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April 10, 2009

RECEIVED  
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Kittitas County  
CDS

Andrew L. Kottkamp, Esq.  
Hearings Examiner, Kittitas County  
Kottkamp & Yedinak PLLC  
P.O. Box 1667  
Wenatchee, WA 98807-1667

**RE: Teanaway Ridge; Yakima River PUD (Z-07-11 and SP-08-03)**

Dear Mr. Kottkamp

Thank you for the opportunity to rebut comments that were received at the public hearing and during the extension of the open written record, which closed on March 27<sup>th</sup>, 2009. Any written comment by Kittitas County was also due by the March 27, 2009 deadline. No additional written comment was received from the County. The applicant requests that if any additional written comment, including written comment from the county, came in or comes in after the March 27, 2009 deadline that it not be considered and that it not be included in the record.

It is our understanding the following written comments came in after the close of public testimony:

- |   |                |
|---|----------------|
| • Ms. Wyckoff   | March 17, 2009 |
| • Shallbetter Law                                     | March 20, 2009 |
| • Kittitas County Fire Marshal                        | March 25, 2009 |
| • BNSF Railway  | March 26, 2009 |
| • Dr. Reay  | March 26, 2009 |
| • Ms. Austin  | March 26, 2009 |
| • Mr. Bush  | March 26, 2009 |
| • Ms. Link  | March 26, 2009 |
| • Ms. Clerf   | March 26, 2009 |
| • State of Washington Department of Fish and Wildlife | March 27, 2009 |
| • Kittitas County Department of Public Works          | March 27, 2009 |

The applicant feels it is important to understand the impacts of the existing use and the less intensive impacts the proposed use has on the subject property. The applicant will address only

the factors it believes important. The applicant has no way to address the “not in my backyard comments” of the neighbors who are opposed to this project. Ms. Ozbolt, at the public hearing, provided you with additional conditions the applicant suggested to address some of the concerns raised by the neighbors. Those additional conditions are set forth on Exhibit A to this letter, “Applicant’s Proposed Conditions.”

### **History of Existing Conditional Use Permit**

The United Pentecostal Church, which owned the subject property prior to the applicant’s purchase, used the subject property as a Guest Ranch including camping activities since 1985. A Conditional Use Permit was originally granted and issued to the United Pentecostal Church in 1985 to operate a Guest Ranch and Campground on the property. In 1993 the Conditional Use Permit was modified by Kittitas County, at the request of the landowner, and continued to be operated as a Guest Ranch and Campground. Conditional use permit site maps are included as Exhibit B. Currently this site is approved for the following:

- 26 acres of development area;
- Single Family Residence for a year-round caretaker; (Constructed and existing)
- 25 cabins; (Nine of which have been constructed and are existing)
- 50 Recreational Vehicle Sites; (40 Constructed and existing)
- 2 story lodge with 48 rooms;
- Kitchen and Dining facility for 300 people; (Constructed and existing)
- 2 dormitories (64 beds each); (1 dormitory Constructed and existing)
- Bath house which includes restrooms, showers, and laundry facilities; (Constructed and existing)
- On site sewage disposal system which includes an RV dump area; (Constructed and existing)
- Registration building;
- Storage sheds to store heavy equipment and tools; and
- Pole building to store heavy equipment and tools.

The site is allowed to have up to 600 people on the premises at one time and 300 people are allowed to stay overnight at any given time. Some of the buildings listed above have not been developed yet, but are allowed to exist on site if the owner chooses to improve the property using the current existing Conditional Use Permit.

The United Pentecostal Church operated their Guest Ranch until the property was sold in January 2005. At that time our client purchased the property. Currently the applicant has a full time manager living on the property with the camping facilities being used. The Conditional Use Permit and associated uses run with the land regardless of who owns the property. Kittitas County did not establish an expiration period for new conditional use permits until July 19 2007 through Ord. 2007-22. (Exhibit C). The current proposal was submitted to Kittitas County Community Development Services on June 15, 2007. With conditions requested by the applicant at the public hearing on March 12, 2009 the use of the property will be less intensive and have fewer impacts than the approved uses under the existing CUP. As listed above the CUP use allows for at least 73 units (25 cabins and 48 rooms as part of the lodge as approved by

the CUP) units and 50 Recreational Vehicle Sites along with the 128 beds in 2 dormitories. The applicant is requesting 24 housing units and 160 Recreational Vehicle Sites. The existing cabins, dormitory and bathhouse would be demolished if the proposal currently before you is approved and developed. This will reduce the impervious surfaces on the property. Additionally, through the wetland and wildlife study that was conducted on the site, the applicant is willing to add more protection to the type 2 water and wetlands on site by providing protection buffers that will not exist if the site is operated under the existing approved Conditional Use Permit. (See Exhibit G).<sup>1</sup>

**Notice Issue:**

Dr. Baron, who is opposing the project, through his attorney, Traci Shallbetter, in a March 20, 2009 letter, argues that adequate notice of 160 RV units and 24 condominiums has not been provided. Kittitas County did not and has not indicated that it believes the notice was defective. As a starting point to address this argument, it should be noted that Dr. Baron and his counsel do not appear to have taken the time to review this application, the history of this application, prior amendments to the application and notices that went out with each of those amendments. A review of that history would show as follows:

1. The application was originally submitted on June 15, 2007 for 56 attached and unattached housing units, 9 acres of Recreational Vehicle campsites and 6 acres of tent campsites. This application was deemed complete by staff on July 13, 2007.
2. The applicant submitted a short plat application on February 5, 2008 to accompany the original application submission.
3. On April 4, 2008, after discussions with Kittitas County Staff regarding the application and prior to publishing the first Notice of Application, a revised application was submitted to the county by the applicant for 86 condominium units and development of approximately 0-12% of the subject property in to Recreational Vehicle sites, which included a new concept overlay map as required by staff. Staff issued the Notice of Application on May 8, 2008 with the 30-day comment period ending on June 10, 2008.
4. After a review of the initial comments and continued discussions with Kittitas County Staff, a second revised application was submitted by the applicant to CDS on July 31, 2008 where the applicant modified the proposed 0-12% of the land that was to be developed for Recreational Vehicle sites to 0-100% of the land to be developed for Recreational Vehicle sites. A revised concept map was supplied with the revised application. Staff then issued a second Notice of Application, based on the modified application, on September 16, 2008 with the comment period

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<sup>1</sup> Exhibit G is a letter report from Sewell Wetland Consulting addressing comments received by Washington State Department of Fish & Wildlife and the Yakama Nation.

ending on October 7, 2008. Staff received comments during both comment periods.<sup>2</sup> Staff then issued a Notice of Action SEPA MDNS, addressing all issues that arose during both comments periods pursuant to KCC 15A.04, 15A.07 and WAC 197-11, on December 24, 2008 with the appeal period ending on January 9, 2009. No appeals were filed.

Dr. Baron also cites to case law. Those cases are distinguishable factually. They primarily rely on the case of *Glaspey and Sons, Inc. vs. Conrad*, 83 Wn. 2d 707, 711, 521 P. 2d 1173 (1974). *Glaspey* involved a notice by the City of Yakima when the City of Yakima initially adopted its zoning ordinance in 1971. In that case, the court concluded a “proper hearing can be no greater protection for the public and the individual land owner than the opportunity afforded by the notice to take an informed part therein.” 83 Wn. 2d at 713. In *Glaspey*, the court also held that, because the City failed to adequately notify the public that the purpose of the upcoming hearing was to amend a proposed ordinance, no one could have adequately prepared for the hearing. *Id* at 710-11. In this case the notice for the proposal clearly identified the action as a proposed rezone to Planned Unit Development and a plat. In addition, the notice included a narrative description of the proposed project as well as a concept map that met the requirements of Chapter 17.36 as it existed at that time and to which this project is vested.

The case that Dr. Baron’s counsel cites but fails to expand on is *Barrie vs. Kitsap County*, 84 Wn. 2d 579, 527 P. 2d 1377. In *Barrie*, the court was looking at notice issues relating to a planned unit development. The court concluded that a planned unit development is intended to achieve flexibility by permitting specific modifications of customary zoning standards as applied to a particular parcel of land. *Id* at 585. The specific issue was whether the notice was sufficient to make clear that the PUD development and the rezone were not going to be considered separately. *Id* at 584. The court went on to affirm that the purpose of the notice is to fairly and sufficiently apprise those who may be affected by the proposed action of the nature and character of the action so that they may intelligently prepare for the hearing. *Id* at 585. This project is an application for a rezone accompanied by a plat, both of which were properly noticed.

The Rezone application and SEPA Checklist disclosed the possibility there could be up to 86 condominium units. The Rezone application and the SEPA Checklist disclosed that the Recreational Vehicle sites could possibly cover 0 to 100% of the developable area of the subject property. A sliding scale approach was used for the preliminary development proposal, a practice which is common in Kittitas County, and which has previously been used in other approved planned unit development projects in Kittitas County. In the Rezone application, question 8 “Narrative project description,” the applicant explains the proposal will provide for a total of 86 condo units and/or Recreational Vehicle sites may be provided on approximately 100% of the developable area of the subject property. Additionally, Condos and Recreational Vehicle sites were addressed in the SEPA Checklist at section 9 (Housing), section 10 (Aesthetics), section 14 (Transportation) and section 15 (Public Service).

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<sup>2</sup> It is important to point out that the submitted documents (application, comments, maps etc) were considered by staff during the SEPA environmental review and threshold determination and that there were no comments received during the first and second comment periods from the Washington State Department of Fish & Wildlife or the Yakama Nation.

The SEPA Determination was based on the most intense use of the property, as proposed in the application for either 86 condominium units or 100% of the developable area being used for Recreational Vehicle sites. The application and the SEPA review and determination was based on proposed a combination of the two uses could occur on site or that one of the two most intensive use scenarios could occur on site. The most intensive uses being 86 condos or 100% Recreational Vehicles were considered in staffs review. Forty acres of the property was proposed to be left in open space leaving 46.58 acres for the condominiums and Recreational Vehicle sites. As proposed by the applicant in their suggested conditions, the applicant reduced the condominiums to 24 units and specified that there would be a maximum of 160 Recreational Vehicle sites averaging 6 sites per acre. In reviewing the calculations, with the applicant's proposed conditions, the Recreational Vehicle sites would be located on approximately 26 acres thereby reducing the Recreational Vehicle use from 100% of useable acreage to 57.1% of useable acreage. (See Exhibit D). This proposal, as conditioned by the applicant, is a combination of the two most intensive uses considered during the Environmental Review. This is a substantial reduction to the development intensity of the site compared to the intensity reviewed by staff when the SEPA Threshold determination was made. Finally, notice of a public hearing need only be "descriptive enough for a reasonable person to be fairly apprised of what was to be discussed at the meeting. It is generally deemed adequate absent a showing that it was misleading". *Public Utility District No. 2 of Grant County vs. North American Ford Trade Zone, LLC*, 159 Wn. 2d 555, 151 P. 3<sup>rd</sup> 176 (207).<sup>3</sup>

In the situation before the hearings examiner, the notices that went out clearly identified this as a planned unit development and provided a range of activities that may occur on the property. The notices gave anyone who looked at the notice and took the time to review the file and "who may be affected by the proposed action of the nature and character of the action so that they may intelligently prepare for the hearing." Therefore the applicant's position is that a re-notice is not warranted.

### **Consistency:**

The Washington State Department of Fish and Wildlife comment assumes that the applicant is not consistent with KCC 17.36 nor consistent with the Kittitas County Comprehensive Plan adopted in 2008. This proposal is consistent with KCC 17.36 as adopted on June 15, 2007 and the adopted 2006 Kittitas County Comprehensive Plan which this proposal is vested to. This proposal meets the Purpose and Intent of the Planned Unit Development zone (Chapter 17.36 KCC), which states "The purpose of this chapter is to provide for and encourage a harmonious mixture of land uses with greater flexibility in land use controls than is generally permitted by other sections of this title." Chapter 17.36 Kittitas County Code requires an applicant submit a Preliminary Development Plan (KCC 17.36.030) with its application that meets specific requirements. When final approval is sought, a Final Development Plan (KCC 17.36.040) is required for approval by the Board of County Commissioners. The applicant submitted the

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<sup>3</sup> *Public Utility District No. 2 of Grant County vs. North American Ford Trade Zone, LLC*, 159 Wn. 2d 555, 151 P. 3<sup>rd</sup> 176 (207) is a condemnation case which dealt with the notice given of a proposed condemnation action however the court in reaching the conclusion relied on several cases including *Nisqually Delta Association v. City of DuPont*, 103 Wash.2d 720, 727, 696 P.2d 1222 (1985) which was cited by Dr. Boren's counsel.

required Preliminary Development Plan with the Rezone Application and other application materials. KCC 17.36.030(2) requires a map of the site drawn to a scale, no smaller than two hundred feet to the inch showing the following;

- a. Arrangement of land uses by type (residential, commercial, open spaces, etc.). A statement on the approximate percentage of land in each category. The map should show proposed traffic circulation;
- b. Names and dimensions of dedicated roads bounding or near the site;
- c. Planned off-street parking areas including approximate number of spaces to be provided;
- d. Elevation contours of no more than 20-foot intervals.

The applicant fulfilled this requirement as shown on the map titled "Yakima River PUD Concept Map." Shown on this map are three types of uses and approximate percentages:

- (i) Use 2B is for Condominiums 0-60% with approximately 1.5 parking spaces per unit;
- (ii) Use 6 is for Open Space 40%; and
- (iii) Use 7 is for Recreational Vehicle sites 0-100%

Staff determined this map met the requirements of KCC 17.36.030.2(a-d) establishing the location of all uses.

#### **Sprinkler Issue and Fire Code requirements:**

Please refer to Exhibit E which lists additional conditions the applicant will abide by based off of the latest comments received from the comment period ending March 27, 2009.

#### **RV issues (oil leaks etc)**

Please refer to Exhibit E which lists additional conditions the applicant will abide by based off of the latest comments received from the comment period ending March 27, 2009.

#### **Water**

There is an existing well and associated water right on the property that has been developed to serve the existing facilities and activities allowed under the current CUP. The applicant also owns a water right located in close proximity to the property, a portion of which will be transferred to the property to serve this project as needed. The water right was purchased from the Bugni family.

#### **Sewer Treatment Options for the Yakima River Planned Unit Development**

In reviewing the testimony from the hearing there was substantial discussion on the Reclaimed Water portion of the application presented by the applicant for treatment of the sewage created

by the proposed Yakima River Planned Unit Development.<sup>4</sup> There was very little discussion on the applicant's Large On-Site Septic system (LOSS) that is proposed for the initial phases of the project up to 14,500 gallons of effluent per day. From the time of the initial application, through the noticing procedures for the application, including the SEPA MDNS process, the sewer treatment plan for this project has been to develop a Large On-Site Septic system to handle all of the sewage up to 14,500 gallons per day. Once the project reaches 14,000 gallons per day average over any one month the applicant will be required to start the construction of the MBR Reclaimed Water Facility to handle the sewer treatment of the entire project and have it completed by the time the project is producing 14,500 gallons of sewage per day.

Even though the applicant has reduced the proposed intensity of the project, which will reduce the sewage created, this plan is still in place and is a valid method to handle the sewage. The final plans to treat the sewage created by the proposed project will be approved by the Washington State Department of Health and must be designed and operated within the guidelines set forth in the SEPA MDNS. Conditioning the final approval of this Planned Unit Development on Washington State Department of Health's approval of a plan for the sewage treatment generated by this proposed project is acceptable to the applicant.

Under any circumstances the initial sewage treatment facility for the project will be a LOSS system, as approved by the Washington State Department of Health, as there will not be enough flow for the operation of a Reclaimed Water treatment facility. This is true of any project of the size and nature as the one proposed by this application.

This sewer treatment concept is clearly represented in the SEPA Mitigated Determination of Nonsignificance in section II Water and Septic, Items D, E, and F as follows:

- D. The applicant will provide sewage treatment through metered Community Septic Systems or metered Large On-Site Septic Systems pursuant to WAC 246-272B "Large-On-Site Septic System Regulations". The initial phases of the project may be served by Large On-Site Septic Systems designed by a licensed septic designer and approved by the Kittitas County Environmental Health Department, pursuant to KCC 13 or by the Washington State Department of Health pursuant to WAC 246.*
- E. Prior to final approval, identification of community septic areas along with completed site evaluations will be required by the Kittitas County Environmental Health Department*
- F. If a Large On-Site Septic System (LOSS) system is pursued, the appropriate approval documents from the Washington State Department of Health will be required prior to final approval by the Kittitas County Environmental Health Department.*

In addition to the LOSS system the applicant has proposed consistently throughout the application and the commitment to plan, engineer, construct and operate a MBR facility for the Yakima River Planned Unit Development project. The SEPA Mitigated Determination of

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<sup>4</sup> For a detailed discussion on reclaimed water facilities in general, see Exhibit H prepared by Clint Perry who testified at the open record hearing.

Nonsignificance in section II Water and Septic, Item G provides specific language as to the steps and the timing of the planning, engineering, construction, and operation of the proposed MBR facility as follows:

- G. *Class A Reclaimed Water Facility: Pursuant to WAC 173-240-050 & RCW 90.46, a Class A Reclaimed Water Facility may be developed and approved by the Washington State Department of Health and Washington State Department of Ecology. The system will contain the following trigger points:*
- a. *When the effluent volume reaches a monthly average of 8,000 gallons per day the applicant will be required to start the planning process for this facility. No additional building permits will be issued until the Washington State Department of Health or the Washington State Department of Ecology has confirmed that the planning process for the facility has started.*
  - b. *When the effluent volume reaches a monthly average of 10,000 gallons per day the applicant will be required to have completed the planning process for the facility. In addition the applicant will be required to start creating engineering and construction drawings for the facility. No additional building permits will be issued until the Washington State Department of Health or the Washington State Department of Ecology has confirmed that the planning process for the facility has been completed and that the applicant has started the engineering and construction drawings.*
  - c. *When the effluent volume reaches a monthly average of 12,000 gallons per day the applicant will be required to have completed the engineering and construction plans for this facility. No additional building permits will be issued until the Washington State Department of Health or the Washington State Department of Ecology has confirmed that the engineering and construction plans for the facility have been completed.*
  - d. *When the effluent volume reaches a monthly average of 14,000 gallons per day the applicant will be required to have obtained a building permit for the facility and to have started the construction of the facility. No additional building permits will be issued until the Kittitas County Building Department has confirmed that a building permit for the facility has been issued and that construction has started.*
  - e. *When the effluent volume reaches a monthly average of 14,500 gallons per day the applicant will be required to have completed and have an operational reclaimed facility. No additional building permits will be issued until the Washington State Department of Health or the Washington State Department of Ecology has confirmed that the facility is operational.*
  - f. *The applicant will record and provide to Community Development Services the recorded meter readings for each Community Septic System or Large On-Site Septic System on a quarterly basis.*



In analyzing this project and the possibility to use a combination of a LOSS and Reclaimed Water system as treatment for the project's effluent the most intense use of the property was considered, which was either the development of 86 condominium housing units or 100% of the developable area as Recreational Vehicle sites.

For the planning process the Washington State Department of Health requires that each living unit calculate its discharge of sewage at 120 gallons per day per bedroom. In addition it is the policy of the Washington State Department of Health to require, for planning purposes, 100 gallons per day of sewage discharge for each Recreational Vehicle site created that is served by a water system.<sup>5</sup>

For the preliminary planning process of the Yakima River Planned Unit Development the most intensive use of the property was used to determine the SEPA MDNS calculations as follows:

- A. 86 housing units @ 2.5 bedrooms average per unit = 300 gallons per day per unit.
  - a. This provided a preliminary design number of 300 gallons per day per unit multiplied by 86 total units, which equaled a design flow of 25,800 gallons per day.
- B. For preliminary planning purposes 46 acres of Recreational Vehicle Sites was considered. This is the most intensive use of property in regards to sewer discharge. Again, for preliminary planning purposes the Washington State Department of Health guidelines were used in developing estimated flows.
  - a. In the conceptual phase of the preliminary plan for the Yakima River Planned Unit Development 600 gallons per day per acre was used for initial calculations of sewage discharge from the RV sites equaling 27,600 gallons per day. This concept was discussed with staff after all comments were received from the publication of the application to insure that the SEPA MDNS adequately addressed sewage for the project.

Therefore the preliminary conceptual design flow was calculated at either 25,800 or 27,600 gallons per day. Actual preliminary design flow cannot be determined until after the preliminary approval for the project is granted and exact densities are determined. Additionally, during the planning phase of the MBR plant actual flows for the initial phases of the project will be analyzed to provide more accurate information in regards to flow during the planning process of the Reclaimed Water facility. The above calculations provide for the highest reasonable flows that could be expected.

The SEPA MDNS was developed to allow the collection of flow data during the initial stages of development so that actual flows would be used for the planning and engineering of the MBR plant. Between the initial application phases of a development, the final approval of the

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<sup>5</sup> There was a discussion of the design flow criteria for Recreational Vehicle sites at the hearing. Part of the discussion centered on the number of gallons per day that a Recreational Vehicle produces. At the hearing the number of 50 gallons per day per site of sewage creation was discussed. This is the low end of the range for design flows and must be proven on site over a period of time that this is a viable number. Currently the Washington State Department of Health requires a design flow of 100 gallons per day per RV site unless it can be shown from a reliable source that the actual flow is less than 100 gallons per day but in no event can it be lower than 50 gallons per day.

development and the beginning of construction of said development there is more often than not changes to designs and densities of projects therefore the SEPA MDNS provides for the flexibility in the design, construction and operation of the MBR Plant.

The applicant has reduced the possible intensity of development of the Yakima River Planned Unit Development so a restatement of conceptual preliminary design flows would be as follows:

- A. 24 housing units @ 2.5 bedrooms average per unit = 300 gallons per day per unit.
  - a. This now provides a preliminary design number of 300 gallons per day per unit multiplied by 24 total units which equal a design flow of 7,200 gallons per day.
- B. For preliminary planning purposes 26.7 acres of Recreational Vehicle Sites at an average density of 6 units per acre (160 units total) is now included in the conceptual planning process. For planning the most intensive use of the water and sewer discharge of 100 gallons per day is used.
  - a. This provides a preliminary design number of 100 gallons per day per RV unit multiplied by 160 total units which equaled a design flow of 16,000 gallons per day.

Therefore the conceptual preliminary design flow is now 7,200 gallons per day plus 16,000 gallons per day for a total of 23,200 gallons per day. As discussed at the public hearing the actual flows may not reach these levels. This was the specific reason that the SEPA MDNS was developed so that it guided the planning process of the MBR plant. If an MBR plant were to be developed for this project it appears that it would be planned, engineered, constructed, and operated as a single phase project to handle effluent of 23,200 gallons per day and greater.

### **Sewer District**

In February 2005 The Kittitas County Board of County Commissioners, through a public process created Sewer District #8 and on March 22nd, 2005 approved Sewer District #8 the property is within sewer district # 8. The sewer district is an enhancement to and improvement of the public health, convenience, and welfare and will be a benefit to the property by allowing the opportunity to save and conserve the potable water resource at the same time protecting the natural environment. Sewer District #8 was formed specifically to serve the subject property. (See Exhibit F). Sewer Districts in the State of Washington are allowed to own and operate both water and sewer utilities. Sewer District #8 will own and operate both the water and sewage disposal facilities for this project.

### **Conclusion**

The applicant believes all issues and concerns expressed by the public and agencies before, during, and after the public hearing have been considered and addressed. This proposal as conditioned through the SEPA MDNS and the applicant's suggested conditions meets all applicable code.

Andrew L. Kottkamp, Esq.

April 10, 2009

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Very truly yours,

A handwritten signature in black ink, appearing to read "JS", with a long horizontal flourish extending to the right.

Jeff Slothower

cc: Client  
Kittitas County

## **Exhibit List**

- A. Applicant Proposed Conditions as presented at March 12<sup>th</sup>, 2009 Hearing**
- B. Site Maps for Existing Conditional Use Permit**
- C. Ordinance 2007-22**
- D. Developable Calculations**
- E. Applicant Proposed Conditions to address comments received during Comment Period ending March 27<sup>th</sup>, 2009**
- F. Ordinance 2005-12**
- G. Sewall Wetland Consulting Report**
- H. Reclaimed Water In Washington Information Sheet**

## **Exhibit A**

### **Additional Conditions Proposed By the Applicant**

- **The applicant will condition this proposal by reducing the number of Condo Units from 86 to 24. This will reduce the density units per acre from 1 unit per acre to 1 unit per 3.6 acres.**
- **The applicant will condition this proposal to state that a maximum of 160 RV Sites will be allowed on the subject proposal. The number of RV sites will average out to approximately 6 sites per acre.**
- **If the PUD proposal for the subject property is granted final approval then the applicant will withdraw the existing conditional use permit that runs with the property.**
- **CC&R's will be required prior to final approval of this Planned Unit Development.**

## **DR. Baron's Proposed Conditions:**

1. Privacy fencing along entire north and west RV area bordering private property.

*The applicant will agree to maintain the existing natural vegetation that is established along the west and north property lines directly adjacent to the Bugni Short Plat, through a vegetation buffer showing that no removal of vegetation would occur 10 feet out from these property lines. If a privacy fence is required then the adjacent property owners need to understand that the existing vegetation will need to be removed in order to install the fence.*

2. Require compliance with International Dark Skies Standards

*As stated in the SEPA Checklist application, all outdoor lighting will be required to be pointed down and no halogen yard lights will be allowed. Additionally, the following SEPA MDNS Condition applies: SEPA MDNS Condition IV. A. "All outdoor lighting shall be shielded, directed downward and away from SR10 to minimize the effect to nearby residential properties and SR10." CC&Rs will also help control outdoor lighting. The International Dark Skies Standards have not been adopted by Kittitas County so have no bearing on this application.*

3. Other restrictions to ensure proper management of RV Users...there should at least be a full-time onsite manager

*CC&Rs will be recorded for this proposal and will be the governing document for the management of the RV sites and condominiums. The onsite manager, who will be a resident during operation of the RV campsites, will enforce these CC&RS.*

4. Trash disposal and management (should be animal resistant)

*A trash disposal area will be established on-site.*

5. Fire Pits (reduce threats of wildfires)

*This proposal will be served by a Group A Water system that will be approved by the Washington State Department of Health. Additionally, we will only allow fire pits as approved by the Kittitas County Fire Marshall and/or Fire District 7.*

6. No snowmobiles, ATVs, or Dirt Bikes

*ORV's are a major portion of the recreation activities in Kittitas County. Many of the Condominium owners and RV site users will have ORV's which will need to be unloaded and loaded onto trailers. In addition the management of the property will need to use ORV's in the normal duties of maintaining the property. The applicant agrees to limit the use of the ORV's to parking, loading and unloading, storage, usage for general maintenance of the facility and for transportation within the RV site and limit speed to 15 miles per hour.*

***Snowmobiles will be allowed to be temporarily stored on the property for winter recreational uses within Kittitas County.***

7. Sewage Management (should be obligated to install community septic and Reclaimed Facility at certain thresholds, unclear of proper management of waste disposal by RV-units)

***Community septic will be used to serve the property initially. If the effluent volumes allow, a Reclaimed Water Facility will be built and utilized. The effluent first has to meet certain thresholds as outlined in the SEPA MDNS conditions. Please also see Index #'s 357 thru 363 for approved pressurized community septic systems issued by the Kittitas County Public Health Dept.. Additionally, there is a MDNS condition that requires RVs to dump their holding tanks prior to connecting to the community septic system either at an off-site dump location or at one provided on-site.***

8. Specify maximum # of RV sites

***The applicant has proposed a condition that there will be a maximum of 160 RV sites located on the property, which will be spread across approximately 26 acres of the proposal. This will average out to be approximately 6 RV sites per acre. CC&Rs will be recorded for this proposal and will be the governing document for the RV sites. The on-site manager will enforce these CC&RS.***

9. No hunting or firearms

***Hunting and target practice are recreation activities that are available in Kittitas County. Owners and RV site users will be allowed to possess legal firearms within the property and transport them to and from the condominiums and RV sites as allowed by law. There will be no discharging of firearms within the property.***

10. Landscaping plan needs to be provided

***We are not required to provide a landscaping plan as this project was vested under the old PUD code (submitted as Exhibit G with the rezone application) on July 13<sup>th</sup>, 2007. The new PUD code which requires a landscaping plan was adopted on July 19<sup>th</sup>, 2007 by ordinance no. 2007-22.***

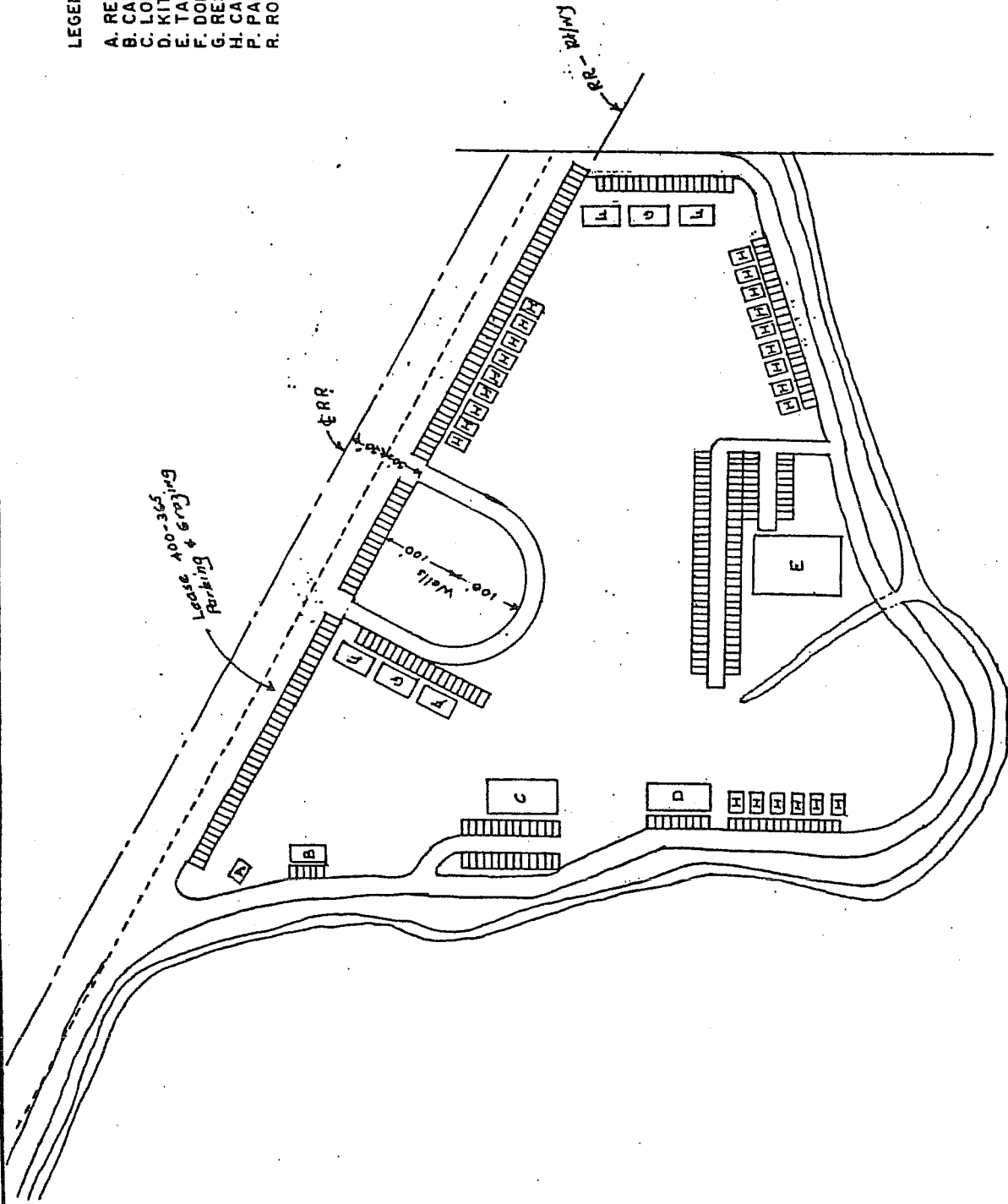
11. Phasing plan required

***We are not required to provide a phasing plan as this project was vested under the old PUD code (submitted as Exhibit G with the rezone application) on July 13<sup>th</sup>, 2007. The new PUD code which requires a phasing plan was adopted on July 19<sup>th</sup>, 2007 by ordinance no. 2007-22.***

# Exhibit B

## LEGEND - BUILDINGS

- A. REGISTRATION (20'X 30')
- B. CARETAKER (33'X 48')
- C. LODGE - 2 STORY (48'X 96')
- D. KITCHEN - DINING (40'X 80')
- E. TABERNACLE (HEIGHT 17' - 80'X 120')
- F. DORMITORIES (30'X 48')
- G. RESTROOMS/SHOWERS (30'X 50')
- H. CABINS (25' (20'X 24')
- P. PARKING
- R. ROADS



SCALE:	APPROVED BY:	DESIGNED BY:
DATE:	REVISIONS:	DATE:
		DATE:



LAMBERT RD

US 97

S.R. 10

RAILROAD

PROPOSED  
R.V. PARKING

PROPERTY LINE

UNDISTURBED  
NATURAL AREA

SITE PLAN  
APPROX. SCALE 1" = 400'

PAGE 4

# Exhibit C

**BOARD OF COUNTY COMMISSIONERS  
COUNTY OF KITTITAS  
STATE OF WASHINGTON**

**ORDINANCE**

**NO. 2007- 22**

**KITTITAS COUNTY DEVELOPMENT CODE UPDATE**

**Whereas,** this ordinance, adopting the Kittitas County Development Code Update, contains three different sections of findings, as follows:

- Section I - Procedural Findings
- Section II - Board of County Commissioners Findings
- Section III - Final Decision and Signatures

## SECTION I- PROCEDURAL FINDINGS

- Whereas,** Kittitas County opted into the Growth Management Act, RCW 36.70A, voluntarily on December 27, 1990, through Resolution 90-138; and
- Whereas,** Kittitas County was required to update its Comprehensive Plan under the requirements of RCW 36.70A, by December 1, 2006; and
- Whereas,** The Kittitas County GMA Comprehensive Plan was originally adopted on July 26, 1996 by the Kittitas County Board of County Commissioners; and
- Whereas,** The Kittitas County Comprehensive Plan Polices are consistent with the policies contained within the Countywide Planning Policies adopted per Resolution 96-10 and amended as required by RCW 36.70A.210; and
- Whereas,** On December 11, 2006, the Kittitas County Board of County Commissioners signed Ordinance 2006-63 adopting the 2006 Amendments to the Kittitas County Comprehensive Plan and 2006 Update to the Kittitas County Comprehensive Plan. As part of the process, Kittitas County is required to review the Development Regulations in order to implement and ensure consistency with the goals, polices and objectives identified in the Kittitas County Comprehensive Plan; and
- Whereas,** The Development Code Update contained the review of the following four elements of the current Kittitas County Code: Chapter 14.08, Flood Damage Prevention, Title 15A, Project Permit Application Process, Title 17, Zoning Code, and Chapter 16.08, Performance Based Cluster Platting. The Development Code Update also consisted of the proposal of two new sections of code, which included a proposed Title 17B, Forest Practices and a proposed Chapter 17.99, Design Standards; and
- Whereas,** Kittitas County has complied with the requirements of RCW 36.70A.130 and RCW 36.70A.140, by including public participation early in the update process and continuously through discussion and consideration of public input; and
- Whereas,** Legal notice was issued on April 11, 2007 and published on April 13 and 20, 2007 in the Daily Record and April 19 and 26, 2007 in the Northern Kittitas County Tribune, and display ads were published on April 16, 18, 19, 21, and 26, 2007 advertising the May 1, 2, and 3<sup>rd</sup> Planning Commission Hearings. These notices were published in the official county paper of record and the Northern Kittitas County Tribune Legal notice was issued on May 15, 2007 for Hearings before the Board of County Commissioners and published on May 17 and May 24, 2007 in the Kittitas County Daily Record and May 24 and 31, 2007 in the Northern Kittitas County Tribune; and
- Whereas,** Community Open Houses for the Development Code were held in various locations in the county. Lower county open houses were held on April 16<sup>th</sup> and 17<sup>th</sup>, 2007 in

Ellensburg, and an Upper County Open House was held on April 26, 2007 in Cle Elum; and

- Whereas,** Kittitas County on June 5, 2007 issued a notice for a Determination of Nonsignificance and Adoption of Existing Environmental Document for the Development Code Update under SEPA. Legal notice was published on June 6 and June 13, 2007 in the Daily Record and June 7 and 14, 2007 in the Northern Kittitas County Tribune; and
- Whereas,** Kittitas County Community Development Services Department sent the Department of Community, Trade and Economic Development and CTED Review Team notice of the Development Code Update on March 16, 2007; and
- Whereas,** The Kittitas County Planning Commission held public hearings on May 1, 2, and 3, 2007 for the Development Code Update. Notice of said public hearing was published in the Daily Record and Northern Kittitas County Tribune as required by State Statute and County Code. Testimony was taken from those persons present at said hearing that wished to be heard and the necessary inquiry has been made into the public interest; and
- Whereas,** The Planning Commission held continued hearings where the record was closed on May 21 and May 22, 2007 for Planning Commission deliberation and decision; and
- Whereas,** The Planning Commission held continued hearing where the record was closed on May 31, 2007 to consider Planning Commission Findings and voted to approve said findings and forward to the Board of County Commissioners their recommendations on the Kittitas County Development Code Update; and
- Whereas,** The Kittitas County Board of County Commissioners held public hearings on June 4, 11, 13, 14, and 27, 2007 to consider the Development Code Update and Planning Commission Recommendations; and
- Whereas,** Testimony was taken and documentary evidence received by the Board of County Commissioners from those persons wishing to be heard; and
- Whereas,** The Kittitas County Board of County Commissioners held continued hearings on July 9, 10, and 11, 2007 for discussion and deliberation, and on July 11, 2007 directed staff to prepare enabling documents for Board consideration on July 19, 2007; and
- Whereas,** The Kittitas County Board of County Commissioners held a continued public hearing to consider enabling documents for the Development Code Update on July 19, 2007; and
- Whereas,** On July 19, 2007 the Kittitas County Board of Commissioners reviewed and signed the prepared ordinance; and
- Whereas,** Due notice of the hearings has been given as required by law.

## SECTION II – BOARD OF COUNTY COMMISSIONERS FINDINGS

### General Findings:

The Kittitas County Board of County Commissioners held public hearings on June 4, 11, 13, 14, and 27, 2007, and July 9, 10, and 11, 2007 to consider the Kittitas County Development Code Update. On July 19, 2007 the Kittitas County Board of County Commissioners held a continued public hearing to consider enabling documents for the Development Code Update. All members of the public who wanted to were allowed to speak or submit written correspondence.

**Whereas,** The Kittitas County Board of County Commissioners held public hearings on June 4, 11, 13, 14, and 27, 2007, and July 9, 10, and 11, 2007 to consider the Kittitas County Development Code Update. The Kittitas County Board of County Commissioners held a continued public hearing to consider enabling documents July 19, 2007; and

**Whereas,** The Board of County Commissioners entered the following findings for the Development Code Update. The findings are as follows:

- I. Ordinance 2006-63 adopted the 2006 Amendments to the Kittitas County Comprehensive Plan and 2006 Update to the Kittitas County Comprehensive Plan. As part of the process, Kittitas County is required to review the Development Regulations in order to implement and ensure consistency with the goals, polices and objectives identified in the Kittitas County Comprehensive Plan; and
- II. The County's plan contains all of the required statutory elements, as described in WAC 365-195; and
- III. The policies contained within each element meet the requirements of RCW 36.70A and WAC 365-195; and
- IV. The Board of County Commissioners make the following findings for each of the elements being considered as part of this Development Code Update as listed below:
  1. ***Kittitas County Code Chapter 14.08, Flood Damage Prevention***
    - i. The proposed changes reflect comments received as part of a 2006 Federal Emergency Management Agency (FEMA) and Department of Ecology (DOE) Community Assistance Visit (CAV).
    - ii. Update to Section 14.08.300 complies with WAC 173-158-070.
    - iii. The Board of County Commissioners adopts the July 10, 2007 draft of Chapter 14.08 as attached hereto as Attachment 1.
  2. ***Kittitas County Code Title 15A, Project Permit Application Process***
    - i. The updates allow for more public participation and identify other methods of public outreach for projects.

- ii. Existing language in 15A.03.030 is sufficient and attainable for identifying ownership of projects.
  - iii. For publishing of notification in newspapers other than the official newspaper of record, a 12 month review from the date of adoption of the Development Code shall be conducted to assess costs in relation to current fee schedules recognizing that costs should be borne by the applicant.
  - iv. The Board of County Commissioners adopts the July 10, 2007 draft of Title 15A as attached hereto as Attachment 1.
3. ***Kittitas County Code Title 17B, Forest Practices***
- i. Substitute House Bill 1409 (Chapter 235, Laws of 2007) of the recent Legislature Session establishes a December 31, 2008 deadline for adoption of a Forest Practice Ordinance. The Board of County Commissioners in recognition of the Bill and the recent formation of the Kittitas County Forest Lands Advisory Committee defers review to the committee composed of Forestry professionals with a recommendation to come forward prior to the 2008 deadline.
  - ii. The Board of County Commissioners hereby withdraws for consideration the inclusion of the proposed Kittitas County Code Title 17B, Forest Practices in the Development Code Update.
4. ***Kittitas County Code Title 17, Zoning***
- i. Per 17.04.060: Maximum Acreages, percentages as reflected shall apply to the Agriculture-3, Rural-3, Agriculture-5 and Rural-5 zones. This section of the Code may be revisited as recommendations from the recently formed Agricultural Lands Advisory Committee and Land Use Advisory Committee are brought forward. The committees are composed of members of the agriculture community, government agencies and citizens of Kittitas County. Recommendations from the committees shall be presented to the Board by March 31, 2008. At the end of 2007, a checkpoint shall occur to review work being conducted by the committees.
  - ii. 17.11.030 reserves a place for Interlocal Agreements, and the Board of County Commissioners recognizes that work in establishing agreements with cities has been initiated as identified in the Community Development Services Work Plan.
  - iii. 17.29.040 and 17.31.040 identify the provision known as the one-time split for the Agriculture-20 and Commercial Agriculture zones. Testimony from the Agriculture community of Kittitas County was received regarding the significance of such provision. In recognition of testimony received and contained in the record, the Board of County Commissioners authorizes the formation of the Agricultural Lands Advisory Committee a body made up of members and professionals in the Agriculture Community. The Board forwards these sections of the code containing the one time split provision for review by the committee, and recommendations

regarding such provisions shall be returned to the Board of County Commissioners for consideration.

- iv. Section 17.38: Fully Contained Communities shall be struck from consideration for the current Development Code Update, and instead identified as a reserved section for future consideration. The Board recognizes that the recently formed Land Use Advisory Committee may review and make recommendations on Fully Contained Communities to the Board.
  - v. For 17.58.040B: Airport overlay zoning district: Easton State, Cle Elum Municipal, and DeVere Field, the Board of County Commissioners recognizes the current planning effort being undertaken by the City of Cle Elum for the Cle Elum Municipal Airport, and anticipates that at the time of completion of such efforts, such plans shall be incorporated and identified in this code.
  - vi. The Board of County Commissioners finds that section 17.61A.035: Pre-identified areas for siting, identifies areas where environmental review and public process has already occurred, and therefore allowing for an expedited review for siting of proposed wind farm facilities. This code allows for a separate process from the requirement for wind farm resource overlay zone as identified in section 17.61A.40. The Board also finds that lands contained in the pre-identified areas may be under federal, state and local ownership and may be subject to additional requirements per jurisdiction. The Board also recognizes and finds, per testimony received that other areas of the County may be further studied and analyzed as identified in the Community Development Services work plan for possible consideration for inclusion in the pre-identified area.
  - vii. The Board of County Commissioners finds that numerous amounts of testimony were received both during the 2006 Comprehensive Plan Update and Development Code Update in support of the updates proposed in Chapter 17.98: Amendments, and addresses community concern with non-project rezones. The proposed language allows for a cumulative review of non-project rezones yearly as part of the annual Comprehensive Plan Docketing Process.
  - viii. The adoption of the Rural-3 and Agriculture-3 zone through this formal process directly addresses and complies with the Eastern Washington Growth Hearings Board Order Case No. 06-1-001 specific to issue number 6, "failure to act."
  - ix. The Board of County Commissioners adopts the July 10, 2007 draft of Title 17 as attached hereto as Attachment 1.
5. ***Kittitas County Code Chapter 16.09, Performance Based Cluster Platting***
- i. The Board of County Commissioners recognizes the upcoming review period for Chapter 16.09, per Kittitas County Code 16.09.010 allowing for a yearly review of the Performance Based Cluster Platting chapter. The Board further recognizes the formation of the Land Use Advisory Committee, in combination

with the future review of this Chapter allows for further review of the code to determine appropriateness of inclusion of the Agriculture-3 and Rural-3 zones. Until such time that review is completed the Agriculture-3 and Rural-3 zones shall remain eligible for Performance Based Cluster Platting.

- ii. For 16.09.100(C), the Board of County Commissioners finds this language to clarify the Code as currently interpreted and enforced by Community Development Services. Such areas are not found to be conducive to public benefit and for application of bonus density
- iii. Language proposed in the Public Benefit Ratings System Chart clarifies requirements for submittal and applicability of developments proposing access to public lands and connectivity of wildlife corridors.
- iv. The Board of County Commissioners adopts the July 10, 2007 draft of Title 15A as attached hereto as Attachment 1.

**6. *Kittitas County Chapter 17.99, Design Standards***

- i. The Board of County Commissioners recognizes the unique character and environment of each of the cities in Kittitas County, and finds that Design Standards are better addressed through the development of Interlocal Agreements with the cities allowing for recognition of each city's individuality.
- ii. The Board of County Commissioners finds that the Land Use Advisory Committee provides for an avenue to explore standards for developments occurring in unincorporated Kittitas County, and as such defers Design Standards for their review with recommendations to be forwarded to the Board for consideration.
- iii. The Board of County Commissioners hereby withdraws from consideration the inclusion of the proposed Kittitas County Chapter 17.99, Design Standards; and

V. Adoption of the July 10, 2007 Drafts of Chapter 14.08, Flood Damage Prevention, Title 15A, Project Permit Application Process, Title 17, Zoning Code, and Chapter 16.08, Performance Based Cluster Platting as attached hereto as Attachment 1 shall serve as Kittitas County's Development Code Update, as required by RCW 36.70A.130; and

VI. The findings and discussion to support these changes and updates are set forth in more detail in the record developed in this matter and the minutes of proceedings of the Board of County Commissioners deliberations and discussions.



**SECTION III - FINAL DECISION AND SIGNATURES**

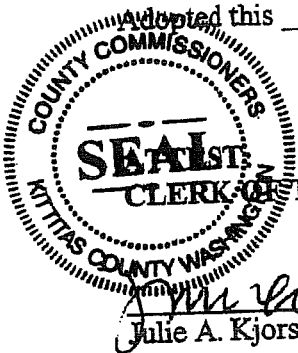
**BE IT FURTHER ORDAINED** that the Board of Kittitas County Commissioners, after due deliberation, hereby approves the July 10, 2007 Draft of the Kittitas County Development Code Update elements as presented; and

**BE IT FURTHER ORDAINED**

**Whereas**, on July 19, 2007, the Kittitas County Board of Commissioners reviewed and signed the prepared ordinance; and

**NOW, BE IT FURTHER ORDAINED** that the Board of County Commissioners, after due deliberation, hereby approves the adoption of the Kittitas County Development Code Update as attached hereto in the referenced Attachments 1 and 2, and incorporated by reference.

Adopted this 19<sup>th</sup> day of July, 2007, at Ellensburg, Washington.



Julie A. Kjorsvik  
Julie A. Kjorsvik

**BOARD OF COUNTY COMMISSIONERS  
KITTTAS COUNTY, WASHINGTON**

Alan A. Crankovich  
Alan A. Crankovich, Chairman

David B. Bowen  
David B. Bowen, Vice-Chairman

**APPROVED AS TO FORM:**

Greg Zempel WSBA #31759  
Greg Zempel WSBA #19125

Mark McClain  
Mark McClain, Commissioner

**ATTACHMENT 1: KITTITAS COUNTY DEVELOPMENT CODE UPDATE**

July 10, 2007 Drafts of:

- Chapter 14.08, Flood Damage Prevention
- Title 15A, Project Permit Application Process
- Title 17, Zoning Code
- Chapter 16.09, Performance Based Cluster Platting

Copies available by request at the Community Development Services Office  
411 N Ruby St, Suite 2  
Ellensburg, WA 98926  
(509)962-7506

<http://www.co.kittitas.wa.us/cds/developmentcode.asp>

## Exhibit D

### Developable Area:

86.58 acres – 40 acres designated as open space = 46.58 acres

### Proposal:

1. 86 condominiums or
2. 100 % RV's of the developable area or
3. A mixture of condominiums & RV's

### Applicants Proposed Conditions:

1. 24 condominiums and
2. 160 RV's to average 6 rv sites per acre  
(160 rvs divided by 6 = 26.6 acres of the developable area)

### Percentage Reduction:

26.6 acres divided by 46.58 acres (developable area) =  $.571 \times 100 = 57.1\%$  (percent)

## **Exhibit E**

### **Applicant Proposed Conditions addressing comments from Comment Period ending March 27<sup>th</sup>, 2009**

- The applicant will abide by the requirements as listed in the letter from the Kittitas County Fire Marshal dated March 25<sup>th</sup>, 2009
- The applicant will require that all RV users place an oil pan, oil absorption pad or some other containment type of structure underneath the RV when attending the site. This structure is designed to contain all material, which may leak from the vehicle.

# Exhibit F

**BOARD OF COUNTY COMMISSIONERS  
COUNTY OF KITTITAS  
STATE OF WASHINGTON**

**ORDINANCE**

**NO. 2005 - 12**

**FORMATION OF KITTITAS COUNTY SEWER DISTRICT NUMBER 8**

**WHEREAS**, according to 57.04.140 Revised Code of Washington (RCW), Kittitas County did receive a petition to form a sewer district on land legally described on Exhibit A, attached hereto and incorporated herein by reference, and

**WHEREAS**, an open record public hearing was held by the Kittitas County Board of County Commissioners on February 24, 2005 for the purpose of considering formation of Kittitas County Sewer District Number 8, and

**WHEREAS**, testimony was taken from those persons present who wished to be heard during said open record hearing before the Board of County Commissioners; and,

**WHEREAS**, due notice of the hearing had been given as required by law, and the necessary inquiry has been made into the public interest to be served by such a formation of a sewer district; and,

**WHEREAS**, the petitioners have indicated in public hearing the intent to provide for a method of sewage treatment that will provide for useable reclaimed water; and,

**WHEREAS**, it is desirable to utilize reclaimed water for non-potable uses such as irrigation and other uses to reduce the dependence for such activities on traditional water sources; and,

**WHEREAS**, at the continued public hearing, the Board of County Commissioners recommended approval of said proposed formation; and,

**WHEREAS**, Findings of Fact have been adopted by the Board of County Commissioners as shown in Exhibit B, attached hereto and incorporated herein by reference.

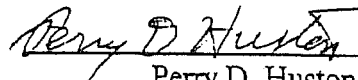
**NOW THEREFORE BE IT HEREBY ORDAINED** by the Board of County Commissioners of Kittitas County, Washington, that the formation of Sewer District Number 8 will allow for the use of new reclaimed water technology as a rural governmental service and that this type of technology will not allow for or promote urban densities in rural zones; and,


**BE IT FURTHER ORDAINED** by the Board of County Commissioners of Kittitas County, Washington, that Kittitas County Sewer District Number 8 is hereby established and is comprised of the land legally described on Exhibit A attached hereto and incorporated herein and pursuant to RCW 57.04.140 the following three (3) individuals are appointed as the initial commissioners of said sewer district to serve in the manner prescribed by law:


Commissioner One: Pat Deneen  
Commissioner Two: Clint Perry  
Commissioner Three: Chad Bala

ADOPTED this 22<sup>nd</sup> day of March, 2005, at Ellensburg, Washington.

BOARD OF COUNTY COMMISSIONERS  
KITTITAS COUNTY, WASHINGTON


  
Perry D. Huston, Chairman

  
David B. Bowen, Vice-Chairman


  
Alan Crankovich, Commissioner



ATTEST:

  
Clerk of the Board

APPROVED AS TO FORM:

  
Gregory L. Zempel,  
County Prosecuting Attorney WSBA #19125

29180 Hwy. 10  
Cle Elum, WA. 98925

LEGAL

#19-16-04020-0002 Acres 85.98, Cd. 6642; Sec. 4, Twp. 19, Rge. 16, P  
Tn. Ne1/4 S. Of Yakima River (must be sold With 19-16-04050-0401 Cd.  
3219-1)

19-16-04050-0401 Acres .60, Cd. 3219-1; Sec. 4, Twp. 19' Plat of  
Teanaway (Ptn. Of Plat Within Govt. Lot 4) (Must Be Sold With 19-16-  
04010-0002 Cd. 6642)

## Exhibit B

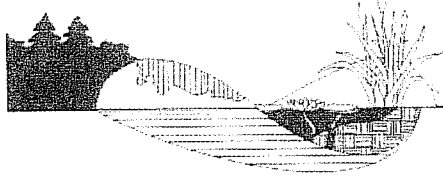
Kittitas County  
Board of County Commissioners  
Findings of Fact and Conclusions of Law – Formation of Sewer District 8

1. The Board of County Commissioners finds that on January 18, 2005 TerraDesignWorks Land Planning Consultants submitted a complete petition for the formation of a sewer district on Real property legally described on Exhibit A attached hereto and incorporated herein by reference, to the Kittitas County Boundary Review Board, Washington State Department of Ecology, Washington State Department of Health, and the Kittitas County Auditor and Kittitas County Board of Commissioners.
2. The Board of County Commissioners finds that the Board issued a Notice of Public Hearing pursuant to RCW 57.04.140 on February 25, 2005. The Board finds further that said notice solicited comments from jurisdictional agencies and the interested public.
3. The Board of County Commissioners finds that the Washington State Department of Ecology (Ecology) issued a letter on January 24, 2005 stating that applicant's desire to establish a sewer district and build a water reuse facility is "laudable". Ecology desires to begin working with the proposed sewer district as early as possible to ensure success and that all state rules and regulations are followed, with particular attention to the complex water reuse rules.
4. The Board of County Commissioners finds that the Kittitas County Public Health Department submitted a letter of support on February 23, 2005.
5. The Board finds that the Washington State Department of Ecology and the Washington State Department of Health support the formation of the proposed sewer district.
6. The Board of County Commissioners finds that an open record hearing was held on February 24<sup>th</sup>, 2005 to consider the petition to form a sewer district. Notice of said public hearing was provided to all parties of record and was published as required by State Statute and County Code. Testimony was taken from those persons present at said hearing that wished to be heard and the necessary inquiry has been made into the public interest to be served by this action.
7. The Board of County Commissioners finds that a continued open record hearing was held on Monday March 14, 2005 to consider the petition to form a sewer district. Notice of said public hearing was provided to all parties and was published as required by State Statute and County Code. Testimony was taken from those persons present at said hearings that wished to be heard and the necessary inquiry has been made into the public interest to be served by this action.
8. The Board of County Commissioners finds the property to be covered by the proposed sewer district is unoccupied property.
9. The Board of County Commissioners finds the proposed sewer district will serve new development.
10. The Board of County Commissioners finds that the primary purpose of the proposed Sewer district is to install, own and operate a reclaimed water facility in an area where water resources are over appropriated and in short supply. The Board of County Commissioners further finds that the boundaries are in an area of the county that contains and is adjacent to areas which are of significant environmental benefit.



11. The Board of County Commissioners finds the proposed formation of a sewer district is consistent with the underlying Comprehensive Plan Rural land use designation of the property located within the proposed boundaries of the sewer district.
12. The Board of County Commissioners finds the proposed formation of a sewer district is consistent with the Capital Facilities Plan of the Kittitas County Comprehensive Plan
13. The Board of County Commissioners finds that the proposed petition for the formation of a sewer district is consistent with the Comprehensive Plan and GPO's 5.4 (D), 5.11(D), 5.79, 5.80, 5.81, 5.82, and 5.84.
14. The Board of County Commissioners finds that all of the property within the boundaries of the proposed sewer district is outside of an established Urban Growth Area boundary.
15. The Board of County Commissioners finds that the creation of the proposed sewer district would not result in an increase in density on the property and therefore will not result in urban governmental services and urban densities to occur outside of an established Urban Growth Area boundary and will not promote or encourage urban densities or urban sprawl outside the Urban Growth Area boundary.
16. The Board of County Commissioners find that given the existing comprehensive plan designation of the property and Kittitas County zoning and development standards, the formation of a sewer district to operate a reclaimed water system will not result in urban services being extended outside of a Urban Growth Area.
17. The Board of County Commissioners recognizes that RCW 36.70A.110(4) states that cities are the local government most appropriate to provide urban governmental services and in general, it is not appropriate for urban governmental services be extended to or expanded into rural areas, except in those limited circumstances shown to be necessary to protect basic public health and safety and the environment and when such services are financially supportable at rural densities and do not permit urban development. The Board of County Commissioners finds that the rural governmental services do not include sanitary sewers except as otherwise authorized by RCW 36.70A.110(4).
18. The Board of County Commissioners recognizes that the Growth Management Act (36.70A) considers those public services and public facilities at an intensity historically and typically provided in cities, specifically including storm and sanitary sewers as urban governmental services. However, the Board of County Commissioners finds that the formation of a sewer district, which provides the ability to obtain and operate a reclaimed water facility, is not a type of public service or public facilities that is historically and typically provided in cities and is therefore consistent with the Growth Management Act, specifically RCW 36.70A.110(4).
19. The Board of County Commissioners finds that RCW 90.46 (Reclaimed Water) allows for the use of reclaimed water systems by a governmental entity and a sewer district qualifies as a governmental entity.
20. The Board of County Commissioners finds that the petition to form a sewer district allows the use of reclaimed water is conducive to the enhancement and improvement public health, convenience, and welfare and will be a benefit to the property by allowing the opportunity to save and conserve the potable water resource at the same time protecting the natural environment.

21. The Board of County Commissioners finds that Kittitas County does not have a Basin-wide and/or sewage plan or a county plan for water and/or sewage facilities.



April 10, 2009

Kittitas County Hearing Examiner  
Kittitas County Community Development  
411 N. Ruby St. Suite 2  
Ellensburg, Washington 98926

RE: Yakima River PUD Comment response  
SWC Job#A7-268

This letter is in response to the following documents presented prior to the Yakima PUD Hearing:

- March 10, 2009 letter to Scott Turnball from Phil Rigdon – Yakima Nation regarding the Yakima PUD Development.
- March 12, 2009 Letter from Mark Teske of Washington Department of Fish and Wildlife regarding the Yakima River PUD project.

In addition, we have also reviewed the second letter dated March 27, 2009 from Mark Teske of Washington Department of Fish and Wildlife regarding the Yakima River PUD project.

#### **March 10, 2009 Yakima Nation Letter**

##### *Flood Hazards*

In regards to the flood hazard discussion, the applicant has withdrawn the flood storage pond from the proposal, as was recommended by the Yakima Nation.

*Critical Areas Report Wetland Buffer Width discussion*-In regards to the critical area report recommending a 50' Category 2 wetland buffer width ; the Yakima letter states that best available science indicates that instead of the 50' buffer we recommended, a 100' buffer should be utilized.

It is my professional opinion that a 50' buffer will protect this wetland adequately, and is more in line with the buffer widths typically used by Kittitas County. Currently, the buffer area within 100' of the wetland along the areas of proposed development is in a

degraded state. Most of this area has been historically converted to lawn, gravel roads, a paved basketball court and numerous structures. In the current condition of the buffer there is no additional protection afforded the wetland by going from 50'-100'. It would be our recommendation that the 50' buffer can be more beneficial to the wetland than 100' with the addition of some native vegetation placed within the 50' buffer as buffer enhancement. This could include native trees and shrubs as well as some large woody debris as habitat materials. A 50' enhanced buffer would provide much greater protection to the wetland than a 100' buffer in its existing condition. The enhanced buffer would increase numerous functions of the wetland to include restoration of a native plant community, increased shading of the wetland and stream, woody debris recruitment, increase habitat for numerous riparian dependent species, and providing a natural barrier to the wetland and stream from human encroachment.

*Critical Areas Report Stream Classification*-The Yakima Letter indicates that they feel the classification of the stream as a Type 3 is incorrect and it should be classified as a Type 2 stream. As defined in the Kittitas County Code "Type 2 waters" means segments of natural waters not classified as Type 1 and have "a high fish, wildlife, or human use".

The stream in question appears to originate from groundwater discharge near the northwest corner of the site. Groundwater within the entire valley is most likely in some way tied to the Yakima River. However, given the distance from the Yakima, it is not clear that this is a groundwater discharge from the Yakima. Groundwater input to this stream is at a point nearly 1,100' north of the closest point of the Yakima River. It is possible this is receiving groundwater from the Younger ditch drainage north of SR 10 in close proximity to this area. However, the source of the groundwater that emerges in the Type 3 stream feature is immaterial to its jurisdictional classification and does not in any regulatory way connect it to the Yakima. Streams are never rated based upon an apparent or possible connection to another waterbody through groundwater. There must be an above ground connection to make this call. For example, if a side channel fed this Type 3 stream directly via a surface connection from the Yakima, it could be called part of the Yakima. But this is not the case, and there is no surface connection to this stream that feeds it from the Yakima River.

The Type 3 stream on the site north of the existing road crossing is highly manipulated, having been impounded and probably excavated out historically. There is little vegetation along the banks and little cover within the channel for fish. There is no evidence of high fish or wildlife use in this area and in fact, the blockage at the road crossing prevents most fish use except for resident trout. This area was historically stocked with fish to maintain a fish presence in the ponded area. It is our opinion that the Type 3 rating of this segment of the stream above the road crossing is adequate and correct. This area has a gravel road in close proximity to its east edge as well as several structures. The west side north of the crossing is also highly manipulated with hook-up serviced campsites and mowed grass. A larger buffer would afford no more protection to the stream as it is already developed and bisected with a gravel road. The proposed variable buffer in this area makes sense from a functional standpoint and meets Code.

Below the road crossing there is better habitat within the stream, and given the subjective criteria of a Type 2 stream (*and have a high fish, wildlife, or human use*), it could be argued that juvenile salmonids do use this segment as refuge from the Yakima during high flows. As such a larger buffer (100') where natural vegetation exists could be placed upon this segment.

The letter also discusses the probability that historically, the Yakima River flowed through the area north of the site, and that the stream flowing through the wetland is in this historic Yakima River Location. As a result it states shoreline jurisdiction should be extended to this area.

The Shoreline of the State is based upon the definition set out in the in the Shoreline Management Act (SMA RCW 90.58). The Shoreline jurisdiction is measured 200' back from the ordinary high water mark (OHWM) of the waterbody in question. The most commonly used definition of the OHWM is that in the State Hydraulic Code (WAC 220-110-020(31) defining OHWM as

*"Ordinary high water mark" on all lakes, streams, and tidal water is that mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the department: PROVIDED, that in any area where the ordinary high water mark cannot be found, the ordinary high water mark adjoining salt water shall be the line of mean higher high tide and the ordinary high water mark adjoining fresh water shall be the line of mean high water.*

In addition, the WADOE March 2008 review draft "Determining the ordinary high water mark on streams in Washington State" states that the use of hydrologic data is helpful in determining OHWM, and that the mean high flow is generally the 2.33 year event, and the 1.25 year event approximates the lower end of the OHWM. Therefore, the OHWM generally is found between these two flow event limits. This is an important factor regarding OHWM locations on the site, in particular, discerning between the OHWM of the Yakima River, which is a Shoreline of the State, from that of the Type 3 tributary stream. The recent January 2009 flood event was determined to be an approximate 20yr flood event in the vicinity of the site. During this event the Type 3 tributary was not flooded to an elevation of that of the Yakima. In other words its OHWM acted separately and distinctly from that of the Yakima and was not within the flood influence of the Yakima in a 20 year event. As a result, it is our professional opinion that the Type 3 water is a distinctly different jurisdictional feature from the Yakima River and is not within its OHWM and is not within Shoreline jurisdiction.

## March 12, 2009 WDFW Letter

*Flood Storage Replacement Pond-* The flood storage compensation pond has been removed from the proposed project.

*The Slough-* This portion of the letter indicates that the “slough” or Type 3 stream on the site is an old channel of the Yakima River and that it is *possible* at some time the channel may migrate back to this location. It is true that this tributary may have at one time been the historic location of a portion of the Yakima River, as is most of the valley through the City of Cle Elum. However, the small tributary in this location is not part of the Yakima River at this point in time nor has it been for many years. As described above in the Stream Classification discussion, the start of this channel is over 1,100’ north of the Yakima, and is a jurisdictionally separate feature from the Yakima River with its own distinct OHWM and hydrologic characteristics. The possibility that the Yakima River could migrate back here in some catastrophic event is highly unlikely given the amount of changes to the flood plan up-stream and in the area surrounding the north side of the Yakima near the site. This includes roads, railroads and numerous homes and other infrastructure. In order for this river re-location to occur an unlikely major catastrophic event would need to occur.

*Flood Fighting-* This portion of the letter indicates that they are concerned with the potential for residents of the proposed project to construct dikes to prevent flooding. No dikes are proposed from this project and additionally, no flooding has occurred on this property in the proposed development areas in the recent flood events. In order to construct dikes on the property would require additional grading permits and additional review outside the scope of this project. This is not anticipated nor proposed.

*Hazardous Location-* This section of the letter continues the speculation that the Yakima River will migrate through the site some time in the future and that additional armoring and work will be done in and around the river to prevent flood damage. This is not part of the proposed project in any way and is a hypothetical situation, not an existing one.

*Additional Safety vs. Habitat Issues-* This section of the letter expresses concern that the proposed RV sites in the flood plain of the Yakima will degrade fish and wildlife habitat. In particular, it expresses concern about tree removal from a safety standpoint. The majority of the proposed RV sites will be in the existing cleared campground area. No major tree removal is anticipated. The majority of woody debris recruitment to the Yakima River is within the 200’ shoreline zone. Outside this zone little wood is recruited to the river except in a major flood event.

The trees within the proposed RV sites are generally sound healthy trees with few snags present. There is no expectation of tree removal in this area and any that were required to be removed could be placed within the buffer zone of the river to maintain the wood load in this area.

*Chinook Holding Area*-The "Chinook holding area" referred to in the letter is located east of the site approximately 200'. No impacts are proposed on or near this area, nor within 200' of the Yakima River. There are no impacts proposed on the site that will directly or indirectly affect these species.

*Age and Relevancy of the CAO*-This section of the letter indicates the CAO is out of date and not using best available science. The project was reviewed and studied utilizing the required methods as indicated by the current Kittitas County Code. In regards to critical areas, this does use the older 1991 WADOE Wetland Rating System. This system rated the wetland on the site as a Category 2 wetland. Although not required, in order to better determine wetland functions we also rated the wetlands using the WADOE current 2004 and revised Washington Wetlands Ratings System and it also indicate a Category 2 wetland based upon functions. This information was included in our Critical Areas Study submitted with the project.

*Kittitas County Flood Damage Memo*-This section of the letter indicates the January 2009 flooding required parts of Kittitas County to be declared a federal emergency area. We wanted to note that no flood damage occurred on the site from these recent floods.

#### **March 27, 2009 WDFW Letter**

On March 23, 2009 we visited the site with WDFW Biologist William Mier to review site conditions. Following his visit to the site with us a letter was sent from WDFW dated March 27, 2009. No other additional comments were made regarding critical areas in this letter.

Sincerely,  
*Sewall Wetland Consulting, Inc.*



Ed Sewall  
Senior Wetland Ecologist (PWS #212)

## Reclaimed Water In Washington Information Sheet

by

Clint Perry, Evergreen Valley Utilities

### What is Reclaimed Water?

Water never actually disappears. It is constantly recycled through the oceans, rivers, glaciers, soils, and atmosphere. The water we use every day is as old as the planet.

Now, using proven technologies that mimic and speed up nature's treatment and filtering processes, we are able to recycle water from the water we use and discard every day.

"Reclaimed water" is a term that means water that is recycled from wastewater.

RCW 90.46.010 states: "Reclaimed water" means effluent derived in any part from sewage from a wastewater treatment system that has been adequately and reliably treated, so that as a result of that treatment, it is suitable for a beneficial use or a controlled use that would not otherwise occur and is no longer considered wastewater.

The process of reclaiming water, sometimes called water recycling or water reuse, involves a highly engineered, multi-step treatment process that speeds up nature's restoration of water quality. The process provides a high-level of disinfection and reliability to assure that only water meeting stringent requirements leaves the treatment facility.

In Washington State, reclaimed water is divided into four classes (A through D) based on the level of treatment. For all practical purposes, Class A reclaimed Water (the highest standard) is the most commonly produced reclaimed water. This water is suitable and safe for many beneficial uses including non-consumptive human contact.

Some of the approved uses for reclaimed water are:

- Landscape, food crops, and non-food crop irrigation.
- Landscape, decorative or recreational impoundments and fountains.
- Groundwater aquifer recharge.
- Wetland enhancement
- Fish hatchery basins.
- Street cleaning and dust control.
- Washing aggregate and making concrete.
- Streamflow augmentation.

By using reclaimed water for these purposes, potable water sources can be conserved.



While producing reclaimed water is relatively new to Washington State, it has been produced and utilized in other states and foreign countries for decades

## **How Is Reclaimed Water Made?**

Reclaimed water is produced by one of several methods that combine conventional sewer treatment technologies with newer enhanced methods of filtration and disinfection. This combined with additional reliability and testing to ensure that the product produced consistently meets the standards required for the water's intended use.

One of the most advanced methods of making reclaimed water is utilizing a membrane bioreactor (MBR). This is a treatment that combines the biological process of a conventional activated sludge treatment plant with a membrane filter. The biological process involves using microbes to consume organic matter in the wastewater and break them down into carbon dioxide and water. Organic matter refers to molecules that are based on carbon and include fecal matter as well as detergents, soaps, fats, greases and food particles. Following the biological process, the water is filtered through a membrane to remove pathogens and suspended solids. The pore size of the membrane is smaller than bacteria and will reduce bacteria to a non-detectable level. In addition, a significant amount of viruses (which are smaller than bacteria) are removed. Any minimal amounts of pathogens that may remain are destroyed by disinfection.

This treatment method offers many advantages over conventional sewer treatment. One of the biggest advantages is a much smaller plant footprint because there is no need for large settling ponds or clarifiers. Also, MBR systems have the ability to operate at higher concentrations of microbes and therefore higher concentrations of the sewage being treated. than conventional treatment processes. This ability leads to much smaller process basins treating the same sewage volume for the MBR system, again reducing plant footprint size. The benefits of a small footprint – saving on land and concrete costs, greater installation flexibility, opportunities to effectively hide plants – can have a direct impact on project feasibility. Another advantage to MBR technology is in phased projects, which are commonplace in home developments, industrial parks, hotels/resorts, and in growing municipalities. While expansion with a conventional treatment plant can mean installing another large clarifier, in an MBR plant you can simply add more membranes to existing basins – expanding flow without expanding footprint. The modular design of MBR technology allows for a lot of flexibility in expanding a plant in small increments, giving the owner a shorter planning horizon, and matching the growth of the service area more accurately to increased demand.

However, there is one challenge in utilizing MBR technology in a development scenario. This is because the MBR utilizes biological treatment in addition to the physical membrane filtering process. In a biological treatment process the microbes that are utilized must be provided living conditions that will sustain them. This means that like any animal, they must be fed, and therefore sufficient and constant flow of organic mater must be provided to the plant. The issue for a newly constructed development to

utilize an MBR is that the plant must be designed to provide treatment for the maximum flows expected from the development at build-out. Most plants are constructed in phases, and as stated above this works very well for an MBR. However, the challenge is to operate the plant during the beginning of the development process where flows are inadequate to keep the microbes of the biological process alive. The best solution to this problem is to construct a Large Onsite Septic System (LOSS) to provide treatment to the development from the time the first home is occupied until sufficient flows are available to operate the MBR. The question often arises of exactly how much flow is needed. Unfortunately, there is no hard and fast answer to this but it is very site specific. Variables such as the actual physical design (size of basins, etc.) of the plant, consistency of the flow to the plant (peaks and valleys), and how the phasing of the construction and operation of the plant, if any, will be handled can all affect the amount of flow needed to maintain operations in an MBR treatment plant.

MBR technology can and is being used in treatment plants from very small to very large. For example there is a small treatment plant serving the offices of the Woodenville Water District (Woodinville, WA) that is designed to treat 3000 gallons per day. The other end of the size scale is the Brightwater Treatment Plant, currently under construction in King County, WA, that will treat 36 million gallons per day (MGD) and has the capability to be expanded to 54 MGD. All MBR plants are based on similar treatment technologies.

High quality effluent is generally the most recognized benefit to MBR technology. Due to the small effective pore size on the membrane, the filtration capabilities of MBR systems are exceptional; by comparison, conventional treatment methods, even when followed by tertiary filtration, will not be able to consistently meet the effluent quality that can be achieved with an MBR. One ancillary benefit to the effluent quality from the MBR is that it reduces the burden on final disinfection in the treatment process (typically UV or Chlorine).

## **How Is Reclaimed Water Regulated In Washington State?**

All reclaimed water treatment plants are permitted and regulated in Washington State by the Department of Ecology and Department of Health under RCW 90.46. Protection of the public health and the environment are required under the permitting process. This is accomplished through conditions being placed on the permit such as:

- Adequate and reliable treatment
- Standards for water quality, distribution and use, and treatment reliability
- Prevention and control of discharges into waters of the state
- Procedures for facilities operations and maintenance
- Operation certification and staffing requirements
- Requirements for testing and monitoring

The Departments of Ecology and Health are heavily involved with all reclaimed water facilities from inception through construction and ongoing operation.

## How Good (Safe) Is Reclaimed Water?

Class A reclaimed water in Washington State can be permitted and approved for practically any use other than direct human consumption. The following chart compares contamination levels of different types of water from septic tank effluent to drinking water. It is interesting to note that in all these categories, typical MBR treated Class A reclaimed water meets or exceeds the drinking water standard.

	<b>BOD<sub>5</sub></b> (Biological Oxygen Demand)	<b>TSS</b> (Total Suspended Solids)	<b>Coliform Count</b>	<b>Turbidity</b>	<b>Nitrogen Form/Amt</b>
<b>Typical Residential Septic Tank Effluent</b> <sup>1</sup>	140 – 200 mg/L	50-100 mg/L	1 million to 10 million colonies fecal coliform/100 ml	N/A	Primarily Ammonia Total N typically 40- 100 Mg/L
<b>Treatment Standard B Effluent ( A properly functioning on-site system)</b> <sup>2</sup>	Less than 15 mg/L (30 day average)	Less than 15 mg/L	Less than 1000 colonies fecal coliform/100 ml (30 day geometric mean)	No Standard	Nitrate (No Minimum Requirement)
<b>Treatment Standard A Effluent (Enhanced Treatment Onsite System)</b> <sup>2</sup>	Less than 10 mg/L (30 day average)	Less than 10 mg/L	Less than 200 colonies fecal coliform/100 ml (30 day geometric mean)	No Standard	Nitrate (No Minimum Requirement)
<b>Class A Reclaimed Water Minimum Standard</b> <sup>3</sup>	Less than 30 mg/L (30 day average) Dissolved Oxygen must be present	Less than 30 mg/L (30 day average) before filtration	2.2 colonies total coliform/100 ml (7 day average) less than 23/100 ml in any sample (before disinfection)	2 NTU average never exceeding 5 NTU	Nitrate less than 10 mg/L total Nitrogen when used for Ground Water Recharge
<b>Typical Quality of MBR Treated Class A Reclaimed Water</b> <sup>4</sup>	Less than 2 mg/L (30 day average)	Less than 2 mg/L	Less than 1 colony total coliform/100 ml (before disinfection) Typically None detectable after disinfection	Less than 0.1 NTU average	Nitrate Typically less than 5 mg/L
<b>Drinking Water</b> <sup>5</sup>	No Standard (Unpolluted natural waters typically less than 5 mg/L)	No Standard (see Turbidity)	None detectable	1 NTU	Nitrate less than 10 mg/L

<sup>1</sup> United States Environmental Protection Agency, *Onsite Wastewater Treatment Systems Manual, 2002*  
<sup>2</sup> Washington State Department of Health, *Recommended Standards and Guidance for Performance, Application, Design, and Operation & Maintenance, Glossary of Terms*  
<sup>3</sup> Washington Departments of Health and Ecology, *Water Reclamation and Reuse Standards, Publication 97- 23, 1997*  
<sup>4</sup> *Final Report Woodinville Water District Pilot Testing of the Kubota Flat Plate Membrane Bioreactor, August 2005*  
*What is Decentralized Water Infrastructure? What is Sustainable Water Infrastructure?*, Craig Goodwin & Anish Jantrania  
 University of Hawaii *Honolulu Membrane Bioreactor Pilot Study*, Dr. Roger Babcock, 2003  
 City of San Diego Water Department *Report No. 103*, Samer Adham, Ph.D., et. Al.

This chart uses several common parameters for comparing water purity. It shows types of water from untreated septic tank effluent to drinking water. The following is brief explanation of each of these parameters:

**Biological Oxygen Demand (BOD<sub>5</sub>)** - In wastewater treatment, microorganisms that require oxygen to live consume organic material molecules and break them down into smaller molecules and eventually into carbon dioxide and water. The amount of oxygen required for this process is known as the biochemical oxygen demand or BOD. The Five-day BOD, or BOD<sub>5</sub>, is a measurement of the quantity of oxygen consumed by microorganisms during a five-day period, and is the most common measure of the amount of biodegradable organic material in, or strength of, sewage.

**Total Suspended Solids (TSS)** - Domestic wastewater usually contains large quantities of suspended solids that are organic and inorganic in nature. These solids are measured as Total Suspended Solids or TSS and are expressed as mg TSS/ liter of water.

**Coliform Count** – Coliform bacteria are organisms that are generally present in the environment (e.g., soil or vegetation) and also in the feces of all warm-blooded animals and humans. Their presence in water indicates that disease-causing organisms (pathogens) could also be in the water. Most pathogens that can contaminate water supplies come from the feces of humans or animals. Therefore, testing for the presence of coliforms is used in drinking water systems and reclaimed water systems to indicate the possibility of contamination and level of purity. Fecal coliform bacteria are a subgroup of total coliform bacteria. They appear in great quantities in the intestines and feces of people and animals. It is interesting to note that in the chart, the levels of coliforms found in the septic tank effluent refer only to the fecal coliform bacteria. The total coliform (TC) count would be higher - TC counts are normally about 10 times higher than fecal coliform (FC) counts. Drinking water and reclaimed water on the chart indicate the levels of any type of coliform (TC) not just fecal coliforms.

**Turbidity** - Turbidity is the cloudiness or haziness of a fluid caused by individual particles (suspended solids) that are generally invisible to the naked eye, similar to smoke in air. The measurement of turbidity is a key test of water quality.

**Nitrogen** – Most nitrogen found in sewerage or septic effluent is in the form of ammonia, a component of urine. This ammonia is broken down in the treatment process by bacteria into nitrate. Nitrate which is commonly found in fertilizer while being beneficial to plants is considered a potential hazard to humans. Because of this the level of nitrate permitted in drinking water is limited to 10 milligrams per liter. Reclaimed water can have higher levels of nitrate if being used for such things as irrigation, but must at a minimum meet this drinking water standard when being used for aquifer recharge or streamflow augmentation.

## **What Is The Future For Reclaimed Water?**

As populations continue to require both more clean water and better ways to dispose of wastewater, the demand for water reclamation has been increasing worldwide. Other states and countries where water needs are more pressing than in Washington have been promoting reclaimed water use for decades. However, as residents of Washington have come to realize that our supply of potable water is not limitless there has been a greatly increased interest in our state by government, environmental groups, utilities, and the development community. The advanced treatment technologies associated with reclaimed water treatment when used in place of on-site septic systems or conventional sewer treatment will improve the environment and reduce the amount of potable water that is used for purposes other than drinking water.