

**MINUTES
CITY OF LANGLEY
PLANNING ADVISORY BOARD
June 2, 2010**

Jim Sunberg opened the meeting at 4:03.

ATTENDANCE

Members Present: Jim Sundberg, Melanie Shafaat, Roger Gage, Julie Buktenica

Members Absent: Fred Geisler

Staff Present: Ryan Goodman, City Engineer, Larry Cort, Director of Community Planning, Thomas Graafstra, City Attorney, Challis Stringer, Director of Public Works, and Fred Evander, Community Planner

APPROVAL OF MINUTES

No minutes were considered at the meeting.

PUBLIC HEARING – LANGLEY PASSAGE PRELIMINARY PLAT

Jim Sundberg opened the continuation of the Public Hearing and explained that the process the Board would use to consider the two State Environmental Policy Act (SEPA) appeals. Sundberg said that the two parties appealing the SEPA would speak first; followed by City staff and a possible response from project applicant; and then the two appellants would have the last chance to speak. Sundberg said that the meeting was held in a public forum, but the meeting was not open to public comment from members of the audience. Sundberg requested that testimony be concise and non-repetitive and said that the Board had the right to ask questions as the hearing moved along.

Sundberg acknowledged the following additions to the public record: the brief from Langley Critical Areas Alliance (LCAA); the brief from Whidbey Environmental Action Network (WEAN); the brief from City staff; and the brief from the applicant.

The appellants, staff and applicant began a round of opening statements. Robin Adams, speaking for LCAA, began the opening statements. Adams thanked the Board for the amount of time they had spent on the review of the application. Adams encouraged the Board to think about the big picture in regards to the application, and said that the City had known for many years that there were problems along the Edgecliff bluff. Adams said that stormwater and sewers were part of the solution to that problem, but that the City did not have the money for those facilities. Adams said that the supply of water to the Sandy Point community was subject to a single water line that traveled down Edgecliff Drive and said that the City did not have the finances to pay for a new water line along Sandy Point Road to ensure the continued supply of water to the Sandy Point community. Adams said that the objective of having development pay for utility costs was lost in this case and that what was proposed was high-density urban development, with no stormwater sewers in an area of high ground water that was located next to an unstable bluff.

Adams said that LCAA believed that at minimum an EIS was required for the development. Adams said that staff had resisted this approach up to this point, in part, because the process was difficult and time consuming. Adams said an EIS was required when a probable significant adverse environmental impact would occur as a result of a development, unless there was certainty in the measures to mitigate the impacts. Adams said that LCAA would argue that certainty was one thing that experts and City staff did not have in this case. Adams said

that experts did not know about where the water would end up from the development, and he stated that the water could end up in a ditch, the aquifer, or somebody's yard.

Adams also said that alternatives had not been properly considered in the development. Adams said that SEPA required alternatives and that a tightline stormwater solution, which was considered by some experts as the best solution in this type of geology, was not considered. Adams said that the tightline approach was indicated as potentially too expensive in some documents in the record, but he said that a lack of profitability was not something to be considered in a development application.

Adams said that it may well be that the lot could not be developed altogether, and he said that the project should at least be redesigned around a lower density. Adams said that redesign of the project however was not a matter to be considered as part of the appeal.

Adams said that the project had a great amount of "deal momentum;" the project had gone on so long, that completing it had become a goal in itself. As a result, Adams said, the City had lost the big picture. Adams said that it was the responsibility of the PAB to remember the big picture and to avoid the City approving the development based on the deal momentum alone.

Steve Erickson, from WEAN, began his opening statements. Erickson said that WEAN agreed with LCAA that there was scientific uncertainty in the proposal, but he argued that the application did have sufficient evidence to indicate that there would be probable significant adverse environmental impacts from the project as proposed. Erickson said that the uncertainty regarding impacts related to the fate of water from the site and where the least injurious place to place a water loop would be. Erickson said that the proper place to consider that water loop in particular would be an Environmental Impact Statement (EIS).

Erickson stated that, as part of his brief, he submitted a perfected version of the SEPA appeal from WEAN that gave a primer on SEPA. Erickson also said that the CD submitted as part of his brief contained a complete version of the SEPA rules. Erickson noted lastly that his argument included all LCAA arguments and exhibits by reference. Sundberg asked if an EIS was Erickson's conclusion. Erickson said yes, the project required additional studies to resolve uncertainties and the proper method to conduct those studies would be an EIS.

Thomas Graafstra, attorney for the City of Langley, said that City staff would testify about the determination made on the SEPA Review. Graafstra said that it was the City's position that the Board needed to accord substantial weight to that decision, unless it was shown that the decision was clearly erroneous decision. Graafstra said that unless there was a clear and definite sense that there was a mistake in the review of the SEPA, then the recommendation of the staff should be sustained and the recommendation should be the recommendation of the proceeding.

Doug Kelly, attorney for the applicant, said that he wanted to reiterate that it was the appellants' opinion that the decision by Cort (as the SEPA Responsible Official) was clearly erroneous. Kelley said that to overturn Cort's decision there needed to be a definite and firm conviction that a mistake had been made. Kelly explained that the Board was not free to say that they may have reached a different decision, and he explained that the Board needed to establish that what Cort had done was clearly erroneous in order for the Board to reach the appeal. Kelly said that three major issues needed to be considered:

1. Did Cort consider adequate information in making his decision to issue a Mitigated Determination of Nonsignificance (MDNS)?
2. Did he establish conditions that mitigated impacts to a level of nonsignificance?
3. Did he make decisions that weren't clearly erroneous in their conclusions?

Kelly argued that the amount of time spent on the project indicated that there was not a thoughtless momentum that moved the project forward, but rather a series of deliberate and thoughtful considerations regarding the scientific information on the site. Kelly said that three or four hydrogeologists had looked at the site and that it

was on the basis of that scientific information that the decision of Cort had been made. Kelley said that Cort's decision should be upheld.

Robin Adams started his oral arguments. Adams said that the main argument of the LCAA was that Cort should have issued a Determination of Significance (DS) on the application, and their second position was that if the MDNS was upheld, the mitigation measures as proposed were not adequate.

Adams began to walk the Board through the LCAA brief. Adams said that paragraphs 4 to 9 laid out the relevant SEPA rules for the application.

Adams said that paragraphs 10 to 14 dealt with the fact that Cort did not issue a DNS. Adams read Exhibit 2 of his brief, section 197-11-734 of the Washington Administrative Code regarding Determinations of Nonsignificance (DNS), and said that the fact that a DNS had not been issued had displayed that the project had a significant probable adverse environmental impact. Adams said that the fact that a DNS was not issued on the project showed that it was not about whether the project had an impact; it was about whether enough was known about the project so the impact could be mitigated without the burden of an EIS.

Adams explained that the starting point regarding the knowledge of the site was the report by Rex Baum of the United States Geologic Survey (USGS). Adams explained that this report said that the City should do a number of things in regards to the bluff. Adams read a sentence from the report that said "finally necessary steps should be taken to ensure that future developments south of Edgecliff Drive are designed and constructed in a manner that prevents additional or concentrated surface water infiltration." Adams also said that the report specified that stormwater should be collected in a manner that would not increase groundwater level, and that the water should be collected and transported down the bluff.

Adams said that paragraphs 17 to 21 of the brief spoke about the various reports conducted by HWA in response to the hydrogeological issues on the site. Adams said that these paragraphs articulated why LCAA thought that the information supplied was inadequate.

Adams said that paragraph 22 dealt with the report from Aspect Consulting. Adams said that the Aspect report was the first report that attempted to estimate how much water would be involved in the project and where it would travel. Adams said that the report recommended not infiltrating the water, but rather collecting it and conveying it to the base of the bluff.

Adams moved to Exhibit 7 of his brief, a letter from Davido Consulting Group. Adams said that this letter stated that Davido agreed that the best course for handling the water would be through the existing drainage system. Adams said that this letter further explained that the applicant did not pursue this option because: improvements to the system were too expensive; and they had received guidance from City staff that they shouldn't pursue the option. Adams said that paragraphs 24 to 27 of his brief detailed the City's failed response to deal with the possibility of collecting and conveying the stormwater to the base of the bluff.

Adams said that Davido's eventual response to the Aspect Consulting report was that Aspect made mistakes on the site. Adams said that Davido also made mistakes in their reports about the site.

Adams explained that after Aspect's report, Director of Community Planning Larry Cort hired a peer-reviewer to compare the hydrogeological studies for the site. Adams explained that the peer-reviewer retained, Mark Varljen, said that more geological research needed to be conducted. Adams said that Varljen did not specify how much analysis was needed or how many holes needed to be dug.

Adams said that, after the additional hydrogeologic analysis was completed by the applicant, Varljen concluded that all infiltrated water would end up in the wetland. Adams said that whether this was a reasonable scientific inference would be explored at the meeting. Adams also noted that Varljen did not say what would happen to the water after it had left the wetland.

Adams said that paragraphs 37 to 40 represented the first clear error that Cort had made in the Langley Passage case. Adams said that the SEPA rules required the consideration of alternatives and Adams stated that a tightline solution was not considered as part of these alternatives. Adams said that the omission of a tightline was based on an erroneous interpretation of the Comprehensive Plan and the Langley Municipal Code.

Adams said that, in paragraphs 43 to 45, the brief covered a basic factual error about the case: how much rain fell in Langley. Adams said that he would try to clear up that basic error through his questioning at the meeting.

Adams said that paragraphs 46 and 47 of the brief accounted for the second clear error that Cort had made in regards to the application: ignoring water imported to the site. Adams said that when people lived in the development, they would want items such as gardens, and the water that they would use would be infiltrated into the ground, not handled via the sewer.

Adams said that paragraphs 48 and 50 detailed inconsistencies in the scientific information presented and he called these inconsistencies the mystery of the missing water. Adams said that Varljen said one thing regarding the ultimate destination of the water and the applicant stated another. Adams asked where the water would ultimately move after leaving the site.

Adams said that paragraphs 51 to 56 set out why an EIS was the appropriate decision on the application and why there may have been an unwillingness to consider this approach even before the Public Hearing.

Adams continued to explain the LCAA brief's arguments about the mitigating measures that the City staff had applied to the MDNS. Adams said that paragraph 57 of the brief referred to the unscientific nature of the baseline report; paragraph 58 talked about the lack of a rational basis for a three-year monitoring period; and paragraph 59 talked about the potential to have the City get into a dispute about the findings of the monitoring. Adams explained that the monitoring would have to show that the water level was demonstrably worsened and prove that the water was coming from Langley Passage.

Adams said that paragraphs 60 to 64 dealt with the Island County portion of the drainage system. Adams said that he would like to correct one matter in his brief. Adams said that there was a study by Davido referenced in Cort's brief that said that the outflow pipe was large enough to handle the flow and Adams said that he agreed with the study. Adams said however that the system as a whole was inadequate and was not able handle the water from the site. Adams said that there was no affirmative evidence in the record that had demonstrated that there was enough capacity in the drainage system to handle the water from the project.

Adams also explained that there had been a SEPA procedural error in dealing with the downstream stormwater system. Adams said that the City had failed to consider the Island County portion of the stormwater system in their SEPA determination, and he explained that all aspects of an application must be considered under SEPA rules. Adams said that there had been no meaningful consultation between the City and the County about system; there were differences between County and City methods for measuring stormwater; and there was an issue of whether an improvement to the outfall would require a shoreline permit.

Adams continued moving through the LCAA briefs, saying that paragraphs 65 and 66 discussed the bond; paragraphs 67 and 68 discussed impervious surface limits; and paragraphs 69 to 73 discussed wetland crossing alternatives.

Adams said that paragraph 75 of the brief included 16 findings of fact, and paragraph 76 included five findings of law to which he added a sixth finding: the failure to consider the Island County portion of the stormwater system as part of the SEPA review. Adams said that paragraph 77 asked the Board to consider a motion to require the issuance of a DS or an alternative motion to withdraw the MDNS and refer the matter back with additional information to be considered. Adams said that the second motion would require the project to be designed with a tightline to the beach or be redesigned to produce no net loss of evapotranspiration.

Adams called Owen Reese. Reese provided his name and said that he was a Civil Engineer for Aspect Consulting. Adams showed Reese Exhibit 22 of the LCAA brief and asked if it was Reese's resume. Reese said yes. Adams asked if Reese was a Hydrologist. Reese said yes. Adams asked: what was a hydrologist? Reese said that a Hydrologist studied the movement of water throughout its natural cycle. Adams asked if Reese was professionally qualified to tell how much water was falling on property and where it was traveling under natural circumstances. Reese said yes.

Adams asked if Exhibit 6 of the LCAA brief was prepared by Reese. Reese said yes. Adams asked Reese to summarize a number of the technical expressions used in the report. Adams asked about evapotranspiration and Reese said that it was the amount of water that returned to the atmosphere through either direct evaporation or transpiration from vegetation. Adams asked about surface water and Reese said that it was the amount of water that travelled along the ground's surface during a storm event. Adams asked about ground water and Reese said that it was a body of water that below the ground. Adams asked about interflow and surface runoff and Reese said that it was a part of stormwater located within the top 2 feet of surface that typically moved laterally within the top couple inches of the soil. Adams asked if the amount of water on a site was determined from these four factors. Reese said that those factors were included, but imported water from things like runoff from an upgradient surface also played a part.

Adams asked Reese about the Western Washington Hydrology Model (WWHM). Reese said that the WWHM simulated how a site would behave in rain events and explained that the model was based on 50 years of hydrologic data. Adams asked where the model got data from for Langley. Reese said that the model calculated the data from the nearest monitoring station, the Everett Weather Station, and added a correction factor.

Adams showed Reese Exhibit 23 of the LCAA brief, an Isopluvial Map from the National Oceanic and Atmospheric Administration, and asked about the meaning of the various lines on the map. Reese said that lines represented the amount of precipitation that was probable in a 25-year storm event. Adams pointed out Langley and asked about the isopluvial for Langley. Reese said that Langley was located between the isopluvial lines 20 and 25, and was perhaps a 2.1 inch 25 year storm. Adams pointed out Coupeville and questioned what isopluvial covered the town. Reese said that the isopluvial was similar to Langley, either a 20.5 or a 21, and would have a 2.05 or 2.1 inch 25 year storm event. Adams questioned how isopluvials were used in the WWHM. Reese said that the model used the isopluvials to determine the correction factor from the nearest data station. Reese said that, in the case of Langley, the model would take the Everett data station and scale it by .8.

Adams showed Reese Exhibit 17, a printout from a website that displayed information about Langley weather, and he asked what it said about precipitation in Langley. Reese said that the data showed a mean annual precipitation of 37.5 inches and he said that the data appeared to use the Everett weather station. Reese said that with a correction factor of .8 that amount would total about 30 inches a year. Adams said that if you used the same calculation for Coupeville you would reach the similar conclusion that Coupeville would receive 30 inches a year of rain per year. Reese said that that was correct. Adams showed Reese the mean annual precipitation from the Coupeville Weather station and asked what the document said. Reese said that the document showed that the total would be 21.39 inches per year. Adams noted the difference in numbers between the WWHM model and actual precipitation in the Coupeville area. Adams referred Reese to Exhibit 19 of the LCAA brief, the average annual precipitation distribution from 1974 to present in Langley, and questioned what that data said. Reese said that the document showed that the area received between 32.5 and 35 inches of rain per year. Adams asked if it was right to say that the basic data going into the WWHM was definitely wrong in the case of Coupeville and probably wrong in the case of Langley. Reese said that the model was primarily intended to size stormwater facilities to handle peak flows for larger stormwater events. Reese said that the model was not intended to get the average rainfall right, which is why the model was based on the twenty-five year event. Reese said that if you wanted to model hydrology on a site, the WWHM would not adequately provide the long term precipitation. Adams questioned if it was possible that the applicant should have used a higher amount of annual rainfall. Reese said that it was possible. Reese also said that it was important to consider the period of the rainfall, and he noted that precipitation varied from year to year, decade to decade, and century to century. Reese

said that it was important to question the assumptions of the WWHM when modeling a complex hydrological site.

Adams questioned if Reese had reran the numbers from his initial report based on the limitations of the WWHM. Reese said yes; he had gone back and reran the model with 80 and 90 percent of Everett Weather Station total and reached a total of 33.75 inches per year when the model was run at 90 percent. Adams showed Reese Exhibit 30 and asked if it was the document that he had prepared to show these calculations. Reese said yes. Adams questioned if Reese had taken into account some of the criticisms by Davido in the latest report. Reese said that he had, and he explained that his earlier work had assumed a forest cover condition, in part because an earlier Davido report had used a forest cover condition. Reese said that for the latest report he had used a half forest and half pasture condition in making his calculations. Reese explained that there were three conditions that could be used in the model: forest, pasture, grass. Adams asked if Reese had studied the site during his visit to Langley, and if the site was consistent with the condition half forest and half pasture. Reese said that he had looked at the site and that there was some forest and some cleared area. Reese said that some split between the two classifications was appropriate.

Adams asked Reese about the amount of additional water that would flow from the site. Sundberg asked if the number was based on the assumption of .8 or .9 of the Everett Weather Station total. Reese said that he thought that .9 would be appropriate and he said that the increase in water flow would be 820,000 gallons of water per year. Adams questioned if that number took into account any additional imported water. Reese said that it did not, but said that the number had taken into account all the modifications to the applicant's proposal.

Adams showed Reese the third page of Exhibit 9 of the LCAA brief, the first report by Mark Varljen from SGS, and asked Reese what Varljen had asked the applicant to do. Reese said that Varljen had requested additional hydrogeologic investigation or borings on the site. Adams asked Reese if he had that information when he prepared the Aspect report. Reese said no, he did not have that information.

Adams asked Reese about what constituted a conceptual geologic cross-section. Reese said that the conceptual geologic cross-section included in his report was Aspect Consulting's concept of how the hydrologic system functioned, based on observations at the time and a number of inferences. Reese explained that the edges of the cross-section represented the area where Aspect had information about the site, and included the beach, shallow test pits and the Ron Lind well. Reese explained that, based on this information, Dave McCormick, a geologist for Aspect Consulting, with whom Reese worked on the project, made a number of inferences about the site based on regional information. Reese said these inferences included glacial soils underlain by non-glacial soils, and a number of question marks where contact between surfaces may occur.

Adams asked about the seepage from the wetland to some lower level on the conceptual geologic cross-section in the Aspect report. Reese said that the Aspect diagram displayed sand associated with recessional outwash underlain by glacial till and he explained that Aspect had suspected that the till may not be uniformly present under the wetland.

Adams asked about the little arrow representing seepage from the face of the bluff and he questioned if Reese felt confident about the representation of seepage in that location. Reese said yes, one could observe seepage at a couple of places on the bluff face. Adams questioned if there were different levels of confidence in the information on the diagram, even though the cross-section was labeled conceptual. Reese said yes.

Adams showed Reese the HWA cross-section of the site and asked what the information on the diagram meant to him. Reese said that the diagram was a cross-section that showed two deeper test pits, a ground water layer and a layer of silt. Reese noted that a shallow till layer within couple of feet of surface that was found within the shallow test pits was not shown on the diagram. Adams asked if there were things that Reese would like to modify on the Aspect diagram based on the HWA cross-section. Reese said that the till layer shown on the conceptual geologic cross-section may not be present and the sand on the site may be advance sand rather than recessional sand. Adams asked Reese if there was anything else that he would change based on the HWA report,

such as whether or not there was a hole in the bottom in wetland. Reese said that it was interesting that the HWA report showed some items unknown, and he noted that the diagram did not show the Ron Lind well log or the bluff. Adams asked if water could still potentially flow out the side of the wetland. Reese said that Aspect's goal in preparing the report was to consider the ultimate fate of water that entered the site and he explained that the arrows represented several of the possible areas that water might travel. Adams asked if anyone knew how much water would go to the bluff based on the borings conducted by HWA. Reese said no, the only thing that HWA had shown was that the aquifer was connected to the wetland.

Buktenica asked about the line with the question mark on the Adams version of the HWA cross-section and said that her version of the diagram did not have the question marks. Adams said that he would ask Mr. Clements which diagram was the correct version.

Adams asked Reese if the work by HWA had shed any light on whether water migrated horizontally to the bluff. Reese said that the work did not shed light on the issue, but he said that he did believe that water moved towards the bluff.

Adams asked how the question of whether the water moved to the bluff or to the ditch would be solved scientifically. Reese said it would be nice to have a boring on the other side of Edgecliff, and explained that he would create a hydrogeologic model for the site and the wetlands to study the issue. Reese said that the wetland was a key piece of the hydrology on the site and he speculated that the wetland and aquifer were higher in the wet seasons; lower in the shoulder seasons; and lowest in dry seasons. Reese explained that, in order to understand the fate of water that made it into the wetland, you would need to know how the wetland behaved. Reese said that when the wetland was high the water may be blocked by the road, but when the water was low the water may stay subsurface and go directly out the face of the bluff. Reese said that he would monitor the hydroperiod to find out more about the wetland; monitor the water levels; and model the overall behavior of the wetland. Reese said that this information might determine how the wetland was functioning under the current circumstances, and how it might function with the development.

Adams asked about the proposed mitigation measures in the MDNS and read mitigation measure one. Adams questioned if this was the type of monitoring that Reese had talked about. Reese said no, the measure appeared to be a loosely specified one-time monitoring requirement. Reese said that you would need to monitor the site continuously for at least a year to understand how wetland was functioning.

Adams asked Reese if he had a chance to look at the drainage system and the county outfall, and if he would like to summarize his feelings as a professional about their condition. Reese said that the ditch was a typical drainage ditch that was heavily vegetated and shallow, and that the water from the ditch moved into a large diameter culvert. Reese said that the ditch may or may not be adequate, but the outfall seemed not to be.

Steve Erickson from WEAN asked Reese some questions. Erickson asked Reese if he had looked at the bluff. Reese said that he had not looked at the bluff; the conceptual geologic cross-section of Aspect Consulting was based on the geologist Dave McCormick's observation. Reese explained however that he had seen pictures of the bluff. Erickson asked if Reese had seen evidence of instability and past slides in the pictures. Reese said yes.

Erickson questioned if any of the drainage plans had considered importation of water onto the site for irrigating lawns and gardens. Reese said that they had not.

Erickson said that there were several approaches to monitor water flows and subsurface water flows and he questioned how much such monitoring would cost. Reese said that the monitoring water levels in the wetland and the ditch may cost 50,000 dollars to monitor a couple of years and that the study would include a report and an analysis.

Erickson asked if it was Reese's opinion that groundwater could and did travel under the road. Reese said yes. Erickson questioned if the road were an impassible barrier or dam, if that would be consistent with springs along the bluff. Reese said no.

Erickson read mitigating measure 2 of the MDNS and asked Reese if mitigating measure 1 and 2 were sufficient to find any impacts to the ditch or outfall caused by the development. Reese said no. Reese said that mitigation measure 1 would provide a video of the ditch and the outfall on one date, and mitigation measure 2 would provide the characteristics of the drainage on four separate dates for three years. Reese questioned what would happen if the monitoring occurred over three dry years, and argued that the short of time frame was not sufficient to determine whether there was a change to the drainage ditch and outfall.

Erickson questioned Reese about the minimum amount information that needed to be developed to determine if there was an impact. Reese said that there were two approaches.

1. Monitor and mitigate. Reese said that this approach was being proposed for the project and would need to be enhanced. Reese explained that it would be hard to observe any change to the drainage because hydrology and climate were always different. Reese said that, to observe any changes, the City would need to collect a lot of data, perhaps using continuous monitoring over a five-year period. Reese said that he would place a flume in the ditch and collect the water every 15 minutes or hour to analyze the impacts; monitor the level of the wetland; and potentially measure groundwater levels.
2. Assume worst and evaluate now. Reese said that an approach that assumed the worse would utilize an increase 728,000 or 820,000 per year and analyze it and to see what would happen if all the water went to the slope or the ditch. Reese said that a hydrogeologist could run a slope stability model to determine the change in the groundwater and the effect on slope stability, and he said that the effect of all the water moving to the drainage system could also be analyzed. Reese said that this approach to the site would be a better way to go in evaluating the site.

Erickson concluded his questioning of Reese.

Doug Kelly, attorney for the applicant, questioned if Reese had a chance to review the Varljen report dated March 1, 2009. Reese said yes. Kelly read the last paragraph of the report and asked if Reese disagreed with the statement. Reese said that he agreed with portions and disagreed with portions. Reese said that he agreed with the concept that you needed to evaluate the wetland and the conveyance system to determine if it could handle the additional water, and agreed that if the water was properly managed at the discharge points that it would not cause an issue. Reese said that he did not agree with the statement that all water would go into the wetland and therefore into the ditch. Kelly asked why he disagreed. Reese said that it hadn't been studied, and that no one had looked at it over the seasons. Reese said that the report didn't look at what happened in the shoulder seasons and dry seasons.

Kelly asked if it was safe to say that Reese would not know what would happen to all the water until he had studied it for two, three or five years. Reese said that it was complex scientific question to determine how much water would leave the wetland, and a simplifying assumption for the site would be analyzing all the water going each way: to the bluff or to the ditch. Kelly asked if Reese felt that the opinions rendered by HWA and Varljen were based on inadequate information. Reese said yes. Kelley read from the first sentence of the second page in Exhibit 11 of the Varljen report and questioned if Reese disagreed with the sentence. Reese said that he thought the conclusion was interesting, because Varljen had recommended specific boring levels, and then had accepted materials that did not conform to the boring levels originally suggested. Kelly read the paragraph again and questioned if Reese agreed: yes or no. Reese said no.

Kelly asked Reese for clarification about the Aspect Consulting conceptual geologic cross-section. Kelly asked if the diagram was based primarily on the work with the geologist. Reese said yes. Kelly summarized that the cross-section was based on a certain inferences based on the test pits, surface topography and the Lind well, and he questioned if the borings were done before or after the cross-section. Reese said that the deep borings were done after the Aspect cross-section. Kelly questioned if the borings showed that some of the information contained on the conceptual cross-section was incorrect. Reese said yes.

Kelly questioned Reese about his estimate of an increase in 820,000 gallons of water that was not handled by evapotranspiration and asked if Reese thought that the figure used by the applicant was outside of a reasonable scientific range. Reese said no, he thought that the applicant's scientists were pretty close in their estimate.

Kelly asked if Reese believed that the deep borings taken on the site did not provide any information regarding the amount of water reaching the bluff. Reese said that the deep borings did not answer the question of the eventual fate of the water. Kelly asked if a boring drilled on the other side of the road would provide additional information about the amount of water reaching the bluff. Reese said that it would not; the amount of water was a difficult scientific question to answer but could be done. Kelly asked Reese if he thought another boring on the other side of the road would help. Reese said that he did not pretend to be here to determine the specifications for the site evaluation and he said that additional information was needed to determine the hydrologic conditions on the site. Reese said that in 2007 the test pits studied the site up to 10 feet deep and this was expanded through the latest analysis of the site to also consider the wetland. Reese said that he thought that the analysis should now be expanded one more time to determine how the water eventually reached Puget Sound. Reese asked what would happen if all the water moved to bluff, and what would happen if it all went to the ditch.

Thomas Graafstra, attorney for the City said that he was having a hard time getting a handle on some of the numbers being used. Graafstra said that between 728,000 and 820,000 gallons of water would be reaching the subsurface as a result of the development, and this water was different than importation of water. Graafstra noted that there was no estimate of the importation of water to the site. Graafstra questioned how much water would be added per square foot annually if the built part of the development was 4.5 acres, out of the total site acreage of 8.5 acres. Reese said that would amount to a couple of inches per every square foot on the site. Graafstra questioned how much water the total would be per minute and questioned if the 820,000 gallons per year was a phantom number. Reese said that the number was not a phantom number, but said that he would look at peak flows and the ultimate fate of the water if he were analyzing the site, not the total gallons per year.

Steve Erickson asked Reese to discuss the impacts that groundwater flows had in creating pulses of stormwater. Reese said that impervious surfaces produced very sharp pulses of surface stormwater and he explained that infiltration would produce seasonal increases, but not a storm pulse. Erickson clarified by saying that Reese thought that the applicant's method of dealing with the water would even out the amount flow through the subsurface over time. Reese said yes, the flow of stormwater through the subsurface would tend to even out the flows from the site. Sundberg asked if Erickson's line of questioning was dealing with physics or way that the numbers were being written up. Erickson said that he was trying to find the potential effects of the method of the treatment of water on site. Erickson said that the City's questioning of Reese seemed to imply that large pulses of water from storm events would move rapidly out the ditch or the system. Erickson said that because the water was being infiltrated, the overall flows would be moderated and he said that the extensive use of raingardens would extend the period that the water was in the system. Erickson asked Reese if extending the period of the water flowing through the site would enhance the ground water recharge. Reese said yes. Erickson questioned if an increase in groundwater would potentially increase the amount of water reaching the bluff. Reese said that it could potentially increase the amount of water reaching the bluff. Erickson summarized by saying peak flows may not be larger but they would be extended in duration.

Erickson questioned Reese about what on the Aspect Consulting cross-section was shown to be incorrect as a result of the borings. Reese said that the layer Quaternary Vashon Till (Qvt) was shown to be incorrect; the pre-Vashon fine grain (Qpff) might be higher; and the shallowest aquifer might be a little deeper. Erickson questioned if those changes influenced in anyway what water may be flowing to the bluff. Reese said that it may affect where on the bluff the water may discharge, but it did not affect the amount of water flowing to the bluff. Erickson questioned what would influence where the water may discharge on the bluff. Reese said that anyplace where water perched on a till layer would effect where it would discharge.

Erickson asked Reese if there was anything that wasn't supported by Aspect's observations on the HWA cross-section, other than the bluff itself and the fact that it didn't explore the deeper level of the site. Reese said no.

Buktenica said that Island County had extensive maps of the subsurface and she questioned if any of the groundwater maps had been used in the exploration. Reese said that he did not know whether the geologist for Aspect had used them for the report. Buktenica questioned how far away the well was located from the project site. Reese said that the well was 750 feet away from the project site. The Board thanked Reese for his testimony.

Sundberg swore in Director of Community Planning Larry Cort. Adams asked Cort about his dates of employment for the City. Cort provided his two periods of employment with the City and noted that Alice Schisel was his predecessor and Donna Keeler was hired as an interim planner between his employment terms.

Adams questioned if Cort had relied on input from other City staff. Cort said that he had primarily relied on Ryan Goodman and Challis Stringer for input about the project, but said that Fred Evander had done some mapping. Adams asked if Cort had any conversations with the Island County Hydrologist Doug Kelly about the project. Cort said no.

Adams directed Cort to look at the definition of the word probable in WAC 197-11-782 and specifically directed Cort to the portion of the definition that said that the word was not meant as a strict probability test. Adams questioned what the sentence meant. Cort explained that a strictly mathematical probability was not used when someone analyzed for probability under SEPA. Adams asked if the following statement would be an accurate statement: development would probably lead to the loss of evapotranspiration. Cort said that it would all depend on how a site was designed and pre and post-development conditions. Adams asked Cort how he would weigh those things. Cort said that you would need to determine the pre and post-development conditions and compare the expectations of evapotranspiration to see if there was less or more. Adams questioned what SEPA said to do if there was uncertainty about whether there was less or more evapotranspiration. Cort said that under SEPA, a reviewing agency should utilize a rigorous scientific method to perform calculations. Adams asked Cort how he would evaluate the following statement under his understanding of the SEPA standards: it is probable that water that does not end in the drainage ditch will emerge in the aquifer and the face of the bluff. Cort said that he was not qualified to answer the question and he would solicit the help of a qualified scientist who used a scientific method to make a determination. Adams questioned if the word probable as used in SEPA was not its common meaning. Cort said that the word probable in SEPA, specifically referred to the phrase probable significant adverse environmental impact. Adams questioned if an expert who said that something was probably going to happen used the word probable different than a SEPA official. Cort said that he would want to see a scientific basis to support the statement that something was probably going to happen.

Adams asked Cort about the word significant and read from the third sentence of LCAA Exhibit 2, WAC 197-11-794. Adams asked Cort if he agreed that a bluff failure would have a significant impact. Cort said that it would depend on the nature of the bluff failure. Adams questioned if Cort agreed that bluff failures were potentially significant. Cort said that he agreed that failures were potentially significant. Adams asked Cort whether a one percent chance that a house would go into the Sound would constitute a significant impact. Cort said that he would like to read the entire paragraph pertaining to significance, rather than taking one sentence out of context. Cort read the entire paragraph and said that he would look at the totality of the definition to make an assessment of significance.

Adams asked Cort why he didn't issue a DNS on the project. Cort said that, in studying the environmental impacts from the proposal, he felt that there were several issues of concern that could occur as part of the project. Cort said that he found some scientific uncertainty in one part of the hydrogeologic study and the peer-review of the study, and he wanted to address that concern as part of SEPA. Cort noted that under SEPA additional conditions could be added that were not related to probable significant adverse environmental impacts and conditions could be suggested by an applicant to handle issues that did not rise to a level of significance.

Adams referred to WAC 197-11-734, dealing with Determinations of Nonsignificance, and said that the fact that Cort did not issue a DNS implied that project would have a significant impact. Cort said that in the City's analysis, they had identified a couple of potential impacts that could have mitigation applied to them to lower

them to the level of moderate impact or less. Adams questioned if Cort felt that the project did have a probable significant adverse environmental impact and if that was why he issued a MDNS. Cort said that the project clearly did not merit a DNS.

Adams asked if SEPA said anything about the preferred type of mitigation when mitigating a problem. Cort referred to Exhibit 1 of the Staff Brief and said that the section gave a series of approaches to mitigation. Adams questioned if the fact that the mitigation measures were numbered one to six was important. Cort said that the numbering was interpreted to be the preferred method of consideration. Adams asked what item was number one on the list and Cort responded: avoid the impact all together. Adams asked Cort if the impact would be avoided all together if the additional water were collected and conveyed in a tightline to the Puget Sound. Cort said that he was not qualified to answer that question, but noted that the approach would potentially have a significant impact on the wetland. Adams asked Cort if the City had looked at the tightline alternative. Cort said that the City had, but that the City had a sequence in the LMC that had established infiltrating water on-site as the City standard. Cort explained that other techniques were only to be considered when low-impact development had been shown to not work on a site. Cort said that for technical input on Adams question, he should refer his question to the City Engineer.

Adams showed Cort LCAA Exhibit 16, Section 15.01.430 of the Langley Municipal Code, and questioned if the section was what Cort had referred to in regards to the consideration of infiltration. Cort said yes. Adams asked if there was an exception when infiltrating near a bluff and showed Cort, Exhibit 15, an excerpt from the Langley Comprehensive Plan. Adams stated that the section from the Comprehensive Plan suggested that infiltration was not always an appropriate alternative. Cort said that he felt that Section 15.01.430 was an appropriate implementation of the Comprehensive Plan policy, and explained that the section said first look at infiltration, and, where it did not work, then consider other alternatives. Adams questioned if, in this case, the City ruled out looking at a tightline alternative because it was felt that infiltration was a preferred alternative. Cort said that City staff did not make those types of judgments. Cort said that the City staff were barred from considering a second-tier alternative until the first-tier established by the City Council was shown to be inappropriate. Adams questioned when the City ceased to consider the tightline alternative. Cort said he did not review drainage plans and that the question should be directed to the City Engineer. Adams stated that the fact that the City went against a letter from the USGS that specified the importance of conveying water to the bluff was a mystery in this case.

Adams showed Cort the second paragraph of the second page of Exhibit 7. Adams summarized the paragraph and explained that it said that City staff gave approval to the applicant to evaluate low-impact development on the site, with the condition that the analysis be conducted by a geotechnical engineer. Adams asked Cort if he had any reason to assume that the statement was incorrect. Cort said that he didn't remember the specifics of the conversation and that he might not have been there, but said that he wouldn't be surprised if the applicant was told that the City standard for stormwater treatment was low-impact development. Adams asked Cort if Clements was steered to infiltration by City staff. Cort said yes, the applicant was likely steered to infiltration by the City's implementation of the LMC.

Adams asked about a valid scientific study and questioned whether a conceptual cross-section met the criteria. Cort said that the LMC defined what constituted a scientific study. Cort referred to LMC 16.20.015.C, Characteristics of a valid scientific process, and said that the section defined the standard by which the City determined the characteristics of a scientific study. Cort said that, based on the original amount of information available from HWA, Davido, and Aspect (before the borings), the information may or may not have met the standard for a valid information. Cort explained however that the information was not rigorous enough to proceed with a decision on the application.

Cort explained that it was not long after the meeting with Davido about infiltration that the initial MDNS was issued by Donna Keeler and ultimately withdrawn fourteen days later. Cort said that a condition of the original MDNS was that a deep boring be conducted, and whatever came out of the study be incorporated into the final

design of the site. Cort said that, for whatever reason, Keeler withdrew the MDNS in late 2007, and then proceeded to require the completion of the boring upfront.

Adams questioned when Mr. Varljen was hired and under what circumstances. Cort said that he hired Varljen in two circumstances. Cort explained the peer-review process and said that the City could ask for a peer-review when there was a questionable scientific approach or when there is a conflict between two well-qualified individuals about the same issue. Cort said that he first hired Varljen when the City had received the Aspect report and the combined HWA and Davido report, and the two reports came to different conclusions about the subsurface stratigraphy. Cort said that Varljen concluded that the two reports came to different conclusions about the geology on the site based on the same information, and that deep borings were necessary to resolve the impasse.

Adams referred to Varljen's first letter, Exhibit 9 of the LCAA brief, and said that as part of the review Varljen had not developed his own technical opinions about the issues. Adams said that Varljen's conclusion was that further geological exploration needed to be done on the site, but he noted that Varljen was not entirely specific about how that exploration should be done. Adams noted for example that the letter did not specify whether the boring should be done on the north side of the road. Cort said that it was up to scientific representative of applicant to determine how the sampling would be taken. Adams questioned if Cort found it unusual that Varljen did not give any information about how the test that should be preformed. Cort said he did not find it unusual and said that Varljen felt that the people that knew the site best should design the technique to gather the information.

Adams referred to Varljen's second report, Exhibit 11, which was completed after the drilling of the borings. Adams read the portion of the document that said the infiltrated precipitation would most likely discharge to the wetland and the ditch, and questioned if Cort accepted that characterization as definitive. Cort said that because the City had the September and December HWA reports, the City had a valid scientific study and a peer-review conducted by someone qualified to review those reports. Adams asked Cort if he believed that all the infiltration that occurred on the site would go into the wetland and the ditch. Cort said that he relied on the reports in making his determination for the project. Adams asked if Cort would change his opinion if it were to be shown that the characterization of the water was incorrect. Cort stated that he wasn't qualified to have his own opinion on the topic. Adams asked if Cort was relying on the assumption that Varljen was correct in creating the mitigation measures for the site. Cort said yes.

Adams questioned Cort about his interactions with the County about the ditch. Adams showed Cort Exhibit 24 of the LCAA brief and asked if the County in the form of Bill Oakes was anxious to discuss the issue. Cort said that the County was interested in seeing the drawings for the downstream system. Adams questioned if the letter pre-dated Cort's arrival as Planning Director. Cort said yes.

Adams showed Cort Exhibit 29, an email that had been sent by Rolf Seitle to Phil Cohen at Island County that asked whether the County had been contacted by City of Langley about the project. Adams explained that the response to Seitle indicated that Cohen had not been contacted about the ditch. Cort said that whether the County had been contacted about the ditch depended on time frame and he explained that the City had sent a Notice of Application to the County. Adams asked Cort if he had any contact with the County about whether the outfall was sufficient for the increase in water. Cort said that he had not and he recommended that Adams ask Ryan Goodman about the issue.

Adams asked Cort about mitigation measure 3 and the standard for determining if something had demonstrably worsened. Cort said Adams should refer the question to the City Engineer. Adams asked if Cort would rely on the City Engineer's opinion if something if something had demonstrably worsened and whether the result was from Langley Passage. Cort said yes.

Sundberg reminded Adams that the meeting would adjourn at 7:00. Adams said that he would like a couple more minutes with Cort.

Adams questioned how Cort decided that 2,500 square feet of impervious cover was the appropriate amount for the site. Cort referred to his Staff Brief and explained how he conducted a SEPA review. Cort said that he looked at the impact of something on the site that would be categorically exempt from SEPA Review, and applied mitigation that would drop the impact of an application to that exempt activity. Cort said that, in this case, a categorically exempt application with two homes and maximum impervious cover came within a hair's breath to that 2,500 square feet maximum impervious surface number. Cort said that he then questioned whether 2,500 square feet was reasonable for the common amenities necessary for a single-family home in the City of Langley. Adams referred to Cort's Staff Brief starting on page 9 and continuing to page 10 and said that, if he understood Cort's argument, if the City said to the applicants to develop the site as a categorically exempt action, the applicant would be able to discharge that amount of water from the site. Cort said that he simply used the approach as a tool to assess reasonable mitigating conditions. Cort said that under current regulations maximum impervious surfaces could be 1.69 acres.

Sundberg said that one thing that struck him in the analogy was the roadway, and said that the roadway would likely be similar in both a two lot development and a 20 lot development. Cort said that the purpose in providing the matrix was to test a mitigating condition. Cort said that the view portion of the lot was on north portion of the lot and the matrix assumed a shared driveway, a good sized home and any number of outbuildings. Adams questioned about the size of the houses and stated that 20 houses with 2,500 square feet of impervious area would create 50,000 square feet of impervious area. Adams questioned how much impervious area would be in two houses and stated that the amount would total 25,000 square feet per house. Cort reminded him that he was not looking solely at house sizes. Sundberg summarized that Adam's point was that the analysis depicted home sizes that were likely too large.

Sundberg said that the Board would continue the hearing with additional questions and any cross-questions for Cort on June 9, 2010, and then would proceed with additional witnesses.

Gage asked about the next hearing and if the Board should continue until they were done. Buktenica said at this point in the hearing, it did not seem fair to tell other people to be brief. Sundberg said that individuals should try to avoid repetitive material. Kelly said that the way the Board moved through the meeting was fine and that there would be a lot of questions for Mr. Clements and Mr. Sugar. Kelly said that he didn't think that the Board would be able to get through the appeal in two meetings.

The Board determined they would have another three hour session and then some additional meeting, and said that they wanted to complete the hearing this month.

ADJOURN

Shafaat made a motion for continuance of the hearing on June 9th at 4:00 in the Langley City Council Chambers. Gage seconded. The motion was approved unanimously. The meeting adjourned at 7:10.

The meeting was held at Langley City Hall. The next meeting of the Planning Advisory Board will occur on June 9, 2010 at 4:00. Fred Evander recorded the minutes for the meeting.