MINUTES
CITY OF LANGLEY
PLANNING ADVISORY BOARD
July 14, 2010

Jim Sundberg called the meeting to order at 4:08.

ATTENDANCE

Members Present: Julie Buktenica, Roger Gage, Jim Sundberg
Members Absent: Fred Geisler
Staff Present: Ryan Goodman, City Engineer, Larry Cort, Director of Community Planning, Challis Stringer, Director of Public Works, Paul McMurray, City Attorney, Fred Evander, Community Planner

MINUTES

Roger Gage moved to adopt the minutes of the June 2, 2010 meeting. Julie Buktenica seconded. The motion was approved unanimously. Sundberg noted that the word "about" in the second paragraph of page 3 in the June 9, 2010 minutes should be "above". Buktenica moved to adopt the June 9 minutes with the correction. Gage seconded. The motion was approved unanimously.

PUBLIC HEARING – LANGLEY PASSAGE PRELIMINARY PLAT

Sundberg summarized the purpose of the hearing and said that the Board would need to hold one more meeting to finish consideration of the case.

Steve Erickson, representing Whidbey Environmental Action Network (WEAN), began the presentation of his brief. Erickson said that his brief incorporated the Langley Critical Areas Alliance (LCAA) arguments and exhibits by reference.

Erickson said that a State Environmental Policy Act (SEPA) Official was accorded substantial weight in a SEPA Appeal, but said that this substantial weight could be overcome with the definite and firm conviction that an error had been committed and the decision was clearly erroneous. Erickson said that in order to make this decision the Board needed to study the record in regard to SEPA to ensure that the review had considered the full range of environmental impacts and environmental benefits associated with the proposal.

Erickson that the SEPA Official had made three major groups of errors in the review of the application: the proposed mitigations were inadequate to mitigate probable significant adverse environmental impacts; there was inadequate information to show that impacts had been mitigated appropriately; and there was inadequate information to show that the significant impacts were able to be mitigated.

Erickson began to address these items, but first stated that the SEPA Responsible Official's position regarding the application of mitigation to the proposal was incorrect. Erickson summarized that Cort had testified that a SEPA Official could issue a Mitigated Determination of Nonsignificance (MDNS) without probable significant adverse environmental impacts, and Erickson stated that this approach was wrong as a matter of law. Erickson handed out a document regarding SEPA (Exhibit A-2) and read from the underlined portions of the document, which included a sentence that stated "such action (an action under SEPA) action may be conditioned only to mitigate specific adverse environmental impacts which are identified in the environmental documents prepared under this chapter."

Erickson speculated that the City had said that there were no significant adverse environmental impacts from the proposal to force the appellant to prove that there would be significant adverse impacts from the project without any mitigation. Erickson stated that the MDNS issuance acknowledged that there would be significant adverse environmental impacts from the project and he said that the appellants did not need to prove that point. Erickson said that all the appellants needed to prove was whether or not the mitigations were capable of being accomplished and whether the mitigations were sufficient to reduce the impacts to a level of nonsignificance.

Erickson said that there was no dispute that the development would increase the amount of water that would leave the site or be infiltrated into the ground. Erickson referenced the reports by the applicants and Aspect Consulting and said that each of the reports indicated that there would be some increase in the water leaving the area due to precipitation that would no longer leave the site via evapotranspiration.

Erickson said that impacts to the bluff associated with the additional water were completely unmitigated by the project Erickson summarized testimony by Cort at previous meetings, and concluded that Cort had found there would be no increase in groundwater to the bluff, or the impact to the bluff would not be significant. Erickson argued that the MDNS however had said that there would be impacts to the bluff. Erickson said that Owen Reese had testified that that it was his opinion that water exited the bluff, based on seepage along the bluff face witnessed by Aspect Geologist David McCormack, and Erickson said that Reese had also felt that the water generated from the bluff properties was not sufficient in itself to produce that seepage. Erickson said that these facts had not been rebutted in the record.

Erickson said that the use of infiltration on the site would extend the amount of time that water would drain through the system. Erickson stated that the rain gardens would extend the period of saturation of the soils when the wetland did not drain into the ditch and the water may discharge lower on the bluff than was originally shown in the Aspect Consulting diagram. Erickson said that Arnie Sugar, the hydrogeologist for the applicant, had testified that water in deeper elevations along a bluff could cause deep seated bluff failure. Erickson stated further that the United States Geological Survey (USGS) report had stated that deeper landslides caused by infiltration would take weeks or longer to appear. Erickson said the fact the SEPA Responsible Official did not propose monitoring or mitigations in light of these issues displayed the fact that his position regarding impacts to the bluff was clearly not appropriate.

Erickson said that the proposal would affect the bluff and said that SEPA required a consideration of context, intensity and severity of a potential impact. Erickson said that the context in this case was an already unstable bluff, and he said that the potential intensity and severity associated with the proposal were great.

Erickson said that there was no work to the drainage ditch or outfall proposed by the application. Erickson explained that the County had said that the proposal should not increase the rate and volume to the ditch and Erickson said that both of these measures needed to be met.

Erickson said that the monitoring of the ditch as proposed in the conditions was flawed and, as Reese had testified, it was not looking at an appropriate time frame or parameters. Erickson explained that SEPA required mitigations that were capable of being accomplished, and said that in this case the mitigation would only be triggered after the development had occurred. Erickson said that the increase in volume in the ditch would be significant and would require an Environmental Impact Statement (EIS).

Erickson stated that the review of the drainage system improperly segmented the review of the proposal under SEPA and said that this was prohibited under the law. Erickson said that SEPA stated that all portions of the proposal should be considered as part of the same environmental review and he explained that Cort had not followed this standard. Erickson said that the environmental review by the City had not considered the drainage or outfall and stated that, according to Cort, any future environmental review of necessary downstream improvements would be determined by to the County.

Erickson said that SEPA required reviewing bodies to consider whether a policy conflicted with regulations regarding the environment and said that in this case the proposal conflicted with existing regulations. Erickson stated that the position of the SEPA Responsible Official in regard to application was that Policy J of the Comprehensive Plan would not apply anywhere and Erickson said that the Board should not allow this interpretation.

Erickson said that the waterline through the wetland in the proposal conflicted with the Langley Municipal Code (LMC), threatened the environment, and established a precedent. Erickson argued that the cumulative impacts of such an approach must be considered. Erickson said that the LMC allowed utilities in wetlands only when there was no other reasonable and feasible alternative for their placement. Erickson said that it was only after this reasonability and feasibility standard was met that any mitigation could be considered.

Erickson referred to Proposed Water System Map (part of LCAA Brief – Exhibit 13) and said that no properties would be greater than 800 feet from a water main if Loop 12 (shown on the map connecting Sandy Point to Edgecliff Road) was constructed. Erickson said that if the City followed this Comprehensive Water Plan the loop through the wetland would not be necessary. Erickson said that the water plan represented a reasonable alternative for the placement of the water line, because the plan had gone through the legislative approval process and had been referenced in the County's GMA plans. Erickson stated however that the position of the City Engineer and the City Planner had completely negated the plan. Erickson said that the water line had not been financed in the Six-Year Capital Improvement Program and the City had failed to go to the City Council to promote a latecomers agreement or a pay-as-you-go fund to pay for the line. Erickson implied that these funding approaches were feasible for the line construction and as a result all reasonable and feasible alternatives were not considered in the placement of the utility.

Erickson said that the project would set a dreadful precedent in regard the need to loop water lines. Erickson said that this precedent would promote a water line loop whenever there was a dead end line greater than 800 feet in length, even if the loop went through a wetland. Erickson said that SEPA required reviewers to consider whether a project would set a precedent and he stated that both Goodman and Cort had acknowledged that this provision could place future waterlines within wetlands. Erickson said that because the review of the project did not consider the cumulative impacts of this approach, the consideration of this impact under SEPA was erroneous.

Erickson said that the second major group of errors dealt with the fact that there was inadequate information regarding whether significant adverse impacts were mitigable or if in fact they had been mitigated. Erickson read from Washington Administrative Code (WAC) 197-11-080 regarding uncertainty in scientific information and said that an agency shall obtain information when the costs of obtaining the information were not exorbitant. Erickson said that this did not happen in this case and there remained uncertainty about potential impacts.

Erickson said the ultimate question for the project was: what is the fate of the water? Erickson said that the issue had not been studied. Erickson said that Reese had said that it would cost around $50,000 for a study to look at the fate of the water and Erickson argued that, based on that price and the potential impacts from the project, the amount was not exorbitant. Erickson also said that Reese had encouraged individuals to look at all of the water going both ways (through a slope stability analysis and an analysis of all the water going into the ditch). Erickson said that either one of these two approaches was required to evaluate potential project impacts.

Erickson said that the third major group of errors in the consideration of the SEPA was whether the mitigation was adequate or whether there was adequate information to conclude that the impact was mitigable.

Erickson noted a lack of information regarding the potential increase in water imported to the site and said that, despite this lack of information, there was no proposed monitoring to see if there were changes to the bluff

Erickson spoke about the mitigations for the downstream stormwater system and said that if the mitigations did not avoid an increase in volume to the ditch, or improve the outfall system to handle the additional water before the flow occurred, the mitigations would be insufficient to prevent significant adverse environmental impacts. Erickson said that the mitigations outlined in the MDNS achieved neither of these things and he referred to pages 22 to 24 of his brief for further information.

Erickson lastly addressed the SEPA Responsible Official's use of categorical exemptions as a tool to evaluate mitigations. Erickson said that there was an underlying assumption that categorical exemptions never had significant adverse impacts and he said that this assumption was wrong. Erickson referenced testimony by Sugar that seemed to state that French drains had significant adverse impacts to bluffs, despite the fact that they were exempt from SEPA, and Erickson argued that it was exactly this type of categorically exempt action that was utilized by Cort in evaluating how to mitigate the site. Erickson said that this approach was erroneous. Sundberg questioned if Erickson was talking about Cort's study about the impact of two homes on the site if it was divided. Erickson said yes, two homes may be exempt from SEPA, but they would still have significant impacts.

City Attorney Paul McMurray, who was filling in for Thomas Graafstra, introduced himself and said that the City did not plan to present any witnesses. McMurray said that the City believed that the record was sufficient for upholding the MDNS and said that the City would withhold arguments until the next meeting.

Doug Kelly, attorney for the applicant, called Director of Community Planning Larry Cort. Kelly said that Cort had issued a SEPA and he asked Cort to explain the process that he went through to make that determination. Cort said that the process was a standard SEPA process as laid in state law: the applicant had provided an environmental checklist with the application; staff had used the environmental checklist to help determine areas where additional studies were needed; staff had requested a number of additional studies for the proposal; and the applicant had responded with a number of documents about areas of concern. Cort said that there was an MDNS for the project issued in December of 2008 by the then interim Planning Director, Donna Keeler, and he said that this MDNS was withdrawn two weeks after its issuance. Cort said that on March 18, 2009, he issued a MDNS and received a number of comments about the proposal. Cort said that after this comment period had expired he issued a revised and final MDNS on May 13, 2009.

Kelly asked Cort what documents he considered in making his determination. Cort said that he considered the Environmental Checklist initially and said that there were ultimately two key issues to be considered: the presence of the wetland on the site, and the surface and groundwater drainage and the potential impact of that drainage on the bluff. Cort explained a number of studies conducted by the applicant, including a wetland delineation and peer review and deep borings that helped to explain the subsurface geology, which aided the City in resolving the questions around the issues. Kelly clarified that there were two hydrogeologists involved in the project. Cort said yes.

Kelly asked if Cort had considered the public comments about the project. Cort said yes. Kelly asked approximately how many letters Cort had received for the project. Cort said 100 to 150 letters. Kelly asked Cort if he had read all the letters. Cort said that he had. Kelly asked if Cort felt that he had sufficient information to make a decision. Cort said yes. Kelly asked Cort where his authority arose for the action. Cort said that the LMC designated the Planning Official as the SEPA Responsible Official.

Kelly summarized that Cort had said that he did not feel that the project had adverse environmental impacts. Cort corrected him and said that he had stated that the project did not have probable significant adverse impacts, which was the threshold for an EIS. Kelly asked if Cort felt that he could apply mitigation without finding a probable significant adverse impact. Cort said yes. Kelly asked Cort what gave him that authority. Cort referenced the exhibit passed out by Erickson (Exhibit A-2). Cort drew the Board's attention to the bold and underlined portion of the document and said that the section did not state that mitigations only applied to

probable significant adverse impacts. Cort said that the section specially dealt with "adverse impacts." Cort said that all projects had positive and adverse impacts and that SEPA could be used to mitigate adverse impacts that did not rise to the level of a probable significant adverse impact.

Cort said that this position was reiterated in WAC 197-11-660 and he read from the section. Cort summarized by saying that you could apply mitigation to "specific adverse environmental impacts" and he explained that this phrase broadened out the responsibility of the SEPA official to condition applications using the substantive authority of SEPA. Cort said this position was lastly reiterated by the Department of Ecology in the SEPA Guidebook, in Section 2.8.1 under Mitigated DNS, which stated that an MDNS could be used to condition impacts that were less than significantly adverse. Sundberg said that the matter was important because previously Erickson had asked Cort where his position regarding MDNS conditions could be found in law. Sundberg said that he was editorializing, but that he assumed that the guidebook from the state was consistent with State law. Cort said that he believed that there was consistency in all the documents.

Kelly asked if mitigation measures could also be applied if the applicant agreed with the measures. Cort said yes. Kelly asked if the applicant had agreed to the mitigation measures proposed for the site. Cort said that the applicant had agreed to the measures.

Kelly asked why Cort had applied the mitigation measures if he felt that there were not significant adverse impacts from the project. Cort said that staff felt that there were some adverse impacts that could be addressed through the use the substantive authority of SEPA. Cort provided the example of impervious cover on a site, and explained that the LMC said nothing about the issue. Cort explained that the limit on impervious cover in this instance was an effective use of SEPA.

Kelly asked Cort what other ordinances would apply to the application. Cort said that the full authority of the LMC would apply to the application, whether at the preliminary plat phase, engineering phase or some other phase. Cort said that all of the conditions for the project would have to be met whether they were in the code, conditions to the plat, or conditions of the SEPA, and Cort noted that these conditions would have to be met before the project could progress to final plat. Cort said that the code would not stop being in effect at that time and he explained that the buildings would also be subject to the building code.

Kelly asked Cort to explain his primary objectives in imposing the conditions. Cort said that the primary objective of the conditions was to reinforce or clarify the regulations currently specified in the code. Cort said that while the Critical Areas Ordinance (CAO) in the LMC held the vast body of conditions in regard to the wetland, there were items in regard to the placement of the waterline that the City wanted to clarify through SEPA. Cort also said that the conditions related to the continued performance of downstream system were based on Varljen peer-review report. Cort said that Varljen had concluded that the project would have no impact to bluff, but warned that there needed to be adequate capacity for the water in the downstream system. Cort explained that this caution from Varljen was why the City required monitoring of the downstream stormwater system even through the applicant's preliminary drainage report had shown that there would be adequate capacity in the system.

Cort noted that the monitoring of the downstream system would be factually based and the pre-conditions report was not just a one time study. Cort said that the parameters associated with the pre-conditions report would be designed by the City Engineer and he said that the video portion of the monitoring was the only part would occur on one date. Cort said that mitigation measures were specified for the downstream system if there were ill effects and he said that there was a financial guarantee if any improvements were necessary.

Kelly asked Cort about the type of activity that was meant to occur in the wetland when project started. Cort said that when he had arrived at the City, the drainage design was still conceptual, but the plans had shown both the sewer and water pipes placed through the wetland. Kelly asked how much would have been disturbed if that

plan had been completed. Cort said that if both the pipes went through the area a lot more of the wetland would have been disturbed. Cort said a 10 foot separation was required between the sewer and water lines and explained that this spacing would have impacted a much greater swath of the wetland. Cort referenced the discussions at previous meetings about mitigation sequencing and said that, because the City had adopted the low-pressure standard for sewer, the impact to the wetland could be avoided by taking an alternative route to Sandy Point. Cort said that this alternative sewer route took the sewer line out of the wetland and left the project with only the water line traveling through the wetland.

Kelly asked if there were any mitigation measures that would need to occur after water line was put through the wetland. Cort said that the CAO did specify a number of mitigation measures that would be required for the wetland and the wetland buffer. Kelly asked if Cort could explain the disturbance to the wetland and the wetland buffer. Cort said that approximately 60 feet of the waterline went through the western edge of the wetland and the remaining part of the line went through the buffer. Kelly asked about the mitigation measures required in the CAO. Cort said that site restoration according to Best Available Science was required, in addition to setting aside additional land to compensate for the disturbance to the wetland. Kelly asked if each of those mitigations were going to be applied to the applicant. Cort said yes. Kelly clarified that the conditions would be applied in addition to the SEPA conditions. Cort said that that was correct.

Kelly asked if Cort felt like the conditions imposed by the SEPA determination were going to preserve the functions of the wetland. Cort said that the idea of the conditions and the CAO was to not make it worse. Cort said that the mitigation needed to follow the CAO regulations and he said that the purpose of having the regulations was to ensure that the functions and values of the wetland were not degraded. Cort said that the regulations stipulated that if a wetland was altered, some compensation was required. Kelly questioned if one of the mitigation measures was that additional wetlands be set aside. Sundberg clarified that it would probably be additional upland areas that would be set aside, not wetlands. Cort said yes. Cort also said that wetland enhancement was another mitigation measure.

Kelly asked if there were any other mitigation measures that were applied to surface water beyond the raingardens and the limitation on house sizes. Cort said that the City also had used the substantive authority of SEPA to apply clearing limits to the site. Cort said that the LMC had little in regard to tree clearing limits and he explained that the City had tried to use SEPA to best mimic the existing tree cover on the property. Cort said that the site was not pristine, but explained that he wanted to impose a standard to promote the highest level of evapotranspiration possible. Kelly asked Cort about the specified condition. Cort said that the condition stipulated the retention of a 30 percent tree canopy over the developable portion of the site and he noted that the condition did not include the wetland area.

Kelly asked Cort about the condition related to the limitation of impervious surface. Cort said that staff had established a 2500 square foot limit on impervious surfaces. Cort said that the average home size in Langley was 1500 square feet and when one added a driveway and an outbuilding the figure seemed appropriate.

Kelly asked about the conditions related to the ditch and the surface flow and questioned what Cort was trying to achieve with the conditions. Cort said that the mitigation was meant to address the comment from Varljen that said that the downstream drainage system needed to be adequate to potentially handle all of the water from the site. Cort said that City staff believed that there was adequate capacity to handle the additional water in the downstream system, but noted that the condition was put in place to address any scientific uncertainty expressed in Varljen's peer-review. Kelly asked if the initial analysis of the ditch found that there was capacity. Cort said yes.

Adams began questioning Cort. Adams referenced WAC 197-11-734, Exhibit 2 of the LCAA brief, and said that a plain reading of the section indicated that a DNS was issued if a proposal was not likely to have significant adverse environmental impacts. Adams asked Cort why he didn't issue a DNS if he felt that there were no

significant adverse impacts. Cort said that one of the options under SEPA was a MDNS, which was what he issued in this case.

Adams said that Cort had testified that there needed to be a specific adverse impact when mitigation was proposed. Adams said that Cort had listed the wetland, and surface and ground water drainage as specific impacts and he asked if Cort had also mentioned the bluff. Cort said that he had referenced the bluff environment as one of the initial concerns that the City had had when the SEPA was submitted. Cort said that this concern was specifically what caused the City to ask the applicant for deep borings to show the subsurface stratigraphy.

Adams asked Cort what part of the bluff environment concerned him. Cort said that the USGS report and the Coastal Zone Atlas had identified the bluff as unstable and there had been historical sloughing in the area. Adams asked if at a threshold level the City was concerned about bluff stability. Cort said yes and explained that that was why the City had requested the deep borings on the site. Adams said that he could not find information that the issue about bluff stability had been addressed in the HWA study.

Adams asked if Cort had asked any qualified hydrogeologist about the issue of bluff stability. Cort said that the City's role in the matter was a reviewing capacity. Cort said that the City had requested information from the applicant, it was up to the applicant to design the tests to gather the data, and the City's role was to question whether the information was appropriate. Adams asked if the City had any other hydrogeological information other than Varljen's letter. Cort said that the City had both the HWA report and the peer-review from Varljen. Adams asked if Cort could refer him to a section in the HWA report that dealt with bluff stability. Cort referred Adams to the December 19, 2008 HWA report (LCAA Brief – Exhibit 10) and said that the second paragraph of the sixth page stated that the predicted additional gallons per day and year were minimal compared to the existing groundwater flows and were not expected to have an effect on down gradient slope stability or drainage.

Adams referred Cort to the Varljen letter dated March 1 and referred him to the second paragraph on the second page, which stated that the data from the deep borings indicated that the infiltrated water would discharge into the wetland and drainage ditch well above the elevation of the bluff. Adams asked if Cort was relying on that statement. Cort said yes among other things. Adams referred Cort to the HWA diagram, pointed to the picture, and asked Cort if the area where he was pointing was the wetland. Cort said yes. Adams asked Cort whether the dotted line on the diagram represented silt. Cort said that he did not know. Adams asked if Cort asked Goodman's opinion about the report. Cort said that he did. Adams said that he would then ask his questions of Goodman.

Erickson asked if the applicant originally had a wetland delineation that was rejected by the City. Cort said that the delineation that he received contained a discrepancy in the western wetland delineation line when compared with an earlier delineation. Cort said that, with this discrepancy in the science, the City felt it was appropriate to go to a peer-review from Stewart and Associates. Erickson asked if that peer-review showed the wetland was larger than shown by the applicant. Cort said yes, the peer review sided with the earlier delineation by IES. Erickson questioned which delineation was the basis of Cort's statement that the pipeline would go through 60 feet of wetland. Cort said that he used the peer-reviewer Stewart and Associates' wetland delineation.

Erickson cited WAC 197-11-330 and said that the section specified when various determinations were made. Erickson asked Cort to tell him what the section said about when each of the types of determinations was issued. City Attorney McMurray objected to the line of questioning and said that the section spoke for itself. Erickson said that the section did contain some items that could be interpreted in different ways. McMurray said that Erickson should be precise with his question if he wanted to Cort to discuss the section. Erickson questioned if the document said that someone could issue an MDNS when there was not a significant adverse environmental impact. Sundberg said that neither Cort nor the Board had the page reference that Erickson was citing. Erickson withdrew the line of questioning.

Erickson asked Cort if the SEPA Guidebook had the force of law. Cort said no it was a guidebook for local administrators.

The Board took a recess at 5:35. The Board ended the recess at 5:43.

Kelly called City Engineer Ryan Goodman. Kelly asked if Goodman did an evaluation on the SEPA for the project. Goodman said that he did, especially concerning some of the application's technical aspects. Kelly asked if Goodman could explain his function assisting Cort. Goodman said that his role was to review public facilities, roads, water, sewer, and surface drainage and explained that his review took place through submittals by the applicant that were reviewed and commented on until the City was satisfied with the material.

Kelly asked if Goodman was the individual that reviewed the Davido engineering report. Goodman said that he was. Kelly asked what other studies Goodman considered. Goodman said that he considered the report from Davido about the plat design and utilities, a HWA report about hydrogeology, two peer-reviews from Mark Varljen, and the submittal by Aspect Consulting. Kelly asked if Goodman could explain the sequence of the studies. Goodman said that first items that were submitted were the plat and the preliminary engineering, which showed the preliminary water, sewer and stormwater treatment on the site. Goodman said that subsequent to that, after the City had commented about low-impact development (LID), a hydrogeologist evaluated the site for LID and there was an additional report showing the design of the potential stormwater treatment system. Goodman said that there was then the Aspect report and a peer-review of the report, which were followed by additional studies and a peer-review. Kelly asked Goodman at what point the borings were called out in the process. Goodman said that the borings were sought toward the end of the process to find out more about the subsurface of the site. Kelly asked who conducted the boring study. Goodman said that HWA conducted the study. Kelly asked if that study was peer-reviewed by Varljen. Goodman said yes.

Kelly asked Goodman if he had analyzed the amount of surface water that would be added from the development of the site. Goodman said yes. Kelly asked how that study was conducted. Goodman said that the City had adopted the LID Manual which used a particular hydrologic model, the Western Washington Hydrologic Model (WWHM). Kelly asked if the drainage study for the site was based on the mitigation condition of 2500 square feet of impervious surface. Goodman said no, the hydrogeological modeling that was conducted by the applicant was based on the original estimate of 4200 square feet impervious surface per lot. Kelly asked what the consequences were from that the study. Goodman said that, using the original estimate of 4200 square feet of impervious surfaces, there was about a 10 percent loss in evapotranspiration or about 945,000 gallons that would no longer be evapotranspired per year.

Kelly asked how the water was originally proposed to be infiltrated into the ground. Goodman said that the application originally proposed underground chambers, which soaked in the water. Kelly asked if that design feature had that been changed and if so how. Goodman said that raingardens had been added to site to incorporate some additional evapotranspiration. Goodman said that if the water exceeded the capacity of the raingardens, water would then travel into the underground infiltration chambers.

Kelly questioned what the worst case scenarios were on the site. Goodman said that there were two worst case scenarios: all the water could go into the ground or all the water could go out to the wetland. Kelly asked Goodman how these worst case scenarios were considered in his analysis. Goodman said that the HWA report had conducted a groundwater mounding analysis based on the 4200 square feet of impervious surface per lot. Goodman explained that the study looked at the increase to the groundwater that could occur from the project and the potential that this increased groundwater would put pressure on the bluff, or effect slope stability. Goodman said that Varljen peer-review of that report had also encouraged the City to consider the possibility that all the water would surface in the wetland and go out the ditch. Goodman explained the findings of these worst case scenarios by saying that if the water went into the ground the increase would not be significant, based

on the dynamics of what was occurring underground, and if the water surfaced the City felt the ditch had the capacity to handle the additional water. Goodman noted that while the City staff believed that the ditch had sufficient capacity, additional mitigation was added to the ditch to ensure its ability to handle the water. Kelly asked Goodman what mitigations were proposed to reduce the impacts associated with the worst case scenarios. Goodman said that the mitigations included reduced impervious surfaces, added raingardens, tree retention, and downstream bonds.

Kelly asked Goodman about the calculations regarding precipitation and if he could point to where the standards were located in the code. Goodman said that through the adoption of the LID Standard, the model was specified and the precipitation amount was established and not manipulable. Kelly asked if that model was what was used by the applicant. Goodman said yes.

Kelly asked Goodman if it was possible for the City to condemn property for the placement of a water line if there was a reasonable alternative for the location of the line. Goodman said that he did not believe so, if there was a reasonable alternative. Kelly asked if there was a reasonable alternative for the placement of the water line on the subject property. Goodman said yes. Goodman said that the initial design of the site had been changed to minimize the impact to the wetland, and the layout was taken to a biologist to determine if the impact could be mitigated. Goodman explained that this combination of the installation of the water line and mitigation on the site provided an alternative that was available for the project. Goodman noted that based on his experience this alternative would likely preclude the possibility of condemnation of another property.

Kelly asked Goodman about the discrepancy in the number of properties that would benefit from the water line loop as discussed at the last meeting. Goodman said that the water line map from the Comprehensive Water Plan showed an error that was discovered after the adoption of the plan, which he neglected at the last meeting. Goodman said that the line shown as connected on Decker was not actually connected and that there was no loop on Decker. Goodman explained that the map (Exhibit P-7) was created with this disconnect in mind, and was meant to show how many properties would be affected if the City had to shut of the water line east of Decker. Kelly asked how many properties would benefit from the water line loop in this circumstance. Goodman said that over fifty properties.

Gage asked Goodman if the bottom of the wetland was above or below the ditch. Goodman said that the water would run into the ditch when the wetland was full. Gage asked what would happen to the water below that that level, and if that water could run into the ditch. Sundberg said that he had a similar question about whether the water went from the top of the wetland into the ditch or through the ground into the ditch. Goodman said that the water could do both. Gage asked what happened to the water in the wetland that did not go into the ditch. Goodman said the water from the wetland could evaporate, move into the ditch, move to the bluff, or stand. Sundberg asked if the wetland was there because there was a layer of somewhat impermeable material that extended south, collected water and moved it to that area. Goodman said yes, in order for the water to stand there would need to be a barrier to keep the water from infiltrating into deeper layers.

Kelly asked if it was Goodman's expectation that the wetland would function as it had in the past. Goodman said yes. Kelly asked if the mitigations were meant to enhance the wetland or to make it function as it had in the past. Goodman said yes. Kelly asked if any building would occur in the wetland other than the waterline. Goodman said that there would be no other building in the wetland, but there would be mitigation required

Adams asked about the gap on Furman and where it was located on LCAA Exhibit 21. Goodman said that he did not know exactly where it was located or how big it was. Adams asked if there was a gap on the south end of Decker as well. Goodman said that as far as he knew there was a loop. Adams asked why certain properties were better off because of the proposed loop system. Goodman said that he believed that it was because of the way the valves were set up. Goodman explained that, the way that the system currently existed, all of the specified properties on Exhibit P-7 would be affected if there was a break in the system. Adams asked if the map showed

where you could shut off the system in the area. Goodman said no. Adams asked where the valves were located. Goodman said that he would have to defer that question to the Public Works Director. Adams asked if Goodman's position was that all the properties would lose their water if a bluff collapse severed the line and the system needed to be shut off. Goodman said yes. Adams questioned how much a valve would cost to protect the water line. Goodman said two to three thousand dollars. Adams asked if the City could protect the water supply to the properties by inserting valves along the line. Goodman said yes. Adams asked how much it would cost to complete the loop on Furman. Goodman said that he didn't know the exact details, but estimated the cost in the range of five to ten thousand dollars.

Adams referred Goodman to the HWA geologic cross-section (in LCAA Brief – Exhibit 10) and recounted Goodman's testimony from the last meeting. Adams explained that he was having trouble understanding what Goodman had said. Adams said that the triangles on the diagram were the point that HWA had encountered water and the line represented an impervious layer, with the implication that the area between the two points was wet. Adams said that the ditch was two feet six inches deep and the area between where HWA encountered water and the less pervious surface was about 20 feet deep. Adams asked if there had been any borings under wetland to find how deep the ground water extended under the wetland layer. Goodman said no. Adams said that he did not understand how Goodman could have advised Cort to accept Varljen's report when the report did not say how the water left the wetland. Goodman said that the water would enter the ditch after being in the wetland. Adams asked what would happen to the water under the wetland. Gage said that he had asked the same question. Goodman repeated his earlier answer and said that the water in the wetland would either evaporate, go into the ditch, stand, or go into the ground. Adams asked whether the water that went into the ground could emerge at the face of the bluff. Goodman said that was a possibility. Adams asked if it was correct to say that, based on the evidence from Varljen, there was no way to say how much water would go out the face of the bluff and how much would go into the ditch. Goodman said that it was not divided up. Adams asked if the City knew how much of the water would travel to the bluff and how much would travel to the ditch at a technical level. Goodman said no.

Erickson questioned Goodman. Erickson asked Goodman when there was the most precipitation occurred in Langley. Goodman said the winter. Erickson asked if Goodman knew how much evapotranspiration occurred in the winter. Goodman said no. Erickson asked where the water in the raingarden would travel. Goodman said that the water would stay in the raingarden until it saturated, and then it would travel into an infiltration chamber. Erickson questioned if the water would ultimately travel into the groundwater. Goodman said yes, there was a direct connection between infiltration and the groundwater.

Erickson asked about the worst case scenario that Goodman had mentioned. Goodman said that he was speaking about the study by HWA that had looked at all the water going into the ground, and all the water coming out of the wetland via the surface (i.e. the ditch). Goodman said that these two potentialities were considered the worst case scenarios. Erickson asked why they were the worst cases. Goodman said that the biggest impact to the groundwater table would be if all the water went into the ground and the maximum impact to the ditch would be if all the water surfaced. Erickson asked if the water all went into the ground would be the worst case. Goodman questioned if Erickson was asking him to judge between the two worst case scenarios. Erickson said yes. Goodman said that he did not know.

Erickson asked if Goodman knew of any modeling of bluff stability that had occurred for the project. Goodman said he did not know of any bluff modeling, but said that the HWA report had studied the impact of the additional groundwater on the bluff. Erickson asked Goodman to show him where that was addressed in the HWA report. Goodman said that it was in the December 19, 2007 report from HWA (LCAA Brief – Exhibit 10), the ground water mounding analysis was on page 5, and the conclusions were on page 6. Goodman read from the conclusions, including the statement that the groundwater mounding was not anticipated to have any impact on down gradient slope stability or drainage. Erickson asked where in there the conclusions they actually looked at the stability of the bluff. City Attorney McMurray objected to the question and said that both Cort and

Goodman had answered the question and referred to the specific page for the answer in their testimony. Erickson said that he would withdraw the question.

Erickson asked about the number of 2600 gallons per day of additional water from the site, and how that number was generated. Goodman said that the number came from the HWA report, and was based on the original layout of the site (with the estimated 4200 square feet of impervious surfaces). Erickson asked if the number was an average. Goodman said yes. Erickson asked if the peak flow would be higher. Goodman said that he did not know and that the analysis had been based on averages.

Erickson asked Goodman if he thought the Langley Comprehensive Water Plan was a reasonable plan and if the loop east of the project site was a reasonable location for a water line. Goodman said that the plan was reasonable and noted the line on the map was meant to demonstrate the general location of what the text called a mid-block loop. Goodman explained that the line was drawn because it was in the center of the block (if you considered the area between Decker and the City limits a block) and said that the line was meant to depict a connection between Edgecliff Drive and Sandy Point Road. Erickson asked whether another loop further to the east would be required if the loop went in on the project site. Goodman said that he did not know. Erickson asked whether another loop would be required if the properties further to the east were developed to a similar zoning. Goodman said yes. Erickson asked if a loop would be needed on the project site if there was a loop further east. Goodman said that he and Erickson had covered this line of questioning at the last meeting.

Erickson referred to LMC Section 16.20.080.C.2 about public agency and utility exceptions and read from the section. Erickson questioned if Goodman had seen a description of alternatives for the placement of the water line. Goodman asked if Erickson was asking if the City had looked at another alternative that did not go through the subject property. Erickson said yes. Goodman said that the City had not.

Erickson asked if Goodman could explain his use of the term less pervious instead of impervious. Goodman said that silt was not impermeable, but noted that water would move through silt slower than sand. Erickson asked if the silt would prevent water from traveling to lower aquifers if there was an increase in infiltration on the site. Goodman said that nothing would prevent the water from moving to deeper levels, and noted that the impact of the increase in water was studied by HWA in their groundwater mounding analysis. Erickson asked if the analysis considered the water traveling to deeper levels. Goodman said that the analysis looked at the impact to the water table. Sundberg said that the analysis was a groundwater mounding analysis and that it was not meant to look at where it would go, but rather how much the total groundwater would rise. Erickson asked if the water would be above the silt layer or in the deeper aquifer. Kelly said that the question could be directed to the person who performed the study. Sundberg said that the analysis likely identified the total increase in water that would occur from the project, regardless of where the water was located. Erickson said that the question was important because it specified where the water would leave the bluff. Sundberg said that where the water would leave the bluff was an important question, but he said that he did not think that a groundwater mounding analysis answered that question. Erickson asked Goodman if he agreed that the mounding analysis did not answer the question of where the water would leave the bluff. Goodman said that the mounding analysis looked at the incremental change to the water level that would result from the project and did not differentiate which water was which. Goodman said, as a result you could say that the water was being added to the top of the existing groundwater. Sundberg said that it was immaterial where the water was on the drawing; what was material was how big the mound was and how often an increase occurred.

Sundberg swore in Quin Clements, a Civil Engineer for Davido Consulting. Kelly asked Clements what he analyzed in connection with the project. Clements said that he was responsible for designing the site infrastructure including sewer, water, stormwater and roads. Kelly asked if Clements did a stormwater analysis for the project, and encouraged him to explain what was included in that analysis. Clements said a stormwater analysis looked at how precipitation impacted and left a site under pre and post-development conditions and mitigated for the differences. Kelly asked what the difference in stormwater would be in pre and post-

development conditions. Clements said that the project would create additional water to deal with on-site because of the removal of pervious surfaces and the loss of evaporation associated with some tree removal. Kelly asked how Clements proposed to deal with this additional water. Clements said that the project went through several iterations and eventually proposed the current LID design with rain gardens that were backed by a more standard subsurface infiltration system.

Kelly asked Clements to describe the purpose of a raingarden. Clements said that raingardens de-concentrated flow on a site and helped the water more closely mimic pre-developed conditions. Clements said that raingardens did include some vegetation to encourage evapotranspiration, but that their main purpose was to promote infiltration. Kelly asked what mimicking existing flow conditions meant. Clements said that the purpose of the LID stormwater approach was to control stormwater on site and to disperse and de-concentrate flow events to limit peak events and their potential impacts.

Kelly said that there had been several iterations of the project and he questioned if there was an earlier proposal to simply take water off the site. Clements said yes, and explained that as an engineer he often looked for the simplest way to handle water. Clements said that in this case, the simplest solution (and initial proposal for the project) was a pipe that collected the water and transported it to the downstream drainage system.

Kelly asked whether Clements had discussed infiltration with the City prior to the meeting discussed in his October 24, 2007 letter (LCAA Brief – Exhibit 5). Clements said no and explained that applicants typically sent out feelers to see what would be accepted by a jurisdiction. Clements explained that the City had specified the LID standard in review of the initial drainage plan and the application progressed from that point.

Kelly asked Clements about his calculations regarding the stormwater on the site. Clements said that the City had adopted the Department of Ecology's Stormwater Management Manual and the Low-Impact Development Manual by reference. Kelly asked if Clements had employed that manual in making his calculations. Clements said yes. Kelly asked if the manual included a guideline about how to calculate precipitation. Clements said that the manual specified the use of the WWHM and explained that there were two ways to generate the amount of precipitation on a site: the number established for the jurisdiction in the model, or a number that had been adopted by the City. Kelly asked if Clements had used the number generated by the model. Clements said yes. Clements said that he was not free to use a number that he had generated himself and the only way to consider a different amount was if the City adopted another number.

Kelly asked if Clements had considered the possibility of all the water flowing into the ditch in his analysis. Clements said yes, he did some preliminary analyses about the capacity of the downstream outfall and ditch in his early work on the project. Clements said that these analyses primarily considered peak amounts of water that would leave the site and he explained that the water infiltrated on-site in the later project designs would even out these peaks. Clements said that the capacity of the downstream system was largely taken off the table as an issue as a result of these design changes.

Adams referred Clements to the second paragraph on the second page of Exhibit 5 of the LCAA brief, Clement's letter dated October 24, 2007. Adams asked Clements at what point he received guidance from the City that the initial proposal was a non-starter. Clements said that the applicant had gone through a couple of iterations and had received comments back from the City about concerns over the control of on-site flows. Adams questioned if Clements recalled which City official gave him the advice to stop consideration of the piped method of handling stormwater. Clements said that the meeting consisted of Goodman, the project applicant, and Clements. Clements said that he did not remember if Cort was present. Clements said that the goal of the meeting was to discuss methods for handling the drainage and said that LID and on-site detention was proposed. Adams asked if Clements remembered who made the suggestion about LID. Clements said that he did not remember.

Adams questioned Clements about two considerations specified in his report: the statement that improvements to the downstream system were beyond the financial scope of the project; and the statement that said permitting for the crossing of the wetland with the stormwater pipe was an issue. Clements said that the letter was meant to articulate the fact that the applicant had considered the issues before, and the issues were not acceptable from a financial or regulatory perspective. Clements said that the City had stated that crossing the wetland with a stormwater pipe was not acceptable because there were potentially other options for handling the water. Clements also said that the installation a tightline was likely too expensive because it would have required road improvements and downstream improvements to the ditch. Clements said that these downstream improvements would have had benefited a larger region beyond the project site, and would have made more sense if they were considered as part of a Local Improvement District rather than a project application. Adams asked if Clements had made a detailed study of all the costs. Clements said that he did not. Adams asked if Clements considered forming a Local Improvement District. Clements said that he and the applicant had not. Adams asked if the reason for the rejection of the handling of the stormwater in a pipe was based on the fact that the City did not want the pipe to cross the wetland. Clements said that he would not say that City staff rejected the proposal; the conversation was more of a collaborative approach about how it was possible to move the project forward.

Adams summarized Clements earlier testimony about the two options that he had identified regarding the calculation of precipitation in the WWHM (a specified number from the model or a number adopted by a jurisdiction) and asked if there was a distinction between the model and the assumptions that were put into the model. Clements said that a model was only as good as its assumptions. Adams asked if users were free to insert their own assumptions into the model. Clements said that they were free to insert their own assumptions, but were limited by a defined range of options including type of land cover. Adams said that Reese had inputted a factor of .9 into the model instead of .8 and he asked Clements if that was possible. Clements said yes, but said that the question was if the number was acceptable. Adams asked if Clements would use a different number if he felt that the default number given by the model was incorrect. Clements said yes. Adams asked if Clements had done an analysis about the amount of rain that fell in Langley. Clements said that he did not do an in-depth analysis of rainfall, but had looked at the Coupeville and Everett rain gauges and had Googled looking for precipitation data. Adams asked if Clements had looked at the information that Adams had previously supplied regarding rainfall. Clements said that he tried to find it online, but could not.

Erickson asked Clements if he knew how much evapotranspiration occurred during the winter months. Clements said that the LID manual said that little evapotranspiration occurred between November through March and that most of the water during those months would be infiltrated.

Erickson asked if the discharge to the ditch would be at the same rate as pre-development. Clements said that he believed the ditch would mimic predevelopment conditions. Clements explained that the infiltration would decrease the peak flows and the soil would tend to average out the flow rate. Clements explained that as a result the volume would most likely increase, but the rate would stay the same. Erickson questioned if that meant that the discharge would be for longer duration. Clements said potentially.

Sundberg thanked Clements for his testimony and said that the Board had one more item to consider: how to continue the meeting. Cort said that July 28 was not a good date for the continuation of the hearing and the Board, applicant, and appellants discussed potential dates to continue. After much discussion, the Board decided to continue the hearing on August 4, 2010 at 4:00.

The Board discussed what would need to occur at the next meeting. The appellants said that they would waive their rebuttals in the interest of time and fold any remaining arguments into their closing arguments. The Board discussed how long should be allowed for closing arguments and determined that 10 minutes was satisfactory. Adams asked if concluding briefs were required. The Board concluded that they understood the issues involved in the case, and that no concluding briefs were necessary.

Sundberg asked for a motion to continue the meeting to August 4, 2010 at 4:00 at Langley City Hall. Gage moved to continue the hearing at that time and place. Buktenica seconded. The motion was approved unanimously.

ADJOURN

The meeting adjourned at 7:04. The meeting was held at Langley City Hall.

The next meeting of the Board will occur August 4, 2010 at 4:00 pm at Langley City Hall. Fred Evander recorded the minutes for the meeting.