



**KING COUNTY**

1200 King County Courthouse  
516 Third Avenue  
Seattle, WA 98104

**Signature Report**

**May 14, 2013**

**Motion 13893**

**Proposed No. 2013-0183.1**

**Sponsors Phillips and Lambert**

1           A MOTION transmitting a report on the agricultural  
2           drainage assistance program required by Ordinance 17476.

3           WHEREAS, the King County agricultural drainage assistance program ("the  
4           ADAP") has provided assistance to farmers in unincorporated King County since the late  
5           1990s, and

6           WHEREAS, the ADAP helps owners of agricultural lands maintain and improve  
7           the drainage on their property, and

8           WHEREAS, improved drainage can extend the growing season by allowing fields  
9           to be planted earlier in the year and harvested later in the season, can extend the season  
10          during which livestock can use fields for forage and pasture and can put fields back into  
11          production that have become too wet to work due to formerly cumbersome drainage  
12          maintenance permitting requirements, and

13          WHEREAS, in Ordinance 17476, passed on November 13, 2012, the council  
14          requested that the executive transmit by April 1, 2013, a report that identifies how the  
15          ADAP addresses the following:

16                1. The compiled annual number of requests for stream and drainage ditch  
17                cleaning for 2008-2012;

18                2. The average duration of time between request for stream and drainage ditch  
19                cleaning and completion of the work for 2008-2012;

20           3. The actions that the county is taking to assist those requesting assistance with  
21 cleaning and drainage ditch cleaning;

22           4. The estimated acreage of agricultural lands that is not farmable because of  
23 poor drainage;

24           5. A plan for how the county can facilitate or assist in locating, repairing or  
25 replacing drainage tiles; and

26           6. A detailing of any regulatory impediments to more quickly providing stream  
27 cleaning and repair or replacement of drainage tiles, and

28           WHEREAS, the executive has transmitted a report that addresses each of these  
29 elements;

30           NOW, THEREFORE, BE IT MOVED by the Council of King County:

31           The report on the agricultural drainage assistance program in response to  
32 Ordinance 17476, Attachment A to this motion, has been received.

33

Motion 13893 was introduced on 4/8/2013 and passed by the Metropolitan King County Council on 5/13/2013, by the following vote:

Yes: 7 - Mr. von Reichbauer, Ms. Hague, Ms. Patterson, Ms. Lambert,  
Mr. Dunn, Mr. McDermott and Mr. Dembowski

No: 0

Excused: 2 - Mr. Phillips and Mr. Gossett

KING COUNTY COUNCIL  
KING COUNTY, WASHINGTON

  
Larry Gossett, Chair

ATTEST:

  
\_\_\_\_\_

Anne Noris, Clerk of the Council

**Attachments:** A. Report on the Agricultural Drainage Assistance Program

**Report on  
the Agricultural Drainage Assistance Program  
Required by Ordinance 17476**



**King County**

**Water and Land Resources Division**

Department of Natural Resources and Parks

KingStreetCenter

201 South Jackson Street, Suite 600

Seattle, WA98104-3855

**206-296-6519** Fax 206-296-0192

TTY Relay: 711

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## Executive Summary

This report responds to a proviso included in Section 88, P1 of Ordinance 17476, which calls for a report on the agricultural drainage assistance program (ADAP) including the following elements:

- A. The compiled annual number of requests for stream and drainage ditch cleaning for 2008-2012;
- B. The average duration of time between request for stream and drainage ditch cleaning and completion of the work for 2008-2012;
- C. The actions that the County is taking to assist those requesting assistance with cleaning and drainage ditch cleaning;
- D. The estimated acreage of agricultural lands that is not farmable because of poor drainage;
- E. A plan for how the County can facilitate or assist in locating, repairing or replacing drainage tiles; and
- F. A detailing of any regulatory impediments to more quickly providing stream cleaning and repair or replacement of drainage tiles.

Through the ADAP, created in the late 1990s, the Water and Land Resources Division (WLRD) of the Department of Natural Resources and Parks helps owners of agricultural lands maintain and improve the drainage on their property. Improved drainage can extend the growing season by allowing fields to be planted earlier in the year and harvested later in the season, extend the season during which livestock can use fields for forage and pasture, or can put fields back into production that have become too wet to work. Complex, costly, and sometimes competing federal, state, and local regulatory requirements have in many cases been a barrier to regular maintenance of drainage systems on agricultural lands.

After determining that the permitting requirements under the old system were overly burdensome to farmers, the ADAP was revised in collaboration with farmers and local and state regulatory agencies. The streamlined ADAP, introduced to farmers in 2012, reduces staff time required for each project by standardizing best management practices (BMPs) for consistency and predictability, and simplifies permitting so that for most projects, landowners need only a state Hydraulic Project Approval (HPA) permit and a farm management plan. No additional King County permits are required for projects that meet the requirements of the streamlined ADAP.

Legislation proposing King County Code changes that would clarify requirements for farmers to replace drainage tiles and allow the streamlined ADAP to be applied to agricultural lands outside the Agricultural Production Districts (APDs) is now before the County Council. Drainage tiles are pipes, historically made of clay or ceramic, that collect or convey subsurface water.

### **A. Compiled annual number of requests for stream and drainage ditch cleaning for 2008-2012**

The number of requests for drainage maintenance assistance by year was two in 2008, one in 2009, three in 2010, one in 2011, and eight in 2012. In 2008-2010, requests were not consistently logged into a database. At that time, the focus was on permitting and completing projects, meaning that projects for which the property owner requested assistance but ultimately did not construct the project were not tracked by staff. Thus the data summarized above may be incomplete for 2008-2010.

Starting in 2011, all requests for assistance were tracked. This includes projects that may not end up being constructed due to future external issues such as financial constraints, time constraints, or other factors that could delay or even cancel projects.

For the 2013 season, two landowners have already committed to doing ADAP projects and five additional landowners are in discussions with ADAP staff about potential projects.

It should be noted that the ADAP has been modified since its inception as the County gathered more information about the barriers farmers faced to securing permit of maintenance of agricultural drainage systems. From 2006 to 2008, the ADAP assisted 22 property owners with drainage projects on their land. During this period, King County staff noted high project costs for County assistance and long timelines to obtain the required multiple permits. As a result, and in consultation with the Agriculture Commission, WLRD determined that the program needed to be restructured to ensure its long-term viability and to provide more predictability for farmers. A process to streamline the permitting and other program elements began in 2009.

In 2010, three projects were undertaken as pilots to test the new approach. Findings from these pilot projects were incorporated into the final program that was negotiated with regulatory agencies. WLRD solicited for new projects once the streamlined ADAP was finalized in 2011. The increase in requests for assistance in 2012 and 2013 reflects this outreach, which provided clear information about what was required to undertake an ADAP project, including what the landowner is responsible for and what services the County provides and pays for.

#### **B. Average duration of time between request for stream and drainage ditch cleaning and completion of the work for 2008-2012**

The amount of time from an initial request to project completion varies widely, depending on timing of the initial request relative to the “fish window” (relatively dry season when projects can be constructed while minimizing harm to salmon), type of system to be maintained, whether fish are present in the area proposed for maintenance, landowner decisions to delay, and the decision to put some projects on hold while regulatory requirements were being streamlined and tested. During 2011, while streamlined permitting requirements were being developed and negotiated with regulatory agencies, there were some short-term uncertainties regarding program implementation that may have contributed to project delays. Now that permit requirements have been simplified and standardized, the time required per project is expected to continue to decrease.

For projects in 2008-2010, the initial contact date was not always well documented. For these projects, the earliest reliable date in the file was used to determine the duration of the project. In some cases, the initial contact date was specified. When it was not available, either the date of the project survey or the date of the earliest permit was used, depending on what was recorded. Average duration for projects in 2008 to 2010 was 24 months, and range of duration was three to 53 months. On two short-duration projects (three months and six months), WLRD was able to use previous fish surveys to support the permitting process and set up fish relocations, which shortened the calculated time. Two long-duration projects (53 months and 23 months) were each actually three separate projects for single landowners, which lengthened the calculated time. On another three long-duration projects (29

months, 25 months, and 26 months), the landowners each decided to delay construction, a year in two cases and two years in the third case.

Average duration for projects in 2011 and 2012 was nine months, and range of duration was from four to 21 months. Three of the four projects took from four to seven months; one project took 21 months to complete because the landowner decided to delay construction a year after the permit was approved.

The landowner's initial contact is not necessarily his or her commitment to undertake the project. A farmer might seek information, which would be registered as the initial contact, but then decide to postpone or not commit to project construction.

Table 1 below shows the data used to determine the average duration of projects.

**Table 1. Average duration between request for drainage maintenance and completion of the work.**

		<i>Initial Contact</i>	<i>Survey</i>	<i>Permit</i>	<i>Construction</i>	<i>Months</i>	<i>Comments</i>
<b>2008-2010 PROJECTS</b>							
2008	Bellamy	May-08			Oct-08	6	Time does not include fish surveying done in September 2008.
2008	Gwerder (3 projects)		June-04		Oct-08	53*	*This covers three separate projects.
2008	21 Acres (C - Ph 2)			Sept-06	Sept-08	23**	**Three different projects on this site.
2008	Sifuentes (Ph 2)	April-07			Sept-08	17	
2008	Pickering		Nov-07	July-08	Aug-08	9	
2008	Murray - Channel 2	Jan-07			Aug-08	19	Construction date estimated.
2009	Pearce		Nov-07		Oct-09	23	
2009	Dolder	July-09			Oct-09	3	Second contact, able to use 2006 survey.
2009	Stout	April-07			Sept-09	29	Owner delayed construction from 2008 to 2009.
2010	Jensen	June-08			Aug-10	26	Owner delayed construction from 2008 to 2010; served as pilot project during ADAP permit streamlining.
2010	Drainage District 5			July-08	Aug-10	25	Construction postponed during ADAP permit streamlining; served as pilot project.
2010	NE 80th Street	Aug-07			Sept-10	38	Construction postponed during ADAP permit streamlining; served as pilot project.
					<b>AVERAGE</b>	<b>22</b>	
<b>2011-2012 PROJECTS</b>							
2011	Carter	Feb-11			Sept-11	7	Reed canarygrass hand removal.
2012	Smith	Mar-12			Aug-12	5	
2012	Stevens	May-12			Sept-12	4	
2012	Bonomi	Dec-10			Sept-12	21	Owner delayed construction from 2011 to 2012.
					<b>AVERAGE</b>	<b>9</b>	
<b>NOTES:</b>							
For simplicity, all dates were assumed to be the first of the month for the month in which the activity or milestone occurred. Beaver dam removal projects were not included.							



**C. Actions the County is taking to assist those requesting assistance with drainage ditch cleaning**

As part of the 2011 streamlining, WLRD simplified permitting requirements for farmers to conduct drainage maintenance through negotiations and agreement with the Washington State Department of Fish and Wildlife (WDFW) and the King County Department of Permitting and Environmental Review (DPER). This meant requirements and BMPs were standardized and County staff assistance was directed where farmers said they could most use help. As a result, the ADAP is now more predictable for farmers.

In addition, County services are now more efficient and focus on project elements that are most difficult for farmers, including engineering, surveys to determine the drainage problem, permitting, and fish relocation. To keep ADAP projects in compliance with the federal Endangered Species Act and WDFW regulations, WLRD hires qualified professionals to relocate salmon and other fish out of the waterway while projects are in the construction stage. The recent SWM fee increase will provide support for more ADAP projects. The County also coordinates with the King Conservation District and landowners when their farm management plan calls for drainage maintenance.

Table 2 below outlines the County assistance available during different stages of conducting drainage maintenance.

**Table 2. County assistance for agricultural drainage maintenance.**

Plan and Profile Preparation	To apply for a Hydraulic Project Approval (HPA) from WDFW, the property owner needs a plan and profile view of the waterway to be worked on. The survey of the waterway is performed through the County’s engineering review process, which is funded through the drainage complaint program rather than ADAP. Using the survey, ADAP staff prepare the plan and profile, then deliver it to the property owner.
Consultation on Project Scope, Requirements, and Implementation	When the plan and profile are delivered to the property owner, ADAP staff reviews the entire project to make sure the property owner understands the scope of the project and how to proceed. The consultation includes explanations and discussion of: <ul style="list-style-type: none"> <li>• plan and profile,</li> <li>• technical assistance on filling out an HPA application,</li> <li>• county assistance available for the project,</li> <li>• required best management practices (BMPs) for the project,</li> <li>• planting assistance available,</li> <li>• types of plants available and the advantages and disadvantages of each, and</li> <li>• answers to any questions the property owner has.</li> </ul>

Pre-construction Meeting	ADAP staff meet with the person who will perform the work about two weeks before the start of the project. ADAP staff walk through the project to make sure that the construction crew has the proper equipment and is familiar with the permit requirements. This pre-construction meeting qualifies as the training session required by King County Code for the landowner to be eligible for certain permit exemptions.
Fish Relocation	If there is water flowing in the waterway at the time of the project, ADAP pays for a trained team to remove and relocate fish from the channel to comply with permit requirements. ADAP staff coordinate with the relocation team and the landowner regarding schedule, access, and equipment.
Construction Technical Assistance and Inspection	ADAP staff will be on site for portions of the construction to provide support, answer questions, coordinate fish relocation (if needed), and inspect the project, which is required by King County Code in order for the landowner to qualify for certain permit exemptions.
Planting Reimbursement	ADAP reimburses the property owner up to \$15/linear foot of channel maintained to a maximum of \$50,000/project for the purchase, transport, installation, and maintenance of native plants planted along the waterway. Prior to final reimbursement to the landowner, ADAP staff confirms that the planting was successful in meeting the plant survival requirements in the permit.

**D. Estimated acreage of agricultural lands that is not farmable because of poor drainage**

In 2006 and 2009, the County's Agricultural Program conducted a windshield survey of land use in the APDs (in a windshield survey, data comes from staff observations rather than landowner responses to questionnaires). Included was an estimate of farmland that was too wet to farm (note that this did not include wetlands and marshes that had never been farmed). The survey results, reported in the FARMS Report, showed 422 acres too wet to farm in 2006 and 307 acres too wet to farm in 2009. However, there are several reasons these numbers may not be a good estimate of the acreage of agricultural lands that is not farmable due to poor drainage. Aerial photos and on-the-ground observations can provide a snapshot of whether agricultural land is currently being farmed or not, but these do not indicate the underlying cause of why a parcel is not being farmed. Historically farmed lands may not currently be farmed because of financial hardship, ownership changes, health problems, market conditions, family problems, or other non-drainage related issues. Conditions can also vary from year to year as a result of weather, natural events, or land use changes.

In addition to land that is too wet to be farmed at all, there are acres that are not farmed as productively as they could be if they were better drained. This includes acreage that has a shortened growing season because it stays wet until late in the spring or gets wet early in the fall. Also included is acreage that could produce a higher value crop if it were well drained. It would take information from each individual property owner along with a hydrologic study of private properties to determine how much land is thus affected.

**E. Plan for how the County can facilitate or assist in locating, repairing, or replacing drainage tiles**

Amendments to the King County Code to clarify requirements to repair and replace drainage tiles were approved by the County Council on March 18, 2013. With funding support from the SWM fee, which was increased by the County Council in 2013, WLRD will conduct outreach through the Agriculture Commission, the ADAP, the King Conservation District, and other appropriate venues. WLRD will provide technical assistance to landowners to locate their drainage tiles and submit a state permit application for an HPA. To comply with the County Code, WLRD is also prepared to inspect projects when the receiving body is used by salmonids.

To locate the drainage tiles, a WLRD stormwater engineer will lead the property owner through the three ways currently identified for locating drainage tiles: exposing the outlet in the receiving waterway, historic record research, and subsurface exploration using heavy equipment or other detection methods. When drainage tiles are confirmed in a field, the ADAP will provide technical assistance and inspection of the project. The existing ADAP templates for state permit applications can guide a farmer in filling out the HPA application.

Standardized BMPs are under development that will be reviewed with WDFW to simplify the HPA application process and with the Washington State Department of Ecology to address water quality impacts and U.S. Army Corps of Engineers wetlands regulations. The BMPs will cover techniques and equipment that control sedimentation and minimize turbidity, similar to the streamlined ADAP BMPs. Once approved by the regulatory agencies, the BMPs will be made available online and as a handout.

**F. Detailing of any regulatory impediments to more quickly providing stream cleaning and repair or replacement of drainage tiles**

As noted previously, the regulatory requirements for drainage ditch maintenance were simplified and standardized in 2011 to eliminate duplicative permitting, standardize BMPs, provide predictability to farmers and regulators, and focus County services on those elements farmers need most. The streamlined process was implemented in 2012 and is now fully operational.

On March 18, 2013, the County Council amended the code to clarify the standards for drainage tile replacement. Prior to this change, the code allowed for the maintenance of existing agricultural drainage, including drainage tiles. A farm plan is required if the drainage is used by salmon. Because drainage tiles can either be difficult to find or have been damaged, maintenance is usually done by installing new tiles to replace the function of the existing tiles. Before the recent amendment was adopted, the code defined maintenance and repair as separate activities, so there was some uncertainty about whether replacing an existing drainage tile system was allowed as a maintenance activity. The adopted amendments will allow the replacement of existing agricultural drainage, including drainage tiles, under the same conditions as maintenance of agricultural drainage. With this change, it will be clear that a County permit is not required for either maintenance or replacement of drainage tiles and other agricultural drainage as long as the activity is covered by a farm plan. If the replacement involves an expansion of area drained, the landowner may be required to obtain permits from the state and the U.S. Army Corps of Engineers.

## **Conclusion**

The requirements to maintain agricultural drainage ditches were streamlined and standardized in 2011 to make the process more predictable and expedient for farmers and regulators and more efficient for King County while maintaining environmental protection standards. In addition, County services such as technical assistance and cost-sharing have been directed to activities most requested by farmers. Recent code amendments will ensure that property owners who want to replace drainage tiles on their agricultural lands will be able to do so under the same standards as apply to the maintenance of other agricultural drainage.