

1 Sponsored by: Councilmember Joyce McDonald  
2 Requested by: Pierce County Council  
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6 ORDINANCE NO. 2011-95s  
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10 **An Ordinance of the Pierce County Council Relating to Protecting Lives  
11 and Property by Controlling Flooding in Pierce County;  
12 Adopting Findings of Fact; Ordering the Formation of a  
13 Countywide Flood Control Zone District; Describing the  
14 Boundary of Pierce County and the Countywide Flood  
15 Control Zone District; Adopting a New Chapter 11.06 of the  
16 Pierce County Code, "Pierce County Flood Control Zone  
17 District"; Repealing Resolution Nos. 10831, 17086, and  
18 17471; and Setting an Effective Date.**

19  
20 **Whereas**, the current level of funding for acquisition, construction, maintenance  
21 and operation of flood control improvements in Pierce County is not adequate to meet  
22 current and future needs to protect private and public property from damage caused by  
23 flooding; and

24  
25 **Whereas**, Pierce County's economic vitality and the safety of its citizens depends  
26 on a well maintained and well functioning flood control system; and

27  
28 **Whereas**, it is in the best interest of Pierce County citizens to enjoy the benefits  
29 of a flood control zone district; **Now Therefore**,

30  
31 **BE IT ORDAINED by the Council of Pierce County:**

32  
33 Section 1. The Pierce County Council hereby adopts the following Findings of  
34 Fact:

35  
36 A. One of the important functions of government is to protect citizens and public  
37 and private property from the ravages of natural disasters such as flooding.  
38  
39 B. Flood control needs exist throughout the County, and an integrated and  
40 coordinated approach is needed to effectively and efficiently address those  
41 needs to ensure that public safety and property are protected and our region's  
42 prosperity is sustained.  
43  
44 C. Every year, Pierce County faces significant threats from flooding, the impacts of  
45 which are far-reaching and pose threats to public health and safety and  
46 economic activities throughout the County.

1           D. Between 2006 and 2009, Pierce County experienced 3 of the 15 largest flood  
2           events of recorded history, dating back to the early 1900s. These events,  
3           combined with the flood of record in February 1996, revealed numerous  
4           deficiencies in the County's aging flood protection system. In November 2006,  
5           record rainfall on Mt. Rainier (up to 18 inches in 36 hours) caused river flooding  
6           throughout Pierce County, resulting in millions of dollars in property damage,  
7           including additional damage to Pierce County's flood protection facilities and the  
8           closure of Mt. Rainier National Park due to damage caused by the Nisqually  
9           River. Additional flood events in December 2008 and January 2009 caused  
10           more flooding to the region, causing millions more in property damage.  
11           Following the 2009 flooding, Pierce County was declared a federal flood disaster  
12           area for the eighth time since 1990.

13

14           E. Throughout Pierce County there is approximately 92 miles of aging flood  
15           protection facilities that cannot be adequately repaired or maintained because of  
16           revenue limitations. Investigations following the 2008 and 2009 flood disasters  
17           determined that there were 49 locations along the flood protection facilities on  
18           the Puyallup, Carbon, White, and Nisqually Rivers that sustained damage. In  
19           addition, there are additional needs for new or enhanced flood protection  
20           facilities, setback levees and other measures throughout the County.

21

22           F. The 100-year floodplain in Pierce County covers more than 40,000 acres or over  
23           60 square miles, based on the flood insurance rate maps produced by FEMA.  
24           The estimated value for the property exposed to flooding within unincorporated  
25           Pierce County represents approximately 11.6 percent of the total assessed  
26           property values for the unincorporated county.

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28           G. Many industrial and commercial facilities and residential and agricultural areas  
29           in the Lower Puyallup, Lower White, Middle Puyallup, and Carbon River areas  
30           are protected by aging levees, some of which were damaged by flooding in the  
31           last three years. Further damage to these facilities and areas from flooding or  
32           the failure to repair the damage that has already occurred could have far-  
33           reaching economic impacts throughout the region.

34

35           H. The impacts of flooding can be severe and extend far beyond the floodplain  
36           itself. Buildings can be reduced to rubble along with household furnishings and  
37           business inventories. In addition to the direct threats and damage from  
38           floodwater, people face the threat of electrocution, explosions and fires caused  
39           by leaking gas lines and damaged electrical lines. Severe flooding can also  
40           destroy utility infrastructure, causing extensive disruptions in service. The loss  
41           of power and communication is common with severe floods. Damage to  
42           drinking water and wastewater facilities can spread disease. In addition,  
43           impacts to roads and highways can impair the mobility of people, goods and  
44           services, including emergency vehicles and personnel.

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1      I. Countywide economic and environmental consequences would occur if three  
2      wastewater treatment plants located in the flood plain are damaged or  
3      compromised by flooding. These plants serve the cities of Tacoma, Puyallup,  
4      Sumner and Bonney Lake. If flooding overwhelms these plants, it is likely that  
5      raw sewage would mix with flood waters causing fecal material to degrade water  
6      quality and pose risks to the water quality of Puget Sound as well as nearby  
7      property owners.

8      J. According to the US Environmental Protection Agency, contact with raw sewage  
9      exposes people to a variety of pathogenic micro-organisms, viruses, and  
10     intestinal worms that can cause serious illnesses such as cholera, dysentery,  
11     infectious hepatitis, and gastroenteritis. Sensitive populations – children, the  
12     elderly, and those with weakened immune systems – are at a higher risk of  
13     illness. Sewage can cause the explosion of algal growth, depleting oxygen in  
14     the water and killing fish. Raw sewage discharges cause property damage and  
15     public health problems when overflows flood homes and businesses that  
16     subsequently require cleanup, large-scale disinfection, and replacement of rugs,  
17     furniture, wallboard panels, and flooring.

18     K. Portions of Interstate 5 (I-5) are protected by aging levies and in 2009 the  
19     floodwaters behind the levies protecting I-5 came within inches of causing  
20     closure of the interstate. County residents rely on I- 5 for access to their jobs  
21     and for transport of freight that supplies goods to business, stores, and  
22     households. The economic consequences of I-5 flooding closures are  
23     significant. The state-wide freight-related economic impact from the 2007  
24     flooding closure of I-5 near Chehalis resulted in lost economic output of \$47.07  
25     million; employment loss of 290 jobs; state tax revenue loss of \$2.39 million, and  
26     reduction in personal income of \$14.55 million. (Washington State Department  
27     of Transportation Final Research Report related to storm closures of I-5 from  
28     December 3-7, 2007.)

29     L. The Pierce County Council considered the Rivers Flood Hazard Plan Economic  
30     Analysis Final Report, Pierce County Public Works and Utilities Surface Water  
31     Management Division as prepared by Entrix, Inc. (October, 2010). The analysis  
32     found that potential flood related losses in Pierce County are in excess of \$725  
33     million. This report found that the potential direct and indirect flood-related  
34     impacts and associated economic losses are as summarized below:

35     Health and Safety – Potential direct impacts to:  
36     1. 21,193 individuals living in the floodplain;  
37     2. 9,340 homes located in the floodplain;  
38     3. three wastewater treatment plants located within the floodplain which if  
39     flooded could:  
40       a. Spill raw or partially treated sewage into floodwater;  
41       b. Require two weeks to six months to return to full secondary treatment  
42       and disinfection;

- c. Disrupt businesses and homes served in the cities of Puyallup (37,000 people served), Tacoma (154,000 people served), Sumner and Bonney Lake (25,000 people served); and
- d. Result in repair costs of between \$3 and \$120 million, depending on the plant and severity of flooding.

## Pierce County Economy:

1. 11,868 jobs at businesses located within the 100-year floodplain;
2. Estimated range lost economic output – \$12.6 to \$46.2 million;
3. Estimated range of personal property losses – \$199.1 to \$520.8 million;
  - a. Compromises the ability of the Port of Tacoma to compete for discretionary cargo if the Port's clientele is concerned about delays in the transportation chain due to flooding.

## Transportation Impacts of a 100-year Event:

1. Road and rail closures including portions of: Interstate 5, SR509, SR410, Pacific Hwy, Amtrak, BNSF and UP railways;
2. Traffic Disruptions, e.g., Interstate-5 traffic flow: 1.5 million vehicles daily in a four-county region;
3. Estimated range of economic impacts from traffic delays (commuter, freight on trucks and rail) – \$12.6 to \$19.3 million;
4. Disruptions in freight traffic, specifically Port operations, impact to both the local economy and as far away as Alaska and the Pacific Rim;
5. Port of Tacoma's trade volume – \$98.6 million daily average.

## Recreation, Mt Rainier and Crystal Mountain:

1. Mt Rainer National Park closure due to channel migration for 2 to 6 months;
2. Economic impact of closing Mt. Rainer – \$0.5 to \$9.6million total output;
3. Jobs impacted by closing Mt Rainer – 70 to 550 jobs;
4. Crystal Mountain daily closures – \$0.1million average daily output.

- M. Major job generating businesses such as the Port of Tacoma whose activities generate more than 43,000 jobs in Pierce County are located in areas that are protected by aging levies, many of which were damaged by recent flooding. Further damage to those facilities from flooding or the failure to repair damage that has already occurred could have far-reaching economic impacts throughout the region. (Economic Impact of the Port of Tacoma, Martin Associates, May 24, 2005)
- N. Through Ordinance No. 2011-8 Pierce County repealed Ordinance No. 2010-16s that created a prior flood control zone district. Following a ruling from the Boundary Review Board that was favorable to the County, some cities in Pierce County appealed the Board ruling. The County repealed this Ordinance to demonstrate a commitment to a more inclusive and deliberative formation process.

1           O. Ordinance No. 2011-8 requested the County Executive to complete a State  
2           Environmental Policy Act (SEPA) review of a flood control zone district  
3           encompassing the entire county. The County issued a determination of non-  
4           significance on October 19, 2011, following preparation and circulation of an  
5           environmental checklist, agency review, and a public comment period.

6           P. Pierce County undertook extensive public involvement to engage  
7           representatives of Pierce County cities in the formation process for a flood  
8           control zone district. This process included briefings for mayors and invitations  
9           to meet with city councils.

10           Q. Pierce County is committed to implementing a cost efficient model to implement  
11           and administer a flood control zone district. It is anticipated that the County and  
12           the Flood Control Zone District will enter into an interlocal agreement that  
13           identifies roles and responsibilities of both in order to maximize use of existing  
14           County staff and agencies so that maximum funding is applied to project  
15           maintenance and construction.

16           R. Chapter 86.15 of Revised Code of Washington (RCW) authorizes the Pierce  
17           County Council to initiate the formation of a countywide flood control zone  
18           district within Pierce County for the purpose of undertaking, operating, or  
19           maintaining flood control projects or storm water control projects, among other  
20           powers. A countywide district is authorized to address flood and storm water  
21           control needs throughout the County, including within Pierce County cities.

22           S. RCW 86.15.070 authorizes the Pierce County Council to appoint a countywide  
23           advisory committee of 15 members or less. A countywide advisory committee  
24           can provide the board of supervisors with important input on flood and  
25           stormwater control needs and priorities throughout Pierce County to ensure that  
26           flood and stormwater projects and programs are implemented efficiently and  
27           effectively.

28           T. RCW 86.15.140 requires the flood control zone district supervisors to annually  
29           adopt a budget for the district, but only after a public hearing, notice of which  
30           shall be given as provided by RCW 36.32.120(7).

31           U. The Council considered the testimony of Harold Smelt, Pierce County Surface  
32           Water Management Utility Manager, before the Pierce County Boundary Review  
33           Board in Case No. 1-10-1 relating to the formation of the proposed countywide  
34           Flood Control Zone District.

35           V. The Council considered the exhibits provided to the Pierce County Boundary  
36           Review Board and exhibits to Pierce County's Brief filed in Pierce County  
37           Boundary Review Board Case No. 1-10-1 relating to the formation of the  
38           proposed countywide Flood Control Zone District.

1       W. The Council considered the final decision of the Pierce County Boundary  
2       Review Board in Case No. 1-10-1 relating to the formation of the proposed  
3       countywide Flood Control Zone District.

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5       X. The maintenance and operation of flood control improvements located within the  
6       District is determined to benefit the whole of the District and the County.

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8       Y. There are no flood control zone districts in Pierce County. The history of  
9       Council action creating, dissolving or contemplating flood control zone districts is  
10      as follows:

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12      1. Resolution No. 10831, approved by the Board of Pierce County  
13       Commissioners on September 27, 1965, sought federal assistance in  
14       planning, financing and construction of necessary flood control and drainage  
15       works under the provisions of the Watershed Protection and Flood  
16       Prevention Act. Recitals to the resolution indicate it was adopted as a  
17       response to interest from the cities of Algona and Pacific seeking creation of  
18       a flood control zone district.

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20      2. Resolution No. 17033, approved by the Board of Pierce County  
21       Commissioners on March 19, 1974, initiated the creation of the Hylebos  
22       Flood Control Zone District.

23

24      3. Resolution No. 17086, approved by the Board of Pierce County  
25       Commissioners on April 15, 1974, created the Hylebos Flood Control Zone  
26       District.

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28      4. Ordinance No. 2006-113, approved by the Pierce County Council on  
29       November 14, 2006, dissolved the Hylebos Flood Control Zone District.

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31      Z. On \_\_\_\_\_, the Council adopted an Ordinance initiating the  
32       formation of a countywide flood control zone district and setting a public hearing  
33       on the formation of the district and the dissolution of existing districts in  
34       accordance with state law. State law provides that the Council shall issue an  
35       order regarding district formation following the final hearing. This Ordinance  
36       constitutes the order regarding district formation required under RCW  
37       86.15.030.

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39       Section 2. A new Chapter 11.06 of the Pierce County Code, "Pierce County  
40       Flood Control Zone District," is hereby adopted as shown in Exhibit A, which is attached  
41       hereto and incorporated herein by reference.

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1        Section 3. The boundary for the Pierce County Flood Control Zone District shall  
2 be the entirety of Pierce County, Washington, which is described at RCW 36.04.270 as  
3 follows:

4        Commencing at the mouth, midchannel, of the Nisqually River; thence following  
5 the main channel of said river to its head; thence due east to the summit of the  
6 Cascade mountains; thence northerly along the summit to the head of the Green  
7 Water; thence westerly down said river to its confluence with White River; thence  
8 down the main channel of White river to the intersection of the fifth standard  
9 parallel; thence west along said line to the southeast corner of section thirty-one,  
10 township twenty-one north, range four east of Willamette Meridian; thence north  
11 along the east line of said section thirty-one to its intersection with the northerly  
12 line of the Puyallup Indian Reservation; thence northwesterly on said line of the  
13 Puyallup Indian reservation, projected northwesterly in a straight line, to its  
14 intersection with the center line of Puget Sound; thence southwesterly and  
15 westerly following the channel of Dalco Passage to the south entrance of Colvo's  
16 Passage; thence down the channel of said passage to the northeast corner of  
17 section sixteen, in township twenty-two north, range two east; thence west to the  
18 northeast corner of section sixteen, in township twenty-two north, range one  
19 west; thence southerly along the channels of Case's Inlet and Puget Sound, to  
20 the middle of the mouth of the Nisqually River and place of beginning.

21        Section 4. It is the intent of the Council to establish an advisory committee by  
22 separate ordinance.

23        Section 5. The Council requests that the Pierce County Flood Control Zone  
24 District establish a fund to assist Pierce County jurisdictions with their flood and  
25 stormwater control needs.

26        Section 6. The Council requests that the Pierce County Flood Control Zone  
27 District limit the ad valorem property tax levy authorized by RCW 86.15.160 (3) to ten  
28 cents per thousand dollars of assessed value.

29        Section 7. That entity, or contemplated entity, referenced in Resolution No.  
30 10831 and characterized as a "flood control zone district", while failing to constitute a  
31 formal flood control zone district under RCW 86.15, is nevertheless hereby abolished  
32 and dissolved.

33        Section 8. Resolution Nos. 10831, 17086 and 17471 are each hereby repealed.

1        Section 9. This Ordinance shall become effective upon the Pierce County  
2 Boundary Review Board issuing a final decision of approval for the boundary described  
3 at Section 3 of this Ordinance.

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5        PASSED this \_\_\_\_\_ day of \_\_\_\_\_, 2012.  
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7        ATTEST:

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11        **Denise D. Johnson**  
12        Clerk of the Council

PIERCE COUNTY COUNCIL  
Pierce County, Washington

Joyce McDonald  
Council Chair

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16  
17        **Pat McCarthy**  
18        Pierce County Executive  
19        Approved \_\_\_\_\_ Vetoed \_\_\_\_\_, this  
20        \_\_\_\_\_ day of \_\_\_\_\_,  
21        2012.

22        Date of Publication of  
23        Notice of Public Hearing: \_\_\_\_\_

24  
25        Effective Date of Ordinance: \_\_\_\_\_