

**SKAGIT COUNTY PLANNING AND DEVELOPMENT SERVICES  
FINDINGS OF FACT**

**HEARING AUTHORITY:** Skagit County Hearing Examiner

**HEARING DATE:** April 24, 2013

**APPLICATION NUMBER:** Shoreline Substantial Development Application PL12-0191

**APPLICANT:** Skagit County Dike, Drainage and Irrigation District No. 12

**CONTACT PERSON:** Semrau Engineering and Surveying  
Mr. John Semrau  
2118 Riverside Drive  
Mount Vernon, WA 98273

**PROJECT LOCATION**

The area subject to the proposed shoreline stabilization and flood protection improvements is located along the right (north & west) bank of the Skagit River extending from Lafayette Road in the North to Gardner Road in the South, East of Burlington, Washington, within Section 4, Township 34 North, Range 4 East & Section 33, Township 35 North, Range 4 East, W.M., Skagit County, WA.

**PROJECT DESCRIPTION**

This project is an eastern extension of the levee maintenance project initiated by the City of Burlington, and Skagit County Dike, Drainage and Irrigation District No. 12, intended to increase flood protections for the City of Burlington. Skagit County Dike, Drainage and Irrigation District No. 12 propose to enlarge both the width and the height of the existing Skagit River levee along the 1.53 mile long project site. The project extends from the Burlington City limits at Gardner Road north to the terminus of the Burlington Northern Santa Fe Railroad on Lafayette Road in the North. The elevation at the top of the levee will be increased by approximately 4 feet in height and the toe or base of the levee will be increased by approximately 60 feet in width. The widening of the dike will be limited to an area landward of the existing levee toe. The purpose of the improvements is for structural reinforcement of the levy system to prevent a failure during elevated flood events.

**SITE DESCRIPTION**

This section of the existing levee is constructed on an alluvial terrace and runs along the outer bend of an elongated meander of the Skagit River. Bank erosion continues along this reach of the river and has progressed to the base of the levee on the north end. Rock has been placed at the waterward toe of the levee at this location to prevent further erosion and encroachment into the levee prism.

*Environmental Setting*

The Skagit River watershed supports the Puget Sound's largest populations of naturally reproducing salmon and steelhead trout, and has been identified as a core watershed for the recovery of Endangered Species Act-listed Chinook salmon, steelhead, and bull trout. The assessment reach is

utilized by recreationalists such as boaters and fisherman.

The area water ward of the proposal provides habitat for the Chinook salmon, steelhead trout, and bull trout including adult and juvenile migration in the channel; juvenile rearing along the channel margins; spawning habitat, and refuge habitat in riparian forests during high flow events. Habitat conditions for terrestrial species are primarily dominated by forest plant communities with the exception of small scale farms, roads, and residences. Bald eagles perch on suitable-sized trees along the riparian corridor and feed on salmon within the project area.

**EXHIBITS:**

1. Departmental Staff report.
2. Shoreline Substantial Development/Conditional Use application PL12-0050 submitted July 9, 2012.
3. Skagit County Assessor's Parcel & Tax Account Number list for PL12-0191.
4. Site Plans.
5. Notice of Development Application, published November 22 & 29, 2012.
6. SEPA Final EIS issued July 16, 2010 by the City of Burlington.
7. Wetland Site Assessment Report by Graham Bunting Associates, dated November 8, 2012.
8. Fish and Wildlife Site Assessment Report by Graham Bunting Associates, dated February 27, 2013.

**COMMENTS RECEIVED**

9. A comment letter was received from Dike District No. 20, dated January 2, 2013, indicating that the addition to the height of the levee at the proposed location will result in increased flood levels in the Nookachamps Drainage.
10. A comment letter was received from DeVries Dairy, dated January 2, 2013, indicating that the addition to the height of the levee at the proposed location will result in increased flood levels in the Nookachamps Drainage.

**GENERAL PROPERTY/PROJECT INFORMATION:**

- **PARCEL #:** P38223, P38305, P38304, P38302, P38307, P38220, P38308 & P38303
- **DEVELOPMENT SCHEDULE** – Skagit County Dike, Drainage and Irrigation District No. 12 has completed some of the actions by placing some fill on the landward side of the dike. The remainder of the grading project will be completed during the spring, summer and early fall of 2013.
- **PROJECT ACCESS** – The project is served by access off of Gardner Road or Lafayette Road.
- **PROJECT TRAFFIC AND PARKING** – No additional traffic or parking should occur as a result of the improvements. Temporary traffic delays may be necessary during construction of the expanded levee.

- **SURROUNDING LAND USE** – Current use of the adjacent properties is dominated by residential properties, agriculture, and natural areas such as the riparian corridor along the Skagit River. The land adjacent to the project site is designated by the Skagit County Comprehensive Plan as Agriculture - Natural Resource Land.
- **AESTHETIC IMPACTS** – The improvements are located on the shoreline of the Skagit River. Some aesthetic impacts are anticipated as a result of increasing the size of the levee. This may alter the visual character of the shoreline until the riparian areas recover.

**DEPARTMENTAL FINDINGS:**

1. **ZONING/COMPREHENSIVE PLAN.** The subject property is designated as Agriculture - Natural Resource Lands as indicated on the Comprehensive Plan and Zoning maps adopted December 23, 2008, and as amended thereafter. The subject site has a shoreline designation of Rural as indicated in the Skagit County Shoreline Management Master Program (SCSMMP). The Skagit River is a Shoreline of Statewide Significance.
2. **PROCESSING.** A Notice of Development Application was posted on the subject property and published in a newspaper of general circulation on November 22 & 29, 2012 as required by Section 14.26.9.04 of Skagit County Code. Notification was provided to all property owners within 300 feet of the subject property. There was a 30 day comment period associated with the Notice of Development which ended on December 28, 2012. Two comment letters were received, see exhibits 9 & 10.
3. **STATE ENVIRONMENTAL POLICY ACT.** A Determination of Significance (DS) was issued by the City of Burlington and a draft environmental impact statement (DEIS) was completed on Feb 13, 2009 for the dike stabilization project. The Final Environmental Impact Statement (EIS) was issued on July 16, 2010. The final EIS is included as Exhibit 6.
4. **FLOOD AREA REVIEW.** The existing levee is located within an A7 flood zone which is designated as a 100 year flood area as indicated on FIRM Community Panel Number 530151 0235D, effective September 29, 1989, and Panel Number 530151 250C, effective January 3, 1985.
5. **CRITICAL AREA REVIEW:** The subject parcel was reviewed with respect to the Skagit County Critical Areas Ordinance, Chapter 14.24 of the Skagit County Code. The results of the critical areas review indicated that critical areas/conditions were on or within 200 feet of the proposed development, which include wetlands and fish & wildlife habitat conservation areas. The applicant submitted a wetland site assessment report by Graham Bunting Associates, dated November 8, 2012, a fish and wildlife site assessment by Graham Bunting Associates, dated February 27, 2013, and a Biological Assessment by Anchor QEC, LLC, dated October 2009. (The biological assessment is specific to the three bridge corridor south and west of the subject site. Although the study was limited to the three bridge corridor).

The assessments indicate that the proposed improvements were determined to be in compliance with Skagit County's Critical Areas regulations. Additional critical areas compliance and environmental protections are provided under the provisions of SCC 14.24.040 (3), Jurisdictional Substitution with the United States Army Corps of Engineers.

6. **HEALTH DEPARTMENT REVIEW:** The application was routed to the Skagit County Health Department for review. The Health Department commented "WAC 173-200 & 173-201A shall be observed. As long as staging/fill areas and work do not impact any septic & wells we have no concerns. SCC 14.24.330 2 (a) requires a narrative memo that no wells are in the area that could be impacted." The Health Department requested that the following condition be added to the staff report: If the demolition of any buildings occurs that discovers septic systems, DF/tanks, septic lines or pipes under the proposed project area, then the contractor shall call SCHED to obtain decommissioning approval. Any wells GB-1 to GB-9 impacted or removed from the project site shall be decommissioned per state WAC.
7. **PUBLIC WORKS DEPARTMENT REVIEW:** Public Works commented "The proposed project will need to comply with section 14.32.060 of the Skagit County Code. This section deals with erosion and sediment controls. A grading permit is required."
8. **CURRENT PLANNING REVIEW:** Current Planning staff had no comment on the project.
9. **BUILDING OFFICIAL/FLOODPLAIN MANAGER REVIEW:** The Building Official comments: A grading and floodplain permit will be required. If the construction results in modification of the regulatory floodplain, first a CLOMR and then a LOMR will be required.
10. **FIRE MARSHAL REVIEW:** The Fire Marshal did not have any comments on this project.
11. **SHORELINE MANAGEMENT MASTER PROGRAM CRITERIA:** Skagit County's SMMP, SCC 14.26, indicates that SMMP policies and regulations will be reviewed when approving or denying Shoreline permits. The proposed improvements are located within a Shoreline of Statewide Significance. Chapter 5.03 Shoreline of Statewide Significance, Chapter 7.06 Landfills, and Chapter 7.16, Shoreline stabilization and Flood Protection were all reviewed with respect to the project and found to be in general compliance. Comments to Chapter 7.16 are as follows:

**Shoreline Stabilization and Flood Protection – Policies – General, 7.16, 1A.**

- (1) Streamway modification and marine diking programs should be coordinated and monitored to provide for more comprehensive planning of Skagit County's Shorelines.

*Streamway modification and marine diking is not included within the project proposal. However, increasing the dike height may result in minor modification of the Skagit River hydrology during elevated flood events. This project has been coordinated between Dike District 12 and the City of Burlington. The proposal is not considered a coordinated response or an approved mitigation measure for flooding prescribed by the members of the Skagit River General Investigation. The proposal is solely designed to modify the existing diking system on the north and west side of the Skagit River in order to provide shoreline stabilization and greater flood protection to the City of Burlington.*

- (2) Recognizing that streamway modifications may cause interference with normal river geohydraulic processes that may lead to erosion of other up and down river shorelines, then such modifications and stabilization measures should incorporate basic geohydraulic principles and be located, designed, coordinated and maintained for homogeneous river reaches. Such modifications and measures should be sited and designed by qualified, professional personnel.

*This project was designed by the engineers of Pacific International Engineering utilizing geohydraulic principles in design and construction. Although hydraulic modeling of the proposal indicates that upstream and downstream impacts may occur during elevated flood events, Dike District 12 and the City of Burlington utilized designs that will minimize those impacts. The proposal is also required to comply with the Flood Damage Prevention Ordinance SCC 14.34.*

**Shoreline Stabilization and Flood Protection – Policies – Design and Location, 7.16, 1B.**

- (1) All bank stabilization and flood protection measures should be constructed to comply with the design and location standards and guidelines of applicable agencies.

*The project has been designed according to the United States Army Corps of Engineers (USACE) guidelines, designs and standards in an effort to receive levee certification. The proposal is also required to comply with the Flood Damage Prevention Ordinance SCC 14.34.*

- (2) Riprapping and other bank stabilization measures should be located, designed, and constructed primarily to prevent damage to agricultural land, public roads and bridges, existing homes and residential areas, or other structures or natural features whose preservation is in the public interest. Such measures should not restrict the flow of the river or stream.

*Although riprapping is not proposed, the bank stabilization project is located and designed to minimize impacts from the Skagit River to the City of Burlington during flood events. Hydraulic modeling completed by Pacific International*

*Engineering indicates the proposal should not result in significant adverse impacts to areas upstream or downstream of the subject site.*

- (3) **Fish and Wildlife Resources** - Recognizing the value and interdependency of water bodies and associated wetlands as biologically productive habitats and recognizing the intent of the Shoreline Management Act (RCW 90.58.030(2) and WAC 173.22.030, shoreline stabilization and flood protection projects should be located landward of natural wetlands, marshes, and swamps of associated fresh and marine water bodies.

*The shoreline stabilization project is not located within wetlands, marshes or swamps. However, the hydraulic model generated by the City of Burlington and Dike District 12 indicates that some impacts to wetlands located downstream and across the river may receive some additional flooding during a elevated flood event. It is not anticipated that the additional flood waters will have a significant adverse impact to the wetlands.*

- (4) Braided and meandering channels and associated shoreline areas should not be the locations for intensive land use developments such as those of an industrial, commercial, or residential nature.

*With the exception of existing farmworker housing and urban residential development within Burlington City limits, This proposal is not directly associated with intensive land use developments.*

- (5) Substantial stream channel direction modification, realignment, and straightening should be discouraged as a means of shoreline and flood protection and for protection of road rights-of-way, navigational routes, and other construction or developmental projects.

*The project does not include provisions for stream channel direction modification, realignment and straightening.*

#### **Shoreline Stabilization and Flood Protection – Policies – Materials, 7.16, 1C.**

- (1) Shoreline stabilization and revetment material should consist of substantial rock and should meet the standards and guidelines of the Soil Conservation Service.

*The project proposes to utilize glacially derived fill material sufficiently well sorted, ranging from fine to coarse, to function as a hydraulic barrier and meet the Army Corp of Engineering standards and guidelines for geotechnical construction of the diking system.*

- (2) Junk and solid waste should not be permitted for shoreline stabilization and revetment material. Concrete and concrete waste should not be used as stabilization and revetment material.

*Concrete, junk and solid waste, including concrete waste, are not proposed to be utilized in project construction.*

- (3) Shoreline stabilization programs should utilize natural, perennial vegetation either as stabilization material alone or as complementary to other materials.

*Consistent with diking practices in Skagit County, the dike will be reseeded with grass and maintained. Perennial vegetation maybe used in areas that do not conflict with ongoing dike maintenance.*

#### **Shoreline Stabilization and Flood Protection – Policies – Natural Features, 7.16, 1D.**

- (1) Natural features such as snags, stumps or uprooted trees which support fish and other aquatic systems, and do not intrude on the navigational channel or reduce flow, and do not threaten agricultural land and existing structures and facilities should be allowed to remain.

*No snags, stumps and uprooted trees are currently located within the proposed improvement area. The area east and south of the existing dike, adjacent to the Skagit River will remain in its current configuration. Any snags, stumps or uprooted trees occurring at or near the OHWM will not be removed.*

#### **Shoreline Stabilization and Flood Protection – Policies – Alternatives, 7.16, 1F.**

Shoreline stabilization programs should be encouraged to develop alternative methods of streamway modifications utilizing natural systems of stabilization and geohydraulic principles.

*The project does not include provisions for streamway or channel direction modification, realignment and straightening*

#### **Stabilization and Flood Protection – Policies – Impacts, 7.16, 1G.**

- (1) Recognizing that shorelines of recreation, wildlife, and aesthetic value are limited and irreplaceable resources, than shoreline stabilization and flood protection projects should consider their potential effects and impacts upon such resources.

*All work is proposed west or landward of the existing levy. It is not anticipated that this proposal will have a significant adverse impact on recreation opportunities, fish and wildlife habitat, or current aesthetic values.*

- (2) Recognizing that the related shoreline stabilization and flood protection activities of filling, grading, lagooning, and dredging may have a substantial impact upon the existing aquatic and biological systems, navigation, and river hydraulics by subsequent erosion and sedimentation, then these activities and their possible impacts should be recognized.

*All work is proposed west or landward of the existing levee. It is not anticipated that this proposal will have a significant adverse impact on fish and wildlife habitat or create navigation barriers. The possible impacts were recognized and balanced with the need to provide public protections. Potential biologic impacts resulting from this project may be mitigated by re-establishing and maintaining native vegetation in riparian and upland areas.*

**Stabilization and Flood Protection – Regulations – Shoreline Areas, 7.16, 2A.**

**(3) Rural.**

- a. Shoreline stabilization and flood protection measures are permitted subject to the General Regulations.

**Stabilization and Flood Protection – Regulations – General, 7.16, 2B.**

**(2) Qualifications for approval** - Shoreline stabilization and flood protection measures shall be allowed only when adequate evidence is presented that one of the following conditions exist:

- a. Significant erosion of agricultural lands.
- b. High water or erosion threatens public works and properties, including roads, bridges, railroads, and utility systems.
- c. High water or significant erosion damages or threatens existing homes and residential areas.
- d. High water or significant erosion damages or threatens to damage existing commercial and industrial uses and developments.

*This project is designed to provide additional flood protection to the City of Burlington, and meets the criteria for high water threatening public works and properties, including roads, bridges, railroads, and utility systems, for high water threatening existing homes and residential areas, and for high water threatening existing commercial and industrial uses and developments.*

**(3) Professional design** - The County may require professional design of shoreline stabilization and flood protection works where such projects will cause interference with normal river geohydraulic processes, leading to erosion of other up and down river shoreline properties or adverse effects to shoreline resources and uses.

*This project was designed by Washington State licensed professional engineers utilizing geohydraulic principles in design and construction. The City of Burlington in conjunction with the Army Corps of Engineers designed this project to protect the city from elevated flood events while minimizing upstream and downstream hydraulic impacts from the proposed dike improvement.*



- (4) **Channel modifications** - River and stream channel direction modification, realignment, and straightening are not permitted unless for substantiated purposes connected with uses consistent with this program.

*The project does not include provisions for river realignment and straightening.*

- (5) **Design and construction**
- a. Existing streambank vegetation shall be preserved to the maximum extent feasible during shoreline stabilization and flood protection work.
  - b. New or expanded dike, revetment, or riprap systems, cut and fill slopes, and backfilled areas shall be progressively planted with compatible, self-sustaining, and soil stabilizing vegetation.
  - c. All works shall allow for the passage of surface and ground waters.
  - d. All works shall be designed and constructed to meet the requirements and standards of the County Engineer, State Departments of Fisheries and/or Game, Corps of Engineers where applicable, and Soil Conservation Service.

*The Department has concluded that all of the above criteria, a –d, will be met. The City of Burlington and Dike District 12 have proposed to preserve the natural vegetation in the area waterward of the existing dike. Areas exposed as a result of grading activities will be replanted with grass for soil stabilization. The expanded levee system should not interfere with the passage of surface or ground waters greater than what currently exist. The project has been designed and constructed to meet the requirements of the Army Corps of Engineers for levee design.*

- (6) **Materials**
- a. Materials for shoreline stabilization and flood protection works shall not consist of solid waste, junk or abandoned automobiles, asphalt or macadam, or any building demolition debris except that which is used for emergency purposes.
  - b. Techniques utilizing totally or in part vegetative bank stabilization procedures shall be preferred over structural means such as concrete revetments or extensive riprap.

*Junk and solid waste including asphalt & demolition debris are not proposed to be utilized in construction of the project. The proposed improvements will be replanted with natural grass vegetation in the upland areas of the project site.*

- (7) **Estuaries and wetlands** - Any proposal to dike, drain, or fill tidelands, estuaries, salt marshes, and associated water bodies and wetlands shall provide a thorough evaluation of the natural productivity of the wetlands to be displaced and the proposed use.

*A wetlands complex is located on the west side of the Skagit River adjacent to the project site. As all work is proposed landward of the existing levee, it is not*

*anticipated that this project will have an adverse impact on the wetland complex. A second wetland complex is located landward of the existing levee. The wetland site assessment prepared by Graham Bunting Associates indicates the wetland landward of the levee meets Skagit County's critical areas ordinance criteria as not regulated by Skagit County.*

- (9) **Project information** - The county shall require and utilize the following substantiating information during review of shoreline stabilization and flood protection proposals:
- a. River channel hydraulics and floodway characteristics up and down stream from the project area shall be identified contingent upon the extent and nature of project work involved. Updated topography maps or phased (old and recent) aerial photography would be adequate.
  - b. Existing shoreline stabilization and flood protection works within the area stipulated above.
  - c. Physical, geological, and/or soil characteristics of the area.
  - d. Existing and proposed shoreline water uses for the project area and area stipulated above.
  - e. Predicted impact upon area shore and hydraulic processes, adjacent properties, and shoreline and water uses.

*The Department is satisfied that the appropriate information has been provided as part of the application.*

The Department also reviewed SCC 14.26, Chapter 5.03 Shoreline of Statewide Significance and Landfills SCC 14.26, Chapter 7.06. The review indicated that the project is consistent with the policies and regulations of these chapters.

13. **Time Requirements:** Under the provisions of RCW 90.58.143 (2) & (3) and WAC 173-27-090 (2)(a), the applicant is required to begin the project within 2 years and complete the project within 5 years.

## **RECOMMENDATION**

Based on a review of all submitted information and the above findings, Skagit County Planning and Development Services recommends approval of shoreline substantial development permit request PL12-0191 for the proposed shoreline stabilization and flood protection project by Dike District 12 and the City of Burlington subject to the following conditions:

- 1) The applicant and its contractors shall comply with the State Water Quality Criteria, Surface Water WAC 173—201A and Ground Water WAC 173-200.
- 2) Temporary erosion/sedimentation control measures shall be utilized in accordance with the Skagit County Code 14.32 Drainage.
- 3) The applicant shall comply with Northwest Clean Air Agency requirements.
- 4) The applicant shall comply with all relevant provisions of Skagit County Code 14.26 Shoreline Management Master Program, Skagit County Code 14.24 Critical

Areas Ordinance, Skagit County Code 14.34 Flood Damage Prevention Ordinance and Skagit County Code 14.16 Zoning.

- 5) Aesthetic impacts shall be minimized.
- 6) The applicant shall strictly adhere to the project information (site diagram) submitted for this proposal. If the applicant proposes any modification of the subject proposal, he/she shall request a permit revision from this office.
- 7) If the demolition of any buildings occurs that discovers septic systems, drain fields, septic tanks, septic lines or pipes under the proposed project area, then the contractor shall contact the Skagit County Health Department to obtain decommissioning approval. Any wells GB-1 to GB-9 impacted or removed from the project site shall be decommissioned per state requirements..

Prepared By: John Cooper

Dated: April 17, 2013