



KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

August 26, 2014

Ordinance 17878

Proposed No. 2014-0271.1

Sponsors Lambert

1 AN ORDINANCE establishing a demonstration project, as
2 authorized under K.C.C. chapter 21A.55, for alluvial fan
3 management pilot projects, including areas within the
4 shoreline jurisdiction.

5 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

6 **SECTION 1. Findings:**

7 A. Alluvial fans occur where streams carrying sediment change from a steeper
8 slope to a flatter slope and lose their capacity to move sediment and sediment drops out
9 of the water column. Alluvial fans fill in the existing stream channel and force the stream
10 to another location creating the characteristic fan shape over time. When a stream is
11 forced out of its channel on developed alluvial fans, it damages infrastructure such as
12 roads, structures and utilities, as well as flooding surrounding property.

13 B. Alluvial fans are the result of dynamic physical processes and in many cases
14 provide beneficial ecosystem services such as multithreaded stream channels with slow-
15 moving water and abundant food for rearing fish. For example, the alluvial fans of the
16 Tolt and Raging rivers are very high priority salmon habitat. They are also a component
17 of landslide hazard areas as defined in K.C.C. 21A.06.680 and are regulated under King
18 County's critical areas regulations in K.C.C. chapter 21A.24.

19 C. Because much of the county's farmland is located in valley floors below
20 relatively steep valley walls, many of the county's farms are impacted by alluvial fans.
21 Alluvial fans fill agricultural drainage channels as a result of both normal ongoing
22 deposition of sediment and larger episodic deposition events, which deposit upslope
23 sediment and debris in agricultural fields.

24 D. In addition to being used for farming operations, many alluvial fans have been
25 developed with residential structures or with infrastructure, or are used for recreational
26 purposes.

27 E. King County's existing regulations and the lack of approved management
28 practices make it difficult to remedy the impacts of alluvial fan deposits on farm
29 operations, infrastructure, residential and recreational uses.

30 F. The 2009 FARMS REPORT (Future of Agriculture Realizing Meaningful
31 Solutions) identifies alluvial fans as an ongoing problem for operational needs of farmers
32 and landowners in Agriculture Production Districts and for protection and improvement
33 of fish spawning habitat in tributary streams. The report calls for the county to work
34 collaboratively with other groups to implement and monitor a variety of model projects to
35 manage alluvial fans.

36 G. The 2012 King County Comprehensive Plan policy R-671 states that the
37 county should use pilot or demonstration projects and multiagency collaboration to
38 develop a new suite of practices that will provide options for landowners whose existing
39 operations are affected by alluvial fan deposits. These should provide timely and cost-
40 effective relief from debris and the associated changes to the watercourse along with
41 protection of intact fish habitat and restoration of degraded fish habitat within these areas.

42 H. The 2012 King County Comprehensive Plan policy E-499.f calls for the
43 county to improve the management of alluvial fans by developing and clarifying
44 definitions of alluvial fans and developing appropriate management strategies. Strategies
45 should protect intact habitat and restore degraded habitat, reduce threats to public safety
46 and accommodate existing land uses. Findings from pilot projects should inform
47 management strategies for alluvial fans.

48 I. Comprehensive Plan policy E-499.f also calls for mapping the locations of
49 existing alluvial fans. King Conservation District has completed some mapping.
50 Additional mapping is not part of the demonstration project.

51 SECTION 2. The definitions in this section apply throughout this ordinance
52 unless the context clearly requires otherwise.

53 A. "Alluvial fan" means a typically fan shaped accumulation of silt, sand, gravel
54 and boulders created when flowing water slows down and the sediment transport
55 capability of the water is reduced.

56 B. "Sediment management facility" means a system that promotes the deposition
57 of sediment to a specific location or contains the deposition of sediment to a specific area.

58 SECTION 3. As allowed under K.C.C. chapter 21A.55, the council hereby
59 authorizes the alluvial fan demonstration project, which shall comply with the following:

60 A. The purpose of the alluvial fan demonstration project is to:

61 1. Provide options for farmers and landowners whose existing operations or
62 facilities are affected by alluvial fan deposits;

63 2. Identify ways to protect or preserve existing infrastructure on developed
64 alluvial fans and to protect or preserve agricultural, residential or recreational uses on
65 developed alluvial fans;

66 3. Locate deposition material where it can be removed with less impact to the
67 aquatic area and the fish and animals that utilize that aquatic area than would result from
68 dredging long sections of the aquatic area;

69 4. Determine if innovative permit processing and limited modifications of
70 certain development standards and permit requirements will result in protection of
71 infrastructure, agricultural, residential or recreational uses on developed alluvial fans; and

72 5. Develop best management practices for addressing alluvial fans to meet
73 operational needs of farmers and landowners and to protect and to reduce the impact to
74 the aquatic area and the fish and animals that utilize the aquatic area;

75 B. The demonstration project shall consist of up to five individual projects
76 located within the Snoqualmie river watershed basin, including areas within the shoreline
77 jurisdiction, and shall be implemented within streams with mean annual flows of less
78 than twenty cubic feet per second. The individual projects shall be allowed on alluvial
79 fans with existing infrastructure, including, but not limited to structures, utilities, roads,
80 fences and pipe systems or cleared alluvial fans used for agricultural or recreational
81 purposes.

82 C. The demonstration project shall be administered jointly by the department of
83 natural resources and parks, water and land resources division, and the department of
84 permitting and environmental review. The departments are authorized to implement the
85 development standards of K.C.C. Titles 9 and 16 for permit review and of K.C.C. Title

86 21A, as modified in subsection D. of this section. The roles and responsibilities of each
87 department are as follows:

- 88 1. The department of natural resources and parks shall:
 - 89 a. administer county-supported projects through the water and land resources
90 division storm water services section, including design support, inspection and
91 monitoring;
 - 92 b. assign a project manager and contact person;
 - 93 c. coordinate with the Washington state Department of Fish and Wildlife,
94 permit agencies, the King County agricultural commission, the King Conservation
95 District, farmers, and landowners, as needed;
 - 96 d. review each project for compliance with K.C.C. chapter 21A.24 and other
97 applicable development regulations jointly with the department of permitting and
98 environmental review; and
 - 99 e. prepare the report to council as required in subsection G. of this section;
- 100 2. The department of permitting and environmental review shall:
 - 101 a. review each project for compliance with K.C.C. chapter 21A.24 and other
102 applicable development regulations jointly with the department of natural resources and
103 parks; and
 - 104 b. conduct site inspections to determine whether each individual project is in
105 conformance with the agreed design; and
- 106 3. The department of permitting and environmental review shall make the final
107 decision to approve or deny required permits based on the criteria in subsection F. of this

108 section. The department of permitting and environmental review shall consult with the
109 department of natural resources and parks prior to issuing its decision.

110 D. For the purposes of this demonstration project, the following development
111 standards are modified as set forth in this subsection and shall be implemented by the
112 department of natural resources and parks, water and land resources division, and the
113 department of permitting and environmental review:

114 1. K.C.C. 21A.24.045. The allowed alterations table and alterations conditions
115 text is modified to allow construction of new sediment management systems in or
116 adjacent to aquatic areas and the buffers of grazed wet meadows on alluvial fans;

117 2. K.C.C. 21A.24.240. The zero-rise flood fringe development standards and
118 alternations are modified to allow flexibility in placement of excavated sediment and to
119 allow for a possible negligible rise in either base flood elevation or minor reduction in
120 flood storage, or both, due to implementation of an individual demonstration project, but
121 only if the impacts will not create any measurable off-site increase in the base flood
122 elevation;

123 3. K.C.C. 21A.24.230, K.C.C. 21A.24.270 and King County Surface Water
124 Design Manual section 1.3.2 special requirement #2 flood hazard area delineation are
125 waived. For the purpose of each individual project the Flood Hazard Area shall be
126 assumed to cover the entire alluvial fan. The extent of the alluvial fan shall be shown on
127 the project engineering drawings;

128 E. The following process shall apply to requests for permits under this ordinance:

129 1. The department of natural resources and parks shall identify individual
130 projects and verify that the proposed projects meet the criteria for coverage under this
131 ordinance;

132 2. Individual project applications shall include engineering drawings for review
133 and approval, specifying project location, construction sequence and timing. Each
134 application shall also include a critical areas report, including a wetland delineation and
135 wetland classification identifying critical areas, and an impact analysis identifying
136 function and area impacted. Before impacting critical areas, the project must meet
137 K.C.C. 21A.24.125, avoiding impacts to critical areas;

138 3. The total fees for permits and review charged by the department of permitting
139 and environmental review shall not exceed nine hundred eighteen dollars and seventy
140 cents for each farm-related project included in this demonstration project and located
141 within the Agricultural Production District or on RA-zoned lands with an approved farm
142 management plan. Projects located in other locations shall pay standard fees; and

143 4. All permits shall be issued subject to securing applicable state and local
144 permits and landowner permission.

145 F. The department of permitting and environmental review shall waive or modify
146 the standards discussed in subsection D. of this section for each project proposed under
147 this ordinance if the following provisions are met:

148 1. The approval does not require the modification of a critical area development
149 standard except as modified by this ordinance;

150 2. Adverse impacts to critical areas or their buffers have been minimized;

151 3. The proposed construction and operation of the facility is in conformance
152 with the King County surface water drainage manual flow control and water quality
153 standards;

154 4. There is no net loss of ecological function; and

155 5. The development proposal does not pose an unreasonable threat to the public
156 health, safety or welfare.

157 6. Within aquatic areas and grazed or tilled wet meadows and their buffers:

158 a. in-stream work is not located in habitat used for salmonid rearing or
159 spawning or by species listed as threatened or endangered by the state or federal
160 government unless the department determines that there is no other feasible location;

161 b. the mean annual flow of the aquatic area is less than twenty cubic feet per
162 second;

163 c. the project is located within the shoreline jurisdiction;

164 d. the construction occurs during periods approved for in-stream work; and

165 e. the facility will not adversely impact area hydrology or diminish flood
166 storage capacity;

167 7. Within landslide hazard areas with less than forty percent slope:

168 a. the proposed alteration will not decrease slope stability on contiguous
169 properties; and

170 b. the risk of property damage or injury resulting from landsliding is eliminated
171 or minimized; and

172 G.1. The demonstration project shall run from the effective date of this ordinance
173 to not longer than six years after the effective date of the ordinance, at which time it
174 expires.

175 2. No later than three months before the expiration date of this ordinance, the
176 department of natural resources and parks, in consultation with the department of
177 permitting and environmental review, shall transmit a review and evaluation of the
178 demonstration project with a recommendation on further action and proposed legislation,
179 if any, to the executive. The evaluation report shall identify how many individual
180 demonstration projects were permitted and constructed, their locations, and information
181 on their cost, operation and environmental effectiveness, to the extent practical. It shall
182 further identify best management practices learned from the demonstration projects; and

183 3. No later than two months before the expiration date of this ordinance, the
184 executive shall transmit the evaluation report and a recommendation on further action and
185 proposed legislation, if any, to the council. Any document transferred under this
186 subsection G.3. shall be transmitted in the form of a paper original and an electronic copy

187 to the clerk of the council, who shall retain the paper original and forward electronic
188 copies to all councilmembers.
189

Ordinance 17878 was introduced on 6/30/2014 and passed by the Metropolitan King
County Council on 8/25/2014, by the following vote:


Yes: 9 - Mr. Phillips, Mr. von Reichbauer, Mr. Gossett, Ms. Hague,
Ms. Lambert, Mr. Dunn, Mr. McDermott, Mr. Dembowski and Mr.
Upthegrove
No: 0
Excused: 0

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON




Larry Phillips, Chair

ATTEST:


Anne Noris, Clerk of the Council

APPROVED this 29th day of August, 2014.



Dow Constantine, County Executive

RECEIVED
2014 AUG 29 PM 4: 25
CLERK
KING COUNTY COUNCIL

Attachments: None