminishing marginal returns for accidents captured within a zone.

While repeat occurrence of an accident in the same location was not assumed, it is reasonable to predict that the broad cluster areas where accidents have occurred in the past reflect the same areas where accidents will likely occur in the future.

Utilizing the information gathered by the NTSB and plotted by Hodges and Shutt, the WSDOT Aviation Division has developed a matrix of recommendations for land use compatibility based upon the accident rate per acre within the particular zone. The recommendations focus densities and incompatible land uses away from the critical areas of flight.

OTHER SAFETY-RELATED CONCERNS

Finally, because of the large federal role in aviation safety, there are two issues which are closely linked to the state's interest in safe air travel and which need to be fully addressed, in light of this association:

- *General Aviation Safety Improvements.* This issue relates to funding needs at general aviation airports. The Washington State Transportation Commission identified \$60 million of general aviation airport infrastructure needs basic to safety improvement such as obstruction removal, and lighting systems, as well as the preservation of runways and other basic facility needs.

- *Emergency Response:* This issue relates to seaplane bases, heliports, and helicopter landing sites as well as general aviation airports; these facilities play a vital role in emergency response and emergency management. Emergency response relates to rural isolation in the event of medical emergencies, pharmaceutical and blood deliveries. In the event of natural disasters or other emergencies, airports provide access to all areas of the state, serve as staging areas for rescue functions, and provide quick response to medical emergencies. Emergency management needs reinforce the state's interest in preserving an adequate system of airports.

NOISE: ATTRIBUTES AND ISSUES

Noise is the most common negative impact associated with airports. The most simplistic definition of noise is unwanted sound. Sound can be accurately measured, while noise is a perceptual concept, and as such subject to considerable variability.

MEASURING SOUND

To understand the difference between sound and noise, what follows is a short description of the physical properties of sound, which are objectively measured:

- *Magnitude:* describes the effect of pressure displacing air particles; not synonymous with loudness; it is measured in decibels;
- *Frequency:* describes the tonal quality of sound measured in cycles per second (Hertz/Hz); this is a range that represents the rapidity of air pressure generated by the magnitude of a sound; often frequencies are a mixture of magnitudes;
- *Duration:* this term describes the length of time over which a sound occurs: sounds may either have a clear and sharp beginning and end, or may increase or diminish over the length of the incident.

DESCRIBING NOISE

The perception of a particular sound event as noise is not subject to objective measurement. Most research attempts to focus on acceptability to the whole community rather than individuals.

In addition to this subjective parameter of noise, there are two main aspects of sound/noise that affect noise regulation decisions:

- *Physiological:* Temporary effects include startle reactions, and sustained sleep interference; permanent effect would include actual physical injury such as deafness.
- *Behavioral:* Usually measured by interference in activities, speech interference and the interruption of listening pleasure are the most common effects cited; interruption of concentration, and sleep disruption.

NATURE AND SOURCE OF AIRPORT NOISE

The level of noise experienced on the ground are primarily dependent upon three factors: inherent loudness of the aircraft engine, the aircraft altitude, and the horizontal distance between the observers and the flight track of the aircraft. Several other factors affect this noise level as well:

- *Type of Aircraft:* Different aircraft produce differing magnitudes and frequencies of sound:
 - Jet Aircraft:* The newer designs produce lower sound magnitudes and frequencies. Although improved, jets are still perceived as top noise-producers;
 - Propeller-Driven Aircraft (turbine or piston):* Noise generated from propeller itself; this sound is variable and depends upon number of engines, rotation speed of the propellers, the number of blades for each propeller, and the type of engine.
 - Helicopters:* Most notable for the “blade slap” caused by a slow-turning main rotor; this sound is most notable on low speed descents, and high speed cruise; it is most audible on the approach; also, it is known to create vibration or rattle in structures
- *Engine Run-up Noise:* Caused by pre-flight warm up by aircraft, typically at the end of runways; generates sound levels frequently higher than take-off or landings;
- *Piloting Techniques:* One aircraft type can generate several differing noise levels depending upon:
 - Angle of climb while on taking off,
 - Propeller pitch (aircraft with variable pitch) especially at high take-off settings,
 - Power adjustments during take-off, such as air speed, lift adjustments such as flap settings.
- *Traffic Patterns:* While certain primary traffic corridors are defined, deviation from the general patterns occur when wind, low traffic volumes and pilot requests are factored in. Even if aircraft follow the suggested pattern, variations may occur in flight configurations due to wind, traffic levels, obstacles on runway surfaces, etc. Noise abatement flight procedures are utilized at many facilities to decrease the incidents of noise;
- *Aircraft Maintenance Operations:* Maintenance testing of aircraft requires use of high power settings with an accompanying increase of noise levels;

- *Air Temperature:* Density altitude changes the size of air molecules based upon temperature and airport altitude. On hot days, planes cannot ascend as rapidly because air molecules are fatter and less dense. Consequently, noise impacts are stretched over greater distance from the runway end. On cold crisp days, air molecules are more dense providing greater performance of propellers and aircraft lift surfaces;
- *Sound Deflection:* Sound waves may bounce off nearby structures, steep terrain, and low cloud cover may reflect sound and increase noise levels;
- *Topography:* Elevation changes may increase or reduce the actual sound level experience on the ground.

ACCEPTABLE NOISE LEVELS

Just what is determined to be an “acceptable’ level of noise surrounding airport? Airport noise exposure is measured in a day-night average sound level (DNL) and is used to analyze and characterize multiple aircraft noise events, and for determining the cumulative exposure of such noise to individuals around airports. DNL means the 24-hour average sound level, in decibels, for the period from midnight to midnight, obtained after the addition of ten decibels to sound levels for periods between midnight and 7:00 am, and between 10:00 pm and midnight. The yearly day-night average sound level means the 365-day average, in decibels. The symbol for YDNL is also Ldn.

According to the FAA, noise exposure mapping is required when values of 65 Ldn or greater exist at an airport. Noise exposure mapping means a scaled, geographic depiction of an airport with its noise contours, surrounding development, and forecast land uses.

The Airport Land Use Compatibility Program encourages jurisdictions and airport sponsors to work together regarding noise management. Ultimately, it is the responsibility of the jurisdiction to factor noise realities into land use decision-making for the protection of the health, safety and welfare of its constituents.

PART FOUR

DIMENSIONS OF THE CHALLENGE: UNDERSTANDING RISK AND LIABILITY

RISK

Risk is one of the most pervasive preoccupations in our modern society, and has been intuitively understood by people given the pervasiveness of games of chance. Risk is also understood through precise statistical statements which allow us to make assumptions about probabilities, or the odds in winning or losing. Simply put, risk can be defined as exposure to the chance of loss, on one hand, and to the expectation of net benefit, on the other.

It is in this area of public risk-taking that a conundrum exists; judicious and responsible risk-taking is deemed necessary to maintaining a healthy economy and continued high standard of living. However, what constitutes judicious and reasonable risk-taking to one, may seem reckless and irresponsible to another.

Risk becomes controversial when it moves from the personal realm where an individual voluntarily enters into risk situations, to the public realm where an individual's participation in risk situations is involuntary. Individuals fear being liable for losses for which they will be held liable and uncompensated. To understand how this conflict arises between perceptions of acceptable risk levels, we must first understand the attributes of risk.

POSSIBILITY AND PROBABILITY

At the heart of any discussion of risk, lies the concept of probability. The language of probability allows us to measure and assign value to uncertainty. It is "figuring the odds" that allows humans to function productively by enabling a choice among differing courses of action.

The concept of probability developed out of games of chance and is applicable when all possibilities have an equal chance of occurring. But as there are many situations for which all possibilities cannot be all considered equally likely to occur, we instead state the probability of an event occurring.

In order to do this, we utilize records kept over a long period of time which enable us to make predictive statements in a way that has utility and meaning for decision-making. For example, we can say that the probability of a flight from Chicago to Seattle will arrive here on time is 0.88; what we are saying is that similar flights have arrived on time 88% of the time.

We can perform the same exercise with the historical record of accidents and incidents around an airport. Plotting their locations over time, we can determine what the odds are that an accident will occur in the same areas in which historically accidents have occurred in the past, and to what degree.

Conventional wisdom says that most people have difficulty understanding probabilistic expressions, tend to overestimate the frequency of rare events, and under estimate the frequency of common events. Yet, research shows that this discrepancy is more a function of a misunderstanding of the underlying mechanisms of risk perception than it is an understanding of probabilities.

RISK PERCEPTION AND RISK ACCEPTABILITY

Research has shown that while error does exist in public perceptions of risk, it is due mainly to a lack certain information about risks and hazards. The public's perception of risk, however, has consistently shown to be far more sophisticated and richer than that of many experts.

Researchers William Leiss and Christina Chociolko (Risk and Responsibility, 1994) list three main factors that influence how a risk is perceived by the public:

- The degree to which the hazard is known and understood;
- The degree to which it involves feelings of dread, especially fatalities;
- The size and type of the population at risk, especially groups such as children, the elderly, infirm, or others viewed as having less control over their lives.

Researchers have also observed additional parameters of risk perception that are usually left out of professional risk assessment yet have a great influence on how individuals assess and frame perceived risk:

- Individuals will voluntarily accept higher levels of risk for themselves than for society as a whole.
- Individuals tend to simplify complexity by relying on conventional wisdom or "rule of thumb," tradition or appeals from authority figures to assist individuals in framing uncertainty in familiar forms.
- Individuals do not perceive all lives as of equal value.

- The public has difficulty in detecting omissions in technical information.
- The contention between expert (scientific) assessment and the public assessment of risk factors.

Finally, it should be kept in mind that there is a probabilistic basis for all ideas of acceptable risk. This means that there will always exist some element of risk, greater than zero, of some event occurring. This level of probability defines the threshold of acceptable risk, which if exceeded, will not be acceptable to either public or private risk takers.

RISK COMPARISONS AND ACCEPTABLE RISK

The ability of humans to sense and avoid harmful situations and to learn from past experiences is the basis for risk perception. As a survival mechanism it serves us well. However, in an increasing complex world, new situations arise for which there is often no prior experience to guide us in evaluating a situation in terms of its risk potential. One powerful tool for assessing and evaluating perceived risks, is making comparisons among or between other known risks.

Risk comparison can be a powerful tool. This method, however, is not without some dangerous pitfalls. First, this type of comparison may tend to over simplify differences between the risks, or not consider both the qualitative and quantitative attributes of the risks involved. Secondly, a comparison of risks may gauge its acceptability solely in terms of the probability of fatalities or material damages, while ignoring the context in which the risk occurs. Context is that attribute of a situation that allows us to gain perspective on the size and scope of the risk and make determinations on how acceptable it is.

Researchers have articulated some conditions which determine whether or not a perceived risk will be acceptable:

- The level of risk does not exceed a threshold derived from a comparison with other risks, or it is judged to be the less costly of an alternative risk;
- The benefits clearly outweigh risks, with intuitive bias counting high;
- Ideas concerning social equity are not compromised; no one group bears a disproportionate burden of risk relative to the benefits derived for society as a whole.

The acceptability of risk factors is closely related to how the public views risk in general. In addition, these perceptions are by no means static and will often change overnight as new information becomes available.

An additional dimension of risk perception is risk aversion. Aversion to risk-taking activities in the public arena is mostly attributable to the fear of involuntary, uncompensated loss. But there is some evidence to suggest that risk aversion may be attributed to an intuitive understanding of instances where calculated under-assessment of risk by dominant institutions was made resulting in situations detrimental to the public at large. In particular, the public remembers the perceived willful neglect of decision-makers that allowed workers and children to be negligently exposed to hazardous substances or processes.

The public has experienced an overall growing sense of vulnerability and preoccupation with risk over the past 20 years. Some researchers attribute this as an unintended result of society's growing inclination to assign a numeric value to all aspects of life. Risks, once considered an unavoidable part of life, have now taken on a new and threatening dimension.

Finally, it is important to note that risk aversion also has costs for society: the cost of regulation, court battles, and missed opportunities can take a toll upon valuable resources.

COMMUNICATING RISK

It is well and good for public entities to consider the parameters of risk perception and evaluation when engaging in the decision-making process, yet there is one additional critical step that often gets little attention; this is the manner and process by which risk information is communicated to the public.

The flow of information and risk assessments among technical experts, decision-makers, interest groups, and the general public is receiving increasing attention. The methods utilized by decision-makers and individuals to advance and negotiate their interests include all tools of the communication process: persuasion, analysis of concerns, distribution of new information or findings, and various attempts to change attitudes and behavior.

The process of communication can often become a center of controversy itself. We are all too familiar with charges leveled among interest groups of media bias or distortion, selective use of information, misuse of statistical methods, hidden agendas, and the unwillingness or inability of public agencies to communicate vital technical, information on terms the general public can understand.

Paul Slovic, a prominent researcher in risk perception, sheds additional light on the difficulty of communicating risk. His research shows that the public understands some things quite well, but in cases where misunderstanding is present, the cause of miscommunication is most often traced to biased experiences which education may not overcome. He lists additional sources of miscommunication as:

- A sensitivity to potential for catastrophic accidents;
- A witnessing of expert disagreement about the probability and magnitude of risks;
- An awareness of serious mistakes made by both experts, agencies and decision-makers in the past;
- An awareness that many of their qualitative concerns are not only unaddressed, but are dismissed as irrelevant or worse, irrational.

Finally, he states that research has shown the public to be quite rational about their perception and definition of risk. While experts define risk in quantitative, narrow terms, the public has a more complex definition that incorporates legitimate value considerations such as uncertainty, dread, catastrophic potential, and controllability. It is the failure of technical experts and decision-makers to take into account these factors that makes the public feel alienated from discussions of public policy that entail risk.

Following this research into public perception of risk, William Leiss and Christina Chociolko (*Risk and Responsibility*, 1994) have determined that there are several things that can be done by decision-makers to bring about productive public dialogue regarding risk:

- Present quantitative data in intuitively meaningful terms that do not oversimplify uncertainty,
- Present consequences of risk and probabilities of occurrence to impact at the personal level where people, as individuals, decide how they will respond to risk information,
- Explore the basis for formulating acceptable risk for the public,
- Evaluate public information needs on risk as well as the adequacy of the presentation of the information,
- Monitor how messages about risk are received by the public.

Each side in the process has a substantive role to play and information to contribute; to argue about which methods are right and logical, which are wrong and irrational, is to add an additional burden to an already overburdened process of risk communication.

LIABILITY

The right to take risks is an integral part of our social and political fabric. Indeed judicious risk taking helps to maintain our standard of living and drive economic growth. Given that uncertainty can be objectively measured, and that the consequences of a choice of action can be described in terms of the risks involved, it is possible to manage risk to minimize factors that may precipitate loss. Some of these actions can be in the form of regulation or the adoption of best practices. But to guard against the occasion when the odds run against the risk-taker, one can manage the magnitude of loss due to risk-taking by purchasing insurance.

INSURANCE AND RISK TAKING

Insurance manages and regulates the distribution of risk by apportioning it among a large number of individuals so that in the event of loss, the liability for that loss is spread out among many.

In return for paying a small fee, an individual or entity receives a promise from the insurance carrier that liability will be covered in the event risk-taking behavior results in loss. In essence a larger, uncompensated loss is kept at bay by substituting a small, controllable loss. The insurer in turn protects itself against uncompensated loss by covering a large number of different insurers.

Insurers set the price of their coverage based upon the probability of loss multiplied by the magnitude of the loss. Engaging in excessive risk-taking activities, making decisions based upon irrelevant criteria or using less than best available information have serious implications. In the event loss occurs as the result of poor or negligent decision-making, the insured becomes liable for damages, the insurer has the option of raising the premium cost to the insured, or in extreme cases, the carrier may simply cancel their coverage.

THE AIRPORT LAND USE COMPATIBILITY PROGRAM AND LIABILITY

The Airport Land Use Compatibility Program has the responsibility to assist jurisdictions and airport sponsors secure the best available technical information on hazards and risk, and to advocate the preservation of valuable airport lands. It is the responsibility of the jurisdiction to make responsible and judicious decisions regarding public safety and permitted uses on lands adjacent to public use airports.

In that each of these players fulfills to the best of their ability their respective mandates and responsibilities, loss liability is kept to a minimum. This fact is further clarified by a pivotal case, *Reminga v. the United States*, where the concept of the “discretionary function” exception to government tort liability contained in the Federal Tort Claims Act is clearly delineated.

LIABILITY AND NEGLIGENCE: REMINGA V. UNITED STATES

The plaintiffs in this case were the estate executors of two passengers in a small private plane who were killed when the plane struck a guy wire which supported a 1729-foot television tower; the wires extended approximately 450 feet above the ground and out to 1850-1900 feet beyond the tower itself. Additionally, the section chart used by the pilot incorrectly placed the location of the tower west and south of railroad tracks. Since the flight was a VFR flight, this also increased the probability of an accident.

While the court found the acts and omissions of the FAA and USGS negligent, it did not find that the agency was liable under the “discretionary function” exception to government tort liability contained in the *Federal Tort Claims Act*. The implications of this ruling and others (see *Barton v. United States*, *Albuquerque v. United States*, and *Miller v. United States*) is to clarify the liability of government entities.

The courts hold that public entities are only exempt from tort liability if, in the performance of their statutory activities, they must act without fixed or readily ascertainable standards; this makes their decisions discretionary and within the exception of the *Tort Claims Act*, even though the discretion proves to be negligent. However, should there exist a standard against which decision-making may be measured, such actions or decisions are NOT within the exception allowed by the *Tort Claims Act*.

Finally, for our purposes Reminga is significant because it clearly defines what the responsibilities under law are for the FAA regarding height hazards.

TAKING RESPONSIBILITY: JURISDICTIONS

Given that uncertainty can be objectively measured and that the consequences of action can be described in terms of the risks it entails, it is possible to craft a set of best practices for jurisdictions to help to minimize uncompensated risk and liability.

By utilizing the technical expertise and best practices guidelines provided by the Airport Land Use Compatibility Program, jurisdictions may acquire the tools to make responsible decisions regarding components of risk that may impact their liability. These tools will help them:

- Assess qualitative and quantitative risk factors,
- Develop a matrix to help define what constitutes acceptable risk-taking in specific situations,
- Craft strategies to develop effective and inclusive risk communication practices to facilitate building consensus among agency representatives, stakeholders and the general public.

It can not be stated firmly enough that should a jurisdiction decide to reject implementing best practices, ignore historic accident data, or ignore the recommendations of the Airport Land Use Compatibility Program or the FAA regarding appropriate airport land use, it is the jurisdiction that embraces the cost of uncompensated loss and liability — and ultimately the consequences of this action in the terms of higher insurance premiums or possible canceled coverage.

TAKING RESPONSIBILITY: AIRPORT LAND USE COMPATIBILITY PROGRAM

The role of the Airport Land Use Compatibility Program is to advocate for the protection of airports from incompatible development by providing the best available information to jurisdictions prior to their land use decision-making. The support provided by this program not only gives jurisdictions the ability to craft responsible land use practices, it provides jurisdictions with an additional risk management tool to protect themselves from liability incurred through decision-making based upon irrelevant criteria or anecdotal evidence.

The program typically states, when evidence warrants it, that it is the opinion of the Washington State Department of Transportation Aviation Division that a proposed incompatible development would be in direct conflict with **RCW 36.70A.510** and development adjacent to the airport would clearly be an incompatible land use.

Further, the program also issues a disclaimer prior to the jurisdiction's deliberation and action on a zoning request that the WSDOT Aviation Division has fully disclosed to the jurisdiction the best available intelligence on the historic aircraft accident trends that affect lands and land uses on and adjacent to airports.

PART FIVE

CONCLUSION



SUMMARY

The Airport Land Use Compatibility Program is empowered through the Growth Management Act. Most planning organizations seek good land use planning opportunities. Many need information and coordination long before current communication paths are initiated. The Airport Land Use Compatibility Program works to serve as an advocate and technical resource for cities, counties and airport sponsors in balancing our valuable resources — communities and infrastructure, and has proven to be effective in protecting airports from incompatible land uses. The process is slow because the demand for program support is great and continues to grow at an accelerated rate.

It cannot be stressed enough that information from all interested groups — technical experts, stakeholders, agency representatives and the general public — be provided to land use decision-makers. As we have seen in the section exploring the dimensions of risk and risk communication, advocacy, bridging communication, valid research and data are the key components in moving land use decision-making to an effective level. It is only when working together in trust and mutual respect that we can preserve our state's airport system, and enhance our quality of life.

SHAPING THE FUTURE

Identifying appropriate land uses adjacent to airports, and promoting the population densities associated with them, as well as understanding risk and liability will shape the way issues and concerns are framed for a communities in the future.

All of the methods mentioned in the previous sections — overlaying noise contour maps on comprehensive plan maps, recognizing airports as essential public facilities, fanning incompatible uses and high densities away from noise and safety affected areas — are ways to protect the health, safety and welfare of communities while preserving our valuable aviation system.

Land use decisions are long term decisions, and crafting proactive policies and development regulations takes a willingness to collaborate on the part of both parties. It is in the interest of all parties to incorporate proactive language, policies and procedures which protect the airport and the community from making incompatible land use decisions.

The political realities associated with tough land use decision making make good land use planning decisions exceedingly complex. The financial realities associated with these tough decisions do not evaporate when the baton is passed from party to party. The tough decisions come at a cost. WSDOT Aviation encourages jurisdictions and sponsors to recognize these financial realities prior to land use decision-making. Shifting costs from one party to the other is an ineffective approach. Advocacy, bridging communication, valid research and data are the components to moving land use decision making to an effective level.

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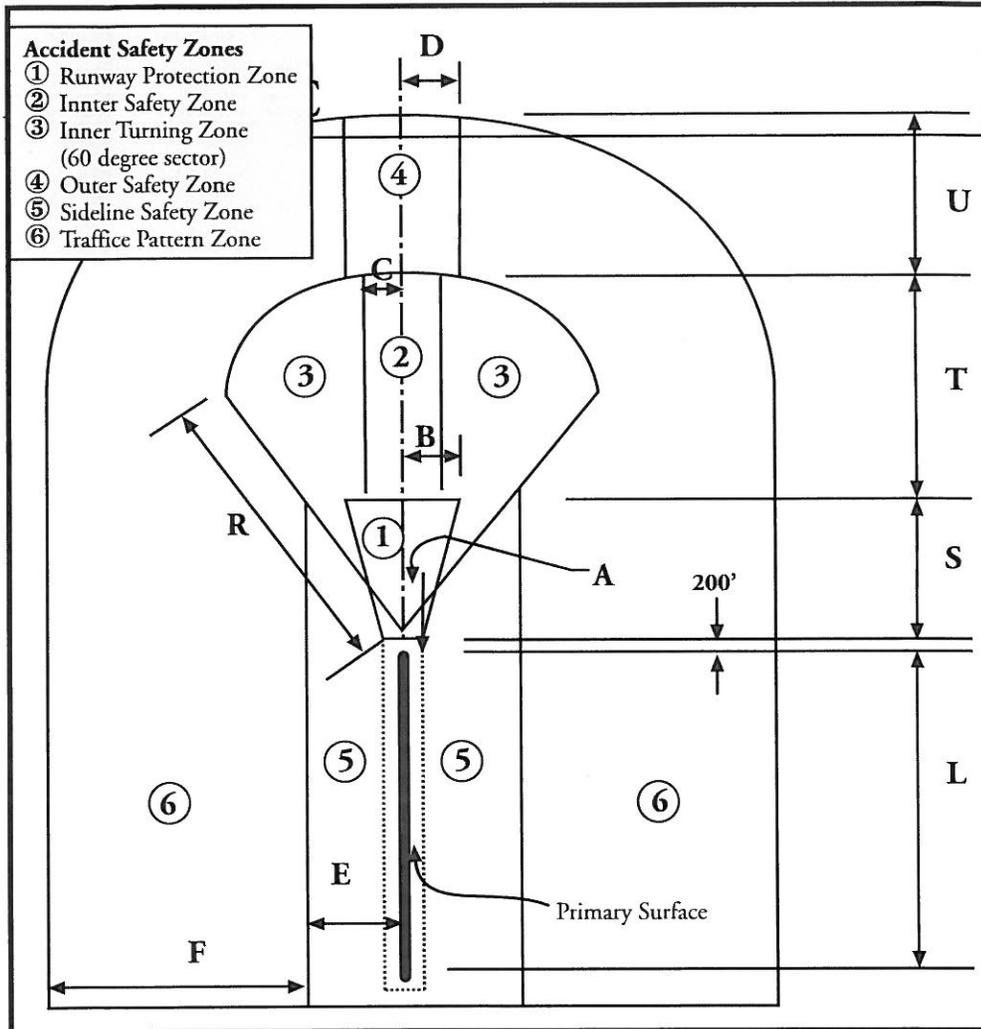
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APPENDIX A

AIRCRAFT ACCIDENT SAFETY ZONE DIAGRAM



SAFETY ZONE DIMENSION (IN FEET)

Note:

Data Source: NTSB accident investigations 1984-1991. Illustration Source: Hodges and Shutt, Institute of Transportation Studies, University of California, Berkeley, 1993.

Dimension	Runway Length Category (L)		
	Runway less than 4,000	Runway 4,000 to 5,999	Runway 6,000 or more
A	125	250	500
B	225	505	875
C	225	500	500
D	225	500	500
E	500	1,000	1,000
F	4,000	5,000	5,000
R (60°Sector)	2,500	4,500	5,000
S	1,000	1,700	2,500
T	1,500	2,800	2,500
U	2,500	3,000	5,000

**ACCIDENT SAFETY ZONES AND CAPTURE RATES
FOR AIRCRAFT ACCIDENTS**

RUNWAY LENGTH	Zone	Zone Size (acres)	ARRIVALS		DEPARTURES		TOTAL ACCIDENTS	
			% Accidents (per Zone)	% Accidents (per Zone/Acre)	% Accidents (per Zone)	% Accidents (per Zone/Acre)	% Accidents (per Zone)	% Accidents (per Zone/Acre)
<i>Less Than 4,000'</i>	1	8	31	3.88	20	2.46	24.00	3.01
	2	16	10	0.63	9	0.61	10.00	.62
	3	113	8	0.07	16	0.14	13.00	0.11
	4	26	3	0.13	1	0.04	2.00	0.07
	5	72	18	0.25	34	0.48	28.00	0.40
	6	700	8	0.01	13	0.02	11.00	0.16
	Sub Totals		935	78	4.97	93	3.75	88.00
<i>4,000-5,999'</i>	1	30	23	0.77	17	0.57	20.00	0.67
	2	64	8	0.13	3	0.05	6.00	0.09
	3	365	5	0.01	9	0.03	7.00	0.02
	4	69	7	0.06	5	0.07	6.00	0.08
	5	232	19	0.08	23	0.10	21.00	0.09
	6	940	10	0.01	35	0.04	23.00	0.02
	Sub Totals		1,700	72	1.06	92	0.86	83.00
<i>6,000' or Greater</i>	1	79	22	0.28	18	0.23	18.00	0.23
	2	57	6	0.10	3	0.06	3.00	0.06
	3	451	15	0.03	15	0.03	15.00	0.03
	4	115	10	0.09	6	0.05	6.00	0.05
	5	234	6	0.03	11	0.05	11.00	0.05
	6	1247	19	0.02	24	0.04	24.00	0.04
	Sub Totals		2,183	78	0.55	77	0.46	77.00

NOTE: Computations based upon NTSB Data, 1984-1993.
Totals may not directly sum to 100% due to mathematical rounding.

APPENDIX B

AIRPORT COMPATIBLE LAND USE MATRIX



ACCIDENT SAFETY ZONES, LAND USE GUIDELINES AND PLANNING STRATEGIES FOR NEW DEVELOPMENT

Accident Safety Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies
Zone 1 (See Special Note)	Population Density	Avoid land uses which concentrate people indoors or outdoors.	<ul style="list-style-type: none"> 1. 0-5 people/acre 2. Airport sponsor should purchase property if possible. 3. Zone land uses, which by their nature, will be relatively unoccupied by people (i.e.: mini-storage, small parking lots)
	Residential vs Non-Residential Land Use	Prohibit all residential land uses. All non-residential land uses permitted outright subject to the Population Density and Special Function Land Use guidelines.	<ul style="list-style-type: none"> 1. Create a height hazard overlay ordinance around the airport. 2. Airport sponsor should purchase property if possible. 3. Airport sponsor should obtain aviation and obstruction easements. 4. During site development process, shift all structures away from the runway centerlines if possible. 5. Landscaping requirements shall establish only low growing vegetation. 6. Prohibit high overhead outdoor lighting. 7. Require downward shading of lighting to reduce glare. 8. Evaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	<ul style="list-style-type: none"> 1. Prohibit overhead utilities and all noise sensitive land uses. 2. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. 3. Limit storage of large quantities of hazardous or flammable material. 4. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.

Special Note: Since the dimensions of Zone 1 correspond to the dimensions of the Runway Protection Zone (RPZ), those airports receiving federal grant dollars from the FAA's Airport Improvement Program, should strongly consider purchasing the RPZ or otherwise acquire rights to the property for the RPZ.

COMPATIBLE LAND USE MATRIX

Accident Safety Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies
Zone 2	Population Density	Avoid land uses which concentrate people indoors or outdoors.	<p style="text-align: center;">*All aviation uses are acceptable.</p> <ol style="list-style-type: none"> 1. 0-5 people/acre 2. Zone land uses, which by their nature, will be relatively unoccupied by people (i.e.: mini-storage, small parking lots)
	Residential vs Non-Residential Land Use	Prohibit all residential land uses. All non-residential land uses permitted outright subject to the Population Density and Special Function Land Use guidelines.	<ol style="list-style-type: none"> 1. Create a height hazard overlay ordinance around the airport. 2. Obtain aviation and obstruction easements. 3. During site development process, shift all structures away from the runway centerlines if possible. 4. Prohibit mobile home parks. 5. Landscaping requirements shall establish only low growing vegetation. 6. Prohibit high overhead outdoor lighting. 7. Require downward shading of lighting to reduce glare. 8. Evaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	<ol style="list-style-type: none"> 1. Prohibit overhead utilities and all noise sensitive land uses. 2. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. 3. Limit storage of large quantities of hazardous or flammable material. 4. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.
Zone 3	Population Density	Avoid land uses which concentrate people indoors or outdoors.	<ol style="list-style-type: none"> 1. <25 people/acre 2. Zone land uses, which by their nature, will be relatively unoccupied by people (i.e.: mini-storage, small parking lots)
	Residential vs Non-Residential Land Use	<p><u>Runway <4,000 feet</u> – Prohibit all residential land uses.</p> <p><u>Runway 4,000 to 5,999 feet</u> – Limit residential development to 1 dwelling unit per 5 acres.</p> <p><u>Runway >6,000 feet</u> – Limit residential development to 1 dwelling unit per 5 acres.</p> <p>All non-residential land uses permitted outright subject to the Special Function Land Use guidelines.</p>	<ol style="list-style-type: none"> 1. Create a height hazard overlay ordinance around the airport. 2. Obtain aviation and obstruction easements. 3. During site development process, shift all structures away from the runway centerlines if possible. 4. Prohibit mobile home parks. 5. Landscaping requirements shall establish only low growing vegetation. 6. Prohibit high overhead outdoor lighting. 7. Require downward shading of lighting to reduce glare. 8. Evaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	<ol style="list-style-type: none"> 1. Prohibit overhead utilities and all and avoid noise sensitive land uses. 2. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. 3. Limit storage of large quantities of hazardous or flammable material. 4. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.

COMPATIBLE LAND USE MATRIX

Accident Safety Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies
Zone 4	Population Density	Limit population concentrations.	<p style="text-align: center;">*All aviation uses are acceptable.</p> <ol style="list-style-type: none"> 1. <40 people/acre in buildings, <75 persons/acre outside buildings
	Residential vs Non-Residential Land Use	<p><u>Runway <4,000 feet</u> – maximum 1 du/5 acre in rural or urban area.</p> <p><u>Runway 4,000 to 5,999 feet</u> – maximum 1 du/5 acre in rural area, 1 du/2.5 acre in urban area.</p> <p><u>Runway >6,000 feet</u> – maximum 1 du/5 acre in rural area, 1 du/2.5 acre in urban area.</p> <p>All non-residential land uses permitted outright subject to the Special Function Land Use Guidelines.</p>	<ol style="list-style-type: none"> 1. Create a height hazard overlay ordinance around the airport. 2. Obtain aviation easements. 3. Clustered development to maintain density as long as open space remains unbuilt. Place clustered development away from extended runway centerline. 4. Prohibit mobile home parks. 5. Require downward shading of lighting to reduce glare. 6. Evaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	<ol style="list-style-type: none"> 1. Evaluate noise sensitive land uses in light of aircraft noise contour lines (if available) when establishing new zoning. 2. Prohibit high overhead utilities and all noise sensitive land uses. 3. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. 4. Limit storage of large quantities of hazardous or flammable material. 5. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.
Zone 5	Population Density	Avoid land uses which concentrate people indoors or outdoors.	<ol style="list-style-type: none"> 1. 0-5 people/acre 2. Zone land uses, which by their nature, will be relatively unoccupied by people (i.e.: mini-storage, small parking lots)
	Residential vs Non-Residential Land Use	Prohibit all residential land uses. All non-residential land uses permitted outright subject to the Population Density and Special Function Land Use guidelines.	<ol style="list-style-type: none"> 1. Airport sponsor should purchase property if possible. 2. Create a height hazard overlay ordinance around the airport. 3. Obtain aviation and obstruction easements. 4. During site development process, shift all structures away from the runway centerlines if possible. 5. Landscaping requirements shall establish only low growing vegetation. 6. Prohibit high overhead outdoor lighting. 7. Require downward shading of lighting to reduce glare. 8. Evaluate all possible permitted conditional uses to assure compatible land use.
	Special Function Land Use	Prohibit all Special Function Land Uses.	<ol style="list-style-type: none"> 1. Prohibit overhead utilities and all noise sensitive land uses. 2. Zone land for uses other than for schools, play fields, hospitals, nursing homes, daycare facilities and churches. 3. Limit storage of large quantities of hazardous or flammable material. 4. Ensure permitted uses will not create large areas of standing water, or generate smoke/steam, etc.

APPENDIX C

RCW 36.70.547 AND RCW 36.70A.510

RCW 36.70.547 General aviation airports – Siting of incompatible uses.

Every county, city, and town in which there is sited a general aviation airport that is operated for the benefit of the general public, whether publicly owned or privately owned public use, shall, through its comprehensive plan and development regulations, discourage the siting of incompatible uses adjacent to such general aviation airport. Such plans and regulations may only be adopted or amended after formal consultation with: Airport owners and managers, private airport operators, general aviation pilots, ports, and the aviation division of the department of transportation. All proposed and adopted plans and regulations shall be filed with the aviation division of the department of transportation within a reasonable time after release for public consideration and comment. Each county, city, and town may obtain technical assistance from the aviation division of the department of transportation to develop plans and regulations consistent with this section.

Any additions or amendments to comprehensive plans or development regulations required by this section may be adopted during the normal course of land-use proceedings.

This section applies to every county, city, and town, whether operating under chapter 35.63, 35A.63, 36.70, [or] 36.70A RCW, or under a charter. [1996 c 239 § 2.]

NOTE: RCW 36.70A510 (Growth Management Act) refers to this site for implementation.

COMPATIBLE LAND USE MATRIX

Accident Safety Zone	Land Use Characteristics	Land Use Guidelines	Land Use Planning Strategies
Zone 6	<p>Population Density</p> <p>Residential vs Non-Residential Land Use</p> <p>Special Function Land Use</p>	<p>Limit large concentrations of people</p> <p><u>Runway <4,000 feet</u> – maximum 1 du/5 acre in rural areas or 1 du/5 acre in urban area.</p> <p><u>Runway 4,000 to 5,999 feet</u> – maximum 1 du/5 acre in rural area, 1 du/2.5 acre in urban area.</p> <p><u>Runway >6,000 feet</u> – maximum 1 du/5 acre in rural area, 1 du/2.5 acre in urban area.</p> <p>All non-residential land uses permitted outright subject to the Special Function Land Use Guidelines.</p> <p>Prohibit all Special Function Land Uses.</p>	<p style="text-align: center;">*All aviation uses are acceptable.</p> <ol style="list-style-type: none"> 1. <100 people/acre in buildings, <150 persons/acre outside buildings 1. Prohibit mobile home parks near runways longer than 4,000 feet. 2. Create a height hazard overlay ordinance around the airport. 3. Obtain aviation and obstruction easements. 4. Clustered development to maintain density as long as open space remains unbuilt. Place clustered development away from extended runway centerline. 5. Prohibit mobile home parks. 6. Require downward shading of lighting to reduce glare. 7. Evaluate all possible permitted conditional uses to assure compatible land use. <ol style="list-style-type: none"> 1. Prohibit all Special Function Land Uses 2. Evaluate noise sensitive land uses in light of aircraft noise contour lines (if available) when establishing new zoning.

AIRPORT LAND USE COMPATIBILITY PROGRAM

Program Update

WSDOT Aviation assists local jurisdictions, airports, and other interests protect public use airports from incompatible development by providing technical assistance and resources to support local decision-making. The Airport Land Use Compatibility Program is continually being updated to reflect new research and planning methods to assist local jurisdictions. This paper provides additional information on the program and tools that have been effective for in developing strong comprehensive plan policies and development regulations.

Background

In 1996, the Washington State Legislature amended the Washington State Growth Management Act to require cities and counties to protect airports from incompatible development. The legislature was concerned that land use development trends were negatively impacting airport operations from incompatible uses and development. Senate Bill 6422 was codified to RCW 35.63.250, 35A.63.270, 36.70.547, and 36.70A.510. Provisions within this section apply to GMA and non-GMA jurisdictions (town, city and county) within the state of Washington.

Land Use Laws Affecting Airports

Four primary state land use laws affect development on and around airports:

RCW 14.07 and 14.08 Municipal Airports Act

The act adopted in 1941 and 1945 provides for the acquisition and sponsorship of airports by Washington cities, towns, counties, port districts, and airport districts. There are 140 public use airports within Washington State, which are owned and operated by the following:

- Cities 31%
- Counties 7%
- Port Districts 22%
- WSDOT operated 11%
- Joint City/County 5%

In addition, 22% are privately owned and opened for public use.

RCW 14.12 Airport Zoning

This section was adopted in 1945 and establishes definitions, criteria, and allows local jurisdictions to adopt zoning controls to protect critical airspace from buildings, structures or other airspace obstructions. The law provides direction and guidance to cities and counties on airport hazards.

RCW 36.70A Growth Management Act

The Growth Management Act was adopted in 1990. The Act identifies requirements and processes under which counties and cities are required to act. Within the Act there are several important sections related to airports.

RCW 36.70A.070 outlines mandatory elements within a comprehensive plan, which includes maps, descriptive text covering objectives, principles, and standards, and that the comprehensive plan must also be internally consistent with all elements. This section also requires that an inventory of air, water and ground transportation facilities and services be included. As well, new or amended elements of the Act must be adopted concurrent with scheduled update provided in RCW 36.70A.130.

RCW 36.70A.130 requires that each comprehensive plan and development regulations shall be subject to continuing review and evaluation by the county or city that adopted them. A county or city shall take legislative action to review and, if needed, revise its comprehensive plan and regulations to comply with this section. Legislative action means the adoption of a resolution or ordinance following notice and a public hearing indicating at a minimum, a finding that a review and evaluation has occurred and identifying the revisions made, or that a revision was not needed and the reasons thereof. Additionally, any amendment of or revision to development regulations shall be consistent with the comprehensive plan.

Airports are also recognized under RCW 36.70A.200 by the state as essential public facilities (EPF). All counties and cities planning under GMA RCW 36.70A.040 are required to protect public use airports as essential public facilities. Jurisdictions are required to develop a siting process for locating EPF and should not prohibit the siting, expansion, or continuation of EPF within their comprehensive plan or development regulations. Nor can jurisdictions develop strategies or develop provisions within their comprehensive plan or development regulation that would render the siting of an EPF impossible, impractical, or incapable of being accomplished, however, it is not inappropriate for a jurisdiction to require applicable conditions or mitigation measures.

RCW 36.70.547, 36.70A.510, 35A.63.270, and 35.60.250 General Aviation Airports

These sections were adopted in 1996 and requires all cities and counties (also applies to city or counties not planning under GMA) to protect public use airports from the siting of incompatible development, whether publicly owned or privately owned public use airports through its comprehensive plan and development regulations. The plans may only be adopted following formal consultation with airport owners and manager, private airport operators, general aviation pilots, ports, and the WSDOT Aviation Division. The law requires that comprehensive plans and regulations be filed with WSDOT Aviation and that each jurisdiction may obtain technical assistance from the WSDOT to develop plans consistent with State Law.

Role of the Federal Aviation Administration (FAA)

The FAA is responsible for the administration of aircraft, aircraft operations, safety and noise. Federal law preempts local regulations in the area of aircraft safety, navigable airspace, flight operations and noise control, which are defined as:

- Airport operations relates to issues in the air and on the ground, including takeoff, flight patterns, air traffic corridors, volume of air traffic, altitudes of air traffic, flight schedules, types, sizes, and purpose of aircraft and related issues.
- Safety relates to issues in the air and on the ground, including the placement of runways, taxiways, air navigation facilities, airport design, runway protection areas, and related issues.
- Noise relates to abatement of aircraft noise and emissions, in the air, during takeoffs and landings, and on the ground, including regulations on aircraft design and size, types of aircraft permitted at an airport, curfews on flight operations and other related issues. "Nor can zoning interfere with the rights of airport sponsors authorized by state law".

The preemption doctrine does not affect the local government's ability to use its police powers, particularly land use controls, to anticipate, abate, mitigate and otherwise respond to other land use concerns provided they are reasonable permitting and mitigation requirements, which includes incompatible land uses.

Implementation

Since 1996, many jurisdictions proceeded with the amendment of comprehensive plans and development regulations consistent with the requirement under the law. In 1998, WSDOT Aviation prepared a program overview for local jurisdictions that provides general guidance on how to protect airports from incompatible development. WSDOT Aviation recommends that jurisdictions consider three primary areas: height hazards (uses that may affect critical airspace), noise (over-flight and noise 65 dbl or greater), and safety (historical aircraft accident locations, wildlife hazards and hazardous/explosive materials). Additionally, it is recommended that jurisdictions review airport master plans, airport layout plans, other airport documents, aircraft/pilot characteristics and airport operations.

Local Jurisdiction Responsibilities

Under state law local jurisdictions are required to discourage incompatible development adjacent to public use general aviation airports through adoption of comprehensive plan policies and development regulations. Local jurisdictions must at least have examined and duly considered the materials contained within the guidelines, research and technical information, airport master plans and other supporting documentation when developing or amending comprehensive plans and development regulations. It is recognized that many strategies are available to local jurisdictions when planning for and developing comprehensive plan policies and regulations and can vary from airport to airport and region to region. Jurisdiction should document "show their work" on how

they arrived at their decision and should demonstrate reasons how they will discourage incompatible development adjacent to airports.

WSDOT Aviation encourages ports, special districts, airport sponsors, aviation interests and local jurisdictions to form partnerships and to cooperatively work together to discourage incompatible development. Local jurisdiction, aviation interests and agencies should become familiar with the land use compatibility guidelines, special studies, airport master plan or airport layout plan, FAA airport operations, number and type of based aircraft, historical accident locations, noise issues, height hazards or obstructions, aircraft flight patterns, aircraft and pilot characteristics, and other relevant information. WSDOT Aviation recommends the use of proven, empirical data to develop their land use policies and regulations and therefore the goal of the WSDOT Airport Land Use Compatibility Program is to provide the best available information to cities and countries to allow for informed decision making.

Resource Materials

Resource materials and documents are available on our web site at www.wsdot.wa.gov/aviation/planning. Some of these resources include:

A. Resource Documents and other sources:

- The Growth Management Act 101
- WSDOT Aviation Airports and Compatible Use Guidelines
- City of Yakima, Briefing Paper - Land Use Compatibility and Local Decision Making Process.
- California (Caltran) Airport Land Use Planning Handbook
- Land Use Compatibility and Airports, A Guide for Effective Land Use Planning, FAA Airports Division Southern Region
- Height Hazards
- Aircraft Noise

B. Land Use Planning Tools

- Example Scope of Work
- Example Comprehensive Plan Goals and Policies
- Example Disclosure Notice
- Frequently Asked Questions
- Reference Materials from the FAA, Defense Department, other states, universities, etc..
- Index of Airport Master Plans (City/County, Airport Name, Subject, Year)
- List of Airports by County and MPO/RTPO Regions
- Model Land Use Compatibility Studies

Example Policies
Model Ordinances

Land Use Compatibility RCW 36.70.547 / 36.70A.510

General aviation airports -- Siting of incompatible uses.

Every county, city, and town in which there is located a general aviation airport that is operated for the benefit of the general public, whether publicly owned or privately owned public use, shall, through its comprehensive plan and development regulations, discourage the siting of incompatible uses adjacent to such general aviation airport. Such plans and regulations may only be adopted or amended after formal consultation with: Airport owners and managers, private airport operators, general aviation pilots, ports, and the aviation division of the department of transportation. All proposed and adopted plans and regulations shall be filed with the aviation division of the department of transportation within a reasonable time after release for public consideration and comment. Each county, city, and town may obtain technical assistance from the aviation division of the department of transportation to develop plans and regulations consistent with this section.

Any additions or amendments to comprehensive plans or development regulations required by this section may be adopted during the normal course of land-use proceedings.

This section applies to every county, city, and town, whether operating under chapter 35.63, 35A.63, 36.70, [or] 36.70A RCW, or under a charter.

Re: Marion Meadows

Property on two sides are at least R-3 & R-5. Why would you support smaller lots or high density housing in a rural setting.

My wife and I purchased our house 6 ½ years ago planning for our retirement. We love our 3 ½ acres. You see if we wanted to live in condos we would have purchased in downtown Renton or Seattle. We settled here for quality of life and open land.

The environmental impacts to the neighborhood and wildlife would be horrendous. I watched with amazement the almost nightly migration of 19 elk last night, this is about half the normal herd, not to mention the birds, deer, bobcats, cougar and occasional bear and mountain goats.

Why would you consider ruining the quality of life all the people that reside here. We have already seen the land use attempt for 200-300 mini storage units. Commercial in a residential area is totally unacceptable.

We believe R-5 and possibly R-3 suit this area and is a much better fit for all concerned and I believe we could live with this option.

The concern I have with any of this is Fire & Emergency Service (Volunteer Fire Department) not adequate, and the amount of smoke from woodstoves and outdoor fires for this many units. Septic systems are adverse to aquifer, or a waste treatment system for multiple houses with an open treatment and sediment pond (smell).

Too much access traffic on Sparks Road, water runoff from steep slopes and erosion. There is also a proposal for 200-300- mini storage which pose another concern about fire. Two snowmobiles and jet skis per unit X 200 or 300 X 8 gallons of gas each, plus extra gas onsite is a huge recipe for disaster. More traffic, snow removal, noise and this not a commercial area.

My wife and I feel R 5 is the perfect fit for the area if all the questions above are answered satisfactorily.

Thanks for listening

David & Terri Lombardy

3631 East Sparks Road

Easton, WA 98925

David F. Lombardy

Terri Lombardy

4-1-10

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Department of Energy

Bonneville Power Administration
Ellensburg Maintenance District
14001 Wilson Creek Road
Ellensburg, WA 98926

April 1, 2010

In reply refer to: TERR/Schultz
RZ-06-00035 Marian Meadows Rezone and Plat P096-31

LINE: Rocky Reach – Maple Valley No. 1
ADNO: 6466
LOCATION: Between 72/3 and 73/2

Dan Valoff
Kittitas Community Development Services (via e-mail)
411 N. Ruby Street, Suite 2
Ellensburg, WA 98926

Subject: Notice of Availability: Draft Environmental Impact Statement for
RZ-06-00035 Marian Meadows Rezone and Plat P096-31

Dear Mr. Valoff:

The Bonneville Power Administration (BPA) has reviewed the information in the Draft Environmental Impact Statement for the proposed Planned Unit Development and the relationship of the 520-acre development property to the BPA's 150-foot-wide, 345 kV, Rocky Reach-Maple Valley No. 1 transmission line easement.

BPA does not have any objection to the planned development as long as BPA's transmission line easement remains accessible and free of incompatible uses. However, we do request that the following statement be forwarded to the property owner(s) to help ensure public safety and reliable operation of BPA's facilities.

Portions of Section 1, Township 20 North, Range 13 East, W.M., are encumbered by an easement for high-voltage transmission lines owned by the Bonneville Power Administration (BPA). BPA has acquired rights that limit the landowner's use of these areas. BPA has the right of ingress and egress, the right to keep the easement free and clear of all brush, timber, structures, and fire hazards, and rights associated with access roads within the easement area. **All activities planned within BPA easements need to be reviewed by BPA prior to their occurrence.** Do not build, dig, install utilities, plant, or burn within the easement area. For further questions or concerns regarding any proposed uses of the easement, you may contact BPA Real Estate Field Services at the address listed above or by calling (877) 417-9454.

Your cooperation in this matter is greatly appreciated. By working together with our agency, your effort will help to minimize later disputes or unnecessary costs associated with the required removal or modification of incompatible or non-permitted activities placed within BPA's easements. If you have any

questions regarding this request or need additional information, please feel free to contact me at (509) 925-2088 or toll-free at (877) 417-9454.

Sincerely,

A handwritten signature in blue ink that reads "Lila Black". The signature is written in a cursive, flowing style.

Lila Black
Field Realty Specialist

Dan Valoff

From: MarianDEIS email for public comments [MarianDEIS@co.kittitas.wa.us]
Sent: Thursday, April 01, 2010 10:09 PM
To: Jeff Watson; Jan Ollivier; Dan Valoff
Subject: FW: EIS

From: Tom Campbell[SMTP:TOMCAT1827@GMAIL.COM]
Sent: Thursday, April 01, 2010 10:08:56 PM
To: MarianDEIS email for public comments
Subject: EIS

Auto forwarded by a Rule

As one of the original 17 members of the Easton action group, I was involved working on the zoning and public hearings for this area. R-3 zoning was approved for this area of concern. At that time R-3 allowed 3 acres or 1/2 acre lots with a sewer system. We all knew this. When the county came up with cluster housing there was an improvement over 1/2 acre lots because of the open space required. I think the R-3 zone referred through out the EIS should be more clear.

The Easton airport is closed with very set dates for about 6 months every year by the government the last I knew. Living here, I feel your use figures are way off. I would be very surprised if there are 10 landings a month leaving a total of about 60 max for the year.

I feel that the school section needs to be reviewed and changed. The student count at election time this year reported to the state was 97 total. Cle Elum reported to me that there were 15 of their students having legal transfers to Easton leaving 82 total for the school. At the time the new school was designed I was on the school board and the building was built to house 225 students.

The access needs to be looked at closer and the Easton Ridge road added as an option. An expansion of this road out of Suncadia has been on the books for several years. Also there are other ways to access this area with work.

The section on the hill side needs to be reviewed as there is a large very buildable section which can not be seen from the bottom in the flats.

There are many cities in the US and Canada which have deer and elk around homes year round including areas within this county. This section needs review.

This is a very good draft but needs a few changes. As I am one of the many people who wants this cluster development, I urge you to only make changes that are suggested within the Easton area and not someone that does not live here.

Tom Campbell
P O Box 456

Easton, Wa 98925
509-674-1120

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 42 56 RCW and to archiving and review.

message id: 38eb45916c6dcbdac24bb8719d004a14

April 2, 2010

Mr. Dan Valoff

Kittitas County Department of Community Services

411 N. Ruby Street, Suite 2

Ellensburg, WA 98962\

Dear Dan:

I would like to thank you for the opportunity to formally comment on the Marian Meadows DIES. I was encouraged to see that the Kittitas County required a detailed environmental review for a proposal like this. In review of this document, I have found some serious environmental impacts that were identified with no mitigation measure provided. Some severe and catastrophic impacts are described but they cannot be mitigated as required by state law.

Wildfire

The risk of wildfire is increased by the terrain and weather factors in the area of this proposed development. "All the factors for creating a extreme hazard conditions are present in the Easton area, especially in the slopes surrounding the valley. Adding to the risk is the near constant wind from the west that quickly dries forests after snow melt." (pg. 3-127 DEIS) "If access to Sparks Road is blocked there is no access to the site." Additionally, "Access could also be impeded by residents fleeing the area. Intense fires could make the single access road unusable to the proximity of heat and flames." (pg. 3-128 DEIS) Alternatives 1 & 2 potentially place more than 200 units on this site at risk of entrapment. The DEIS states that avoidance of development in the steep easterly portion of the site would reduce the risk of both structural and wildfires. (pg. 3-131) The steep easterly portion potential to wildfire and landslide hazards should render it unsuitable for this type of development. There is no mention in the DEIS of Roslyn's watershed, which is adjacent to this high hazard area. The potential environmental impacts associated with wildfire in the City of Roslyn's watershed need to be adequately addressed.

Water

The DEIS state on page 3-154 that "all scenarios result in water demand in excess of the water districts water rights and additional applications pending. " Also on page 3-247 the documentation of hydraulic continuity with surface and ground water is provided "depths to ground water near Lake Easton and Silver Creek suggest that these surface water features are losing water to the aquifer whereas at Easton pond and the nearby reach of the Yakima River are gaining water from the aquifer. Further on pg. 3-254 it states "The cumulative development will increase the watershed wide impacts of ground water withdrawal because water availability will be reduced for a variety of uses including agriculture, aquatic

habitat and recreation. In recent articles published in the Tribune (4-1-2010) and Daily Record (3-26-2010) the State Department of Ecology Director Ted Sturdevant is quoted concerning ground water. Noting the potential of drought this year and that this will be the fifth time since 2000 that **senior** water users will be rationed. "Allowing new, uncontrolled drilling into the very groundwater that folks downstream rely on – but won't get this year doesn't make sense." The Yakima basin is already short on water, as water right holders who get shut off in dry years know all too well. Ted Sturdevant said "And we know that groundwater in most of the basin feeds surface water needed by irrigators and fish." To summarize the proposal does not have an adequate supply and further ground water withdrawals will impair senior water rights. Also no water is left to the water district for growth in the Easton LAMRID. And this development is not in the water district. These facts can only lead to one conclusion. Reject this proposal until adequate senior water rights are provided.

This proposal is an urban density development in a rural area next to the Easton LAMRID! It will require urban services such as sanitary sewer, storm sewers, police and fire protection. All to be provided by whom? This creation of a small town population in a rural area without government will be a disaster. It destroys wildlife habitat and will change the Easton area forever. It violates county policies and the State GMA Law. The DEIS states this could set a precedent for further PUD development in Kittitas County.

Let's see, this proposal would create a small town the size of Cle Elum with a need for urban services but no government to provide them. It would be located in a rural area. It would have an inadequate water supply that would impair older water rights and fish. It would be located in a area of extreme fire danger with only one road in or out. The fire danger would threaten the neighbors, their watershed, and local firefighters if enough can be found, trained and equipped. Many lots would be on steep and unstable slopes with severe hazard from landslide, rock fall, and airplane crashes. Run off from rain on snow weather events will pose a catastrophic hazard on and off site. The sewer system will be small lot septic systems in an aquifer recharge zone. The built environment would replace the natural environment. Wildlife habitat will be destroyed along with the view and the rural landscape. It would be populated with people who drive at least 40 miles, one way, to work. They will have little or no interaction with the local community. All the development impact costs for schools, emergency care, police, parks and recreation will be passed on to existing county residents. Instead of seeing elk, you will see ten times more cars.

This is not the precedent for future growth in Kittitas County.

This proposal should be rejected.

Joe Peck

PO Box 1

Roslyn, WA 98941



John Carlson
PO Box 632
Easton, WA 98925
509-656-2375
March 31, 2010

Kittitas County Community Development Services
411 N. ruby Street, Suite 2
Ellensburg, WA 98926

Subject: Comment on Draft EIS For Marian Meadows

Dear Kittitas County Community Development Services:

I have reviewed portions of your draft EIS for the Marian Meadows Planned Unit Development and Subdivision. It is my opinion this document does not adequately or correctly address the proposed project. In addition I found a minor typographical errors in listing your postal zip code as 98962 instead of 98926. My letter is my opinion about the information which should be addressed in the EIS For the Marian Meadows Planned Unit Development and Subdivision.

The geographic area of interest is addressed in the Draft EIS as a 520 acre site in the vicinity of Easton, Washington located to the east and north of the state emergency airport. The Draft EIS does not adequately identify what property is proposed for development. The EIS should document the specific property proposed for development. There should be a legal description of the physical area involved to allow assessment of what exists on site to compare and contrast with the changes proposed by the development. Such a description should use the common terminology used to identify property parcels which could include parcel numbers , map numbers and property legal descriptions. Since the entire section of land in this general location is commonly owned by one owner, the Draft EIS does not explain what property is proposed for development.

The fire protection for the area is incorrectly identified. The area is forest land within the forest protection zone administered by the Department of Natural Resources (DNR). The properties in this area are assessed for "Fire Patrol" by Kittitas County, which assessment is identified in RCW 76.04.610. This fee can be referred to as the forest fire protection assessment which the county is required to collect and transmit to DNR. This means DNR is responsible for resource protection in this area. DNR is dispatched by way of the Central Washington Interagency Communications Center (CWICC) located in Wenatchee, Washington. The suppression of previous wildfire in this immediate vicinity required more resources than the local fire district is expected to provide. Those suppression activities extended over several days, involving DNR, Forest Service (USFS) personnel, engines, handcrews, aircraft retardent drops, specialized equipment and additional contracted resources. The fuel load in this area continues to pose the same danger and potential cost for suppression activities.

The road access planning for the area continues to present the extreme hazard of being one-way in and one-way out. The wildland wildfire reference booklet, the Incident Response Pocket Guide, lists specific Wildland-Urban Watch Outs which seem to apply to this proposed development which include and are not limited to the following: poor access and narrow one-way roads; power lines; inadequate water supply; natural fuel 30' or closer to structures; extreme fire behavior; evacuation of public; structures...on steep slopes (30% or greater).

The Draft EIS does not address the migration patterns and needs of the mule deer population which use this area in their normal life cycle.

The assumption in the Draft EIS involves local governmental entities voluntarily servicing the needs of a new urban community. It is my opinion this development is being proposed for the Wildland-Urban Interface where such services are provided in the context of a rural community. I believe there is no reasonable expectation such services will voluntarily expand to urban standards needed to serve an urban development.

The potential change to this area by allowing an urban density development would alter the character of the area and potentially disappoint newcomers attracted to the area by the manner in which it currently presents. The present attraction to join this community is largely based on its rural character.

This area is a rural environment subject to extreme weather conditions which normally isolate the area several times during a typical winter season. Portions of the development proposal suggest this could be a commuter community. This could be that there is no local employment opportunity for an increase in population proposed on the scale of more than 400 new families in this development. Such new residents of a commuter based community might require daily travel on I-90. Winter travel on I-90 is subject to frequent closures and travel suspension due to environmental risks of snow-slide (avalanche and avalanche control), rock-slide and mud-slide. Such closures are not predictable and can prevent wage earners from commuting to work. Such closures can prevent travel on I-90 for several days at a time.

There are none of the normal urban amenities in place to support an increase of population of more than 400 new families. The area supports a transient recreational population who bring most of their domestic needs with them. There are seasonal fluctuations in the recreational opportunities here making the area attractive to recreationalists the year round. The local area does not have the appropriate level of commercial services to support a larger resident community. If such services were to come into the area they would substantially alter the nature and character of the community and are not consistent with the lifestyle this area sustains.

Thank you for your consideration of my concerns in this matter.

Sincerely,



John M. Carlson

Marge Brandsrud
PO Box 638
Easton, WA 98925



March 31, 2010

Kittitas County Community Development Services
411 N Ruby Street Suite 2
Ellensburg, WA 98962

Marian Meadows Draft Environmental Impact Statement Comments:

My comments on the Marian Meadows PUD and Subdivision DEIS are as follows.

Although there is a great deal of very good information contained in the DEIS, there is information that is incorrect and information that must be added or further studied.

There are several mapping errors. There is a road shown crossing lots four and five of Easton Acres. Figure 3-22 illustrates this clearly. That road no longer exists. Several maps also indicate Hawthorne Lane extending well past Thistle Down. Again this is not true. Please make corrections to maps included in this document.

The water district boundary is incorrect. This must be corrected in order to have an accurate understanding of the water districts obligations and service area. Please contact the water district for up to date correct information and include that information in this document.

Additional information is needed to assess possible future water use. The water districts resources must not be over allocated. As the school is a major user in the water district, calculations of water rights, availability and quantity related to expansion of the school must be included for each alternative and cumulative impact. Consideration must also be given to parcels already platted within the water district but not currently serviced by the water district. There will be negative impacts to owners of those parcels. If the applicants development or alternatives go forward and water availability is diminished to the point water is not available to these property owners from the water district their properties would become virtually worthless. Water district regulations prohibit individual well drilling within its boundaries further complicating property owners ability to develop their property. Infill of currently vacant parcels must be prioritized for water service. Information regarding water does not include enough discussion on well head protection zones. Further information regarding these zones along with the effects of each sewer disposal method and the inter- relationship of water quality and sewer disposal specifically addressing this projects geology must be provided to assess impacts and protect public and private water service of the Easton area.

None of the maps or information includes the recently approved Conditional Use Permit granted to the applicant for the 40 Acres excluded from the PUD request. I understand that this approval took place only a short time before the publication of this document but it is pertinent information. There are references in this document to possible use of the BPA easement as a wildlife corridor as well as a trail area. The Conditional Use Permit approved will allow a 250 to 300 unit mini warehouse to be built on the 40 acres excluded from this proposal in the area of the BPA easement at the foot of the steep hillside running parallel to that easement. Natural vegetation on the southwest side of the BPA power lines is designated in the CUP to serve as the aesthetic screening required for the CUP. Development of all proposed alternatives for the PUD would allow development of this area for residential use there by eliminating the aesthetic screen required for the CUP. Ingress and egress to the mini warehouse facility is designated in the CUP to be through the Marian Meadows PUD and across the BPA easement at two places. The CUP will adversely affect the proposed use of the BPA easement for wildlife, trail use and required aesthetic screening. By allowing extensive human activity in the area wildlife will avoid the area there by further degrading habitat and migration opportunities. The proposed ingress and egress roads to the mini warehouse will create safety issues for users of the suggested trail. The easement and trail would cross at 90 degree angles requiring users of the access road and trail to cross paths. A trail passing by a 250 to 300 unit warehouse would not reflect the rural quality of life expected in a rural setting. A trail in this area would feel and look more like a commercial or industrial urban trail similar to ones developed in King County urban areas.

References to the CUP should be added and considered as a changed circumstance and newly available information. *The majority of the BPA easement has been excluded from this application and should not be considered for beneficial uses related to this application. I ask that all references related to beneficial uses be deleted from this document and impacts of the CUP be included as a consideration in this document.*

Maps must also be revised to reflect this new information. Statements on page 2-3 and again on page 2-6 of this document indicate a possible wildlife corridor in the area of the BPA easement. Again I will restate that a CUP has been approved for a 250-300 unit mini warehouse in that area, which will degrade if not eliminate use as a wildlife corridor. Additional statements relating to the BPA easement on page 2-6 discuss the use of the easement as a shared drain field for on-site-sewer systems on the upper portion of the proposed development. This use would eliminate the BPA easement use as an informal motorized vehicle trail and a wildlife corridor. Such uses would compact the soil in the drain field and there by render it inoperative. Impacts related to this changed circumstance must be considered as it relates to all alternatives as well as the cumulative impacts discussed in this document. Traffic, light and glare from security lighting, wildlife habitat and migration corridors, additional impervious surfaces and surface water run off, additional water and sewer requirements and rural character are only a part of the impacts this change in circumstance will affect as it relates to the applicants proposed PUD and alternatives. During the comment period for the CUP I requested that the CUP be included in this document and was ignored. DOE also made reference to the inclusion of the CUP in this document and was also ignored. There has been a substantial change

in the development plans for the 40 acres excluded from the proposed PUD. Because the CUP is totally surrounded by the proposed PUD, inter related impacts of the CUP must be taken into consideration in this document.

This document does not address the impacts of access to the Easton area. Ingress and egress to the Easton Area is limited to travel on Interstate 90. In the event of an emergency, earthquake, flood, heavy snow, avalanche, rock slide or other disaster Easton is easily isolated. Historically the winter months have demonstrated this risk on a regular basis. Not only are the residents of Easton often isolated there are times the traveling public is unable to travel to a more appropriate location. During such times the roads in the Easton area are blocked by travelers who have no option to go elsewhere. During these types of events the health safety and welfare of the traveling public as well as residents of the Easton community is threatened. Movement in the community for emergency vehicles, schools and residents comes to a stand still. The addition of several hundred or even several thousand residents, as illustrated in this document, would serve to intensify such situations. I believe that with increased population as described in this document the County will find it necessary to develop an alternate means of ingress and egress to the Easton area to preserve the health safety and welfare of the community. This is an impact associated with the applicant's proposal, the alternatives and cumulative impacts. This must be addressed and evaluated.

The development of the applicant's proposed PUD and the proposed alternatives would have extremely adverse effects on the rural character of the Easton vicinity. Rural character is describe by RCW 36.70A.030, the Upper County Vision Plan the Eastern Washington Growth Hearings Board and the Counties own GPOs, as quoted on pages 3-18 through 3-22 of this document, all describe something other than what is being proposed by the applicant and the alternatives. The precedent that would be set by development other than the R3 zone would certainly lead to more urbanization of the area. The rural character of the area must be retained for numerous reasons. Open space natural landscape and vegetation must predominate over the built environment. The compatible use of land for wildlife habitat and migration corridors in the area must be preserved. The incompatible use of lands adjacent to resource lands will be furthered by the applicant's proposal and cumulative impacts. Recreational opportunities would severely impacted by the urbanization of the area. The installation of a sewer treatment facility would establish an urban service in a rural area. Water quality would be impacted by increased water use, the risk of sewer treatment facility failure and increased surface water runoff into Silver Creek .The use septic systems could very well be an adverse effect on the water supply in the area due to the high rate of infiltration in to the soil in the area and the proximity of wells. Allowing intense urban type development to be hidden or screened from view of the traveling public is not preserving the rural character of the area it is merely hiding the urban development from the public at large. Residents and visitors to the area would be exposed to and affected by the urbanization of the area. Residents and visitors value the current rural character of the area as it is and want it preserved as outlined and required by state and local regulations. The cumulative impacts discussed in this document would certainly require substantial need for urban services which would essentially destroy the rural character of the area. Development of

land at urban or even suburban intensities is not part of any definition of rural character and must be avoided.

The tenure illustrations while interesting should not be used to determine any of the impacts. Tenure is fluid and can and will change with the economy, the real estate market, employment opportunities and many other conditions. Even in the small rural area of Easton there are examples of dramatic changes in tenure. Easton Village was developed in the 1970's as a recreational community. Easton Village is now occupied by mostly full time residents. The same is true of the Sun Island and Elk Meadows communities where full time residency has become the norm. Basing any decision making upon any expected tenure scenario other than 100% full time residents would be irresponsible. Tenure as it relates to any of the impacts discussed in this document must be considered to be 100 % full time. If any other scenario is the basis for decision making the opportunity for mitigation of all possible impacts would be lost. The citizens of the County would in the end be responsible for future impacts as tenure changes.

It is assumed the final EIS will be an integral part of any future development of possible additional phases of the proposed PUD or any alternative to the PUD. What assurances will be in place to see that conditions recognized in the final EIS document will be applied to future development of these parcels?

Alternate 2 also does not indicate the location of the proposed sewer treatment facility.

A description of three roads stubbed to the east to provide access to the remainder of the site is stated on page 2-4. I do not see this statement reflected on the maps.

A statement on page 2-2 indicates that lot sizes for Alternate 1 would be less than 0.5 acre. And a statement on page 2-4 indicates that lot sizes for Alternate 1 would allow for individual on-site-sewer disposal systems. Kittitas County Code 13.04.070 requires a minimum lots size of .05 acre for on-site-sewer disposal. The two statements appear to conflict. Corrections must be made to this document to clarify how lots smaller than .05 acre would be allowed on-site-sewer or corrected to state that Alternate 1 would not allow on-site sewer disposal per KCC 13.04.070.

The discussion of on-site-sewer disposal does not include enough information regarding infiltration as it relates to the well head protection zones established by the Department of Health. I believe further information must be developed to better understand the geology and aquifer relationship of the project vicinity. I believe additional study is necessary to determine possible impacts for the proposal, the alternatives and cumulative impacts.

Page 2-6 states that the use of Alternative 5 higher public service costs could be avoided by limiting development to lower elevations. Public services included in this discussion included road maintenance and snow removal. Road maintenance and snow removal related to development of the upper portions of the proposal would not be public costs as the proposal indicates the road system would be private. References to these public services must be deleted from the discussion on this page.

Statements on page 2-7 regarding schedule and phasing clearly demonstrate the impact of this development on the growth rate of the Easton School District. 225 units are proposed to be on the market in the next 5 years. When that is compared to the 43 units built in the past 10 years it represents an 80% increase in the rate of available housing units within the School district. That rate of growth for a small school district could potentially be devastating if impacts are not taken seriously and mitigated for properly.

On page 3-46 the stated speed limit for Railroad street is 25 mph. The speed limit on railroad street east bound from exit 70 off of Interstate 90 is 35 mph to the bridge crossing the Yakima River. The speed limit east of the bridge becomes 25 mph and a few blocks east of that a school zone 20 mph limit is imposed. Please correct and clarify this information.

The discussions regarding traffic safety on page 3-53 and collisions on page 3-64 do not address the issue of winter ingress and egress to and from established private driveways. During winter months snow removal often restricts site distance greatly at residential driveways along Sparks Road. Additional motor vehicle and snowmobile traffic on Sparks Road will create a dangerous situation when visibility is greatly restricted. This is especially true of driveways in the vicinity of Country Drive where Sparks Road has two sharp curves and there are driveways with limited sight distance a short distance from the curves. Photos on pages 9 and 10 demonstrate this hazard. Additional consideration must be given regarding this hazard.

Collision mitigations proposed for pedestrian, bicycle and other off road use indicate the need for urban types of accommodation such as sidewalks and developed trail systems. The mitigations proposed do not preserve the rural character of the area. The placement of improvements would serve to urbanize road side views and characteristics. Side walks and urban pathways are not a part of the rural character currently enjoyed by residents of the Easton area and are generally associated with urban development.

The Airport Safety Zone information provided clearly states that by Kittitas County Zoning Code 17.58.05 only Alternative 3 can be developed. If WSDOT Aviation recommendations are applied there can be no development on the lower portion of the area. RCW 36.70.547 and RCW 36.70A.510 as stated, requires cities and counties to protect airports from incompatible development. The WSDOT Aviation Airport Land Use Compatibility Program offers valuable information and insight into risks and liabilities associated with incompatible development in each Airport Safety Zone. A quote from the liability section of the program states, "The program typically states, when evidence warrants it, that is the opinion of the Washington State Department of Transportation Aviation Division that a proposed incompatible development would be in direct conflict with RCW 36.70A.510 and development adjacent to the airport would clearly be an incompatible land use." I believe this statement is true for the proposed and alternate proposals for this property. *Because Kittitas County is aware of the risks of allowing incompatible development in Airport Safety Zones the County would be held responsible for any damage or injury caused by aircraft in those zones. The County*

would be engaging in excessive risk taking and negligent decision making. The County would be making a discretionary decision to allow such development in spite of regulations, recommendations, statistics and historical data, there by allowing tort claims against the County. The WSDOT Aviation Airport Land Use Compatibility Program, which I am including a copy of, clearly states this fact and quotes court decisions that affirm this liability.

Additional runoff from the proposed development, alternatives and possible cumulative impacts will increase the risk and occurrence of flooding in the area has not been addressed adequately. Rain on snow events are of particular concern. Such events have in the recent past caused flooding of residences along Silver Creek. Frozen ground in the winter months does not allow natural infiltration and dispersal of rain water or melting snow. Additional run off will certainly be created by the increase in impervious surfaces related to this proposal or alternatives. Additional information regarding current storm water provisions outside of the proposed PUD must be developed. The statement on page 3-168 that the ditch conveyance system along Sparks Road conveys water run off to Silver creek is incorrect. Ditch systems along Sparks Road do not currently extend to Silver Creek. Additional storm water run off created by this proposal could have devastating impacts to residents and property owners along Sparks Road. The storm water system along Sparks Road will require improvement to avoid damage to the roadway and private property. Such improvements would be representative of urban levels of government service in a rural area. As stated on page 3-157 “Rural government services do not include storm or sanitary sewers”.

Discussion regarding the possible use of reclaimed water for irrigation does not include details about how such water would be disposed of during winter months when the ground is frozen and irrigation is not taking place. There is also no information regarding the proposed stream augmentation initially proposed by the applicant. Issues such as where is the stream located, what are possible down stream impacts and risks are not included in this document. Additional details regarding use and disposal of reclaimed water must be included.

Statements on page 3-181 should be clarified to reflect the fact that Easton State Airport lighting is low intensity and the airport is not structured for night time use.

On page 3-185 there is a statement regarding the establishment of roadway lighting standards. Roadway lighting discussions should also be related to the discussion of rural character. Roadway lighting is considered an urban feature. Roadway lighting will have a substantial negative effect on the rural character of Easton and must be included in that discussion.

The statement on page 3-199 stating the closest residence to the southeast is about 100 feet from the project boundary is incomplete. There are residences to the west of the project boundary much closer. Information should be included relating to the distance of all residential development bordering the project boundary. Information regarding the project boundary and its relationship to the Wenatchee National Forest and the Roslyn

Water Shed must also be expanded. There are regulations in place that will effect the proposal and alternatives relating to development bordering the National Forest. The proximity to the Roslyn Water Shed is very important to the municipal water source of that city.

Fire and wild fire risks and consequences are of utmost concern to the residents of Easton. The evaluation in this document is for the most part very good. However there are a couple of areas which require further information. Currently the parcel upon which the applicant has proposed a PUD would have fire services provided by wildland fire fighting crews. Wildland fire fighting professionals are highly skilled and have tremendous resources at their disposal. They have man power, heavy equipment, aircraft and advanced technology at their finger tips. When structures are erected the fire fighting responsibility falls to the Easton Fire Department. With a few corrections regarding access and equipment this document describes the capabilities of the local services available for fire fighting. The ability to provide fire fighting services will be diminished substantially due to staffing and equipment levels. It is abundantly clear that residential development of this property will increase the risk of fire and wild fire substantially while reducing the ability to fight and control fires. The addition of information regarding the proximity of the Roslyn water shed must be included in this document. Any fire that goes up the slope before it is extinguished will cause irreparable harm to the Roslyn water shed which directly abuts the property at the top of the steep slope. The Roslyn water shed is of critical importance to the citizens of Roslyn and Kittitas County. An evaluation of impacts to the water shed must be included in this document.

Air quality evaluations are fatally flawed in this document. Easton is surrounded by high ridges and is in very close proximity to several bodies of water. The Ridges protect Easton from constant winds and create ideal conditions for inversions. Weather data from Ellensburg, Thorp and Stampede Pass do not in any way reflect the weather that occurs in Easton. The implication that the wind blows more in Easton than Ellensburg or Thorp is absurd. Air quality information in this document must be restated and evaluated to reflect actual conditions in the Easton area. Also of note the wind actually blows more often and stronger on the south side of I-90 than it does on the north side of I-90. Easton is truly a micro climate and does experience often long term (more than a week at times) inversions especially in the winter months.

Wildlife information is not complete. Among the birds occurring on and near the sight are pileated and other woodpeckers. Doves grouse and quail have also been observed on the site. Hawks, ravens, crows and blue jays also frequent the site. There have been wild turkeys observed with in 500 feet of the site.

I would like to restate that elk and to a lesser degree deer are frequently seen moving to and from the site. They are less often seen during winter months, but are visible most other times of the year. Around July 4th groups of cows with the current year's calves and usually several yearlings are regular visitors to the residential areas surrounding the site. These groups move through the residential areas to and from the site frequently.

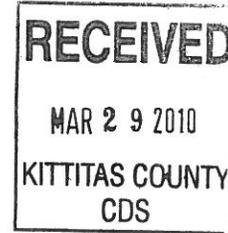
Most resident respect their presence and try not to disturb their movement. The animals are most sensitive to traffic on Sparks Road. I have observed that while vehicles are moving at a regular pace they tend to ignore the vehicles. When vehicles stop the elk immediately leave the area for a more protected area. We have actually had elk on our property when returning home and have found that if we use the remote garage door opener, drive into the garage and close the door before exiting the vehicle, the elk are only minimally disturbed and return to foraging almost immediately. Additional traffic high density and perhaps insensitive residents will certainly strain the energetic demands placed on the animals and disturb one of the few migration corridors available to them.

This concludes my comments at this time. I urge Kittitas County to use the utmost care and due diligence in its review and decision making regarding this proposal, the alternatives and associated cumulative impacts.

Respectfully,

Marge Brandsrud

March 26, 2010



Kittitas County Community Development Services
411 N. Ruby Street, Suite 2
Ellensburg, WA 98962

Re: *Marian Meadow Planned Unit Development – Road access via Country Drive (Environmental Impact)*

To Whom It May Concern:

On behalf of the Silver Creek Road Maintenance Association (“SCRMA”), we hereby object to the use of Country Drive by the developers, and future home owners, of the Marian Meadow Planned Unit Development without the road either 1) being paved and maintained by the County or Developer as part of the development; or 2) the road stays gravel and the developer/future home owners are legally required to help pay for the maintenance and up-keep of Country Drive. Our official preference is option #1 (paved). This objection is based on the following:

- Per your environmental impact statement, ***“Country Drive is a public dedicated, privately maintained two-lane road that is not classified by Kittitas County. The posted speed limit is 15 mph and has an ADT of approximately 100 vpd (estimated from 2006 – 2008 counts). Unlike all other roads analyzed, Country Drive is a gravel road to which a bituminous treatment is applied in the summer for dust control.”***
- First – once this development is fully built-out the vehicle traffic down this road will significantly increase causing major damage (and expenses) to a road that is already hard to maintain – this will be an excessive expense and hardship on SCRMA ;
- Second – this road is very prone to many large potholes that have to be constantly fixed even with the amount of traffic we have currently; the added traffic will not only cause this problem to worsen but also represents a safety issue as emergency vehicles would be hard pressed to use this access if no action were taken;
- Third – the bituminous treatment mentioned is done once each summer and barely lasts the summer with the current traffic flow. Additional traffic will render this expense and treatment worthless which means large amounts of dust can be expected to be generated from the new traffic; this affects not only the surrounding area home owners, but wildlife as well. We don’t believe this impact has been fully examined.

As mentioned above, SCRMA prefers to have the road paved as part of the development. Paving Country Drive is consistent with other like-kind developments of this type and size; especially for a key access road. SCRMA represents thirty (30) home owners that are affected by your decision.

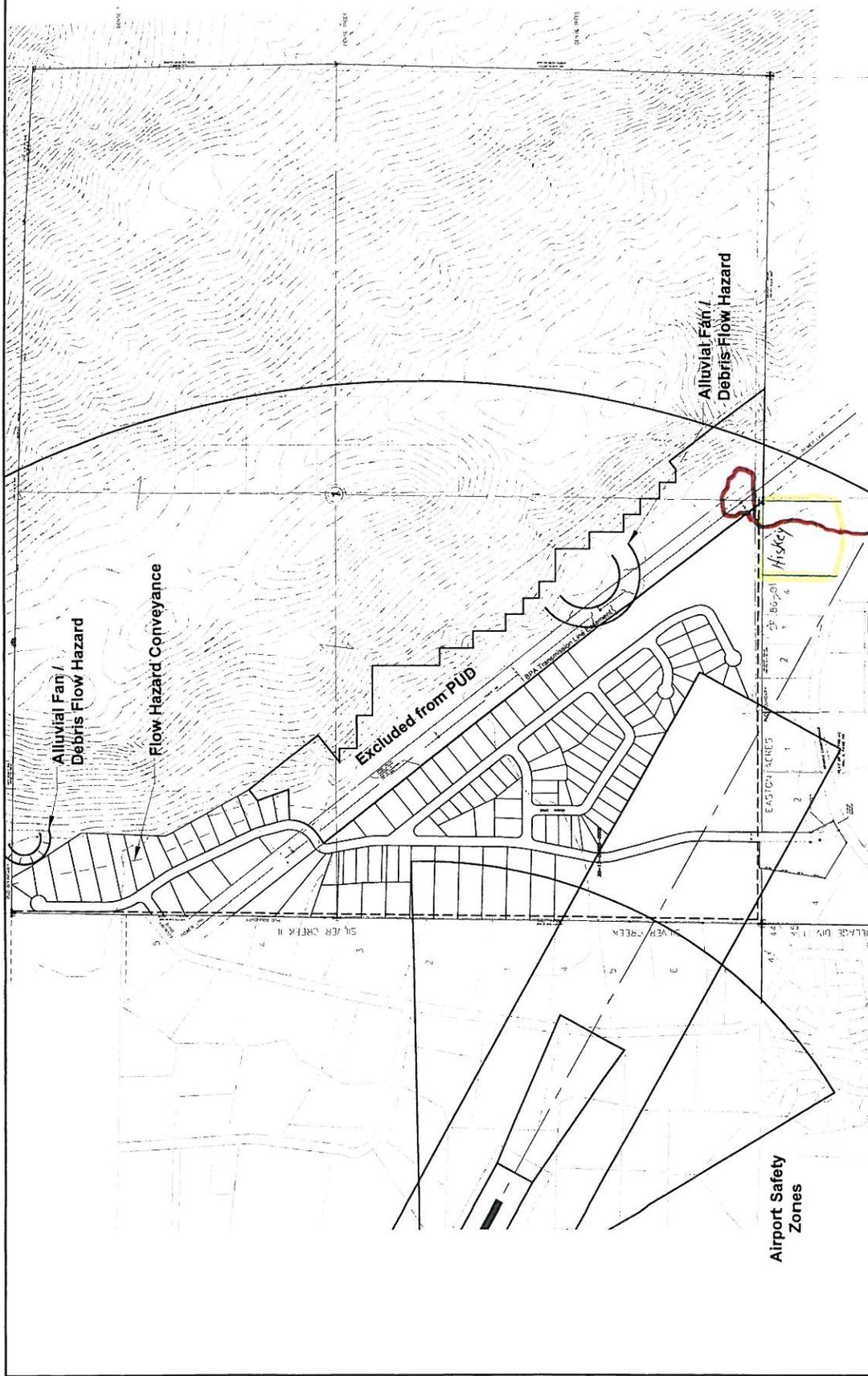
Thank you for your consideration of our concerns.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Crane', with a stylized flourish at the end.

Jeff Crane
President of SCRMA
Jcrane4@comcast.net
#206/949-4339

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MAR 29 2010
KITITAS COUNTY
CDS



Parametrix DATE: MAR 01 2010 FILE: MLT3030030118425

Water Build up + Course

Figure 2-5
Alternative 5 - Mitigation Alternative:
Development on Lower Portion of
Site Only

Kittitas County Marian Meadows
Estates EIS

Jim & Melanie Hickey
4211 Sparks Rd
Easton Wn



In Reference To the Marion Meadows EIS

Our property Borders the South property line, we have some concerns

- 1.) We draw well water and we are concerned with septic and ground water pollution, with a project of this size.

- 2.) There is a low lying area to the east of our property by the powerline and gravel pit. Since we have lived here 1984-2010, 4 of 5 times, excessive run off has flooded this area. Then flooded our yard. ~~the~~ house and some of our out buildings, we are down stream from its puddling. (see picture). On page 2-3 in Marion Meadows EIS it talks about berms and channel water away from building lots. ~~we~~ believe this would make it worse for our situation, as we are down stream

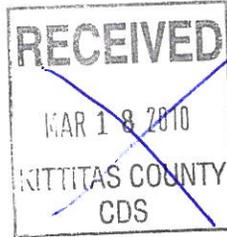
- 3.) In the 26 years we have lived here, we have seen the decline in wild life, and increase in people, we think a project of this size will hurt if not ruin the wild life migration.

Another concern is the population growth, its not only the people who would be living in the area, but the people who visit, especially on weekends. This is a recreational area and even now we are overrun on weekends with people who are friends of property owners. How would we accommodate ~~this~~ this project for emergencies such as, a fire, school, post office, Hospital

March 18 2010

1.

Barbara Grohens Howe
PO Box 36
Easton Wa 98925
509-656-3203



Kittitas County Community Development Services

411 N. Perby Street, Suite 2

Ellensburg Wa 98926

Re. Marion Meadows

Environmental Issues

1. This is a prime area for all our native wildlife and varied vegetation. Large scale building would destroy all the habitat.
2. Water issues. Is Easton Water West to be the only source of water? Will wells be permitted? What of senior and junior water rights. What of water moratoriums?
3. Little of this area is appropriate to building. Most is too steep. This brings up the issue of water drainage and low land flooding.

Safety protection

1. Fire and Police protection. Property owners who build expensive new homes expect, and rightly so, timely fire and police response. This area cannot offer this.
2. Sparks road on the west end offers the only egress. This is impractical and potentially unsafe.

I have lived in Easton all my life - have spent many hours hunting, mushroom picking and berry picking on Easton Ridge. In my opinion this development should not be allowed. If it is allowed it should be restricted to 3 acre parcels, per its' current zoning.

Also a second exit should be guaranteed.

Respectfully yours
 Barbara Graham Howe