JEFFERSON COUNTY PLANNING COMMISSION

MINUTES FOR MAY 19, 2004

A. OPENING BUSINESS

B. PUBLIC HEARING – GENERAL SEWER PLAN FOR HANDLOCK/IRONDALE URBAN GROWTH AREA

C. DISCUSSION ON UGA PLANNING FOR HADLOCK/IRONDALE

D. ADJOURNMENT

A. OPENING BUSINESS

The regular meeting was called to order at the WSU Learning Center at 6:30 p.m. by Chair Tom McNerney. Planning Commission members present were Phil Flynn, Eileen Rogers, Jenny Davis, Dennis Schultz, Bud Schindler, and new members Jim Hagen and Allen Panasuk. Edel Sokol was excused.

DCD staff present were Al Scalf, Kyle Alm, consultants Marc Horton and Mark Personius, and Cheryl Halvorson, secretary.

There were four members of the public present. Those who signed the guest list were Margaret Matheson, Liz Berman, and R. Lopeman.

There were no staff reports presented.

B. PUBLIC HEARING – GENERAL SEWER PLAN FOR HADLOCK/IRONDALE URBAN GROWTH AREA

Tom McNerney explained the sequence for the public hearing. He noted that the public hearing for the General Sewer Plan would be continued to the next meeting (June 2). Therefore, the Planning Commission would continue to take written testimony until the close of the hearing on June 2. Mr. McNerney invited a staff presentation.

Al Scalf stated that the public hearing related to MLA#04-29 which was the UGA amendment. It included the General Sewer Plan which would ultimately become an appendix to the Comprehensive Plan. He stated that the requirements for a General Sewer Plan were derived from state statutes. It was included in our requirements to plan for capital facilities. That was required under the GMA and its desire to have urban services generated to facilitate orderly development in an urban growth area. In order to have urban density and city-like services, one of the features was a sewer system. He stated that to have the type of urban densities we were seeking in the course of the next six years and the next twenty years, we were in the process of preparing a General Sewer Plan. Mr. Scalf introduced Marc Horton who was the consultant charged with preparing the sewer plan. He stated that Mr. Horton would review the process, including the use of a technical committee, for developing the sewer plan alternatives.

Marc Horton stated that he was a consultant hired by the county to prepare a General Sewer Plan for the UGA. He reviewed the process for the development of the sewer plan, including using a Technical Review Committee. He explained that part of the planning process was a result of a decision by the Hearings Board, although the county was already planning to do the additional planning exercise required to fully adopt a UGA.

Marc Horton stated that the purpose of a General Sewer Plan was to consider alternatives for sewage collection, treatment, and disposal. He explained the issues that were considered for each of the alternatives. As a result, some alternatives were discarded. They ended up with five alternatives. He reviewed the five alternatives considered.

Marc Horton stated that the preferred alternative was the wetland alternative. He explained how that type of treatment system worked. Mr. Horton stated that there were some advantages to such a treatment system. It had a lower cost, both capital and operating. Also, a wetland was likely to have other uses, including having natural features with functions and values.

Management of the wastewater may enhance those functions and values. Also, the wastewater that was handled in the wetland system would return to the aquifer system from which it came. He stated that it was obvious that it would be treated to a fairly high level, but that was the standard for almost all options. Mr. Horton stated that there was an option of treating it to a very high standard and then be able to use the wastewater for irrigation purposes. While that was not currently economically viable, someday we may want to make use of that wastewater.

Marc Horton stated that the preferred alternative raised questions and some of those questions were not yet answered. He stated that there was still a lot to do in terms of pursuing the alternative. He stated that it looked attractive at the general sewer planning level. He stated that the next step would be to develop an engineering report which would involve a variety of types of activities in doing due diligence to see if it would work. Therefore, he thought an engineering report was in order to consider the finer details of such a system.

Marc Horton stated that the next steps were an engineering report, and doing the financial planning, and also working with the potential customers. He stated that the "trickiest" thing in the whole process was transitioning land that was currently on working septic systems to the new system. The reason it was tricky was because it was not required. He stated that we had a community that was getting along fine without a sewer system. The reason you needed a sewer system was because you could not build at the densities envisioned for the UGA; the densities would be precluded without sewer. The question was at what point it would be required and everyone would see that it had to happen and be willing to sign up for the system. He stated that he did not know where that point was, but we would have to work with the PUD to decide when that transition point was, and exactly how big to build the system. While there were proposals in the plan, they had to be refined.

Marc Horton stated that this was a General Sewer Plan and there was still a lot of work to do. He stated that they were still working with the Technical Review Committee. Before the county could adopt it, the Review Committee must approve it. Then it would go on to DOE and DOH for further review and final approval. He stated that there was a process still to come, including the engineering report and continuing to a final design. Mr. Horton thought the engineering report was scheduled for 2005 under the Capital Facilities Plan.

Tom McNerney stated that the General Sewer Plan had been available for a short time. Kyle Alm stated that it was available in hard copy from DCD or through the DCD web site under Issue Links.

Tom McNerney opened the public hearing by reading the public hearing process rules. He then invited public testimony.

Rebecca Lopeman, Port Hadlock, asked if anyone had studied how far it was from the bottom of the planned treatment facility to the actual aquifer. Tom McNerney replied that he did not think that had been done so far because there had not been an engineering study done yet. Al Scalf stated that, as part of the due diligence phase prior to the engineering report, the county would be looking at the hydrology and the hydro-geology to find that aquifer and to understand a cross section of it and its function and value in the wetland itself. He stated that the county wanted to do the due diligence portion of the planning in the next three months.

Tom McNerney stated that this was a general plan for a 20-year period based upon the population expected to locate in the area. He stated that the next phase would be to do an engineering study to do those things to answer such questions.

Russ Lopeman, Port Hadlock, stated that they had a well in that aquifer where it was proposed that the effluent be placed. He stated that the topographical maps they had seen showed that it would be within ten vertical feet of the static level of their well. That was between the bottom of the sewer treatment, or effluent, and the top of their groundwater in the aquifer. Therefore, they were concerned about contamination of their well. He stated that the Kivley Well was also in the same aquifer. He stated that all of Hadlock's water was coming from the same aquifer.

Rebecca Lopeman stated the concern that putting the effluent that close to the aquifer would cause a contamination problem, which would consequently necessitate treatment of the drinking water.

There being no further public testimony, Tom McNerney closed the public testimony portion of this meeting. He noted that the public hearing on the General Sewer Plan would be continued to the June 2 Planning Commission meeting. He stated that the Planning Commission would continue to accept written testimony until the close of the public hearing on June 2.

Tom McNerney invited questions and discussion by the Planning Commissioners on the General Sewer Plan.

Eileen Rogers asked Mr. Horton at what point the environmental review would occur. Marc Horton replied that the environmental review for this particular project, for all of the UGA capital facilities, was included in the Supplemental EIS in 2002. In this particular action now, where we were proposing to adopt a General Sewer Plan along with other capital facilities plans for the UGA, we had developed an addendum to the 2002 SEIS to address the information that had been developed since that time. He stated that the environmental review was continuing. Mr. Horton stated that the real question was whether there would be something that was potentially adverse or significant that would trigger a Supplemental EIS again. He stated that he could not answer that until we got into the details of the hydro-geology and separation from aquifers, etc. He thought that the point where we would get into that question would be at the engineering report phase.

Al Scalf stated that the county had the 1998 programmatic EIS for the Comp Plan, the Special Study EIS, and we now had a SEPA addendum for the UGA amendments. He stated that, again, it was a programmatic analysis of potential impacts. He stated that Page 2-16 of the draft UGA chapter contained a chart depicting the timing for future capital facilities planning. Then it would get down to permitting and SEPA. He stated that the permitting would trigger project level SEPA review, which may or may not require a SEIS at the project level.

Tom McNerney stated that the Lopeman's question was not addressed in the General Sewer Plan but it was one that should be addressed in the engineering report. He stated that was the document the Lopemans should be looking for to address their well protection issue. Al Scalf stated that the county had UDC regulations about protecting critical aquifer recharge areas, we had maps of those zones, there was the Coordinated Water System Plan, and a wellhead

protection study. Mr. McNerney stated that none of those studies indicated that there was a problem, but the Lopemans were concerned about what may occur as a result of the sewage treatment. Mr. Scalf stated that staff was very much aware of the concern and it would be studied again.

Jenny Davis referred to Page 4-11 of the sewer plan, stating that it did talk about discharge into the aquifer and the potential public health concern. She stated that Mr. Horton had talked about infiltration into the aquifer and that it was a benefit to the aquifer. Marc Horton responded that the benefit was that a large part of it would infiltrate back into the aquifer, if their calculations were correct and the soils were what they expected. He stated that you wanted to get rid of the water; you did not want it to just evaporate; you wanted it to go back into the aquifer system. Mr. Horton stated that the most important thing to keep in mind was that we could never build the system unless we could treat the wastewater to a high level before it ever reached the wetland. He stated that the county's own regulations on critical aquifer recharge areas, as well as DOE and DOH regulations, would prohibit us from doing anything that would contaminate the aquifer systems. He stated that we were pretty confident we could build the system and make it function. He stated that if there was a direct conduit for untreated wastewater somewhere in there, it would give some concern. However, right now, we did not see anything. Ms. Davis stated that her question related to the fact that the wastewater would be treated and, therefore, essentially "clean" before it was returned to the aquifer. Ms. Davis stated that she did not fully understand why it was a benefit. Mr. Horton replied that the best example was the Cedar River watershed where the water was diverted to the City of Seattle and then, after treatment, dumped into Puget Sound. He stated that there was a whole reach of the Cedar River that had very low flows as a result. He stated that treating the wastewater at a high level and leaving it in its proper place was the best solution. He stated that if we could find a way to do that, it was generally better. He stated that we could bypass the entire aquifer system and dump the wastewater into Puget Sound and continue to draw on the Kivley and Sparling wells. However, in the long term, you may want to see some of that recharged in order to have access to that water. He stated that it would be treated to a high level.

Tom McNerney stated that Mr. Horton had said that it would have to be highly treated just to be reused for irrigation. He thought Mr. Horton had said that it would have to be treated more than if it was just put back into the aquifer. He stated that he would think it would have to be treated more in order to be put back into the aquifer. Marc Horton responded that it was the point at which it entered the aquifer. He stated that there was always some kind of zone where there was treatment. He stated that the wetland itself would provide some polishing and treating. Mr. Horton stated that was the science of it; at what level could we put it into the wetlands so that it protected the aquifer, the wetland got some benefit, and that any water leaving that to an aquifer was treated to a high quality. He stated that they were working on those design standards now. He stated that would be the pre-treatment part, which was a constructed wetland that was lined.

Tom McNerney stated that DOE was concerned about wastewater getting into Chimacum Creek. He asked if that concern was unfounded. Marc Horton replied that DOE's concern was that Chimacum Creek had limited water quality for coliforms and temperature. What DOE was saying was whether the treatment system would hurt that or help it. Mr. Horton stated that the water that went into that natural wetland for disposal would be treated to a high level and there would be virtually no coliforms in it. He stated that there might

be re-growth because of ducks or geese that were using the wetland; there were probably coliforms in that system right now that may or may not be interfacing with Chimacum Creek. He stated that the point in the report was that, while there may or may not be an interface with Chimacum Creek, they did not think they would hurt the creek. Secondly, the big coliforms concern with Chimacum Creek was all the septic tanks that were adjacent to it on highly permeable soils. Mr. Horton stated that the sewer system would help that; it would not hurt it. He thought it would generally be a plus for Chimacum Creek to get places like Rhody Drive sewered. Al Scalf stated that it could be considered as recharge for Chimacum Creek to increase instream flows with the theory that the collection [the piping] was 100% fail proof. Assuming that occurred, the wastewater would go into the pre-treatment lagoon. Then it would go into the lined, constructed wetland for further treatment. And before it was discharged into the natural wetland, it would have to be close to a Class A water quality. Mr. Horton stated that Class A related to reuse and not discharge. He stated that discharge into a wetland was close to that standard, however. He described the treatment process for a Class A standard. He thought the planned treatment for this sewer system would be very close to a Class A standard before discharge into the natural wetland.

Phil Flynn stated that he saw that the constructed wetland was next to subdivisions, which would be on either onsite septics or community septics. That was one issue. Another was the mosquito issue. He asked how those two issues would be handled. Marc Horton replied that mosquitoes, geese and ducks were issues that needed to be managed and they were manageable.

Phil Flynn asked the Lopemans about the static level of their well. Russ Lopeman replied that it was about 60 feet. Al Scalf asked how deep their well was. Mr. Lopeman replied that it was 80 feet.

Bud Schindler stated that some of the literature he had received indicated that nitrates, nitrites and ammonia required higher temperatures to treat them. Concerning the constructed wetlands, Mr. Schindler asked if Mr. Horton was saying that there would not be any ammonia or nitrates in the discharged water. Marc Horton replied that there was always a certain amount of that in any discharge, so he could not say that there would not be any. He stated that to make the system work, they first had to characterize the wetland and hold discussions with DOE about what they could and could not do within that natural wetland area. That, plus an estimate of the loading coming in with the design standards criteria such that those ammonia levels that would be allowed to be discharged into that wetland would be met.

Bud Schindler stated that it seemed to him that there were still several unknowns. He stated that he kept wondering about the risks. There had to be a risk assessment for proceeding with this alternative. He thought it would certainly be more than some of the other alternatives. He asked if Mr. Horton was keeping that in mind as we proceeded. Marc Horton responded that it was a good question. He thought there were some good potential benefits to this alternative, but obviously there were some risks. He described the difficulties with a conventional treatment plant with a marine discharge and the risks with such a system. He stated that the thinking with this proposal was that we would proceed down a path that employed some caution by developing the hydro-geologic data, developing the information on what kind of treatment and pre-treatment systems we could use prior to discharge into the natural wetland, and working with the state regulators who knew these processes very well. Through doing that kind of due diligence before

constructing the system, if we came up against a fatal flaw, we could go to another alternative. He noted that it [another alternative] would be more expensive, however.

Bud Schindler commented that Mr. Horton had said that the permitting feasibility for a conventional mechanical system could be difficult. However, looking at Table 4-1 of the General Sewer Plan for a conventional system indicated "No substantial hurdles in the permitting process compared to alternative forms of treatment". He asked Mr. Horton to explain the difference between what he had been saying and what the table said. Marc Horton replied that he could not say, although when the table was developed, they were probably looking at the grand scheme of things and not considering time. He stated that they thought we could get a conventional system permitted, but it would take a lot of time and studies. Mr. Schindler stated that, on the other hand, the constructed wetland was given a note that indicated it would be less favorable in terms of permitting than a mechanical system. Mr. Horton stated that the reason for that was because we did not know the standards; we had EPA guidelines. He stated that as we went along on this alternative, we would not only have to do the studies, but we would have to deal with the regulators. That was probably a bigger unknown than going out into Puget Sound. He knew the discharge standards for that. He did not know the discharge standards for the wetland. So there was some uncertainty about what we would be up against. He stated that, in fact, the regulators may tell us we could not do it.

Bud Schindler stated that he noticed the differences between Table 4-1 and Table 4-2, which evaluated the alternatives. He noticed similarities in the evaluation criteria between the two tables. He asked Mr. Horton to explain the process. Marc Horton responded that they [the Technical Review Committee] initially were considering about twenty alternatives and were looking for ways to rule out alternatives. They did not care if an alternative had a high rating. The only thing they cared about was, if it had a low rating, it went off the table, knowing full well that they would come back later in the process and try to be more methodical and more numeric with their scoring. So it was not surprising to him that they came back two months later and came up with different outcomes. He explained that they had a different set of questions in that later process which resulted in a different rating. He stated that the two tables were done at different stages in the process.

Dennis Schultz stated that the UGA area was all glacial deposits, which meant there were different layers. He asked how much information we had about that now, especially about the wetland, and whether we would be doing core samples or using well logs. Marc Horton responded that he would leave that up to the hydro-geologist. He stated that we had a scope of work ready to go out now. He stated that it would start with existing information, stating that he understood there were some hydro-geologic reports that had been done for the area. If we needed to do core samples, we would. Al Scalf stated that was part of the due diligence phase which would be coming up in the next several months.

Phil Flynn stated that his question related to the confusion relating to the process. He thought that as we went through this, we continued to be confused. He wondered whether we would be confusing the regulators too. Marc Horton responded that had not been a comment from the state agencies. He stated that it was a process and he thought DOE and DOH understood that.

Marc Horton commented on the thought that perhaps the Planning Commission had an alternative the commissioners would like to see on the table.

Eileen Rogers referred to the constructed wetland treatment. She asked if she understood correctly that we did not yet know what kind of wetland we had. Marc Horton replied that we did not know the classification. Ms. Rogers asked for clarification about how the process would work, whether the studies would show us if we could do it or if the studies would go to the state, and they would tell us if we could discharge into it. Mr. Horton responded that the engineering piece would be toward the end. He stated that the first piece was to make sure we knew what we had in terms of classification of the wetland and its functions and values. Then we would go to the regulators and ask the questions about discharge to wetlands, because there were guidelines about that. We had to make sure we understood exactly what those discharge requirements were. Then we could engineer. Al Scalf stated that the engineering report also had a statutory basis like the General Sewer Plan. Prior to that, we would do the due diligence, which included the typing, classification and delineation of the wetland. Ms. Rogers asked about the cost to get to the point of classifying the wetland. Mr. Horton replied that his estimate was about $12,000.

Tom McNerney stated that there was a concern on some commissioners' part that this alternative was a novel approach or an experimental approach to a sewer system. He asked how many such systems Mr. Horton's firm had done and how many communities had such systems in the state. Marc Horton replied that his firm typically did not do design of sewage treatment facilities; it did planning level work. When it came to design, they usually involved a design firm. He stated that they had the design firm of Brown and Caldwell working on the General Sewer Plan from the start. He stated that firm had been involved in designing wetland systems, both within this state and elsewhere. Concerning systems within the state, there were two pilot systems and also a system in Cle Elum. Mr. McNerney stated the understanding that the Cle Elum system was an interim system until they put in a major sewage treatment system. Mr. Horton responded that he would not say that, stating that it was functioning now and taking the full wastewater loading for that wetland system. Mr. McNerney stated that he understood a wetland system in Olympia near the DOE offices would only handle the effluent and the solids would go back to a conventional system. Mr. Horton stated that was a set of polishing wetlands. Mr. McNerney asked if we would have a polishing wetlands or if we would have to have a primary treatment plant too. Mr. Horton stated that would be part of the discussions with the regulators concerning what we could discharge, because to a degree the wetland would be polishing. Mr. Horton stated that we might use the constructed wetlands for primary treatment. He stated that he was not planning a mechanical plant now. However, after looking at the loading, the land area, and the design criteria, we may come back to needing some mechanical treatment upfront. But right now, the bottom line was that we would have the constructed wetlands for primary treatment. Mr. McNerney stated that the studies would show if it would work. Mr. Horton responded that was correct.

Bud Schindler stated that his understanding was that it would be a three-step process, pre-treatment, a constructed wetland, and the natural wetland. He stated that the study would address how much pre-treatment would be needed before it was released into the constructed wetland. Marc Horton responded that was one set of design criteria. Another set was how big of a constructed wetland was needed to get to a stage where it could be discharged to the natural wetland. He stated that we did not know what those were yet.

Bud Schindler stated that lead to another question relating to costs, particularly the land costs. He did not see in the plan where the land for the natural wetland would be purchased. Marc Horton explained where the costs were located in the plan. Al Scalf explained the sizes of the pre-treatment lagoon, the constructed wetland, and the natural wetland, stating that costs for purchasing all of those lands were included in the plan.

Allen Panasuk asked what type of systems were being used now. Marc Horton replied that everyone was on onsite septic systems with either individual or community drainfields. Mr. Panasuk referred to the Port Townsend system, stating that such systems were proven, and asked if it was cheaper than what was proposed. Marc Horton replied that it was more expensive. Mr. Horton stated that we knew we would have a problem with a conventional system discharging to Puget Sound. He thought we would have problems with any alternative, but he thought that particular alternative would be a more prolonged discussion. He stated that, with a land treatment and discharge system, the groundwater standards people would be involved. He stated that, whether it was groundwater or wetland standards, we would have to figure out what the design standards were specifically and meet those standards. He stated that the consensus of the Review Committee was that there was enough positive potential in that location and the use of that area, and the function of that wetland area, to pursue it. Plus it looked a little cheaper.

Tom McNerney asked for further clarification about how many steps there were in the system. Marc Horton described the system. There would be a pre-treatment step of some type. Then there would be a lagoon to settle out a lot of the solids, basically an aerobic lagoon. Then it would go to the constructed wetland and then, from there, to the natural wetland.

Tom McNerney asked again how many of such systems for small communities were operating in the state. Marc Horton replied that the Cle Elum system was the only one in the state that was taking raw wastewater. He thought the bigger systems in the state that used wetlands were all polishing systems.

Bud Schindler read a comment from Brown and Caldwell concerning using mechanical pre-treatment to manage the wetland size and accumulation of debris. He stated that there was no doubt in his mind that the sewage treatment system would impact the real estate values around the system. Marc Horton responded that it would depend on the buffer around the system. He stated that all of the land proposed for purchase for the system would not be used for the actual treatment system; it included a buffer. That would be where the engineering report would come in. It would detail how you would actually configure the system. Mr. Schindler was concerned about the odor that may be generated and the impact of that on neighboring residential property. Mr. Horton responded that, again, just because we were planning to buy a certain number of acres, it did not mean we would use all of it for the treatment system. He stated that the buffers were considered in the acreage factor.

Phil Flynn stated that there was year round water standing in the natural wetland. He asked, if the topography was not adequate for the volume we would be putting in there, how we would contain that natural wetland without changing the topography through construction in order to accept hundreds of thousands of gallons of water every day. Marc Horton stated that the work they had done so far was to look at the information on what we knew about the

wetland and made estimates on the infiltration rate. The question was how much it could accommodate and whether we would have to look at storage, and if so, how much and for how long. He stated those were questions we did not yet have answers to. That was the basic design question. Mr. Horton stated the belief that the wetland was large enough to accommodate the waste flows from the community well into the future, beyond twenty years. If that was not the case, we would need to stop and rethink the issue. He stated that there was another alternative. That was to go to groundwater recharge in another adjacent area. He stated that we were reluctant to do that unless it was an area that was not designated for intense development. He agreed that there was a whole bunch of questions that would have to be answered.

Bud Schindler stated that as he looked at the cost associated with the STEP system, the plan had the costs for tanks and pumps for every user. The question arose that if some had a pump system now, why you could not re-route the pump into the system. Also, he asked if you would purchase the existing pump systems from the landowner or ask the landowner to purchase the tank and the pump. Then the cost would not be realized in the analysis. Marc Horton stated that it would still be a cost to the landowner, even though it would not show in the capital costs for the system. Mr. Schindler stated that the sewer rates would be less. He thought the transition for people who were currently on conventional septic systems would be less, although they would have to be inspected and approved to have a pump system. He stated that if someone wanted to come in, in the meantime, and build a multi-family complex, before we had the main system going, with a temporary system where they could pump into the main system when it was available, they would be ahead. He thought taking that into account would make the STEP system more cost effective. Mr. Horton stated that when you looked at the cost of a system, you needed to look at the whole cost to the landowner. Putting in a tank and pumping system would still be a cost to the landowner whether they did it themselves or the county did it as part of the system. It made no difference; it was still part of the cost of the system. He stated that when the Review Committee was evaluating the cost of the system, they considered all of the costs for that system.

Concerning the STEP system, Marc Horton stated that they had talked to the City of Lacey because they had such a system. He stated that they operated the whole system because it was more efficient in order to control the type of equipment and maintenance. Mr. Horton stated that the people who had such systems were telling us that it was incredibly expensive to maintain. Therefore, the Review Committee had decided to drop the STEP system from the list.

Jim Hagen asked for clarification about the pre-treatment and the lagoon for the settling of solids. He asked if the lagoon was prior to the preliminary treatment. Marc Horton explained that it was the preliminary treatment. He referred to the email received, which was actually talking about the possibility of some kind of mechanical treatment prior to entry into the lagoon. Mr. Hagen referred to Mr. Schindler's comment about odor control and asked how that would be controlled. Mr. Horton replied that it could be designed such that the odors could be controlled. He cited a wetland treatment system along I-5 as an example.

Bud Schindler stated that, in considering the residential lands around the proposed wetland treatment area, he had looked at the Indian Island alternative. He wondered why you could not do preliminary treatment on Indian Island followed by a wetland and then do groundwater recharge on

Indian Island. He asked why that would not be more attractive because it would not use land within the UGA, which had to be more valuable than land outside the UGA. Marc Horton stated that he had liked that alternative as well, although there were costs of infrastructure to pump the sewage to Indian Island. Plus there were the issues of dealing with the Navy to get access to it. He stated that there were both permitting issues as well as dealing with the Navy. He stated that in looking at the costs was where the Indian Island alternative fell out.

Tom McNerney stated that we had a wetland that did not go dry all year. That indicated to him that it was possibly not as porous as we might think. Then we were proposing to dump a lot of extra fluid into the wetland. He asked if it would overflow the wetland. Marc Horton replied that his first response was, given the size of the wetland, it would take a lot of water to even raise it a quarter of an inch. They had done some preliminary calculations to see whether there was enough percolation in the wetland and whether the wetland would hold the volume of water without significantly raising the level of the water. He stated that their preliminary calculations indicated that it would work. Mr. Horton stated that they would do better calculations of the hydrology and the wetland characterization in order to figure that out. If it could not handle it, we would have to consider something else.

Tom McNerney referred to the STEP system again. He thought that early in the discussions there was some thought given to, if a contractor wanted to build a more dense single family residential development than could be handled by regular septic systems, they could use a STEP system and pump the effluent to the sewage treatment system. Marc Horton stated that, while that would work, it was not part of the proposal.

Tom McNerney stated that the population forecast for the UGA was 5,000 people in the twenty years. If there were concentrated population centers and those residences used a STEP system, it would not produce any more load on the system than it would if you put a 3-story apartment in. The reason was because you would not have any more people either way. Marc Horton responded that it was still a STEP system. Once that was in, it would still have to be operated and maintained and that was where the costs were. Mr. McNerney stated that his question was, if the county allowed a contractor to build a high density residential area and use a STEP system to pump into the treatment facility, whether it would create any additional load on the treatment system from what was already planned. Mr. Horton replied that it would not. Mr. Horton stated that one thing to know about a STEP system was that it did affect the design of the system because it did treatment in the tank. Mr. McNerney stated that you would get more fluid but it would not be as high a strength so it could be beneficial to the treatment system. Mr. McNerney stated that he was saying that, if there was a more intensive use in the single-family areas, we would still have the 5,000 people that were forecast.

Tom McNerney referred to the multi-family areas, and assumed that the plan raised the capacity of the system because of assuming there may be more people in that high density housing area, rather than basing the calculations on the 5,000 people in the forecast. Instead they were based on how many people we could put in the multi-family zones. Marc Horton explained that this iteration of the General Sewer Plan was the third iteration. He stated that the third iteration resulted because of the suggested changes to the zoning the Planning Commission had proposed, where the multi-family areas were increased along with some of the commercial zoning. Mr. Horton stated

that he was instructed to develop a sewer plan to service that area. When you were obligated to serve an area, you designed the system to accommodate the flows. So with the zoning changes proposed, it went from an average of twelve units per acre to eighteen units per acre for multi-family and almost doubled the acreage to be served. Therefore, the volumes would be expected to go up. The costs went up but not quite as much as a 1:1 ratio because of certain factors that had already been designed into the system. Mr. Horton stated that the reason they did it was because they needed to design a system to serve the core area at a level that might be there. Mr. McNerney stated that same population study assumed four residential units per acre when we knew that we already had much more dense land division in those areas. Mr. Horton stated that we were not sewering that area. Mr. McNerney agreed, but stated that we might be sewering some of it with STEP systems if we saw that high density development. And Mr. Horton had said that a STEP system would not influence the main sewage system. Mr. Horton stated that he thought Mr. McNerney was asking in terms of a neighborhood level. He stated that at some point, STEP systems went into interceptors to pump large volumes of waste and those had to be sized accordingly. That was the backbone of infrastructure to accommodate the waste. He stated that you did not want a line running down Chimacum Road that was not big enough to serve the area you projected to serve in twenty years. Mr. McNerney stated that the plan calculated, not the actual population forecast, but the population that could show up over the twenty years. Mr. McNerney stated that if the commission rezoned those lands back to what it was before, we could cut off $1.5 million in costs. Mr. Horton agreed, stating that in the area that was zoned for sewer, we did not know if it would all show up in one area or another, but if it was trimmed back to what it was before, the infrastructure costs were lower. Mr. McNerney stated that his concern was, if we added another $1 million, at what point we priced ourselves out of the business and were designing for something that we did not expect to happen, again citing the small residential lots in the UGA. Mr. Horton reiterated that we were not serving those residential areas. He stated that if the county told him to plan to serve those areas, he would have to plan for infrastructure (interceptors, etc. for STEP systems) to serve that area. Mr. McNerney stated that the original proposal to allow that to happen had been dropped then. Mr. Horton agreed that it had been dropped. He stated that the basic costs to do that had been $12 to $14 million. Mr. Horton stated that they could design whatever system the county told them it wanted. He stated that, right now, they had a proposal that was twice today's expected flows if everyone was on it. It was generous, stating that we may want to cut back on the size of the plant, adding that scalability was a big issue. He stated that the core infrastructure to serve the area had to be sized appropriately. Also, if you wanted to include some high density residential areas, it would expand the area significantly. Phil Flynn stated that if you started moving density out into areas that were not planned for sewer, it would increase the traffic and sewer costs significantly and that would have to be considered. Mr. McNerney stated that he thought it was an unintended consequence of zoning for the multi-family dwellings. He stated that, while we expected a certain population, the costs had gone up not based on that population but based upon the square footage of the multi-family. Mr. Horton stated that the question the zoning raised was, from the original buildout analysis which considered an average of twelve units per acre, what that was based upon. It was based on the land capacity analysis for the next twenty years. Then you increased the multi-family zoning without considering the population forecast. Mr. Horton stated that, in fact, the multi-family zoning at eighteen units per acre would handle 4,000 people and that was really what Mr. McNerney was getting at. That was the entire population of the area in twenty years and

it would not all go into the multi-family areas. Mr. McNerney stated that the question was why we were spending money on something that was not going to happen. Mr. Horton stated that they did what they were asked to do, which was to sewer the proposed area. He stated that it was generous; they had created a backbone that would go beyond twenty years.

Tom McNerney stated that if it got down to the engineering studies and we found that it would not be financially feasible, one way we could reduce the costs would be to rezone those areas in a more restrictive manner. Marc Horton agreed, adding that phasing could also be used. He stated that, originally, the first phase was to sewer the core of Hadlock, but now Rhody Drive had been added to the initial phase. We could go back and make Rhody Drive a separate phase or even split Rhody Drive into two phases. Mr. McNerney asked if the costs could be segregated to separate Rhody Drive from the core. Mr. Horton replied that they could. Mr. McNerney stated that Rhody Drive was pretty well occupied and they were all on septic. It would be more intensification that would necessitate the sewer system. If the local people had to pay for it, it may be a long time coming. Mr. Horton agreed that it was always a balancing act to bring the people in and to keep the costs down but to focus on the system. Mr. Horton stated that, in his opinion, it the costs needed to be further constrained, the way to do that would be to further restrict the zoning.

Dennis Schultz stated that he was familiar with aquifer recharge percolation ponds. They had a certain life before they had to be stopped, drained, cleaned, and scraped before they could start working again. He asked about the life of the ponds in the proposed system. Marc Horton stated that the constructed wetlands would be intensively managed. The other question, that he did not have an answer to, was the life of the natural wetland. No one knew. He stated that they were naturally aging and would fill up over time with plant growth, etc. It was probably not within a couple of generation's lifetime. Mr. Horton stated that the main thing was that the stuff going into that wetland would be very light in nutrients and would not contribute to the aging of that wetland system beyond what would occur naturally. He stated that the load should be handled by the initial constructed lagoon system.

Bud Schindler stated that there were inherent risks with the constructed wetland followed by the natural wetland. However, he did not see that in the evaluation and how it related to the other alternatives and their risks. He stated that he believed that risk management was an important part of any evaluation. He stated that he would be more comfortable if the evaluation took into account the risks. Marc Horton responded that he understood. He stated that, first, you would not build something unless you were pretty comfortable that it would work. He stated that if it could not be demonstrated that it would work in this area, chances were that we would not build it. He stated that the technical people they had talked to had indicated that there was no reason it could not work. Mr. Horton stated that the attraction was the kind of features the wetlands system would bring to the issue. He stated the belief that there was a risk analysis done for each alternative. He emphasized that they did not design a system to fail; with each one of them, there was a pretty good confidence that the system would perform before you spent the money. That was what the engineering reports and the agency reviews were all about. Mr. Horton stated that, in a report he had done, he raised questions and the DOE comments indicated that they did not know that they could review it because of those questions that had not been answered. He stated that the engineering phase of the process should

answer those questions, but not at the General Sewer Plan level. If you had to come back because of a fatal flaw, you would redo the General Sewer Plan and find another alternative. That was the planning process; it should be adjusted as you adjusted your thinking. Mr. Horton stated that he was moving forward with the advice of the Technical Review Committee knowing full well that there were some difficult questions to answer, although not all that expensive to answer.

Tom McNerney stated that the county had received two comment letters from the state (DOE and DOH). He asked if Mr. Horton had answered those comments, either in the plan or directly. Marc Horton replied that some of the comments had been addressed in the revised Sewer Plan as much as possible. Some he could not answer at this stage of planning. Mr. Horton pointed out that the Comp Plan amendment process was a separate process from the DOE review of the General Sewer Plan under the code, and they could be dealt with separately. Mr. McNerney asked for a copy of any response letters to DOE or DOH from Mr. Horton. Mr. Horton responded that he had largely answered the questions in the sewer plan but the question was whether they [the state] would be satisfied with that.

Phil Flynn asked when Brown and Caldwell would be brought on board, if they were the ones to do that work. Al Scalf replied that we currently had a proposal to fund the wetland characterization study, the hydrology and the hydro-geology components. It could not go forward until the contract was extended to include that work. Marc Horton stated that the first task would be for the sub-consultant to work with the state agencies to define the criteria. Mr. Scalf stated that he would be drafting a contract extension to present to the BOCC.

Tom McNerney stated that a 6-year Capital Improvement Program was part of the UGA Comp Plan amendment. The Capital Improvement Program contained figures for each year, although it did not say what the money was for. He asked, if the Planning Commission was to recommend approval of the Capital Improvement Program, if the commission could receive a breakdown for those figures. Al Scalf referred to Page 2-16 of the UGA Element, which contained Table 2-3. Table 2-3 depicted the costs and timing for the next steps in the sewer planning. Mr. McNerney commented that it would be helpful to the public to describe what would be included in the engineering report. Mr. Scalf stated that each portion of the engineering report figure contained a sub-cost report for each phase.

Al Scalf reviewed the costs on Table 2-3. Marc Horton stated that the total of $5.885 million was not actually in the General Sewer Plan. The amount was the broken out portion for Phase I from the total of $9 million, which was the figure in the General Sewer Plan. Al Scalf stated that staff would prepare spreadsheets to show the breakdown for the figures.

Tom McNerney stated that he had asked that the UGA Committee meet a couple of times to review the General Sewer Plan. Those meetings were scheduled for May 25 and June 8 at 6:30 p.m. at WSU.

C. DISCUSSION ON UGA PLANNING IN HADLOCK/IRONDALE

Tom McNerney stated that the packet handed out at this meeting was the updated packet for the Comp Plan amendments, which would go to the public hearings on June 2 and June 16.

Al Scalf reviewed the parts of the handout. The first item was the Staff Report and SEPA Addendum. It was not part of the Planning Commission approval but was for the commission's information. It contained the staff recommendation. It was noted that the staff recommendation may or may not change based upon the Planning Commission's deliberations.

The second document was the Notice of Intent to Amend the Comp Plan, including the Planning Commission public hearing notice.

The secretary pointed out that the Planning Commission should formally continue the hearing on the sewer plan.

Allen Panasuk moved to continue the public hearing on the General Sewer Plan to June 2. Eileen Rogers seconded the motion, which carried unanimously.

The commissioners returned to a brief review of the packet of handouts.

The next document was the UGA Element. Al Scalf stated that the four colored maps went with the UGA chapter. Tom McNerney stated that the UGA Element and the four maps would be the subject of the June 2 public hearing.

The next document was the Transportation Plan. Al Scalf stated that portions of the Transportation Plan were contained in the UGA Element and the full plan would become an appendix of the Comp Plan. Tom McNerney raised the possibility of having a Transportation Plan that was referenced in the Comp Plan but was not actually part of the Comp Plan. Mr. Scalf stated that it was something to discuss. Mr. McNerney stated that the thought was to treat it similarly to the Park Plan, which was not part of the Comp Plan. In that scenario, the Transportation Plan could be revised without having to go through the Comp Plan amendment process.

The next document was the Stormwater Management Plan. Al Scalf stated that the UGA chapter contained some references to the Stormwater Plan and the actual plan would be an appendix to the Comp Plan. It would be the subject of the hearing on June 2.

The next document was the General Sewer Plan. Al Scalf stated that, by continuing this hearing, the commission could take more public testimony on it at the June 2 hearing. He stated that the General Sewer Plan would become an appendix to the Comp Plan. Tom McNerney stated that the UGA Committee was being asked to review the sewer plan. Eileen Rogers asked if the citizen members of the UGA Task Force had been provided a copy of the sewer plan. She suggested that copies be provided to the Task Force members as a courtesy.

The next document was the line-in/line-out amendments to the other chapters of the Comp Plan.

The next document was the UDC amendments for the UGA, which would be a stand-alone chapter of the UDC. The back of the document contained the line-outs for the rest of the UDC. Tom McNerney asked that the UDC Committee take another look at the document to make sure the Planning Commission's suggested changes were done.

The last document was the UGA Buildout Analysis including population projections. Tom McNerney asked the UGA Committee to review that document.

Tom McNerney described, for the new commission members, the items that would be the subjects of the two public hearings on June 2 and June 16.

Tom McNerney stated that there were two new Planning Commission members and vacancies on two of the commission's committees. He stated that he would speak to the new members about participating on those committees.

In response to Allen Panasuk's question, Tom McNerney explained the timing for the hearings and target date for a recommendation to the BOCC.

Al Scalf raised the issue of the suggestion for providing the packet to the UGA Task Force members. It was agreed that the Task Force should be provided a courtesy copy of the UDC document because they had worked so hard on it. It was also suggested that a cover letter from the chair of the UGA Task Force accompany the UDC document.

D. ADJOURNMENT

The meeting was adjourned at 9:20 p.m.

E. APPROVAL OF MINUTES

These minutes were approved this _____ day of June, 2004.

_____ _____

Thomas McNerney, Chair Cheryl Halvorson, Secretary