

OFFICE OF THE HEARING EXAMINER

THURSTON COUNTY

REPORT AND DECISION

CASE: Plat of Nisqually Bend
(aka Steilacoom Ridge II)

PROJECT NO.: 980398

TAX PARCEL NO.: 21818210200

LOCATION ADDRESS: 9817 S.E. Steilacoom Road

APPLICANT: Deering & Nelson, Inc.
P.O. Box 3712
Lacey, WA 98509

REPRESENTATIVE: Jeff Pantier
Hatton Godat Pantier
3910 Martin Way East, Suite B
Olympia, WA 98506

PLANNER: Tony Kantas, Associate Planner

SUMMARY OF REQUEST:

Preliminary plat approval to subdivide 52 acres into 77 single-family residential lots and dedicate approximately 37.40 acres to open space.

SUMMARY OF DECISION: Request granted, subject to conditions.

DATE OF DECISION: July 13, 2017

PUBLIC HEARING:

After reviewing the Resource Stewardship Department Staff Report and examining available information on file with the application, the Examiner conducted a public hearing on the request as follows:

The hearing was opened on June 5, 2017, at 10:40 a.m.

Parties wishing to testify were sworn in by the Examiner.

The following exhibits were submitted and made a part of the record as follows:

- EXHIBIT "1"** - **Resource Stewardship Department Staff Report**
- Att. A** - **Notice of Public Hearing**
- Att. B** - **Preliminary Plat Application**
- Att. C** - **Vicinity/Zoning Map**
- Att. D** - **2015 Aerial Photo**
- Att. E** - **Site Plan**
- Att. F** - **Narrative Summary**
- Att. G** - **Mitigated Determination of Non-Significance**
- Att. H** - **Letter from North Thurston School District**
- Att. I** - **Letter from Nisqually Tribe**
- Att. J** - **SEPA Recommendation Memorandum from Thurston County Public Works Department**
- Att. K** - **Plat Recommendation from Thurston County Public Works Department**
- Att. L** - **Recommendation Letter from Thurston County Health Department**
- Att. M** - **Memorandum from Kevin Hansen, County Hydrogeologist**
- Att. N** - **Letter from State of Washington Department of Ecology**
- Att. O** - **Letter from DOE Regarding Asarco Tacoma Smelter Site**
- Att. P** - **Letter from City of Lacey**
- Att. Q** - **Preliminary Approved Plat Map of Steilacoom Ridge**
- Att. R** - **Hearings Examiner Decision of Plat of Steilacoom Ridge, dated December 6, 2013**
- Att. S** - **Traffic Report**
- Att. T** - **Associated Earth Sciences Response to Thurston County**
- Att. U** - **Associated Earth Sciences Hydrogeologic Evaluation**
- Att. V** - **Erickson Groundwater Service Comments on Preliminary Drainage and Erosion Control Report**
- Att. W** - **Erickson Groundwater Service Comments on Seepage**
- Att. X** - **Shannon & Wilson Seepage and Slope Stability Analyses**
- Att. Y** - **Shannon & Wilson Revised Data Report Soil and Groundwater Conditions**
- Att. Z** - **Shannon & Wilson Soil and Groundwater Conditions**
- Att. AA** - **Shannon & Wilson Drainage Plan Effects on Slope Stability**
- Att. BB** - **Associated Earth Sciences Geologic Reconnaissance and Slope Stability Assessment**
- Att. CC** - **Shannon & Wilson Geologic Reconnaissance and Slope Stability Assessment**
- Att. DD** - **Preliminary Drainage and Erosion Control Report**

- Att. EE - Erickson Groundwater Service Hydrogeologic Characterization
- Att. FF - Erickson Groundwater Service Comments on Revised Preliminary Drainage and Erosion Control Report
- Att. GG - Comment Letters
- Att. HH - Photographs of Notice Sign
- Att. II - Large Sized Preliminary Plat Maps
- Att. JJ - Plat Maps of Steilacoom Ridge Division 1
- EXHIBIT "2" - Colored Site Plan
- EXHIBIT "3" - Recorded Steilacoom Ridge Division I Plat Map
- EXHIBIT "4" - North Thurston Public Schools Request for Mitigation
- EXHIBIT "5" - City of Lacey Sewer Availability Letter
- EXHIBIT "6" - U.S. Fish and Wildlife Gopher Letter
- EXHIBIT "7" - Water Right Purchase & Sale Agreement
- EXHIBIT "8" - Rob Rice Homes Letter
- EXHIBIT "9" - Intercity Transit System Map
- EXHIBIT "10" - Overall Project Exhibit
- EXHIBIT "11" - McAllister Creek Homeowners Association Submittal
- EXHIBIT "12" - Hatton Godat Pantier Letter
- EXHIBIT "13" - Kevin Hansen Response to Hearing Examiner
- EXHIBIT "14" - Applicant's Response to Public Hearing Comments
- EXHIBIT "15" - McAllister Creek Comment Report from Tom Badger
- EXHIBIT "16" - McAllister Creek Response to Hansen
- EXHIBIT "17" - Applicant's Motion to Strike Letters of Badger and HOA
- EXHIBIT "18" - Applicant's Response to Public Comment
- EXHIBIT "19" - Order on Applicant's Motion to Strike Letters
- EXHIBIT "20" - Applicant's Response to Letters

The Minutes of the Public Hearing set forth below are not the official record and are provided for the convenience of the parties. The official record is the recording of the hearing that can be transcribed for purposes of appeal.

ALLEN MILLER, attorney at law, appeared and testified that the principal issues involve geotechnical studies and whether the parcel is a buildable site. The appellants retained Mr. Tom Badger, an engineering geologist, to review the applicant's expert's reports. Appellant's submittal includes a new report from Mr. Badger at Exhibit D and his CV is Exhibit E. Mr. Badger is in Virginia this week and unavailable to testify except possibly by telephone. He suggested that we proceed with the hearing, but leave the record open for cross examination.

RICHARD PHILLIPS, attorney at law representing the applicant, appeared and testified that he has no objection to the proposed method of proceeding and recognizes the lack of opportunity to cross examine.

TONY KANTAS appeared, presented the Resource Stewardship Land Use and Environmental Review Section Staff Report, and referred to photographs of the Notice of Hearing along Steilacoom Road. The proposal is to subdivide 52 acres within the LDR and RR zone classifications on a site located at the top of the bluff overlooking McAllister Creek and the Nisqually River area. Access will occur through the previously approved Steilacoom Ridge plat, and public water and sewer will serve all lots. All subdivision improvements are within the City of Lacey Urban Growth Area and outside of the 200 foot wide, buffer setback from the top of the bluff. Eighteen acres of the site are east of the top of the bluff and will remain forested open space. The overall density is 1.48 dwelling units per acre and the density within the UGA is 3.2 dwelling units per acre. Attachment E is the plat map. The map shows the boundary of the two zone classifications and the overlay district. In 1996 the area was moved into the UGA, and in 1999 the zoning was changed to provide a more Low Density Residential. The new zoning provided greater protection to the bluff and a gradual transition into a rural area. The applicant submitted a completed application for preliminary plat approval in 2008 that showed access onto Steilacoom Road and addressed the stability of the bluff. He received 28 neighbor comment letters, and the neighborhood association contracted with a third party hydrogeologist to prepare a study. The applicant's AESI study is Attachment U. The Steilacoom Ridge subdivision abuts the west property line. Attachment R is the Hearing Examiner Decision approving Steilacoom Ridge. Nisqually Bend depends on Steilacoom Ridge for access, and Steilacoom Ridge took the lead in the development of studies and methods necessary to protect the McAllister Creek area. The project is in full compliance with all Thurston County codes. The plat was evaluated under the old critical areas ordinance, but the new ordinance does not affect the previous standards governing this plat. He recommends approval subject to 44 conditions set forth on pages 13-20 of the Staff Report.

DAWN PEEBLES, Thurston County Public Health Department, appeared and testified that staff reviewed the project pursuant to the sanitary code and noted the existence of the creek.

ARTHUR SAINT, Thurston County Public Works, appeared and testified that the plat design will meet all road standards.

KEVIN HANSEN, Thurston County hydrogeologist, appeared and testified that the project area has a very large record that extends back 20 years. Area projects have generated substantial costs and many studies. Residents still have concerns despite all of the studies. The applicant proposes a relatively new and untested method of stormwater control. Approval will set a precedent. Stormwater infiltration will create a mound of water at the edge of a cliff. Many questions are raised in the August 17, 2016 letter. After reviewing the applicant's answers to said questions, his principal concerns with the stormwater system are now addressed by the use of a liner in the pond. The applicant has also revised the pond to meet the dam and reservoir criteria. He has recommended five to six conditions regarding seismic events. He questioned whether the applicant's proposal for a homeowners association is an appropriate entity to ensure maintenance of the facility. Will it hire a contractor to do the work? Even if the pond works now, it must always work in

the future. This project will set the standards that others must match if they use the same technology. The slopes are stable as no recent slides have occurred. The residents below the slope face slide risks at present without the project.

JEFF PANTIER appeared on behalf of the request and introduced Exhibits 2-9. This project has undergone rigorous review since they started planning it in 1998. It was proposed as a single-family subdivision utilizing onsite septic disposal systems. Steilacoom Ridge also began planning in the early 2000s. The applicants got together and Steilacoom Ridge took the lead. We have the same team here today that developed the Steilacoom Ridge drainage system. They have observed no additional recharge during the wet season from Steilacoom Ridge. That plat was approved in 2013, and they constructed a pond to accommodate about 75 to 80 percent infiltration for the 298 lot project. It was in place before last winter and worked fine. In July, 2016, they received final plat approval for Phase I. Steilacoom Ridge is to the west in an urban zone. Both plats are in a aquifer recharge area and Best Management Practices will explain fertilizers, pesticides, etc., to future residents. They also surveyed the site for gophers and set aside a special management area for the hillside 200 feet in width. No wetlands or flood plains exist on the site. They seek no variances and all roads will meet City of Lacey standards. They will have four points of access from north to south from Steilacoom Ridge, and easements have been created between the subdivisions. The City of Lacey and a local water company will provide water, and the site provides 37 acres (72 percent) as open space set aside. Over seven acres will be non-critical area open space. They will provide nine open space tracts with convenient access to include one, large, open space area. They also meet all tree preservation requirements. All subdivisions have entered mitigation agreements with the North Thurston School District. All streets will have sidewalks, and they will install bus stops per the District's request. Transit does not serve the area, but is one-half mile to the west of the site. He has reviewed the Staff Report recommended conditions and has no problems with any.

STEVE HATTON appeared and introduced Exhibit 10 that shows all projects in the area as well as the overall project. They updated the TIA three times, and it has been approved by both City and County engineers. None of the intersections show capacity problems and the number of trips estimated are from the manual and the estimated trip distribution is from the Regional Council. Ninety-five percent of the traffic will go north and turn left onto Martin Way, four to five trips will turn right through the valley, and two to three trips will exit to the south. Concerning stormwater, the system meets Thurston County requirements. They are vested to the 1994 standards, but County staff required them to meet the 2009 standards. In 1994 the criteria provided that six inches of rainfall over a 24 hour period was the 100 year event. However, this criteria ignored weather conditions both before and after the event. They now apply 50 years of rainfall totals to establish pond sizing, and the criteria are also subject to rainfall for each day. They designed the storm system to meet this criteria and the Steilacoom Ridge system meets it as well. TCC standards require infiltration of 100 percent of all stormwater, but if they do so in winter conditions, the water could impact debris flow on the bluff. Water could also impact the seeps and springs within the bluff. If they infiltrate all water during the winter, such could create issues, and the

County prohibited them from doing so. They addressed this issue by prohibiting excess winter recharge of the bluff. They built the pond large enough to hold water during the winter as did Steilacoom Ridge to the west. The pond at the south end of Steilacoom Ridge is closer to the edge than the proposed pond. The proposed pond is about the same distance from the bluff. They also propose a lined pond that will hold all water over the winter. The holding pond addresses only a "maybe", and the storm system itself manages all stormwater. The pond will empty during the summer recharge, and they will slowly meter the water into the infiltration pond, which then in turn will meter its discharge. Thus, the threat of a debris flow down the bank will be no worse than it is today. The pond is a separate mitigation measure for the bluff protection.

JAY CHENNALULT, hydrogeologist, appeared on behalf of the request and testified that he prepared a conceptual, geological model for the project. They also prepared a water balance for the recharge analysis. They also performed a groundwater mound analysis both beneath the site and at the bluff. Attachment T shows the extent of the exploration. They excavated 106 shallow pits and four borings and monitoring wells. They also relied upon the information from the Steilacoom Ridge studies. They evaluated the seepage zone during 2005 and 2006. The model shows a scattered perched zone above the groundwater area, but the groundwater provides flow to the springs. They set up the groundwater model to show the height of water level mound, and also showed the height of the mound to the west and to the east toward the bluff. They added the infiltration quantities for the winter and summer and the dispersal time. They used the maximum peak period. They measured the peak of the mound at 4.7 feet at the site, but toward the bluff it decreases to 2.29 feet. They made a number of conservative assumptions to include an over-estimate of the mounding. They also used the peak storm event and double-counted infiltration on the site. They assumed all water would go only to the bluff, but in fact, some water infiltrates downward. They performed a similar mounding analysis for the Steilacoom Ridge pond and assumed cumulative impacts. They evaluated the bluff face as if all flows arrive at the same moment regardless of travel time. They also quadrupled the mound water. He referred to Mr. Badger's letter and testified that his concerns were linked to the shallow, perched, aquifer at a higher level. The borings do point to a wet layer above the principal aquifer. He believes they are laterally discontinuous. Even if connected, the perched water does not show an amount that would affect their model. Furthermore, the slope has been investigated for years and the extent of the seeps remained constant. He sees no propagation to the slope from the perched level. The pond is at the 194 foot level, well above the perched water table. The system covers the eventuality that the higher zone is impacted. The stormwater also discharges at a natural location on the site. Infiltration will mimic natural conditions and will flow to the principal aquifer.

TIM PETER appeared on behalf of the request and testified that he estimated the stability of the steep slope. His analysis included consideration of both existing and past development. The projected groundwater increase was his main consideration. They were conservative as they included the impacts of a mounding level four times the projected value. They provided a high safety factor for mounding and a low safety factor for a

seismic event. The factors were similar in both cases. He recommends a 200 foot wide buffer between the lots and the top of the slope. Concerning regression, he noted nothing recent and that the slope appears forested and stable. He did not evaluate a regression rate. The 200 foot buffer is more than sufficient to protect the pond from a seismic event.

MR. HATTON reappeared and testified that the homeowners can operate and maintain the pond. The hypothetical proposed by Mr. Badger will never happen as the pond will never become a lake. They will perform routine inspections of the pond and the only operation necessary is to open and close the valve once. He referred to Attachment DD, the Drainage Control Report. In 2015 they proposed discharging to a ditch. They no longer propose the discharge and will capture all water. The cost for inspection of the pond will not exceed \$5,000.00 per year.

MR. PANTIER reappeared and testified that there is an abundance of expenses with large subdivisions and homeowners associations. The association can manage the subdivision. The bluff is not a cliff. The holding pond is 200 feet from the edge.

ROB RICE appeared and testified that he analyzed a catastrophic pond failure. They didn't analyze the existing pond, but used four times the volume predicted. A failure would create an abnormally large flow, but a gradual one.

DR. PRITCHER appeared in opposition and testified that he has traffic concerns. We are building 200 homes that will have 400 cars. He referred to half-mile backups at the Nisqually access onto I-5. Construction at the Dupont area created a one mile backup. What will 400 more cars do? What changes will be made to roads and traffic lights? The applicant provides no answers, but only determines how much traffic the plat will generate. What will happen to State and County roads?

ALLEN MILLER, attorney at law, appeared and introduced Exhibit 11, his packet, and testified that 1996 landslides are recent. He questioned whether the monitoring wells installed in May, 2016, and May, 2017, were monitored during the winter. He referred to the last four photographs of his submittal and testified that he is unsure of the impact on the newly discovered drainage pipes under Steilacoom Road.

MR. KANTAS reappeared and testified that the pipes were installed when Steilacoom Road was constructed. No water from the subdivision will be directed to the pipes.

MR. MILLER reappeared and testified that the rediscovery of these pipes is recent.

MARSHALL MACY appeared and testified that he is the co-chair of the McAllister Creek Homeowners Association. He referred to Tab A of Exhibit 11 and testified that he has resided on Salmon Lane for the past 20 years. His house is right below the Steilacoom Ridge II plat site. He has experienced numerous slides since purchasing his home. Since Steilacoom Ridge I and II have clear cut their areas, he has noticed an increase in water that enters the receiving pond and a bit more water through the pipes. Groundwater

compromised his septic system. The applicant said they did not know what would happen in the event of a pond failure. He wants them to do the right thing and ensure that all models are correct. The applicant could mitigate all stormwater concerns by utilizing a tightline to the bottom of the slope. He emphasized doing the right thing.

CHARLES SELDOMRIDGE appeared and referred to his written statement at Tab B that he personally prepared. A series of slides occurred along Salmon Lane and he showed a photograph of the slide on another property in 1996. He showed five photographs from the 1996 slide. The Google Earth photograph shows the surface water pattern for the area. The plat will impact his parcel as the stormwater runoff will pass below the storage pond and undermine it. Also, a change in stormwater runoff from Steilacoom Ridge occurred during the summer months from what it previously was. He walked the site with the proponent on May 30th to include the slopes. The major seeps are at an obvious location. The City of Olympia studied the slopes and seepage when exploring a new well site. A lot of water comes through the seepage. The applicant has not done an adequate job of evaluating the seepage and water flows. They are using a mean average rainfall and not the highest rainfall. The monthly water balance shows the criteria that they used. It is not historical, but very low. They used the Olympia WSO that shows how they did not use the highest plus 20 to 30 percent safety factor. He then included additional photos of the slide. He worked for the State engineer slide expert after 1996. Most slides occur in saturated conditions that they will have. He imported 5,000 cubic yards of material on his site. He dug to 25 feet before running into a dry layer when getting fill for repairs. His upper layer is drain rock to 25 feet and then hits an impervious layer. A perched water area exists at the location of the major seep under the road and causes a puddle on his property. It is also causing a problem with the Salmon Lane pond. His property was condemned while he was repairing the slide damage. A photograph shows the upper pipe and then the lower pipe. Water from a new spring has recently started to well up under the road's surface. The water is welling up due to activity above. He talked to Mr. Kantas who referred him to Steve Johnson who was unaware of the culvert under Steilacoom Road. He was not aware of the filling with rocks and the direction of water onto his property. They have not done an adequate job of locating the perched water table and have not identified where the water will go. The first perched layers are much higher than the infiltration area, and the water will discharge differently. They do not know about the movement of water underground and where it will daylight. The impact on the pond below is unclear. The water goes over the road and the pond is full now due to water draining from above. Most of his problems are caused by water coming down the slope.

LIZ KOHLENBERG, co-chair of the homeowners association, appeared and testified that she has prepared six pages of written testimony. The homeowners association was formed in 1996 after the slides. Six slides happened at about the same time, and while they were shallow, they are the most dangerous. The slides went across the road and impacted houses and gas lines. People die in debris slides as they are not small and not at fault lines. Her letters addressed a previous proposal. They have tried to alter the path that this development will take. The proposed infiltration ponds above the slope will affect their homes at the bottom. The 1996 slide went through their house, which they did not

own at the time. Her written testimony shows her actions with the County. They tried to change the County preference for total infiltration. They want a tightline to the bottom and all water discharged to pipes and treated below. She sees no logical reason to infiltrate the water into the ground above them. Tightlining is a safe alternative and the Nisqually Bluff subdivision utilized a tightline. A tightline structure does not require numerous expert studies and predictions of where the water will go. An engineer found a shallow layer above the modeling, and she questions its impact above the slopes. They want to ensure that the water goes to the overflow pond and that the homeowners are protected. They want to prevent what happens when water gets to the slope. One problem is that the applicant is concentrating infiltration in one place, and the water may then get to the bluff. Their homes are all at the bottom of the slope. Mr. Hansen's letter of August 17, 2016, identifies the problem and the possibility of a perched table. They were not aware that the project was moving forward again and that they needed to organize. This record is incomplete. The culvert under the road is a new factor and water is presently coming in right where the stormwater will come in. Where will the water perch under the pond?

MR. MILLER reappeared and urged consideration of the Badger Report.

PAUL BRAGET appeared and testified that he has lived in the area for 54 years and that a lot of artesian wells are in the area. A stormwater drain comes from the hill across the property. New wells are required as development has occurred. Due to new construction we can count on new artesian wells.

STEVE HATTON reappeared and referred to Exhibit 10, his comment letter of September 28, 2016, and the packet of new information (Exhibit 11). Plat traffic presents no concurrency issues with either the City, the County, or their engineers. The traffic is bad, but no intersection reaches LOS F. Concerning the holding pond, their water balance considered the average rainfall as they needed to calculate the size of the pond and capture the average flow. The County required that method to consider the rainfall in 1996-1999, as such period was considered a worse combination of water. The pond is capable of handling these worse years as well. He referred to the plat map and the concern regarding the tandem alignment of the holding ponds. Water flows underground in a variety of directions. Not all water will go to a point directly above the homes and the road. The development is quite removed from the bluff. Concerning the 1996 problems, much of the slide issues were caused by stormwater from Sandra Lee Court. A roof drain was designed to discharge over the hill, and a road pipe was substandard. That system was the wrong thing to do. They are not using that technology here, as they are capturing, managing, and infiltrating the stormwater. They included a holding pond to reduce the problems with winter recharge. The topography consists of a dry drainage swale that extends to the west for a long distance. Shallow till layers exist at various high points, but the flow from said layers is nowhere near the pond that is proposed. They do concentrate the stormwater, but it mimics natural conditions. This project puts no surface water into a culvert, and water flows in existing culverts will not change. The County code will not allow them to tightline the water to the bottom. They can only do this when recharge creates a problem. Three firms have looked at the storm drainage facility and have expressed no

concerns.

MR. PHILLIPS reappeared and testified that DOE could challenge a pipe down the bank as it would send water into a different basin. DOE could not get water rights or critical areas approval.

MR. CHENNALULT, AESI, reappeared and noted the concerns regarding lack of winter monitoring and why they monitored in May only. They use the average precipitation when they calculate the recharge into the ground. They did use the average of 44 inches that calculates to 9.5 acre feet. The pond will hold over 18 acre feet, a much larger volume than the average. Concerning where the water goes, it will mimic the natural recharge of the site and will flow through its natural route. They did evaluate the hydrology in 2015-2017 and determined that a concentration of water flows to the south, that is, more water flows to the south than to the north. Concerning mounding, they want to ensure that the pond does not overflow and impede its ability to hold water. They have 30 feet of unsaturated sand and gravel below the pond that is normally not necessary. However, this project is concerned with the stability of the bluff face.

TIM PETER reappeared and testified that they have a shallow seepage zone or perched water table. They are not uniform across the site, but are isolated zones and a resting area for groundwater. The flow from these areas is ultimately down to the same aquifer. They did not disregard the perched water table, but it will have no impact on the spring flows along the face.

MR. PANTIER reappeared and testified that their technology is not new. Two to three County staff are suited to review their pond and a third neutral party also evaluated it. Furthermore, three to four experts on the applicant's side have looked at the storm drain system and all agree that the pond will mimic the hydrological flow and there will be no increase in water runoff. The potential of debris flow is minimized by the design.

MR. KANTAS reappeared and testified that the developments on Salmon Lane and Sandra Lee Court were a precedent for establishing the critical areas along the toe and the top of the bluff. He understands that the most recent 1996 wasting event was tied to a pipe along Steilacoom Road.

MR. SAINT reappeared and testified that Public Works concurs with the traffic impacts and the TIA. The road sections also meet all LOS standards.

STEVE JOHNSON appeared and testified that based upon the revision of the stormwater plan it now meets the Stormwater Manual. A number of questions address the hydrological assessment.

MR. HANSEN, MR. MILLER, and MR. PHILLIPS then discussed leaving the record open for Mr. Hansen to review Mr. Badger's letter and for the attorneys to respond thereto. The Examiner agreed to leave the record open and responses were received from Mr. Hansen,

Mr. Miller, and Mr. Phillips.

No one spoke further in this matter and the Hearing Examiner took the matter under advisement. The hearing was concluded at 1: 45 p.m.

NOTE: A complete record of this hearing is available in the office of the Thurston County Resource Stewardship Department.

FINDINGS, CONCLUSIONS, AND DECISION:

FINDINGS:

1. The Hearing Examiner has admitted documentary evidence into the record, heard testimony, and taken this matter under advisement.
2. A Threshold Mitigated Determination of Non-Significance (MDNS) was issued on March 28, 2017, (Attachment g) following review pursuant to the State Environmental Policy Act (SEPA). The environmental determination became final on April 18, 2017.
3. Written notice of the public hearing was sent to all property owners within 300 feet of the site on May 23, 2017 and to others who had requested notice and have historically provided comments in regards to the proposed plat. Notice of the public hearing was published in The Olympian on May 26, 2017, at least ten (10) days prior to the hearing (Attachment a). Notice was posted on-site on May 26, 2017.
4. The applicant has a possessory ownership interest in an irregularly shaped, unimproved, 52 acre parcel of property located east of the City of Lacey and south and west of Steilacoom Road in unincorporated Thurston County. The applicant requests preliminary plat approval to allow subdivision of the parcel into 77 single-family residential lots. The eastern portion of the parcel consists of a steep slope descending to McAllister Creek and the Nisqually River valley. The western portion of the parcel is at the eastern end of a large, flat plateau approximately 200 feet in elevation above the valley. Inclinations on the slope range from 20 to 50 degrees except where excavations into the hillside have created steeper slopes. The slopes directly east of the proposed subdivision and south and west of Steilacoom Road S.E. are undisturbed and covered with mature trees. However, a timber harvest occurred on the portion of the site proposed for development and only a few trees remain.
5. Steilacoom Road S.E., a major County arterial, abuts the north property line of the parcel and then traverses the slope downward from northwest to southeast. The previously approved subdivision of Steilacoom Ridge abuts the west and south property lines of the plat parcel. The preliminary plat map shows access provided

via four roads extending west and south into the Steilacoom Ridge subdivision. A storm drainage facility and holding pond separate the subdivision into two separate sections joined only by a trail extending between lots in both sections and between the retention pond and the wet pond. Two accesses into Steilacoom Ridge are provided for both sections of the Nisqually Bend (aka Steilacoom Ridge II) plat.

6. The preliminary plat map shows that the entire slope on the east side of the parcel will remain untouched and in its natural condition, and that a minimum, 200 foot wide buffer will protect the slope. The plat will maintain 37.4 acres in open space. The preliminary plat map shows a minimum lot size of 5,000 square feet and an average lot size of 8,290 square feet. The overall density calculates to 1.48 dwelling units per acre, and the density of the area proposed for development, located within the City of Lacey Urban Growth Area (UGA), calculates to 3.2 dwelling units per acre. The applicable zoning of the parcel would allow a maximum of 132 dwelling units.
7. The portion of the site proposed for development is situated within the Lacey UGA in unincorporated Thurston County. The top of the bluff descending to the Nisqually Valley known as the McAllister or Nisqually Bluff marks the eastern edge of the UGA. The UGA portion of the property is located within the Low Density Residential (LD 0-4) zone classification of the Thurston County Code (TCC) that authorizes a maximum density of four dwelling units per acre. The eastern portion of the parcel is located within the Rural area of Thurston County and within the Rural Residential (RR 1/5) zone classification and Nisqually Hillside Overlay District. No improvements will occur east of the Overlay District's western boundary and its associated 200 foot wide, protective buffer. In 1999 the Board of Thurston County Commissioners down zoned the UGA portion of the parcel from "Village Center" to LD 0-4 to provide greater protection for McAllister Bluff and a better transition from Rural areas to the UGA.
8. On June 22, 1998, the applicant submitted a completed application for preliminary plat approval for Nisqually Bend, which it revised several times thereafter. On September 29, 2004, an abutting property owner submitted a completed application for preliminary plat approval for Steilacoom Ridge, a much larger subdivision that abutted Nisqually Bend on the west and south and proposed 298 single-family lots on 95.71 acres. The property owners of the two plats agreed to cooperate in development of their plats. They agreed that Steilacoom Ridge would take the lead in studying and implementing stormwater techniques that would ensure the protection of McAllister Bluff and the properties below, primarily from impacts due to infiltration of stormwater. On December 6, 2013, Thurston County Hearings Examiner, Sharon Rice, approved the Steilacoom Ridge subdivision. Steilacoom Ridge received final plat approval for Division I that authorized development of 77 lots. Subdivisions have also been approved to the north and south of Steilacoom Ridge along the top of the bluff, to include Nisqually Bluff to the north and Steilacoom Bluff to the south.

9. Two, older, residential subdivisions are located below the bluff, east of the northern half of the proposed Nisqually Bend and north of Steilacoom Road. These subdivisions known as McAllister Creek and Nisqually Heights have actively participated in the approval process for Steilacoom Ridge, Nisqually Bluff, and the present preliminary plat. The McAllister Creek Homeowners Association retained Mr. Thomas Badger, an engineering geologist, to review the applicant's investigation and studies of the hydrogeologic conditions on the Nisqually Bend parcel. Both the McAllister Creek Homeowners Association and the Nisqually Heights homeowners had previously engaged Denis R. Erickson, Erickson Groundwater Service Company, licensed geologist and licensed hydrogeologist, to evaluate the studies submitted by experts engaged by both the Steilacoom Ridge and Nisqually Bend subdivisions. The associations also engaged Golder Associates, Inc., to review the stormwater plan for Nisqually Bend; and attorney Thomas R. Bjorgen to challenge two variance requests to road standards that would allow a single access onto Steilacoom Road and reduction of an intersection spacing requirement. In the present case, the McAllister Creek Homeowners Association has not challenged the applicant's Traffic Impact Analysis (TIA).
10. The same team of experts prepared the hydrogeologic and other studies addressing the stormwater infiltration system for both Steilacoom Ridge and Nisqually Bend. In fact, Steilacoom Ridge took the lead in developing a stormwater system for both plats based upon soils investigations of both plat parcels. In her Decision approving the Steilacoom Ridge preliminary plat, Examiner Rice considered the evaluations of the applicant's studies by the homeowners' experts, but agreed with the applicant's experts. For convenience of the parties the following four Findings and one Conclusion from Examiner Rice's Decision are hereby reproduced and incorporated by this reference:
 25. Hydrogeological evaluation of the site has been ongoing since the initial 2004 application. The Applicant's consultant, Associated Earth Sciences INC. (AESI), provided a hydrogeologic evaluation and stormwater infiltration feasibility study for the proposal dated September 1, 2004; since that time AESI has filed several addenda dated September 13, 2005, October 4, 2006, November 20, 2007, June 13, 2008, July 2, 2008, December 21, 2009, January 27, 2010, and October 30, 2011 in response to requests for additional information. *Exhibit 1, Attachments ww, xx, yy, zz, and aaa; Exhibit 15.* The initial AESI studies included subsurface exploration and hydrogeologic study for the purpose of evaluating the feasibility of on-site stormwater infiltration and any potential impacts to McAllister Bluff east of the property. The AESI studies collectively concluded that development as proposed would not result in significant environmental impact on the bluff. At the time the application was submitted and for several subsequent years, the County did not have a hydrogeologist on staff; thus at the County's direction,

the AESI studies were peer reviewed by PanGeo Incorporated, an independent third-party consultant. In August 2008, PanGeo concluded that, based upon the history of debris flows on the slopes below and east of the site on McAllister Bluff and the general variability in geologic conditions, on-site stormwater design should use a conservative predevelopment, forested condition recharge rate to calculate necessary retention volumes.¹ The Applicant accepted the suggestion and revised the proposed stormwater plan to retain the runoff from a predevelopment forested condition. By the time the revised stormwater design was submitted, Thurston County had employed a staff hydrogeologist, who had to be brought up to speed on the project and provided subsequent review of all the slope stability reports. In the course of her review, the County hydrogeologist implemented numerical groundwater modeling to calculate the stormwater runoff volumes of the project in relation to the underlying aquifer and the stability of McAllister Bluff. *Exhibit 1, pages 5-6; Exhibit 1, Attachments y, through aaa; Exhibit 8.*

26. The McAllister Creek Homeowners Association and Nisqually Heights Homeowners contracted with Erickson Groundwater Service to conduct an independent hydrogeologic characterization of the area. The Erickson report presented an alternative understanding of site hydrogeologic conditions relating to groundwater and the slopes of McAllister Bluff. Prior to completion of project review and MDNS issuance, the neighbors' consultant retired and they hired a second hydrogeologist, Wendy Gerstel, to review the revised proposal. Ms. Gerstel submitted a report in July 2011, which the neighbors provided to the County and the Applicant. Applicant consultants responded to both the Erickson and Gerstel reviews. The County hydrogeologist reviewed the Erickson, Gerstel, and Applicant consultants' responses before making her final recommendation for approval of the project. *Exhibit 1, pages 5-6; Exhibit 1, Attachments tt, uu, bbb, and mmm; Exhibit 8a; Exhibit 15; Kantas Testimony.*
27. Neighborhood concern about saturation of the bluff primarily focuses of the potential for runoff recharge flowing towards Salmon Lane and the other residential neighborhoods at the toe of the slope. Increased recharge of slopes is a known factor that increases the risk of debris flows.² Neighbors have expressed concern that the concentrated nature of runoff infiltration

¹ Forests allow less recharge of stormwater because evapotranspiration, the process of vegetation uptake, interception, and evaporation of rainfall. Plants use rain and also hold rain off the ground increasing surface area from which rainfall evaporates rather than infiltrates. A forested condition results in lower groundwater recharge than post-cleared vegetation such as exists on-site. *Exhibit 8a; Hatton Testimony.*

² Note: A debris flow, while potentially dangerous, differs significantly from a slope stability failure. There is no expert opinion in the record that development on-site could result in an unstable slope. *Exhibit 1, Attachment ccc, page 22.*

after site development would increase the risk of debris flows, especially as compared to piping runoff to the base of the bluff for release. The proposed holding ponds are intended and sized to retain the difference (or delta) between the amount of stormwater recharge naturally occurring on-site in a pre-development forested condition and the amount generated by the new impervious surfaces. The decision to calculate that delta by modeling the site as forested rather than in its actual, existing condition was suggested by the third-party hydrogeological reviewer hired by the County and adopted by the Applicant's design team for the express purpose of coming up with a more conservative, and therefore more protective, stormwater management system. During winter months, the large holding ponds in Tracts B and Q would retain the delta to be later discharged during dry months when the risk of debris flow is minimized. The project's stormwater ponds are specifically sized to address continuous, successive excess rainfall events such as those experienced from October 1996 through September 2000. Holding ponds would be emptied annually into the retention ponds for infiltration, starting on May 1 each year. Release rates would be restricted to approximately one-quarter of the receiving retention pond's infiltration rate to avoid creating groundwater mounding effect. The holding ponds would be emptied by October 1 each year in preparation for seasonal rainfall. Modeling of the resulting summertime groundwater mounding showed mounds less than that occurring in the predeveloped state. *Exhibit 1, Attachments bbb, ccc, and mmm; Exhibit 8a; Hatton Testimony.*

28. The Applicant noted that 85% of the proposed impervious surfacing is within Phases 1 through 7, the infiltration ponds for which are located nearly half a mile from the bluff. The entirety of Tract R, which contains the bluff, the on-site NHOD, and its 200-foot buffer, would remain untouched, and recharge in the critical area above the creek would not be altered by the proposal. In the site's existing condition, approximately 5.6% of stormwater drains towards Salmon Lane. The project proposes to place three of the four retention (infiltration) ponds south of an on-site ridge in the subsurface till layer, which sends subsurface flows southeasterly, away from the Salmon Lane neighborhood which is northeast of the project. See *Exhibit 9b*. Proposed Pond 1 would be located north of the subsurface ridge in the till layer, and some are concerned that water infiltrated there would travel subsurface to the northeast towards the Salmon Lane neighborhood; however, the Applicant's consultants indicated that infiltrated water in the area of Pond 1 flows north and west, also away from Salmon Lane. Once the project is complete, less stormwater would recharge the bluff above these neighborhoods than does in the current, pre-development condition. *Exhibit 1, Attachment ccc; Hatton Testimony; Exhibit 8a.*

Conclusion 1. With conditions, appropriate provisions would be made for the management of stormwater such that the proposal would not result in adverse impacts to the safety of McAllister Bluff. Hydrogeologic evaluation and stormwater management design has been a more than nine year process for the instant proposal involving multiple reviewers for the County, the neighborhood groups, and the Applicant. As proposed and conditioned, the final stormwater management system, exceeds all requirements of the 1994 Thurston County Drainage Design and Erosion Control Manual. The project is vested to older, less stringent stormwater standards but in order to address concerns about slope safety the Applicant opted to use some of the more stringent newer provisions, including continuous simulation rather than single event modeling. The soils and geology underlying the site were studied, providing knowledge about the direction and quantities of subsurface flows. Based on the record presented, the Applicant has demonstrated, and the County hydrogeologist has concurred, that the development would not result in an increase in recharge or subsurface flows towards Salmon Lane and would not increase groundwater mounding at the bluff that would result in increased risk of debris flow. *Findings 22, 23, 24, 25, 26, 27, 28, 37, 38, 39, and 40.*

11. As in Steilacoom Ridge, the primary concern of McAllister Creek homeowners is increased risks of debris flows on Nisqually Bluff. Debris flows consists of small, mass wasting events that do not involve slope stability issues. The applicant's studies acknowledge the presence of debris flows on the bluff near the project site. Debris flows generally occur on saturated slope faces or in the presence of seeps and springs during winter months when precipitation and recharge are high. Neither the McAllister Creek Homeowners Association nor the applicant expressed concerns regarding unstable soils on the bluff. Thus, while the bluff is stable, homeowners presented photographs of significant debris flows that destroyed or damaged homes along Salmon Lane and Sandra Lee Court in 1996. However, both the applicant's and the County's hydrogeologists agree that the debris flows were due to failures of the storm drainage system in Sandra Lee Court and not from either the present project site or the Steilacoom Ridge parcel.
12. Residents request that the applicant discharge all stormwater runoff from the plat down the bluff in a pipe to a water cleansing facility and then into McAllister Creek. Such would eliminate any risk of subdivision storm drainage creating further debris flow risks. Such would also eliminate the concerns expressed by Mr. Badger that the applicant has not performed sufficient investigation of the soils beneath the proposed retention pond or down slope therefrom to ensure that the infiltrated stormwater will flow as anticipated. Residents and Mr. Badger also expressed concerns that a perched aquifer may extend to a high elevation on the bluff above the plat's infiltration gallery and above the McAllister Creek subdivision. Said

aquifer could conduct stormwater from the applicant's infiltration area to the face of the bluff.

13. As found by Examiner Rice, numerous studies have evaluated the hydrogeology of the area, and even more studies were performed subsequent to her Decision. Following careful consideration of all studies and especially the fact that the County hydrogeologist, Kevin Hansen, appears satisfied with the applicant's proposal, the Examiner finds that the construction of the storm drainage system as proposed will ensure that stormwater runoff from the plat will not exacerbate debris flows on the Nisqually Bluff.
14. Residents of McAllister Court and Mr. Badger continue to express concerns that stormwater runoff from the development will cause more debris flows similar to those of 1996. However, the applicant prepared its storm drainage plan following conclusion of significant studies of the bluff and areas above the bluff. Said studies show that the stormwater system and its safety factors will ensure that the slope will remain in its present condition. In fact, the applicant will direct rainfall that presently percolates into the ground in the northern area of the site above McAllister Court into its storm drainage system. Furthermore, the applicant's plan is similar to storm drainage facilities approved for Steilacoom Ridge that includes ponds and an infiltration gallery as close to the bank as the present proposal. The Steilacoom Ridge system satisfied the County hydrogeologist at the time, Nadine Romero. In the present case the applicant's studies and responses to concerns of both Mr. Badger and Mr. Kevin Hansen, the present Thurston County hydrogeologist, satisfied Mr. Hansen that the project meets all Thurston County criteria and will not impact the bluff.
15. The plateau portion of the site that will support the residential units measure approximately 260-270 feet in elevation. However, near the center of the site an easterly trending trough at elevation 212-214 feet crosses the parcel and divides it into north and south sections of approximately the same size. The topography of the trough rises about two to three feet between its lowest point and the top of the Nisqually Bluff to the east and creates a closed depression approximately 500 feet in length as measured east to west. No sign of surface water flow exists anywhere within the trough or elsewhere on the property and no indications of eastward outflow from the closed depression exists. Rainfall infiltrates directly into the ground in the area of the trough and at all other locations on the plat parcel.
16. The applicant proposes to locate the plat storm drainage facility within the trough. The storm drainage system will capture runoff from roads and impervious surfaces throughout the site and direct it to a wet pond and retention pond located adjacent to the west property line of the plat parcel. Storm drainage runoff from roofs will be infiltrated on individual lots with the exception of the 20 northernmost lots closest to Steilacoom Road S.E. These lots are directly above the McAllister Creek subdivision, and the applicant will direct roof drainage from said lots into the storm

drainage system such that no infiltration will occur from impervious surfaces in the northern portion of the plat. Thus, the storm drainage system will, in effect, remove water that normally infiltrates into the ground in the area of the plat closest to the McAllister Creek subdivision.

17. In accordance with Thurston County policies, the storm drainage system will infiltrate all stormwater runoff into the ground at the retention pond site (Tract B). The retention pond measures approximately 800 feet from the top of the bluff. In the wet months (October-April) the retention pond will discharge only the same amount of runoff from the site as if the site were in a natural, forested condition. To accomplish this goal, the applicant will construct a holding pond that will capture runoff during the wet season, retain it until May 1, and then begin releasing it to the retention pond at a metered rate where during the dry months it will infiltrate into the ground. While concerns were expressed regarding the use of a "normal" rainfall year to calculate the size of the pond, the applicant sized the pond to hold approximately twice the "normal" rainfall. The excess recharge above a forested condition for an average year is approximately 9.5 acre feet of water and the holding pond will accommodate more than 18 acre feet. In addition the applicant will utilize an HDPE pond liner that will ensure no infiltration or leakage from the pond during the winter. Furthermore, the pond will meet dam safety standards to ensure that it will not fail.
18. A primary concern raised by Mr. Badger is the existence of a perched aquifer beneath the retention pond. Mr. Badger asserts that the applicant should conduct additional studies to confirm that the perched aquifer does not extend to the slope. If the perched aquifer extends to the slope, the infiltrated water would not reach groundwater, but would flow horizontally to the slope and create substantial mounding that could destabilize the slope or cause a significant debris flow. While the applicant and County hydrologist are satisfied that the perched aquifer does not extend to the slope and that additional studies are not necessary, the applicant has agreed to excavate the infiltration trench to an elevation of approximately 180 feet. Such excavation will penetrate any low permeability, inner beds that may have perched water. The perched aquifer is at approximately elevation 185 feet as observed in one of the borings. Thus, plat stormwater will infiltrate into the ground at a lower elevation than the observed, perched, water table. The applicant had previously mitigated uncertainties in the groundwater flow system beneath the pond by evaluating a scenario with four times the MODFLOW predicted, peak groundwater mound and by infiltrating runoff in a way that mimics the natural, pre-developed conditions at the site.
19. Kevin Hansen evaluated Exhibit 11, the submittal of the McAllister Creek Homeowners Association that includes a June 2, 2017, letter from Tom Badger and Badger Geotechnics (Tab D). Following said review Mr. Hansen submitted a Memorandum setting forth six concerns regarding approval of the project to which

the applicant responded. Findings on each concern raised by Mr. Hansen are as follows:

- A. **Seepage at poorly-defined shallow till/impermeable layers could cause slope failures.** Mr. Hansen seems to agree that with the multiple protective measures in place, especially the pond liner and large buffer areas, the system adequately protects the slope. His remaining concern is the appropriateness of a resident funded maintenance program for the storm drainage system. As the applicant explained, the only required maintenance of the system is to open and close a valve once per year that will allow water to access and leave the holding pond. In addition, Thurston County requires entry of an agreement to maintain stormwater facilities that grants Thurston County unrestricted access for the purpose of routine inspections and for performing maintenance repair or retrofit. Furthermore, the agreement grants to Thurston County a lien against the property in an amount necessary to perform maintenance or repair if the homeowners do not. The County's agreement satisfies Mr. Hansen's concern.
- B. **Concentration of stormwater and holding pond water into a single infiltration area could cause new seepage on the Nisqually Bluff.** Mr. Hansen subsequently agreed that with the ground modeling results, mounding will not adversely impact drainage from the hillside. However, his agreement is subject to the buffers and natural vegetation remaining in place.
- C. **Concerns regarding land slides in the Sandra Lee Court area.** All experts agree that the landslides were caused by different conditions not present at the proposed development.
- D. **Recharging water into a shallow aquifer could cause lateral "piping" within the soil below the three ponds, thereby undermining their stability.** According to the Federal Energy Regulatory Commission, a seepage velocity of approximately 1,000 feet per day is necessary for piping to occur in soils beneath the site. In the present case the applicant's MODFLOW computer model predicts a maximum groundwater velocity of approximately six feet per day beneath the holding pond during peak groundwater mounding. The maximum groundwater velocity at the slope face is predicted at four feet per day. Thus, the risk of piping is extremely low.
- E. **Design drawing errors.** The applicant agrees that its engineering drawings are preliminary in nature, and that prior to commencement of any earthwork or stormwater improvements, the engineer will provide construction level, detailed drawings.

- F. **Catastrophic holding pond failure caused by failure of the maintenance program, a full holding pond, and a seismic event.** While it is true that the applicant did not evaluate such an event, this scenario is extremely unlikely. The homeowners and the County, if necessary, will ensure that the liner is maintained, that mechanical system repairs are made, and that inspections occur. As the applicant noted, the only operations of the system are limited to opening and closing a valve. Furthermore, the applicant proposes to construct the pond below the existing grade, and as previously noted, the natural topography creates a basin with a three foot high berm to the east. Thus, even if the pond fails, it is highly unlikely that water would flow to the base of the bluff.
20. The Thurston County responsible official issued a Mitigated Determination of Non Significance (MDNS) following review pursuant to the State Environmental Policy Act (SEPA). As part of the SEPA review process, the responsible official is required to consider mitigating measures within the TCC and other applicable regulatory standards. If the responsible official after considering such authority finds that the project will still create probable, significant, adverse, environmental impacts, it may impose mitigating measures to reduce said impacts to less than significant. In the present case the responsible official imposed five mitigating measures to address "hydrogeologic related conditions". These conditions require a deed covenant to prevent future development of the site "downhill". Measures also require a long term maintenance agreement, deed covenant, and a seismic activity deed covenant. Measures also require a deed covenant that stipulates and triggers the immediate inspection and possible repair of holding ponds and stormwater facilities if a change occurs in land stability. Finally, a mitigating measure requires life safety facilities for the pond. No appeals of the MDNS were filed and it is therefore final. Thus, the County has determined that compliance with all regulatory codes and mitigating measures will ensure that the stormwater drainage system and development of the plat itself will have no significant, adverse, environmental impacts on the property itself or on surrounding parcels.
21. Prior to obtaining preliminary plat approval the applicant must show that the request satisfies the criteria set forth in TCC 18.12.090(B)(1). Findings on each criteria are hereby made as follows:
- A. The proposed preliminary plat makes appropriate provision for open spaces, parks and recreation, and playgrounds. Section 18.47.040(2) TCC requires that subdivisions of ten lots or more dedicate ten percent of the overall plat parcel as open space. The common open space must be attractive, usable, and provide convenient access for all residents, and that existing trees and significant vegetation are retained. In the present case the applicant proposes 37.4 acres of open space or 72 percent of the total site. The open

space will include critical areas, tree preservation tracts, passive landscape tracts, and an active recreational component. Staff will assure code compliance of the design of the open space prior to final plat approval.

- B. The plat makes appropriate provision for drainage ways as set forth in detail above. The storm drainage system will meet all Thurston County criteria and mitigating measures set forth in the MDNS.
- C. The plat makes appropriate provision for streets, roads, alleys, and other public ways. All internal plat roads will be constructed to meet Thurston County and City of Lacey public and private road standards, and all lots will access onto internal plat roads. The applicant submitted a Traffic Impact Analysis (TIA) prepared by Jake Traffic Engineering, Inc., a qualified traffic engineering firm, dated January 28, 2016, that Thurston County Public Works approved. The TIA shows that plat traffic will not cause any intersection studied to reduce in level of service (LOS) and that all intersections will continue to meet the standard of LOS D or better. The applicant must mitigate impacts of plat traffic by compliance with the Thurston County Traffic Impact Fee Ordinance.
- D. The site and area are not served by public transit, and the transit authority has made no request for improvements. The Meadows Public Water Utility will provide both domestic water and fire flow to the site, and the City of Lacey will provide sanitary sewer service to each lot. The plat makes appropriate provision for transit stops, potable water supplies, and sanitary waste.
- E. The applicant must enter a voluntary mitigation agreement with North Thurston Public Schools Number 3 in accordance with the District's letter dated June 2, 2017, with attachment. The entry of the voluntary agreement will assure that the plat makes appropriate provision for schools and school grounds.
- F. Thurston County and City of Lacey road standards require the construction of sidewalks on both sides of internal plat roads. Sidewalks will connect to those in the Steilacoom Ridge subdivision. Therefore, the preliminary plat makes appropriate provision for safe walking conditions for students who walk to and from school.

CONCLUSIONS:

1. The Hearing Examiner Pro Tem has the jurisdiction to consider and decide the issues presented by this request.
2. The applicant has shown that the proposed preliminary plat makes appropriate provisions for the public health, safety, and general welfare for open spaces, drainage ways, streets, roads, alleys, other public ways, transit stops, potable water supplies, sanitary waste, parks and recreation, playgrounds, schools and school grounds, safe walking conditions, and critical areas. The proposed preliminary plat will serve the public use and interest by providing an attractive location for a single-family residential subdivision near the top of the Nisqually Bluff, by maintaining the bluff in its natural forested condition, and by providing a 200 foot wide buffer therefor. Therefore, the proposed preliminary plat should be approved subject to the following conditions:
 - A. Prior to submitting a final plat application, all required on-site and off-site road, utility, and landscaping construction, identified below, shall be completed and approved (or bonded). Also, prior to submitting a final plat application, all agreements (school mitigation, etc.) shall be secured, all mitigation payments paid, and all applicable review fees paid.

Health Department related conditions:

- B. Prior to final plat approval the following Health Code related conditions shall be met:
 1. Prior to final plat approval, the City of Lacey sanitary sewer service must be extended to and through this subdivision. Written confirmation of final sewer extension approval from the City of Lacey must be provided.
 2. Prior to final plat approval, the Meadows Group A Public Water service must be extended to and through this subdivision. Written confirmation of final water extension approval from the Washington State Department of Health (Office of Drinking Water) must be provided.
 3. All existing wells located on this property must be properly decommissioned per Washington State Department of Ecology standards prior to final plat approval.
 4. An Integrated Pest Management Plan (IPMP) has been developed for this project and has been accepted by this office. Prior to final plat approval the applicant must provide in writing a proposed method of

IPMP distribution to future homeowners within this subdivision. This distribution method must be reviewed and approved by this office prior to final plat approval.

Public Works related conditions:

C. Prior to final plat approval, the following Public Works Department related conditions shall be met:

1. Please note a construction permit shall be acquired from the Thurston County Public Works – Development Review Section prior to any construction. This shall be applied for, and paid for prior to the pre-construction conference.
2. All traffic control devices shall be designed, located, manufactured, and installed in accordance with the TCRS, Manual of Uniform Traffic Control Devices and applicable WSDOT Standards & Specifications. A sign and striping plan shall be incorporated into the construction drawings for the project. Please contact Thurston County Public Works – Development Review Section Staff to obtain the most current Thurston County guidelines.
3. County forces may remove any traffic control device constructed within the County right-ofway not approved by this division and any liability incurred by the County due to nonconformance by the applicant shall be transferred to the applicant.
4. The stormwater management system shall conform to the Thurston County Drainage Design & Erosion Control Manual and Title 15.05 Thurston County Code.
 - a. For this project this also includes a two-year operation & maintenance agreement and financial security that shall be executed prior to final approval.
 - b. Prior to final approval a maintenance agreement found in Appendix K of the Drainage Design & Erosion Control Manual must be prepared for this project and recorded.
 - c. A property owners' association shall be formed. The document creating the Property Owners' Association shall at a minimum make provision for the following:
 - (1) Members of the Property Owners' Association shall be responsible for maintenance of storm drainage facilities as described in Maintenance Plan (See Section 3.3),
 - (2) Inclusion by reference of the maintenance manual prepared by the Project Engineer in accordance with Section 3.3 and (3) Power to assess fees to maintain storm drainage facilities and sanctions in the event that

jurisdiction takes action to maintain facilities. Refer to Appendix E, Section E.2 of the Drainage Design & Erosion Control Manual for sample language.

5. All drainage facilities outside of the County right-of-way shall remain private and be maintained by the developer and/or the homeowner's association.
6. Stormwater runoff shall be controlled through all phases of the project by facilities designed to control the quality and quantity of discharges and shall not alter nor impact any existing drainage or other properties.
7. All natural and man-made drainage paths contained in the proposed development require easements as set forth in Section 2.14 of the DDECM.
8. Because proper landscaping is vital to the performance of the stormwater system, the Landscape Plan (if required) shall be signed/sealed by a WA licensed civil engineer (preferably the engineer who designed the stormwater system).
9. A Construction Stormwater Permit from the Washington State Department of Ecology may be required. Information about the permit and the application can be found at: <http://www.ecy.wa.gov/programs/wq/stormwater/construction/permit.html>. It is the applicant's responsibility to obtain this permit if required.
10. The proposed water and sewer system shall be designed in accordance with the standards and specification of the respective utility purveyor. All water and sewer plans are subject to review and acceptance by the respective utility purveyor.
11. Proposed utility work within the Thurston County Right of Way shall conform to the 1999 Thurston County Road Standards and Chapter 13.56 Thurston County Code. These standards do not address specific city design requirements but rather only items such as restoration of the County right of way and traffic control.
 - a. Placement of utilities within the County right of way will require a Franchise Agreement with Thurston County pursuant to Title 13.56 TCC. This agreement shall be executed with Thurston County prior to final approval.
 - b. Please note all utilities placed parallel to and within the pavement structure are required to rebuild a minimum of half the road, to include grinding and replacement of a minimum of

0.20' of asphalt concrete pavement.

12. In order to meet the requirements of the 1999 Thurston County Road Standards, additional right of way may be required. Please have your legal representative or surveyor prepare a Quit Claim Deed describing the necessary right-of-way, being a strip of land which when added to the existing right of way totals 35 feet of right-of-way lying South of and abutting the existing centerline of Steilacoom Road SE. Upon your request, Thurston County's right-of-way representative will prepare the Quit Claim Deed describing the necessary right-of-way dedication. Please contact the Thurston County Right-of-Way section at 754-4998.
13. Pursuant to Title 18.24 Thurston County Code the Applicant shall execute an agreement and provide a financial security to assure successful operation of the required improvements prior to final approval. Improvements not covered by this agreement are water, sewer and stormwater facilities. These are addressed either by separate county ordinance or in the case of the water and sewer utilities by the utility purveyor.
14. Permanent survey control need to be placed to establish all public street centerlines, intersections, angle points, curves, subdivision boundaries and other points of control.
15. Permanent survey control monuments shall be installed in accordance with the standards provided by the Thurston County Public Works – Survey Division. The Survey Division can be reached at 754-4580.
16. Payment of the off-site traffic mitigation required in the 3-28-17 Mitigated Determination of Non-significance is required prior to final approval in accordance with Section 2.13 of the Thurston County Road Standards. Timing of such payments to the other jurisdictions may be altered upon agreement with respective jurisdiction and Thurston County.
17. Per Thurston County Resolution 14820, traffic impact fees shall be paid prior to issuing any building permits associated with this project.
18. In order to mitigate for the impacts from traffic from this project Frontage improvements to City of Lacey standards shall be constructed for the frontage along Steilacoom Road SE within the Urban Growth Boundary.

19. The proposed roadway in concept and design shall conform to the 1999 Thurston County Road Standards and the City of Lacey standards and development guidelines.
20. Development within the City of Lacey urban growth boundary, requiring review by both Thurston County and the corresponding city jurisdiction, shall be designed to the more stringent standards of the two jurisdictions.
21. Required plan submittal information is presented in Chapter 3.00 of the TCRS.
22. The proposed grading or site work shall conform to Appendix J of the International Building Code, Title 14.37 of the Thurston County Code and 1994 Drainage Design & Erosion Control Manual.
23. When all construction/improvements have been completed, contact the Thurston County Public Works – Development Review Section at (360) 867-2051 for a final inspection.
24. This approval does not relieve the Applicant from compliance with all other local, state and/or federal approvals, permits, and/or laws necessary to conduct the development activity for which this permit is issued. One permit that may be required is a Construction Stormwater Permit from the Washington State Department of Ecology. Information on when a permit is required and the application can be found at:
<http://www.ecy.wa.gov/programs/wq/stormwater/construction/permit.html>. Any additional permits and/or approvals shall be the responsibility of the Applicant.
25. Once the planning department has issued the official preliminary approval, a construction permit application shall be submitted along with a complete set of construction drawings and the final drainage and erosion control report to Thurston County Public Works – Development Review Section for review and acceptance.
26. PRIOR to construction, the applicant shall:
 - a. Pay outstanding construction review and inspection fees*
 - b. Receive a construction permit
 - c. Schedule a pre-construction conference with county staff.* The current fee schedule can be found online at
<http://www.co.thurston.wa.us/permitting/fees/docs/Roads-Development-Review-Fees-20090301.pdf> or contact Ruthie Padilla with the Thurston County Public Works – Development

Review Section by phone at (360) 867-2046, or by e-mail at padillr@co.thurston.wa.us.

27. A duplicate original mylar drawing, certified by the design engineer as "record drawing" in accordance with the January 1, 1999 edition of TCRS, shall be provided prior to final approval. The final plat map and the survey traverse closure calculations shall be submitted to the Development Services Department prior to receiving final approval.
28. Prior to receiving final approval from this department, the following items shall be required:
 - a. Completion of all roads and drainage facilities;
 - b. Final inspection and completion of all punch list items, if required after final inspection;
 - c. Receive and accept Appendix "F" and "K" per the DDECM submitted and signed by the project engineer;
 - d. Review and accept contractor's blue line record of changes. The changes shall be incorporated on to the original mylars, within "clouds". The record drawing mylars shall be received and accepted, then submit two sets of final record drawings for project file and bond file. The record drawings shall include street names and block numbers approved by Addressing Official;
 - e. Financial security will be necessary for maintenance and operation of the drainage facilities;
 - f. Financial security for the completion of all improvements required (i.e., sidewalks);
 - g. Required survey information on the final plat map;
 - h. Homeowner's articles of incorporation or covenants;
 - i. Approved deferral or completion of required frontage improvements;
 - j. Completion of required signing and striping;
 - k. Payment of any required utility fees;
 - l. Payment of any required final fees;
 - m. Payment of any required mitigation fees;
 - n. Complete the right-of-way dedication process.
29. The final plat map shall note or delineate the following:
 - a. "ATTENTION": Thurston County has no responsibility to build, improve, maintain or otherwise service the private road or driveway within or providing access to property described in this plat. The building, maintenance, repair, improvement, operation or servicing of the stormwater facilities outside the county rights of way are the responsibility of the property owner(s).

- b. Increased stormwater runoff from the road(s), building, driveway and parking areas shall be retained on site and shall not be directed to roadway ditches adjacent to Steilacoom Road SE.
- c. If seasonal drainage crosses subject property, no filling or disruption of the natural flow shall be permitted.
- d. Delineate the access restrictions by showing a "no access" strip, written and hatched, between the County approved access points along the frontage of Steilacoom Road SE on the final plat map.
- e. Private roads are required to remain open at all times for emergency and public service vehicle use. Any future improvements (gates, fencing, etc.) that would not allow for "open" access will need to be approved by all applicable departments of Thurston County.
- f. Storage requirements for runoff from buildings and parking surfaces shall be shown on individual building lots, including drywell sizing or storm drain connection points.
- g. Maintenance of the landscaping and roadside drainage and stormwater facilities such as ditches, swales and ponds within the public right of way is the sole responsibility of the (property owners) or (homeowners association) within this subdivision. Thurston County has no responsibility to maintain or service said landscaping or roadside stormwater facilities.
- h. The owner and/or Homeowners Association shall be responsible to operate and maintain the streetlights until such time the property is annexed to the city.
- i. Approval of this subdivision is conditioned upon payment of City of Lacey Traffic Mitigation Fees in the amount of \$_____ per lot. This fee increases on July 1 of each year in accordance with the increase in the Engineering News Record Construction Cost Index and the amount is determined at the date of payment. Payment is required prior to the issuance of a water meter for those lots served by the Lacey Water Utility and prior to building permit issuance for those lots not served by such Utility.
- j. This plat is subject to the RESIDENTIAL AGREEMENT TO MAINTAIN STORMWATER FACILITIES AND TO IMPLEMENT A POLLUTION CONTROL PLAN", as recorded under Auditor's File No._____.
- k. Easements are hereby granted for the installation, inspection, and maintenance of utilities and drainage facilities as delineated on the plat for subdivision_____ including unrestricted access for Thurston County staff to any and all stormwater system features for the purpose of routine

inspections and/or performing maintenance, repair and/or retrofit as may become necessary. No encroachment will be placed within the easements shown on the plat which may damage or interfere with the installation, inspection, and maintenance of utilities. Maintenance and expense thereof of the utilities and drainage facilities shall be the responsibility of the Property Owners' Association as established by covenant recorded under Auditor's file number _____.

- l. Provide language on the plat describing the drainage design requirements for all projected hard surfaces and lawn/landscape areas within individual building lots (drywell design/sizing, storm drain connection points, incorporated into pond design, etc.).
- m. Delineate the access restrictions by showing a "no access" strip, written and hatched, between the County approved access points along the frontage of Steilacoom Road SE on the final plat map.
- n. Please clearly label all public and private roads.

Planning related conditions:

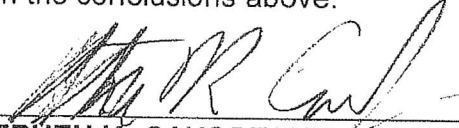
- D. Street addresses shall be shown on the final map.
- E. The density and minimum lot widths of the final subdivision shall conform with requirements of the Low Density Residential District (TCC 21.12).
- F. Prior to final plat approval, the applicant shall submit a final landscape plan for review and approval. The final landscape plan shall include an active recreation component.
- G. Prior to final plat approval, the applicant shall install all proposed active and passive recreation features/structures, and landscaping within the open space tracts.
- H. Prior to final plat approval an agreement with the North Thurston School District that provides mitigation for the project's impacts to school facilities shall be submitted. If this agreement requires payment of mitigation fees or other actions after the final plat is recorded then such agreement shall be referred to on the final plat map.
- I. All conditions of the March 28, 2017 Mitigated Determination of Non Significance shall be completed prior to final plat approval (Attachment g).
- J. The use of all open space tracts shall be noted on the final plat map. The open space tracts shall be dedicated to the lot owners and/or association on the final plat map.

- K. The following notes shall be shown on the final plat map:
1. This subdivision has been approved through provisions of the Low Density Residential District (TCC 21.12).
 2. This subdivision was reviewed under project number 980398.
 3. At the time of home construction on individual lots a minimum of one tree shall be planted on the lot. The trees planted shall conform to the approved landscaping plan.
 4. All other notes as required by the MDNS and other departments.
- L. All development on the site shall be in substantial compliance with the approved plat. Any alteration of this site plan will require approval of a new or amended plat. The Planning and Environmental Section will determine if any proposed amendment is substantial enough to require Hearing Examiner approval.
30. The applicant shall install an infiltration trench (pit drain) within the infiltration pond three to five feet in width for nearly the length of the infiltration area. The trench will extend to an elevation of approximately 180 feet to penetrate any low permeability interbeds that may have perched water at an elevation of approximately 185 feet. Specifics of the trench are as set forth in the June 6, 2017, letter from Associated Earth Sciences, Inc., (Exhibit 14).
 31. The decision set forth herein is based upon representations made and exhibits, including plans and proposals submitted at the hearing conducted by the hearing examiner. Any substantial change(s) or deviation(s) in such plans, proposals, or conditions of approval imposed shall be subject to the approval of the hearing examiner and may require further and additional hearings.
 32. The authorization granted herein is subject to all applicable federal, state, and local laws, regulations, and ordinances. Compliance with such laws, regulations, and ordinances is a condition precedent to the approvals granted and is a continuing requirement of such approvals. By accepting this/these approvals, the applicant represents that the development and activities allowed will comply with such laws, regulations, and ordinances. If, during the term of the approval granted, the development and activities permitted do not comply with such laws, regulations, or ordinances, the applicant agrees to promptly bring such development or activities into compliance.

DECISION:

The request for preliminary plat approval for Nisqually Bend (Steilacoom Ridge II) is hereby granted subject to the conditions contained in the conclusions above.

ORDERED this 13th day of July, 2017.


STEPHEN K. CAUSSEAU, JR.

Thurston County Hearing Examiner Pro Tem

TRANSMITTED this 13th day of July, 2017, to the following:

APPLICANT:

Deering & Nelson, Inc.
P.O. Box 3712
Lacey, WA 98509

REPRESENTATIVE:

Jeff Pantier
Hatton Godat Pantier
3910 Martin Way East, Suite B
Olympia, WA 98506

OTHERS:

THURSTON COUNTY

THURSTON COUNTY
PROCEDURE FOR RECONSIDERATION AND APPEAL
OF HEARING EXAMINER DECISION TO THE BOARD

NOTE: THERE MAY BE NO EX PARTE (ONE-SIDED) CONTACT OUTSIDE A PUBLIC HEARING WITH EITHER THE HEARING EXAMINER OR WITH THE BOARD OF THURSTON COUNTY COMMISSIONERS ON APPEALS (Thurston County Code, Section 2.06.030).

If you do not agree with the decision of the Hearing Examiner, there are two (2) ways to seek review of the decision. They are described in A and B below. Unless reconsidered or appealed, decisions of the Hearing Examiner become final on the 15th day after the date of the decision.* The Hearing Examiner renders decisions within five (5) working days following a Request for Reconsideration unless a longer period is mutually agreed to by the Hearing Examiner, applicant, and requester.

The decision of the Hearing Examiner on an appeal of a SEPA threshold determination for a project action is final. The Hearing Examiner shall not entertain motions for reconsideration for such decisions. The decision of the Hearing Examiner regarding a SEPA threshold determination may only be appealed to Superior Court in conjunction with an appeal of the underlying action in accordance with RCW 43.21C.075 and TCC 17.09.160. TCC 17.09.160(K).

A. RECONSIDERATION BY THE HEARING EXAMINER (Not permitted for a decision on a SEPA threshold determination)

1. Any aggrieved person or agency that disagrees with the decision of the Examiner may request Reconsideration. All Reconsideration requests must include a legal citation and reason for the request. The Examiner shall have the discretion to either deny the motion without comment or to provide additional Findings and Conclusions based on the record.
2. Written Request for Reconsideration and the appropriate fee must be filed with the Resource Stewardship Department **within ten (10) days of the written decision**. The form is provided for this purpose on the opposite side of this notification.

B. APPEAL TO THE BOARD OF THURSTON COUNTY COMMISSIONERS (Not permitted for a decision on a SEPA threshold determination for a project action)

1. Appeals may be filed by any aggrieved person or agency directly affected by the Examiner's decision. The form is provided for this purpose on the opposite side of this notification.
2. Written notice of Appeal and the appropriate fee must be filed with the Resource Stewardship Department **within fourteen (14) days of the date of the Examiner's written decision**. The form is provided for this purpose on the opposite side of this notification.
3. An Appeal filed within the specified time period will stay the effective date of the Examiner's decision until it is adjudicated by the Board of Thurston County Commissioners or is withdrawn.
4. The notice of Appeal shall concisely specify the error or issue which the Board is asked to consider on Appeal, and shall cite by reference to section, paragraph and page, the provisions of law which are alleged to have been violated. The Board need not consider issues, which are not so identified. A written memorandum that the appellant may wish considered by the Board may accompany the notice. The memorandum shall not include the presentation of new evidence and shall be based only upon facts presented to the Examiner.
5. Notices of the Appeal hearing will be mailed to all parties of record who legibly provided a mailing address. This would include all persons who (a) gave oral or written comments to the Examiner or (b) listed their name as a person wishing to receive a copy of the decision on a sign-up sheet made available during the Examiner's hearing.
6. Unless all parties of record are given notice of a trip by the Board of Thurston County Commissioners to view the subject site, no one other than County staff may accompany the Board members during the site visit.

C. STANDING All Reconsideration and Appeal requests must clearly state why the appellant is an "aggrieved" party and demonstrate that standing in the Reconsideration or Appeal should be granted.

D. FILING FEES AND DEADLINE If you wish to file a Request for Reconsideration or Appeal of this determination, please do so in writing on the back of this form, accompanied by a nonrefundable fee of **\$669.00** for a Request for Reconsideration or **\$890.00** an Appeal. Any Request for Reconsideration or Appeal must be **received** in the Permit Assistance Center on the second floor of Building #1 in the Thurston County Courthouse complex no later than 4:00 p.m. per the requirements specified in A2 and B2 above. **Postmarks are not acceptable.** If your application fee and completed application form is not timely filed, you will be unable to request Reconsideration or Appeal this determination. The deadline will not be extended.

* Shoreline Permit decisions are not final until a 21-day appeal period to the state has elapsed following the date the County decision becomes final.



Project No. _____
Appeal Sequence No.: _____

☐ Check here for: RECONSIDERATION OF HEARING EXAMINER DECISION

THE APPELLANT, after review of the terms and conditions of the Hearing Examiner's decision hereby requests that the Hearing Examiner take the following information into consideration and further review under the provisions of Chapter 2.06.060 of the Thurston County Code:

(If more space is required, please attach additional sheet.)

☐ Check here for: APPEAL OF HEARING EXAMINER DECISION

TO THE BOARD OF THURSTON COUNTY COMMISSIONERS COMES NOW _____
on this _____ day of _____, 20__, as an APPELLANT in the matter of a Hearing Examiner's decision
rendered on _____, 20__, by _____ relating to _____

THE APPELLANT, after review and consideration of the reasons given by the Hearing Examiner for his decision, does now, under the provisions of Chapter 2.06.070 of the Thurston County Code, give written notice of APPEAL to the Board of Thurston County Commissioners of said decision and alleges the following errors in said Hearing Examiner decision:

Specific section, paragraph and page of regulation allegedly interpreted erroneously by Hearing Examiner:

1. Zoning Ordinance _____
2. Platting and Subdivision Ordinance _____
3. Comprehensive Plan _____
4. Critical Areas Ordinance _____
5. Shoreline Master Program _____
6. Other: _____

(If more space is required, please attach additional sheet.)

AND FURTHERMORE, requests that the Board of Thurston County Commissioners, having responsibility for final review of such decisions will upon review of the record of the matters and the allegations contained in this appeal, find in favor of the appellant and reverse the Hearing Examiner decision.

STANDING

On a separate sheet, explain why the appellant should be considered an aggrieved party and why standing should be granted to the appellant. This is required for both Reconsiderations and Appeals.

Signature required for both Reconsideration and Appeal Requests

APPELLANT NAME PRINTED

SIGNATURE OF APPELLANT

Address _____

Phone _____

Please do not write below - for Staff Use Only:

Fee of ☐ \$669.00 for Reconsideration or \$890.00 for Appeal. Received (check box): Initial _____ Receipt No. _____

Filed with the Resource Stewardship Department this _____ day of _____, 20__.

Q:\Planning\FORMS\Current Appeal Forms\2016.Appeal-Recon-form.he.doc