1. **6:30 P.M. CALL TO ORDER**
Chair Lane called the November 9, 2011 special meeting of the Thurston County Planning Commission to order at 6:30 p.m. Commissioners provided self-introductions.

**Attendance:** Chair Chris Lane, Commissioners, Christine Spaulding, Bill Jackson, Scott Nelson, Kathleen O’Connor, Liz Kohlenberg, Chris Earle & Jennifer Davis

**Absent:** Ed Fleisher

**Staff:** Jeremy Davis, Andrew Deffobis, Cynthia Wilson, Scott Clark, Nadine Romero with Water Resources, Art Starry with Environmental Health & Gerald Tousley with Environmental Health

**Guests:** Karla Fowler, LOTT, Ken Butti, LOTT, Farah Derosier LOTT, Dan Smith, City of Tumwater, Chris Cleveland, Brown and Cauldwell, Peter Brooks, City of Lacey & Rich Hoey, City of Olympia

2. **6:31 P.M. APPROVAL OF AGENDA**

**MOTION:** Commissioner O’Connor moved to approve the agenda. Commissioner Nelson seconded. Motion carried as amended.

Karla Fowler, LOTT, Ken Butti, LOTT & Farah Derosier LOTT were also added as guest speakers.

3. **6:32 P.M. PUBLIC COMMUNICATIONS (Not associated with topics for which public hearings have been held.)**

1. **William Hilton – 400 Valley Avenue NE Puyallup, WA 98372 – Spoke in regard to Mineral Lands.**

The official audio is available on line at:

http://www.co.thurston.wa.us/planning/planning_commission/planning_comm_minutes.html

4. **6:32 P.M. WORKSESSION: CAO - CARA’s and Distribution of New Material**

**Staff:** Scott Clark, Cynthia Wilson, Jeremy Davis & Andrew Deffobis

**Guest Speakers:** Karla Fowler, Ken Butti & Farah Derosier

Mr. Clark started the presentation with a brief overview of the process. A power presentation will be given on the background of a critical aquifer recharge area, major changes to the ordinance, how the CARA’s are being determined and then addressing any kind of public health concerns.
Mr. Deffobis then continued the presentation. The CARA’s Chapter is the last chapter that the Planning Commission will review. Some changes to the second draft that was handed out last week were then reviewed. The changes include amending the critical aquifer recharge area characterization to include geologic features, amending the land use table based on information from Environmental Health and the County’s hydro geologist and then also looking at some added and amended standards to all the text that follows the land use chapter in the proposed table.

The categorization of critical aquifer recharge areas was then discussed. The existing critical areas ordinance characterizes CARAs using soil susceptibility ranked from category 1-4 and then also wellhead protection areas for large wells. Those are covered separately in the critical areas ordinance. In the most recent draft, staff proposed to continue using wellhead protection areas folding them into critical aquifer recharge areas as category 1 and then outside of that staff used soils susceptibility and geologic formations to determine where other areas will fall in categories 1-3.

Detailed section starting at 00:06:17

Nadine Romero: Well actually I probably had one of many, probably around 60 geologic cross sections I prepared for the county and I kind of brought this one to give you a big scale or a sense of scale of our geologic units in the county and what we are protecting when we talk about drinking water aquifers. Yeah this is from new DNR geologic maps and basically these have all been revamped from older maps as early as the 1950’s with the “inaudible” we have new delineations of geologic units in the county and basically that’s what we are in the game about protecting the actual aquifers and units and I had a hard time with the soils maps, characterizing agricultural soils, Characterizing facility sighting standards and so it didn’t really make any sense because agricultural soils if anything there you’re talking about a foot, two foot, three foot depth and so the idea is to actually characterize through the geologic units themselves. What are the critical aquifers, what do we mean by those aquifers and so the “inaudible” this past decade has allowed the state geologist to revamp all of the geology maps and so one of the things that I asked Planning to do was to go ahead and use these maps for the CARA I, II and III’s so we actually get into the actual geologic units themselves. And so yes we have many cross sections of the County that I hope to publish, people can have specifics but then I also gave this kind of scaled geologic cross section as you can see we are talking about a thin venire of glacial, inter-glacial units resting on top of these volcanic “inaudible” and sand stones. And so each of these units have their own vulnerability. So I related them back to the old CARA’s by geologic unit and so we want to protect key critical areas that are a big drinking water supplies and we wanted to note hey well here is where till is and so essentially the new change is incorporating all of these geologic units that you see. That’s really basically it I went ahead and drew up a cross walk from the County so you can see from the old CARA’s to the new CARA’s what those would be. Here’s the old agricultural soils, and here’s how they relate to the new geologic units. We’ve done a lot more of science studies ourselves we understand how these units operate, their hydraulic properties and so essentially we can tell the vulnerability of them
through some of these hydraulic conductivities that we come up with. So that’s really it in a nut shell it’s basically going, converting to the state geology maps. I think the state geologic is very pleased with that as well and I think that we’ll be one of the few County’s to actually head that way but it makes sense cause when I get a lot of cases that come in the door I’m going to be assessing these cases based on geologic units.

Commissioner Kohlenberg: It’s because were so late, that’s really nice, wonderful.

Nadine Romero: Thank you, thank you.

Commissioner O’Connor: Do you have a copy of that cross walk that we could have?

Nadine Romero: Yes, I have a pdf of it.

Mr. Deffobis: Yes, I already wrote it down and will get it for you guys.

Mr. Davis: We also remember we added the new tables that shows that cross walk at the end of the ordinance.

Mr. Deffobis: Yes, correct.

Detailed section ending at: 00:10:00

No further questions were asked of Ms. Romero. Mr. Deffobis continued the discussion on added standards to the chapters were there were uses listed in the table but not in the text below the table. Most of these were pre-existing. Some amendments were also made to text that already were in the ordinance draft.

The next steps for staff is to distribute other second draft materials to the Planning Commission next week. Any available best available science summaries that staff has been able to turn out and other supplemental information will also be distributed. The public hearing is still scheduled for December 10th and staff is coordinating all of the details as that is coming up as well.

Mr. Clark then continued. Both the state and county plans call for the use of reclaimed water and have supported it greatly. LOTT has moved forward over the years and the jurisdictions have moved forward over the years planning to use reclaimed water for a variety of uses. One of the things that has happened in probably the past five years is we’ve got a new body of science that is coming out that’s discussing emerging constituents of concern and just how concerned we should be about them and reclaimed water or not. This is what will be discussed tonight.

Art Starry then discussed concerns being brought up about contaminants and emerging constituents of concern. A letter was passed out from the Thurston County Health Officer, Diana Yu who also discusses these concerns. It also asks the Planning Commission to take caution when they consider how infiltration facilities are going to be
considered and allowed within the critical aquifer recharge area chapter. She also recognizes that within Thurston County with very few exceptions everybody relies on ground water as their drinking source. The world health report was then cited from 2011 in regards to this issue specifically with pharmaceuticals in our drinking water.

Detailed section starting at: 00:23:53

Karla Fowler: Thank you. I really appreciate the opportunity to be able to meet with you tonight. I’m Karla Fowler. I’m the director of community relations and environmental policy for the LOTT Clean Water Alliance. We have been following development of this chapter particularly as you’ve already heard because of our active reclaimed water program and also because of our biosolids program. So one of our staff members Ken Butti will be talking about biosolids after we finish some of the reclaimed water discussion. We certainly appreciate your need to make informed decisions and you’ve got some challenging decisions to make here about these regulations. I do want to point out in the draft that you have before you now we do have a couple of concerns because we do feel that the focus on reclaimed water is disproportionate to the actual level of risk based upon the best available science that is out there today and the extra layers of regulatory requirements have been added to what is already a very highly regulated utility and I will be talking about that a little bit. We thought that it might be helpful to provide some background about reclaimed water and ground water recharge and some of the best available science for the compounds of emerging concern issue and as Scott has already told you we have a couple of other individuals here who can help answer questions tonight as well. Chris Cleveland from Brown and Cauldwell is vice president of that organization and they have worked on LOTT extensively on developing our reclaimed water facilities and plans over the years and the hydro geologic work that has been done for our ground water recharge sites so he will be able to answer technical questions that you have. Ben McConkey he is our former operations supervisor and assists with environmental evaluations and activities for LOTT as well now so he will be able to help with any operational questions that you have and Ken Butti as I mentioned is our biosolids person. A little bit about LOTT in case you are not familiar we are a partnership of four governments Lacey, Olympia, Tumwater and Thurston County specifically for the purpose of wastewater management for treating wastewater and producing reclaimed water within the greater Lacey, Olympia, Tumwater urban area so the cities and the urban growth management areas. I can assure you we are all equally concerned about protecting public health and the environment and we’ve designed our programs and activities completely with that in mind. We operate under a wastewater resource management plan that was approved by all four partner governments as of January 2000 and we’ve been working on implementing that plan since then and the relationship with the partners is determined by and inter local agreement that was put together specifically for the purpose of implementing that plan at the time that it was new. Wastewater treatment facilities are considered essential public facilities and we take that responsibility seriously. You will find that LOTT has an excellent track record for designing, building and operating facilities and meeting all permit regulatory requirements. Our central Budd Inlet plant is in the downtown Olympia area we treat to advance secondary standards at that plant and about ten to twelve million gallons a day is
discharged of the treated flowing that’s discharged into Budd Inlet. Advanced secondary
standards means a secondary treatment plus nitrogen removal in this case. We treat to the
highest level anywhere in Puget Sound we are still the only municipal wastewater
treatment plant that has nitrogen removal, that was a step that was taken by the LOTT
partners in mid 1990’s and has proven to be very important for our operations and you
will be finding in years to come that other plants on Puget Sound are having to move in
that direction finally as well. At the Budd Inlet plant we have a sand filter facility that is
used to treat a portion of the already treated and disinfected affluent up to Class A
reclaimed water standards and that plant has the capability of treating up to one and a half
million gallons a day to reclaimed water standards. Were not actually producing that
much, what is being produced is being used in the downtown Olympia area at Heritage
and “inaudible” Parks for irrigation. The City of Olympia is the actual preparer in this
particular case and also the Port of Olympia is using reclaimed water for irrigation and
other uses on the port peninsula. We have also built a satellite plant. This is our Martin
Way reclaimed water plant. It is located in Lacey on Martin Way as it indicates and this
plant was built initially to treat two million gallons a day, two Class A reclaimed water
standards. It uses a different technology than the plant that’s in the Budd Inlet plant,
which is the sand filter system, this one is a membrane bio-reactor system. It uses very
fine membranes for purposes of additional filtration of the water and that brings it up to
Class A reclaimed water standards. We are actually treating, last year it was an average
of just over one million gallons a day so were not up to full capacity at that plant yet.
Class A reclaimed water is used for a variety of purposes, irrigation is still the most
common use and that is the most common community use that were using it for now but
there has been others as well, pressure washing is an example this is on the steps of the
Capitol Building you can see that was one of the first uses of our reclaimed water.
Decorative fountains and ponds are another very common use of reclaimed water this one
is just right outside our administration building in downtown Olympia. Then this site is a
forty acre site where LOTT built a series of reclaimed water ponds. The water coming
into these ponds comes from our Martin Way reclaimed water plant and it’s about three
miles away, this is in the Hawks Prairie area so these are in Lacey also. At the bottom of
this picture these are ground water recharge basins so that of course is the primary topic
of what you’re talking about here. LOTT has already invested over seventy million
dollars in reclaimed water facilities and our long range plans have us building several
hundred million dollars worth of additional facilities. These are the current plans based
on Class A reclaimed water standards and using ground water infiltration as the ultimate
disposition of the water. Ground water infiltration will only be used for water that isn’t
pulled off along the way for other purposes, for irrigation, for toilet flushing, for any
myriad of community uses and all three of the cities will have opportunities to be using
reclaimed water from our varies facilities. I wanted to provide a little regulatory
perspective about reclaimed water. This is as I have indicated a very heavily regulated
industry. We are regulated by the federal water pollution control act which we also know
as the clean water act, by RCW Chapter 9048 water pollution control law, RCW 9046
that’s the reclaimed water act and the state RCW 4370 those are department of health
regulations associated with reclaimed water as well and state reclaimed water standards
that are in affect and those are in the process of being updated and expanded in the form
of a new reclaimed water rule which will become WAC 173.219. That rule is currently
on hold due to the Governor’s moratorium on rule making but right now is expected to
get active again in mid 2013 so we’ve got a ways to go but the rule itself has actually
been drafted and there is work proceeding on a guidance manual to accompany that rule.
The State of Washington considers reclaimed water as a resource and so do we in our
local communities and this is one of the major reasons why we pursue reclaimed at all.
The states statutes the standards, the developing rule all encourage reclaimed water
distribution and use in the State of Washington. There are currently about twenty four
reclaimed water systems in operation in the State of Washington and there’re is about an
equal number in various stages in planning design and construction around the state.
Reclaimed water permits are issued jointly by the Washington State Departments of
Ecology and Health and there are currently four classes of reclaimed water defined in the
state class of A, B, C and D. Class A is the highest quality, it is safe for public contact
and it is considered safe for virtually any use except drinking, direct drinking. And the
plans and specifications for all reclaimed water facilities have to be reviewed and
approved by both of those agencies. We have monitoring requirements of, pretty heavy
ones for the influent, the Class A reclaimed water and for ground water. Many of these
are required daily, sampling, some of them are quarterly, various schedules involved but
it created a lot of extra lab work us. So when we started getting into this business there
are a lot of redundancies built into the system to assure that no substandard water can
ever be released out into the community or to the environment. We take those very
seriously as well. The ground water recharge standards are currently based on drinking
water standards, primarily by the time the water reaches the aquifer it is required to meet
drinking water standards and we also have the ground water standards applied to our
permit as well, the ground water quality standards, WAC 173.200 which is also
referenced in your draft CARA. And our permit requires us to submit annual water reuse
summery plan also to both Ecology and Health describing additional uses that have come
online during the course of the year. Ground water recharge as I have indicated we have
one site in operation right now, Hawks Prairie which you saw the photograph a little bit
ago. This map shows you some other properties that we have purchased for additional
LOTT facilities. The ones that are in red are the recharge, the sites that have recharge
and so that’s the Hawks Prairie site up there. The other properties that we have
purchased this one is in the, the one we call the east Mullen area, is in Lacey’s urban
growth management area. This one the Henderson Boulevard site is in Tumwater’s urban
growth management area and then we have two others Rixie Road and South Deschutes
which are both outside of the urban growth management areas. So those are planned for
future use and most of them are a lot of years away actually. Henderson Boulevard
would be the next one that were actually looking at developing and that would receive
water, reclaimed water produced at the Budd Inlet reclaimed water plant.

Commissioner Kohlenberg: Can I ask you a question? You said there’re currently twenty
four facilities currently operating in Washington and another twenty four in development,
so we have three?

Karla Fowler: Roughly, we have two.
Commissioner Kohlenberg: And these, all of these would be considered in the twenty four under development or just a couple?

Karla Fowler: No, those are considered part of our existing systems because they would receive water from one of the two plants that we already have. Well I take that back we will eventually have a third and fourth plant. Our long range plan calls for ultimately having three satellite plants in operation, but right now the other ones aren’t part of the count cause there’re not in formal planning or design stage.

Commissioner Kohlenberg: Ok.

Chair Lane: Why is it necessary to pump the water all the way from Budd Inlet to this Henderson one and not just put it…?

Karla Fowler: Because well there is a couple reasons for that one is that treating it to a higher level allows it to be put to productive use back in the community and so that is the higher priority. When we started our long range planning process we had a very massive public involvement program and identified a bunch of public values at the beginning of the study to guide it. One of those was that we should begin treating waste water to a high enough level that we could put it back to beneficial use within the community instead of just throwing it away into the inlet. The other actually involved water quality in the inlet which is right now the subject of a total maximum daily load TMDL Study by the Department of Ecology, is that something that you’re familiar with or dealt with? A TMDL studies focus on bodies of water that do not meet current water quality standards and so there are studies like this that have taken place all around the state. There the active TMDL for the Deschutes River, Capital Lake and Budd Inlet has been underway since 2003. The state has done a technical study on that and currently we’re in the process of, there’s is an advisory committee, I serve on that and we will be over the next several months identifying load allocations which will lead to a water quality clean-up plan for the Deschutes River, Capital Lake and Budd Inlet.

Commissioner Earle: What is a TMDL for?

Karla Fowler: There are different characteristics for each piece of it in Budd Inlet the issue is dissolved oxygen and so every, the extent to which we can divert water from being discharged into Budd Inlet is that much less nitrogen, nitrogen is the particular concern that’s going into Budd Inlet and therefore can help with that water quality issue the same time that we’re putting water back to beneficial use within the community.

Commissioner Kohlenberg: “inaudible” for nitrogen anyway, “inaudible”?

Karla Folwer: Yes, we have substantially reduced the nitrogen going into the Inlet but not completely eliminated it.

Chair Lane: Sites that are on Henderson and the one out in Hawks Prairie; those are for infiltrate “inaudible”?
Karla Fowler: Correct. As we identify, as we research potential sites for groundwater infiltration and believe me there is a whole lot more than those that were actually looked at and didn’t meet the qualifications that we needed to meet for infiltration, these are the ones that actually did pan out based on preliminary hydrogeologic investigation and Brown and Cauldwell has been conducting those investigations for us so if you’re interested in more detailed information Chris will be the person who can help explain a little bit more about that and what’s involved. So we go through the preliminary hydrogeologic investigation before we purchase the property at all to make sure it is potentially suitable and meant to do the more extensive testing that occurs in the form of pilot recharge basins that we actually build on the site and we use portable water to test out where the water is going, the flow and then we do computer modeling for that as well. We went through all these steps for the Hawks Prairie basins before those got built. We also have to of course do SEPA evaluations for any of these facilities and go through a conditional use permitting for whichever jurisdiction applies in that particular case Lacey, for the Hawks Prairie site certainly through the County for a couple of these other sites. This is a close up of what the recharge basins look like in Hawks Prairie. They are also designed to provide yet another level of treatment and in fact there is about two feet of engineered sand to provide yet another layer of filtration over and above what the Class A reclaimed water has already received as it’s getting produced. The water has to meet the stringent Class A reclaimed water standards before it can even get this far. The way these are operated there used, they get wet and then we switch to another basin and allow the first one to dry out and then we are switching back and forth so that there is plenty of opportunity to recondition each site in between.

Commissioner Jackson: Karla I just want to clarify were we charging the aquifers eventually beneath these recharge areas is that the point of this because I am relatively new to this area and the science and I just wanted to clarify. That was my understanding but I wanted to be sure. So eventually we could be recharging the source of drinking water that were using from the wells. I mean is that the end result of this or anything else that that water is used for.

Karla Fowler: Well, part of locating these is that we’re not targeting drinking water aquifers directly. So this is shallow aquifers in this particular case, we make sure that were definitely not within a one year time of travel even for existing major water supplies for instance part of the initial hydrogeologic investigation is looking at where sources of drinking water are, where the nearest wells are, you know all that kind of information.

Commissioner Jackson: Where does this water go to? Where is the water in the recharge areas? Who uses that water? How is it being used by the community? I’m trying to get the cycle of where this water is going to.

Karla Fowler: The water for use within the community would be drawn off the pipelines before it gets this far normally. Now we have reserved the right to seek permitting for aquifer storage and retrieval but right now that’s not part of the existing program. So you know potentially we could be trying to store the water underground and then trying to
pull it back out for future use but that's down the road we don't have any immediate plans for doing that.

Commissioner Davis: So you looked at, I know that you are probably going to cover some of these I'm sorry but I can't wait any longer. Do you have the map of all the planned sites layered on top of what the proposed rule actually in our ordinance draft would look like in terms of the 1,000 foot set-back from the well head protection area and those sites layered on top of that? Has anyone done that type of analysis to see what the real scope of this issue is?

Karla Fowler: We have a staff member who's doing the overlays but he's, the maps are "inaudible" to get the new layers from DNR. So we just got those and haven't had a chance to put those layers on. We had over laid the previous ones and all of these sites except Hawks Prairie and one other were outside the one, five and ten year timeline of travel to drinking water sources. We do have in looking at the time of travel maps now we do have let's see the East Mullen site I believe is within a five year time of travel but that's as close as that gets. Now in terms of these other layers for geology we haven't had a chance to compare those yet.

Commissioner Davis: And so the follow-up is the same level of analysis or the same kind of criteria been looked at for impacts to aquifer fed streams and impacts on fish and other aquatic life. I mean I get the Public Health and Drinking Water side but are you also looking at that side just I mean on the same kind of level of analysis?

Karla Fowler: We definitely are looking at those. One of the other things we're looking at though is one type of use of class reclaimed water is also for environmental enhancements so stream flow augmentation, wetland enhancement those kinds of things and there is a lot of interest in stream flow augmentation and if we can, if the science is there to show that can work. What we are not trying to do is direct, direct discharge to surface water bodies but by using ground water infiltration first and allowing soil aquifer treatment that additional travel time and filtration that can come naturally from the soils then that can condition the water so as it reaches the surface water then it's in good condition for that but that's all part of analyzing and evaluating each site individually and for the specific uses that are in line for that particular location.

Commissioner Davis: Ok, thanks.

Karla Fowler: Conditions are different from site to site and so one set of standards may work for this site but may not be appropriate for that one. And that's part of the whole concept of best available science and doing the evaluations for each of the individual locations.

Jeremy Davis: Karla I have a question based on one of your statements about being inside well head protection areas. Does that mean that you're also; I mean you talk about all drinking water sources or just municipal ones? You're saying that all those types are
outside of the one, five and ten time of travel zones cause I thought that there were some nearby single drinking water wells.

Karla Fowler: For single drinking water wells that can be the case and in the case of the East Mullen properties we’ve purchased we are aware of a couple single drinking water wells that are nearby and we realize that if and when we develop that site we would have to mitigate for those and probably extent city water to those particular homes.

Jeremy Davis: Ok, I just wanted to clarify that to the Planning Commission. It’s not all drinking water sources it’s just municipal well head protection areas.

Commissioner Earle: Do you have transport studies for these infiltration sites to determine where they would discharge and the time of travel?

Karla Fowler: Yes that’s part of developing the planning for preparing for each individual site and the cities are actually working on a particular project now where they have also been extensively studying that particular…I’m going to defer to Chris.

Commissioner Earle: For instance it’s…

Chris Cleveland: Yes, Eagle Creek is where “inaudible” and then also migrates toward…

Commissioner Earle: The aquifers isolated from quotable water sources.

Chris Cleveland: So when we talk about time of travel and overlay were on surface.

Karla Fowler: Ok, I mentioned to you that our permits require and states standards require for infiltration that the water does move to drinking water quality. Ground water quality is also different in some cases and in some cases even more restrictive. Ecology’s requirements also require us to meet the groundwater standards and point of compliance is the property boundaries of the recharge site as well so these are really strict guidelines and certainly would be consistent with some of the kinds of things that you are looking at.

Commissioner Jackson: Karla I think you know that there is a big issue here and I’d like you to address it. I have read extensively that were facing a water crisis. That water is going to become as scarce as or as expensive as gasoline has become almost because of utilization perhaps global warming what have you. Do you have any input on this because I can recognize the very basic value of reclaimed water when we have a scarce supply in our future but you’re the expert, I’m just reading things from a magazine or an AP news flash but do you have a sense of where you are with this and the timing in this Northwest area? I know that people are already fighting over water rights; I mean there is all kinds of issues coming up so I would like to get a little input because reclaimed water could be one of the solutions and I want to see how bad you see the problem in the future.
Karla Fowler: You’re absolutely right that reclaimed water is viewed as a solution and can actually help supplement the potable water supplies and this is actually getting into the territory of the city since LOTT is a wastewater utility and they actually operate the water utilities so you may be planning to address this anyway.

Commissioner Jackson: Alright “inaudible” because I think that it’s part of this issue entirely.

Karla Fowler: It is definitely a big part of it and that’s part of it really, were having to move as a region really and to looking more holistically at water and complete watershed management issues. We not only have like the question you raised and the whole idea of valuing our own water so were not just throwing it away anymore but then we have these other water quality things going on like the TMDL’s which are going to effect, I mean decisions made in each of these arenas effects us and all of the others as well so it’s very important for overall water planning that we look at these, the total picture. We know, we certainly recognize the issues and concerns related to compounds of emerging concern. This is a concern and a major topic for us as well and we’ve been following the Cities issue for many years. The topic of course is not new these compounds have been in the environment for as long as we as human beings have been using the products that they come from. What is new, well relatively new is the level of detection. Advances in science enable us to now find these things at increasingly lower, very small trace concentrations so instead of parts per million or parts per billion it’s possible to measure parts per trillion and even parts per quadrillion and in doing so that’s how we’ve been able to identify some of these. Unfortunately the capabilities of our science have out strict the ability to know what that means and that’s really the type of thing that Scott was talking about in terms of the World Health Organization findings as well. Wastewater treatment plants were never designed to move contaminants at that very fine minute level. That being said though a lot of effort has gone into studies in the recent years to look at just what kind of removal results we are getting. We have been monitoring this entire issue since our original long range planning process in 1995. The decision to move forward with reclaimed water was based on best available science at that time and actually we have not seen any change despite the increasing amount of information that’s coming out to change the direction that we’ve been moving in. We’ve struggled to find the best balance between public health and the environmental protection and still having a manageable program and controlling costs as well for the rate payers throughout the system. So what do we know? These compounds are in water, various sources throughout the environment because we put them there. No one treatment, technology removes everything. There is no such thing as zero. No matter what strategy we try to look at were not ever going to get there and part of the reason for that is that science is going to continue advancing and were going to continue being able to detect at lower and lower levels and were always going to find something. In any water source that you look at you going to be able to find trace amounts of some of these various compounds. Washington States standards are some of the most stringent in the country and yet Department of Ecology and Department of Heath who are both aware of these issues involving compounds of emerging concerns also still strongly advocate the production distribution and use of reclaimed water. Reclaimed water is a water supply, it’s no longer
considered wastewater once it’s been treated to this high of level. The scientists and I sit
in on a lot of presentations at conferences. The scientists continue to tell us that there
have been no indication of public health impacts do to the use of reclaimed water or at
the levels of detection that are involved that were talking about here. They also say that
more study is needed and we can detect the presence we still don’t know what it means
and so there is virtually unanimous recognition that we still do need to keep on top of this
and continue doing the research. Most of the studies that are out there seem to involve
impacts on fish. It has been seen certainly that there can be impacts on aquatic life.
Mostly studies involve secondary treatment and direct discharge into a water body as op
posed to other kinds of filtration methods taking place before water reaches the water
body. Unfortunately when we hear new stories and a lot of reports of these things, you
don’t hear what level of treatment was involved what kind of water body is there. In a lot
of cases streams and rivers are heavily affluent dominated because of the nature of those
particular surroundings. In an awful lot of parts of the country, wastewater is discharged
into rivers that are also used downstream as drinking water and that cycle is repeated
many times over. We don’t have that situation here because we’re not discharging
directly into surface water bodies and then of course reclaimed water itself then is already
treated into an even higher level of then secondary testing. What we do see in the studies
is that the kinds of treatment processes that we use are the kinds that have the greatest
removal. We’re seeing that over and over again. Generally these are going to be systems
that have nutrient removal, that have high solids retention times in the treatment process
and then additional filtration processes as well. Multiple treatment processes in a chain
that’s another way that you see where you get increasingly greater removal. You go
through the kinds of various steps that our water goes through for instance to get the
reclaimed water but then also using soil aquifer treatment, time of travel and some of
these other steps help cleans it even further. We do have some additional information
that’s being prepared for you at two different consultants working on reports, reviewing
science studies that have taken place. We’ll have additional information for you in a few
days it just wasn’t possible to have those completed by tonight and we’ll have some other
studies available for you to be able to review. A lot of focus in recent studies has been
made on assessing removal rate and also searching for indicator compounds that can be
used because trying to monitor and test for hundreds of potential trace compounds is a
very difficult and costly process and it requires specialized labs in order to do it at this
level when we’re dealing with parts per trillion. So the extent to which it might be
possible to identify some indicator compounds could go along way for helping future
research studies. LOTT has voluntarily participated in two studies already. One of those
was a joint study by the Department of Ecology and the Environmental Protection
Agency. The final report was published last January. It’s called pharmaceuticals and
personal care products in municipal waste water and their removal by nutrient treatment
technologies. A study of five municipal plants and actually they were only going to do
four but we voluntarily added our Martin Way reclaimed water plant because we wanted
that comparison in there as well and we paid the additional $6,500.00 to include that one.
They sampled influent secondary affluent reclaimed water and biosolids in each of these
plants. Tested for 172 organic compounds including pharmaceuticals and personal care
products, hormones, steroids, semi-volatile organics plus nutrients and total suspended
solids. This study showed that both our sand filter system and our membrane filtration
system demonstrated a high rate of removal of pharmaceuticals, personal care products and hormones and steroids while the traditional secondary discharge in the Budd Inlet actually rated low for those same categories. So there is a definite difference in what happens with the level of treatment changing and that is an important consideration. The conclusion section of that study states that results of the screening study indicate that the combination of enhanced biological nutrient removal and filtration processes provides the greatest PPCP removal. Ecology is now conducting a follow up study looking at the same topic in relation to ground water specifically and they are using three treatment plants in this case. Our Martin Way plant is one of them. Yelm is another one. So you have got two Thurston County plants in this particular study. Quincy is the third one. That one they are doing two rounds of sampling. They did one in February they just did the second one in October and they expect the results to that sometime next spring. So were not going to know the results to that very soon but at least that’s another one that’s on the way that will provide some more information. We have also decided to take an additional step and we’ve been actually planning this for a couple of years to do a much more extensive ground water scientific study here within our own area because ultimately one of the other qualifications that you often see in scientific studies that are done in other locations is that these findings apply to this specific location and different conditions elsewhere might result in different studies. So really to get very reliable information that can be applied to our own immediate geographic location the best way to do that is to conduct our own scientific studies. And so LOTT is beginning that process and this will be similar to a Budd Inlet scientific study that we conducted in the late 1990’s as part of the long range planning process originally and you know that has provided incredibly valuable information and the Department of Ecology still uses the modeling, the model that was developed for that scientific study. So we were looking at something on a comparable level. That particular study by the time it got done the University of Washington researchers who were participating in it indicated that Budd Inlet was the most highly studied body of water anywhere on Puget Sound when we got done. Were expecting this to be a very important study as well and it will be identifying the current state of ground water here. We will be establishing some base line conditions looking at reclaimed water regulation dynamics federal, state and local. We want to develop a comprehensive understanding of the hydro geology in relation to the way water moves and also the fate and transport of potential contaminants. We’d be looking at compounds of emergent concern as well. It would include peer review components so we’d have scientific expertise at multiple levels. And we had Brown and Cauldwell put together an initial framework for this particular study. This will give you a little bit of an idea of the kind of structure and elements that will be involved so a full spectrum of technical land use, water quality, hydro geology we will be looking at surface water as well as ground water and all these topics you see here or on this particular slide, focusing on three general areas. I’m trying to get one that’s rural that would be the old South Deschutes area developing semi urban what were calling East Mullen area basically and one that’s already a little more developed urban area the Hawks Prairie, using the Hawks Prairie area for that particular one. We anticipate a very major public participation involvement component to this as well and that’s certainly consistent with the way we did our long range planning originally. This slide shows you general, a potential time frame this could be a four year study or more because it obviously takes a long time to do this
work. The initial phase of the first few months would be doing the detailed scoping for it and we’d be looking for a lot of input from agencies that are interested and concerned in this particular topic as well and then data collection, identifying where the gaps are to help in building that scope as well. Then the field investigations and analysis and reporting so by the time we get done it’s probably about a four year process. And we do expect to have this be a very involving study, certainly get all four of our partner jurisdictions involved, the Thurston County Health as well and the state agencies; Ecology, Health, DNR any of the others that might be interested in participating and the Squaxin Island Tribe is also very interested. They are very interested in reclaimed water and being able to see reclaimed water being used for activities like stream flow augmentation and in fact that could be the greatest benefit for the South Deschutes site. That’s one of the things that we’ve been looking at as we look at that particular piece of property because that could help greatly in some Deschutes River issues. So the steering committee for this study will be the LOTT technical subcommittee which is comprised of the public’s works directors from four partner jurisdictions and also three of our managers so we were going to have a lot of people involved in this.

Scott Clark: Art.

Karla Fowler: And Art, Art Starry. So, by way of summary we realize you’ve got a deadline that you’ve got to meet but we certainly encourage you to look at the real and relative risks of class A reclaimed water compared to particularly class A at it’s very high quality level compared to lesser classes of reclaimed water. Right now the draft doesn’t split out or distinguish between different classes as well. Also class reclaimed water compared to like septic tank effluent which doesn’t seem to be objected to the same level of requirements that are posed in here even secondary effluent like our Budd Inlet plant isn’t addressed in the same way storm water runoff and other pollutant sources. We would encourage you to look carefully at the state regulations and requirements and rely on those to the extent possible because we already have a prairie regulatory structure here that we have to meet and take a science based approach rather than adding prescriptive new regulations that might, that are depicalative of the state ones and in some cases might actually be in conflict with some of the state requirements. And allow the ground water recharge study to be a major source of information for this particular topic area and site specific hydro geologic evaluations that we also routinely go through for the individual sites and consider allowing flexibility for site by site evaluations and permitting since we already also have to go through conditional use processes for these as well. Item H in particular we have some concerns about automatically assuming that higher levels of treatment are or maybe needed because on a case by case basis that’s not necessarily true given the chain of processes involved.

Detailed section ending at: 01:11:17

Detailed section starting at: 01:11:27

Karla Fowler: It’s possible that in individual cases some additional level of treatment may be needed for some specific purpose but until the evaluations are done for an
individual site trying to put a prescribed regulation in place to cover it ahead of time
before anything is known could be overly restrictive certainly for this kind of operation.
So thank you again for the opportunity to provide some comments and we’d be happy to
answer questions that you’ve got and I know that Rich, Peter and Dan all have some
observations from the City perspectives as well.

Commissioner Kohlenberg: So probably the most important feedback that we’d like from
you guys is what you haven’t had time to do yet which is what are the impacts of what’s
here on your current plans and we sympathize with everyone’s desire not to be regulated
but our job is to create regulations that create balance so we hear that and we have some
sympathy for it but what we really need to know is if the regulations are being proposed
or causing particular problems that you think that aren’t reasonable and we would like to
hear about those particular problems. Not, this is more regulations because we know
that, we know we’re doing that, we are doing that. We have to do that, that’s our job.

Karla Fowler: And we can provide some detailed run down. I wasn’t going to try and do
that this evening but I of H would be the particularly dominant one to jump immediately
to, higher levels of treatments such as reverse osmosis. That would literally add hundreds
of millions of dollars to the capital program and also has a significant effect on operating
costs. It would absolutely hugely increase our operating costs as well which means rates
for all the rate payers and it has a negative environmental impact as well because it’s a
huge energy user and that’s where the big cost increase comes in is enormously
increasing the energy costs. We have spent a lot of effort trying to reduce our carbon
footprint in the past few years and we’ve had some very successful projects to do that and
taking a step like reverse osmosis completely sends us in the opposite direction. So, you
know environmental impacts come in many different forms and that’s definitely one of
them.

Commissioner Earle: Does that “inaudible” context to existing requirements to use all
new and reasonable technology?

Karla Fowler: Well the Department of Ecology and the Department of Health certainly
have not been even indicating their thinking about requiring that level.

Commissioner Kohlenberg: Thank you that was good to know what your concern was.
I’m also interested in what you find about where your plants are in relation to the
geological studies that have been done.

Karla Fowler: And we will provide maps with those overlays.

Commissioner Kohlenberg: With variations, thank you.

Commissioner Davis: Are we going to hear from the cities or do you guys just want
questions now or do you have something to present?

Detailed section ending at 01:15:10
Peter Brooks: My name is Peter Brooks, I’m the water resources manager for the City of
Lacey and as such that means that I supervise a group of technical professionals who
work on planning and engineering and permitting kind of issues for all of our utilities.
First off I want to acknowledge the work that you’re doing, this is a really challenging
issue. Some of you probably have a good technical background because of your vocation
or education. Some of you this is new stuff and you’re having to grasp it and learn it so I
just appreciate you taking the time to work on this, its good service. As a water provailer
I am deeply concerned about the quality of ground water. I would not want to see laxed
regulations that compromised the water. City of Lacey historically has spent a lot of
money and investment into ground water sources for our water supply and moving
forward we’re going to make an even bigger investment into getting more water. People
keep moving to Thurston County, we don’t have a fence or something saying “you can’t
come” and our growth management act says expect it, we planned for it. And so in that
process Lacey along with other cities have partnered up and acquiring water rights
through water rights come with mitigation, efforts that have to be accomplished those are
expensive. Sometimes mitigations buying up water rights and retiring them. Sometimes
the mitigations buying up farmland and improving it so that it offers a more
environmental benefit. Sometimes the mitigation is putting back water that will be taken
from the aquifer because it is necessary for other people to have senior water rights or it
is necessary to support water for fisheries. Where do we get this water to put back? I
mean if we are taking it, what are we going to put back? What were putting back is
reclaimed water. That’s our perception of it is when it’s used properly reclaimed water is
a resource. Now if one wants to look at the other way you could say oh well its pollution,
it’s a liability and so there’re is a perception issue here and that’s what you have been
graveling with as you try to make these regulations. Do you see it more as a resource if
used properly or do you see it as pollution and you just have to go through that. I see it as
a resource and I wouldn’t want to see regulations that were laxed and allowed the
resource to be misused and contaminate the water supply but I think it can be used
appropriately and help us to move forward to help us accomplish what we need to in
terms of providing water for people now and the people who will be coming. Mr.
Jackson was asking the question about scarcity of water. It is something to think about.
There is seven billion people on the planet right now and were going from there. Nine,
ten is where UN, others think we’ll top out later in the century so is water scarce? Well,
it depends where you are. If you’re in an area where the rain keeps falling and who
knows what climate change will do to that but if you’re in an area where the rain keeps
falling then it’s generally not much of a problem. So places like the Northeast, the
Midwest even in the summer they get rain showers, there’s is water. Places that are arid
or at least seasonally arid water is becoming scarce. Thurston County is a seasonally arid
place even though you get about fifty inches of rain a year, my goodness, February get’s
kind of old. Come July it hasn’t rained for awhile. Come August it really hasn’t rained
for awhile and we run into a shortage problem. So as a result, many perhaps I would say
most of the drainages, creeks in our area have closures or seasonal closures or what not
and posted at the Department of Ecology. They’ve basically said there is no more water,
so how are we getting water rights? Like I explained were getting water rights because we’re doing things to make up for what water we are taking. So if we are at this point and the County’s going to grow another 50-60% in the next 30-40 years how are we going to accommodate all of these people if we don’t start using water in a more intelligent way. We have to use the potable stuff more frugally and we have to reuse water that’s the only way we were going to get from here to there. So that’s the whole perception issue of water. Because you all are a mixed multitude of, I don’t even know your backgrounds I’m just guessing. Some of you are probably, like I said spun up in this and some of you aren’t. I think that it’s good that you’re unveiling yourself to opportunities like this to have people come in who deal with this and explain and answer your questions. I would encourage you, what you have about a month before the hearing; have more people come in, whoever you want. University professors, other water provyors, whoever, just have them come in and educate you on the issue because it’s important that you know about this so you can make sound decisions. Another point I would like to just touch on, Karla kind of hit on it too regardless of where you come down as you learn about this; is the reclaimed water a pollutant, is it a resource? You have to think of proportionality. However good or bad you think it is however potentially harmful to the environment you think it is, think about septic tanks. Well you might think well it is just one little septic tank, well it is for one little homeowner. It is just one little septic tank, just a homeowner’s drainage. Think about in the urban area. We’re not talking about far out in the county one acre, five acre, twenty acre lots because this is all spread out and most likely the environment is doing a fine job of assimilating it. Think about the quarter acre lots; septic, septic, septic, septic. City of Lacey, in the winter, in February when we get down to our base water demand we put out about five million gallons of water per day, ok? LOTT get’s about three and a half million, where does the rest go? People aren’t watering their lawns, there’re not washing their sidewalks where does the water go? It went in the septic tanks. Not everybody in our service area is on LOTT or really on Lacey Collection, send it to LOTT for treatment they are on septic. So there is about a million and a half gallons a day of waste water that is getting primary treatment and it’s soaking into the ground.

Commissioner Kohlenberg: I just don’t understand why were worrying about that because we’re not regulating at this point, your right that does exist. What’s the context?

Peter Brooks: The reason why I am raising this is, if sewage is a problem then the solution is treat the sewage more and there is even the option H in there of you know, go all the way to arrow. Sure that is a possibility, a very expensive possibility. My point is if we are concerned about dumping a million, two million gallons of reclaimed water which is highly, highly treated waste water, cleaner than lake water say in Long Lake. It’s very clean water. If we are concerned about dumping that into the ground two million gallons, why are we not concerned about dumping a million and a half gallons of water that’s just primary treated sewage.

Commission Kohlenberg: Well know body is saying that were not concerned about that, I just think it’s a wet herring. Ok, our concern is about, the kind of water we are talking.
about we’re not talking about regulating septic tanks at this point so it seems irrelevant to me
that’s all I am saying.

Peter Brooks: Well, ok. The only reason I am bringing it up is if there is a concern, and
you’re here to set regulations and you’re trying to perfect their drinking water supply
maybe that is something you should think about. There is a section in this CARA about
septic tanks. Maybe if this one, if section on reclaimed water is going to be “inaudible”
maybe you need to take another look at the septic tanks. That’s all I am pointing out.

Commissioner Earle: Just out of curiosity, what’s your infiltration “inaudible”
conveyance system “inaudible”?

Peter Brooks: You mean I and I? I think we are pretty low. I don’t have an exact figure,
seven percent something like that.

Karla Fowler: Yes, you are pretty low.

Peter Brooks: Yes we are pretty tight. Alright, the last point just to kind of move through
it is the process that we’ve been going through with this. It’s been long and arduous. I
haven’t lived the whole experience but some Lacey staff have lived the experience.
Processes started I think 2005 or before and then we kind of got put into a hiatus because
of staffing issues or whatever and here we are working on it again and you need to get
something done right, I appreciate that. The process as I see it is kind of broken maybe
it’s getting back on track now but there was a previous version of this that was circulated.
Lacey staff and I’m sure other jurisdiction staff looked at it. We got comments together
for it and then we were told oop hold the phone, here’s the next version so before we
even got to give you our comments we’d have something else to review and then here’s
something else to review. We are going to review it but there can’t be like another one?
I mean I am glad that this one is less severe than the previous one but the process needs
to be kind of orderly so that there is a draft, we look at it, we give you comments on it,
there’s testimony on it and then you make your determinations on what you’re going to
do with it. I don’t know if that’s, I’m not blaming you folks, I don’t know if it’s staff I
don’t know if your moving fast trying to get things done. I don’t know how it’s
happening I’m just commenting as stakeholder.

Commissioner Kohlenberg: This is how it’s happening because I’ve been involved in this
ever since it started. We have a draft, a previous draft, which went to public hearing and
then the County, was sued on other issues and people got involved in that suit and all the
staff changed and we started over on the Critical Areas. We are now the last county and
we need to get a critical area adopted and this issue was the one that had emerging
scientific research and so this issue became a firm issue in this chapter. This has been an
orderly process but it is a very time consuming process. We understand. We are all
working a lot even we as volunteers are working a lot more than we want to work to try
and get this done.

Peter Brooks: I appreciate that.
Commissioner Kohlenberg: And to get to the point where we have a draft going out to
public hearing that we all agree with.

Peter Brooks: Ok, I will just conclude my comments with that.

Rich Hoey: Good evening I am Rich Hoey I am the interim public works director for the
City of Olympia and first off I want to like Pete thank you for the opportunity to speak
and for your work on this issue. Not only are the cities partners in LOTT but we are all
water purveyors and in the case of Olympia most of our water sources are in the County
and so the work that you’re doing I appreciate given that our water sources will fall under
the jurisdiction of the Critical Areas Ordinance of the County’s. We all share the same
interests here about protecting ground water, protecting our precious drinking water
supplies. I guess under that all of the cities here have active wellhead protection or
drinking water protection programs for the areas around our water sources and just to
give you some perspective the areas of priority for us and Pete eluded to this that really
are on different issues than reclaimed water. We are much more focused from a priority
stand point on septic systems, on storm water runoff, on hazardous material spills,
hazardous materials in general there storage but those are the areas that were focused.
Reclaimed water is a much lesser concern considered the high level of treatment that it
receives and the high level of regulation that it gets. I just share that just for some
perspective and maybe to help out a little bit on the discussion about septic systems. You
know the Item H within the draft that you received has a very large price tag associated
with it to go to nano filtration from reverse osmosis based on the current science which is
limited is a huge jump. I think estimates may run in the 300 million dollars to go there
and so I think maybe Pete’s trying to go is that if as a region were going to make that
level of investment that it may be better served to focus our efforts on septic systems
rather than treating an already highly treated reclaimed water to an even higher level. So
I just share that for a little bit of perspective. Like Pete mentioned, in Olympia we do
view reclaimed water as a resource for our community. We use it to help stretch our
potable water supply, we also are partnering with Lacey on infiltrating reclaimed water
for the express purpose of boosting ground water levels in the area of Woodland Creek
for the purpose of increasing base flows in Woodland Creek. In an area where you have
a creek that is impaired for flow. Jennifer you brought up the issue of fish and impacts
on streams. I encourage you to reach out to the Squalix Island Tribe. We’ve been
talking with them extensively, Karla mentioned this briefly. The tribe has expressed a lot
of interest to us and our work on water resource issues on the use of reclaimed water for
infiltration to boost ground water levels to help boost stream flow levels in impaired
streams including the Deschutes River and Woodland Creek. A strong interest we’ve
heard from them and if that’s an area of interest and concern to the commission you may
want to reach out directly to the tribe and talk to them about if they’re willing.

Commissioner O’Connor: “Inaudible”, to interest and to regulations “inaudible” data, that
can help inform us, real data instead of these “inaudible” studies to let us look at them
and read because that’s some of what we need. This is such “inaudible” issues that we
have inadequate data and in the face of inadequate data we may be required to do some
things verses others by not having the data yet and it’s a yet I think.

Rich Hoey: Well in keying off “inaudible” I haven’t read it of course I’m just hearing the
summary from it. I agree with the notion that we need to continue to advance the science
here and do our part. This is an issue of interest within the state, nationally and
internationally and we should be doing our part on advancing the science and
understanding locally through monitoring through a proposal that LOTT has to do their
ground water scientific study. We need to be doing that and working through adaptive
management strategies based on emerging science as it goes. So I think that’s an
important element. My only caution with item H is that it’s a big jump and we need to
weigh this to go from the science where it is today to a level of regulation that will
require the type of investment that you’re talking about. It’s a pretty big leap and that
needs to be carefully weighed. With that I am happy to take any questions.

Commissioner Davis: So Rich are there, I guess maybe I should know this but I don’t.
Have CC’s been found in our current drinking water? Has it been tested for…?

Rich Hoey: It has not been tested.

Commissioner Davis: So we don’t know what the baseline is in our current drinking
water.

Rich Hoey: No. That is not something that has been required as part of the Federal Safe
Drinking Water Act.

Commissioner Davis: Right.

Rich Hoey: So LOTT has participated in a unique study looking at waste water.

Commissioner Davis: And will that be part of maybe or could it be part of the big major
ground water study that Karla’s talking about? I mean it seems like you would need
some kind of comparison to know what you’re looking at.

Rich Hoey: That’s an interesting question, it could be.

Commissioner Davis: Put it on the list. No and then to follow up on that how is LOTT’s
actions to move forward with additional recharge sites. Are they continuing at all on
doing that study or even on Ecology rule making or are you marching forward on your
plan and those things are going to happen parallel maybe going to the Henderson site or
how do those work together?

Karla Fowler: The only one that is on a time line that would need to be parallel is the
Henderson site development and in fact were already starting on the pilot recharge
portion of that particular project. Brown and Cauldwell is doing that work for us right
now. The other’s are many more years out in time so we would have the ground water
study done before we would be looking at developing those.

Dan Smith: Well, I am Dan Smith with the City of Tumwater Water Resources Program
Manager. I don’t know how much I can add as value beyond what both Rich and Peter
have expressed but you know really I guess at this point Tumwater we support you know
the movement that the region has been taking and our most recent water system plan
update Tumwater did recognize reclaimed water as a valuable resource to our
community. To be able to extend our water supplies in a cost effective way “inaudible”
and that’s a big piece of it for our communities recognizing the costs that these additional
levels of treatment could oppose upon all the customers in the urbanized area. Tumwater
also has a history of being very protective of the ground water and so we have enacted
“inaudible” in the past that have restricted various land uses in our immediate time of
travel due to historical implications that we’ve experienced and so the City in it and of
itself is very protective just as Lacey and Olympia are. This is a resource that’s used
more and more each year throughout the states and throughout the world and most of the
regulations that I’ve had an opportunity to review all support a nonprescripted but a
flexible adapted management means of approach to both the planning the treatment, the
monitoring and the ultimate use of that resource. Allowing for the utilities, the water
purveyors to then position themselves to react to a situation should those conditions arise.
So I think that is kind of where, some of the revisions that have been made currently
stand allowing for contingency plans and that level of planning that has been
implemented however again just kind of keying in on that item H as being a somewhat
prescriptive mechanism that could seriously financially impact the operations and the
growth of these systems and allowing this resource to be utilized in our communities that
I presume I am given the limitations of water supplies and the semi aired environment
that all of our communities which soon would rely upon.

Chair Lane: Somebody give me an idea of what a gallon of water goes for? I am just
curious after Bill’s comment about comparing it.

Peter Brooks: “Inaudible”. In the City of Lacey it’s less than a penny delivered to your
faucet, what a deal. You go to Costco it’s what like sixty-nine cents, seventy cents so.

Rich Hoey: The last number I looked at was .006 per gallon.

Commissioner Jackson: But there is a private water company in this area because I read a
letter to the editor of the Olympian and there paying a hundred and fifty dollars a month
for water. I mean no body washes their car, no body puts water on the grass I mean it can
vary not certainly that much because of a small community with a private water company
that took over the existing source of water but it’s like everything else nobody thought
and I’m giving my age away that we would ever see even a dollar a gallon gasoline. And
as the scarcity of the supply reaches a certain peak we could see a hundred and fifty
dollars a month for water. I mean that’s a distinct possibility given the global and
population situation that were looking at in terms of weather, in terms of growth and
everything else. So I’m just making that point that it can be a very expensive resource.
Peter Brooks: And think what that does to the standard of living, right? When you are spending your resources in that way you have less to do other things for education for scientific advancement, for whatever so that is an excellent point.

Commissioner O’Connor: Can I check that I heard properly and I think Jennifer did you ask we do not know the levels of CEC’s in the LOTT water?

Commissioner Davis: I asked in our drinking water.

Commissioner O’Connor: Drinking water, ok.

Karla Fowler: In the LOTT water you do have that study that Ecology and EPA did last year that has...

Commissioner O’Connor: Yes.

Chair Lane: Ok, anybody else with a question?

Commissioner Spaulding: Well I just have a question when reading section H the requirement, it doesn’t seem very prescriptive to me it’s just an option to require additional, am I reading the right draft? November 2\textsuperscript{nd}?

Karla Fowler: Well there is a shall or may option in there. The shall would be very prescriptive.

Commissioner Spaulding: Well yes but not as to method. I’m just trying to understand...

Karla Fowler: Well a higher level of treatment is identified as reverse osmosis...

Commissioner Spaulding: That’s an example of advanced treatment. Ok well I just wanted to understand the concern and that it might be why you’re so concerned. Thank you.

Peter Brooks: Thank you for your time.

Chair Lane: Thanks for coming out.

Commissioner Jackson: I would like to make one statement just to give all of you “inaudible” on this because we are really in a difficult time especially in terms of science. We have mother’s, and I will never object to a mother’s right to being concerned but we are circulating lolly pops that are infected with chicken pox pops right rather than giving their children the chicken pox vaccine which many of them believe may “inaudible” so we have to show something and do something in this area so that the public is satisfied that they will be safe in this situation and we do this with a lot of ammunition, we would study it and we’re looking forward to that report. But that’s the
problem with “inaudible” and you all are in public service “inaudible”. But that’s an issue and we’re going to have to find a way to basically satisfy ourselves that we’re dealing with the existing science that makes this a safe option and a necessary option at the same time. There we are.

Detailed section ending at: 01:39:42

The Commission took a five minute recess.

Detailed section starting at: 01:40:30

Ken Butti: Ok. My name is Ken Butti and I am the environmental compliance supervisor for the LOTT clean water alliance and one of my responsibilities is overseeing the biosolids management program for LOTT. And I am here tonight to briefly explain to the commission the existing regulations governing the land application of biosolids in the State of Washington and how these regulations protect water quality in the state. Biosolids are a valuable soil amendment and fertilizer and are beneficially used in Washington State. Any entity or individual that has anything to do with biosolids management in this state is covered under the general permit for biosolids management that is administered by Department of Ecology and in some cases is oversight is delegated to the local Public Health Authority. And the oversight is for producers like LOTT, haulers, land applicators, anybody that has anything to do with managing the product. The general permit includes requirements for pathogen reduction, vector tractor reduction, monitoring, establishing agronomic application rates and delineating land applications set-backs from surface water, wells, wetlands and other waters of the state. The general permit also requires site specific land application plans and depending on the characteristics of the site these plans can result in the biosolids applicator to abide by site specific requirements such as installing monitoring wells and providing detailed hydrogeological information on the site before the decision is even made.

Commissioner Kohlenberg: So in that sub site specific permit who manages that site? Who is the permit from?

Ken Butti: Who has the control authority?

Commissioner Kohlenberg: Yes.

Ken Butti: In some cases, in most cases it is the Department of Ecology and in some cases in the state it is the local Public Health Authority.

Commissioner Kohlenberg: Ok. In Thurston County “inaudible”.

Ken Butti: It is, has not been tested in Thurston County as far as I know.

Peter Brooks: It’s Department of Ecology. “Inaudible”.

Thurston County Planning Commission
November 9, 2011 Minutes
Commissioner Kohlenberg: Ok.

Ken Butti: And the site specific land application plan requirements would include methodology of how the agronomic rate has been determined, provisions for conducting any sampling of the soil, surface water, ground water, detailed maps of the site showing wetlands, zoning classifications, seasonal and perennial surface water location, buffer zones and any other critical habitat or areas. Ground water management plans are required in areas where there is high seasonal ground water and they also require any other additional information requested by the department that they deem necessary to evaluate the site before it’s even permitted. The general permit enforces Chapter 173.08 of the Washington Administrative Code which in turn is a product of the federal 40.CFR part 503 regulations for managements of biosolids developed by US EPA. The federal regulations utilize the very conservative risk assessment to ensure that the land application of biosolids would not adversely affect human health or the environment. And the point I am trying to make tonight to the commission is that there are existing regulations that govern the land application of biosolids in this state and they are already achieving the goal, they achieve the goal that is shared by the County in its efforts to put together this draft CARA chapter or section and I asked the County to look at relying on these existing regulations and not add additional or conflicting rules that may duplicate or conflict with the federal or state regulations that we have to abide by now.

Commissioner Kohlenberg: So these are, you are particularly concerned about which sections?

Ken Butti: Excuse me I didn’t…

Commissioner Kohlenberg: The biosolids 24.10.80? I am just wondering what section you are concerned about in this ordinance. Because the one I see says that it will…

Ken Butti: Well, the one, yeah 24.10.80 is but also in the table the requirements have it subject to a critical area permit and requirements of this title and so I am equating that to another permit that is going to be doing the same thing that the state permit is doing at this time.

Commissioner Kohlenberg: So you’re talking about this little section 24.10.80 that says that you know the consistent, meet the applicable federal standards and shall be consistent in that they have to submit a hydro geologic study.

Ken Butti: That part and also I put a lot of importance on what I am seeing in that table also.

Commissioner O’Connor: “Inaudible” or is it a permit that’s already required under federal and state standard? “Inaudible”.
Ken Butti: Right, there is a current mechanism now that when the County would review and application and make comments to it if they have a concern that’s specific to that site based on their understanding of the hydro geological characteristics of the site.

Commissioner Kohlenberg: I’m sorry when I read that section I thought that it said that it was essential to comply with federal standards, state and federal standards but the study “inaudible” to the County but I may not, I’m actually asking staff.

Ken Butti: Yeah, I have been trained to be a little more cautious about what I read in that it says I mean this causes me concern in that it’s looking like there is a lot of discretion to add a lot more layers of regulation to the program.

Mr. Deffobis: I think the concern is where it’s proposed to be allowed or prohibited based on the land use table and then yes you are right the actual standards themselves would then largely make reference to the state and federal standards but the concern is the location.

Commissioner Kohlenberg: Yes, the permitting standards seem to be all of the state and federal standards so it doesn’t seem to be that different. There are some areas where it’s not permitted where maybe the current state and federal standards would permit it. I would think they wouldn’t.

Commissioner Earle: Well, there are additional requirements in the permitting section. So it’s not simply a matter of submitting the federal permit and then contacting...I was wondering realistically do you expect that a biosolids application would be permitted in a wellhead protection zone?

Ken Butti: In a wellhead protection zone, I’m not sure. I’ve never been aware of anyone trying to permit one here.

Commissioner Earle: Yes, that’s what I would think. So your main concern is with simply having to go through a permit at all you recommend you be exempt.

Ken Butti: Right. One of my, one of the issues I’ve dealt with in the twelve years I’ve been doing this is I administer a program where I ship my biosolids out of the county for land application in Lewis County and land application in Douglas County. I would love to do it here in Thurston County and there for a lot of different reasons it’s a challenge now because of some past practices way before my time and people have very long memories and so in something like this which has put one more barrier on that getting developed here in the county.

Commissioner O’Connor: Well I am hearing a comment about this and I’m going to do two things; I wonder if on staff level if we can see reference into the critical area permitting if these S’s were here what would happen, cause I’m not clear and two I think it’s building on Chris’s question; is there data or is there any information you can give us that tell us why we would want to allow biosolids on a wellhead protection area therefore
not have access or a CARA I. That’s some of the information that we need. If there is
something to tell us, this is a very reasonable thing to do and here is why and it’s good
data or this does not make sense and here’s why and what I think I’ve partly heard is that
nobody is really going to be asking to put it in a wellhead protection area. I don’t think
the intention is to add extra permitting on you for that but we need some details if there is
rational for why we would say yah, allow it.

Commissioner Kohlenberg: Or if that’s not what we’re talking about it sounds like he is
more like saying in two’s and three’s you’ve got to have a critical area permit.

Commissioner O’Connor: I want to see how it would play out with what we’ve done in
the other parts of the CAO that might be impacting this cause I don’t know at the
moment. Is there anybody?

Ms. Wilson: I think biosolids is addressed in other sections of the CAO and I do think
that the issue is exactly what Chris mentioned which is you can meet the state standards
but right now what the state may allow which is land application in Class A non-
exceptional and Class B we are saying no and that’s where the conflict is between the
state and the local. So if we just defer to the state I don’t know do they give local
notification to land owners?

Ken Butti: Oh yeah there is a whole public notice process that it has to go through.

Ms. Wilson: So I think the difference is that if the state was to oversee it there just
wouldn’t be a local permit so then we wouldn’t necessarily “inaudible”.

Ken Butti: What I see is happening is because there hasn’t been any land application of
biosolids in this county for a few generations there is no experience on the county level as
far as managing it and I would like to see the county staff get together with state staff on
managed biosolids in the state and get some information about what’s happening in these
counties where its accepted, they love it. Again just like with the reclaimed water there is
a perception issue a lot of times and so now it’s a matter of ok were not going to let the
biosolids in these more sensitive areas and the more sensitive it gets the more reluctance
people have with it and what I am saying is that there are mechanisms in the existing
state regulations that would stop biosolids going on a very sensitive site.

Ms. Wilson: And that’s what we’re looking for science on that’s what Kathleen was
asking if you can provide that sort of information.

Commissioner O’Connor: Cause we don’t have that much “inaudible”.

Ken Butti: Ok. Yes I can do that. I will talk with some of the state staff and try to put
something together for you.

Ms. Wilson: And can you talk a little bit about the difference between the two Class A’s
and the Class B the quality?
Ken Butti: First of all we produce class B. If it had class A pathogen reduction it would be exceptional quality because our pollutant levels are so low in it. The class A has basically been disinfected more too where it is more an inert material that’s why it’s not as regulated it doesn’t have nearly the amount of regulation attached to it as class B does. And so class A is what is going into bags and being sold at your hardware store and put in different items like that.

Ms. Wilson: That’s class B directly or is that composted biosolids?

Ken Butti: Composted biosolids becomes class A biosolids if they are composting it correctly. Especially in Douglas County its predominantly class B biosolids apply to winter wheat fields out there and a lot I forget the percentage of King County’s biosolids go out there and some of the other municipalities around. And we go there six months out of the year.

Ms. Wilson: So is it, are we talking all at agronomic rates?

Ken Butti: Yes. Always. This is not a disposal issue this is a beneficial use of a product, not of a waste.

Commissioner Earle: Have you identified potential markets in Thurston County?

Ken Butti: Kind of informally. We’re right now updating our biosolids management plan and I think after that there might be discussion about if we do change the way we manage it and produce it which direction would we want to go? Composting has come up. I think they’re agencies that have large drying type of technology that makes a pelletized product. There are all different types of ways you can go.

Ms. Wilson: And does the state do any monitoring of the CEC issue of emerging contaminants?

Ken Butti: I believe there was some biosolids analysis of that first “inaudible” and I know that in the industry some of the universities have done some preliminary studies on the fate of some of the compounds and that material is out there also. And if you would like I would try to get that to you. We also belong to the Northwest’s Biosolids Management Association and they are a resource also and they have offered to come and speak to the commission if you can stand listening to that long biosolids information.

Ms. Wilson: Currently there is no CEC’s standards on biosolids?

Ken Butti: No. No there is not. It’s heavy metals and pathogen reduction is what we’re looking at.

Mr. Davis: And vector to right?
Ken Butti: And vector traction reduction, yeah. We meet the standard for reducing the volatile solids in the biosolids. Alright anymore questions? Thank you very much.

Detailed section ending at: 01:57:14

5. 8:32 P.M. STAFF UPDATES

Mr. Davis provided the following staff updates:

- Mineral land designation is substantially complete. A special meeting was requested for November 30, 2011. In order to meet the Growth timeline all this has to be wrapped up by the end of March 2012.
- The schedule of regular attendance was also discussed.

6. 8:39 P.M. CALENDAR

November 16, 2011-A quorum will be present.

7. 8:39 PM ADJOURN

With there being no further business, Chair Lane adjourned the meeting at 8:39 p.m.

Chris Lane, Chair

Prepared by Carrie Toebbe, Recording Secretary