



King County

1200 King County
Courthouse
516 Third Avenue
Seattle, WA 98104

Meeting Agenda

Transportation, Economy and Environment Committee

*Councilmembers: Rod Dembowski, Chair; Claudia Balducci, Vice Chair;
Jeanne Kohl-Welles, Kathy Lambert, Joe McDermott, Dave Upthegrove, Pete von Reichbauer*

*Staff: Mary Bourguignon, Lead Staff (206-477-0873)
Angelica Calderon, Committee Assistant (206-477-0874)*

9:30 AM

Tuesday, August 30, 2016

Room 1001

Pursuant to K.C.C. 1.24.035 A. and F., this meeting is also noticed as a meeting of the Metropolitan King County Council, whose agenda is limited to the committee business. In this meeting only the rules and procedures applicable to committees apply and not those applicable to full council meetings.

1. Call to Order

2. Roll Call

To show a PDF of the written materials for an agenda item, click on the agenda item below.

3. Approval of Minutes pp. 5-8

Minutes of August 24, 2016 Special meeting.

4. Public Comment

Consent

5. Proposed Ordinance No. 2016-0342 pp. 9-26

AN ORDINANCE revising the corporate boundary of the city of Bothell to include the unincorporated portion of Northeast 205th Street right-of-way as provided for in RCW 35A.21.210.

Sponsors: Mr. Dembowski

Lise Kaye, Council Staff

6. Proposed Motion No. 2016-0415 pp. 27-34

A MOTION nominating Apprenticeships & Nontraditional Employment for Women as an in-need organization under WAC 468-300-010.

Sponsors: Mr. Upthegrove and Ms. Kohl-Welles



*Sign language and communication material in alternate formats can be arranged given sufficient notice (206-1000).
TDD Number 206-1024.
ASSISTIVE LISTENING DEVICES AVAILABLE IN THE COUNCIL CHAMBERS.*



Mary Bourguignon, Council Staff

Discussion/Possible Action

7. [Proposed Ordinance No. 2016-0387 pp. 35-58](#)

AN ORDINANCE relating to public transportation; requiring a transit restructure impact study for certain transit service changes that require approval by ordinance, and making technical corrections; amending Ordinance 11033, Section 5 and K.C.C. 28.94.020, adding new sections to K.C.C. chapter 28.92, adding a new section to K.C.C. chapter 28.94 and repealing Ordinance 11962, Section 3, and K.C.C. 28.92.050.

Sponsors: Mr. Dembowski

Paul Carlson, Council Staff

8. [Proposed Ordinance No. 2016-0405 pp. 59-76](#)

AN ORDINANCE approving and adopting the memorandum of agreement regarding Insured Benefits for Represented Benefits-Eligible Employees negotiated by and between King County and Amalgamated Transit Union, Local 587 (Department of Transportation - Transit) representing employees in the department of transportation; and establishing the effective date of said agreement.

Sponsors: Mr. Dembowski

Contingent on introduction and referral to the Committee

Nick Wagner, Council Staff

9. [Proposed Ordinance No. 2016-0423 pp. 77-112](#)

AN ORDINANCE approving public transportation service changes for March 2017, substantially for Route 907, operating in Southeast King County.

Sponsors: Mr. Dembowski

Contingent on introduction and referral to the Committee

Paul Carlson, Council Staff

10. [Proposed Motion No. 2016-0348 pp. 113-144](#)

A MOTION approving a plan regarding ongoing surface water management participation in funding roadway drainage projects in accordance with 2015/2016 Biennial Budget Ordinance 17941, Section 77, Proviso P1.

Sponsors: Mr. Dembowski

Lise Kaye, Council Staff

11. [Proposed Motion No. 2016-0279](#) pp. 145-204

A MOTION approving a report on the road right-of-way drainage trunk line inventory in accordance with 2015/2016 Biennial Budget Ordinance 17941, Section 53, Proviso P1.

Sponsors: Ms. Lambert

Hiedi Popochock, Council Staff

Other Business

Adjournment

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King County

1200 King County
Courthouse
516 Third Avenue
Seattle, WA 98104

Meeting Minutes

Transportation, Economy and Environment Committee

*Councilmembers: Rod Dembowski, Chair; Claudia Balducci, Vice
Chair;
Jeanne Kohl-Welles, Kathy Lambert, Joe McDermott, Dave
Upthegrove, Pete von Reichbauer*

*Staff: Mary Bourguignon, Lead Staff (206-477-0873)
Angelica Calderon, Committee Assistant (206-477-0874)*

1:30 PM

Wednesday, August 24, 2016

Room 1001

SPECIAL MEETING

Pursuant to K.C.C. 1.24.035 A. and F., this meeting is also noticed as a meeting of the Metropolitan King County Council, whose agenda is limited to the committee business. In this meeting only the rules and procedures applicable to committees apply and not those applicable to full council meetings.

1. **Call to Order**

Chair Dembowski called the meeting to order at 1:30 p.m.

2. **Roll Call**

Present: 7 - Mr. Dembowski, Ms. Lambert, Mr. McDermott, Mr. Upthegrove, Mr. von Reichbauer, Ms. Kohl-Welles and Ms. Balducci

3. **Approval of Minutes**

Councilmember von Reichbauer moved the approval of the minutes of the August 16, 2016 meeting. Seeing no objections, the minutes were approved as presented.

4. **Public Comment**

The following people were present to offer public comment:

1. Gwendolyn High
2. Keith Dearborn
3. Tom Carpenter
4. Michael Brathorde
5. Michael Fuller
6. Bob King
7. Jay Allen

Discussion and Possible Action

5. Proposed Ordinance No. 2016-0155

AN ORDINANCE relating to comprehensive planning and permitting; amending Ordinance 8421, Section 3, as amended, and K.C.C. 14.56.020, Ordinance 8421, Section 4, as amended, and K.C.C. 14.56.030, and Ordinance 13147, Section 19, amended, and K.C.C. 20.18.030, Ordinance 10870, Section 330, as amended, and K.C.C. 21A.08.030, Ordinance 10870, Section 332, as amended, and K.C.C. 21A.08.050, Ordinance 10870, Section 333, as amended, and K.C.C. 21A.08.060, Ordinance 10870, Section 334, as amended, and K.C.C. 21A.08.070, Ordinance 10870, Section 335, as amended, and K.C.C. 21A.08.080, Ordinance 10870, Section 336, as amended, and K.C.C. 21A.08.090, Ordinance 10870, Section 337, as amended, and K.C.C. 21A.08.100, Ordinance 13274, Section 4, as amended, and K.C.C. 21A.37.020, Ordinance 13733, Section 10, as amended, and K.C.C. 21A.37.110, adding new sections to K.C.C. chapter 21A.06, adding new sections to K.C.C. chapter 21A.42, decodifying K.C.C. 20.54.010 and repealing Ordinance 8421, Section 2, and K.C.C. 14.56.010, Ordinance 3064, Section 2, and K.C.C. 20.54.020, Ordinance 3064, Section 3, as amended, and K.C.C. 20.54.030, Ordinance 3064, Section 4, as amended, and K.C.C. 20.54.040, Ordinance 3064, Section 5, and K.C.C. 20.54.050, Ordinance 3064, Section 6, as amended, and K.C.C. 20.54.060, Ordinance 3064, Section 7, as amended, and K.C.C. 20.54.070, Ordinance 3064, Section 8, as amended, and K.C.C. 20.54.080, Ordinance 3064, Section 9, as amended, and K.C.C. 20.54.090, Ordinance 3064, Section 10, as amended, and K.C.C. 20.54.100, Ordinance 3064, Section 11, as amended, and K.C.C. 20.54.110, Ordinance 3064, Section 12, and K.C.C. 20.54.120, Ordinance 3064, Section 13, and K.C.C. 20.54.130 and Ordinance 7889, Section 4, as amended, and K.C.C. 26.08.010

Sponsors: Mr. Dembowski

Christine Jensen and Mary Bourguignon, Council Staff, briefed the Committee on the legislation and answered questions from the members. Ivan Miller, KCCP Manager, Strategy and Budget was present to comment and answer questions from the members.

This matter was Deferred

6. Proposed Ordinance No. 2016-0349

AN ORDINANCE relating to the sale of environmental attributes held by the county; authorizing the transit division to enter into an agreement with Element Markets Renewable Energy, LLC, for the sale of Renewable Identification Numbers and other environmental attributes associated with the transit division's electric trolley and battery bus fleets.

Sponsors: Mr. Dembowski

Greg Doss, Council Staff, briefed the Committee on the legislation and answer questions from the members. Gary Prince, Metro Transit was present to answer questions from the members. Councilmember Balducci moved Striking amendment. The amendment was adopted.

A motion was made by Councilmember Balducci that this Ordinance be Recommended Do Pass Substitute. The motion carried by the following vote:

Yes: 6 - Mr. Dembowski, Ms. Lambert, Mr. McDermott, Mr. Upthegrove, Ms. Kohl-Welles and Ms. Balducci

Excused: 1 - Mr. von Reichbauer

7. Proposed Ordinance No. 2016-0339

AN ORDINANCE relating to the sale of biomethane and related environmental attributes held by the county; authorizing the wastewater treatment division to enter into an agreement for the sale of

biomethane and environmental attributes associated with purified biomethane produced at the South wastewater treatment plant to IGI Resources, Inc.

Sponsors: Mr. Dembowski

This matter was Deferred

Adjournment

The meeting was adjourned at 3:03 p.m.

Approved this _____ day of _____.

Clerk's Signature

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King County

**Metropolitan King County Council
Committee of the Whole**

STAFF REPORT

Agenda Item:	5	Name:	Lise Kaye
Proposed No.:	2016-0342	Date:	August 30, 2016

SUBJECT

An ordinance revising the corporate boundary of the city of Bothell to include the unincorporated portion of Northeast 205th Street right-of-way.

SUMMARY

This action would transfer 0.5 miles of the eastbound lane of NE 205th Street from King County to the City of Bothell, consistent with the Bothell City Council’s approval of Ordinance 2183 to revise the city’s corporate boundary at Northeast 205th Street.

BACKGROUND

The 2014 Strategic Plan for Road Services includes direction to “work actively with cities and the state to transfer responsibility for isolated urban roads to the adjacent city. These include half-streets (i.e., one side owned by a city and the other by the County), roads completely surrounded by city territory, and roads located on the urban growth boundary where consistent urban services are most appropriate.”¹

RCW 35A.21.210 provides the mechanism to allow cities with King County to adjust their boundaries to fully include roads on the cities' boundaries within the city.²

The current corporate boundary of the city of Bothell coincides with the centerline of the road right-of-way of Northeast 205th Street, and approximately 0.5 miles of the eastbound lane of Northeast 205th Street is located within unincorporated King County.

¹ Strategic Plan for Road Services, 2014, page 26.

<http://www.kingcounty.gov/~media/transportation/kcdot/roads/SPRS/SPRS2014Update.ashx>

² RCW 35A.21.210 provides that “[t]he governing bodies of a county and any code city located therein may by agreement revise any part of the corporate boundary of the city which coincides with the centerline, edge, or any portion of a public street, road or highway right-of-way by substituting therefor a right-of-way line of the same public street, road or highway so as fully to include or fully to exclude that segment of the public street, road or highway from the corporate limits of the city.”

ANALYSIS

Consistent with the abovementioned policy direction in the Strategic Plan for Road Services, this action would to transfer responsibility for an isolated urban road to the adjacent city. Approval of the proposed ordinance would transfer 0.5 miles of the eastbound lane of NE 205th Street from 80th Avenue Northeast to approximately 75th Avenue NE (see map included with Attachment 1). Executive staff estimate that this transfer will reduce road maintenance/traffic operations costs by approximately \$2,000 in the 2015/2016 biennium and \$7,000 per biennium thereafter (see Attachment 3).

State law provides that revision of the corporate boundary of a city is effective upon approval by the city council and the county legislative authority.³

The Bothell City Council approved Ordinance 2183 on December 1, 2015, to revise the city's corporate boundary at Northeast 205th Street to include the portion of approximately 0.5 miles of public right-of-way currently within unincorporated King County (see Attachment 4).

Council's legal council did not identify any issues with the proposed ordinance.

ATTACHMENTS

1. Proposed Ordinance 2016-0342 and Attachment A
2. Transmittal Letter
3. Fiscal Note
4. City of Bothell Ordinance 2183

INVITED

1. Brenda Bauer, Director, King County Road Services Division

³ RCW 35A.21.210



KING COUNTY
Signature Report

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

August 26, 2016

Ordinance

Proposed No. 2016-0342.1

Sponsors Dembowski

1 AN ORDINANCE revising the corporate boundary of the
2 city of Bothell to include the unincorporated portion of
3 Northeast 205th Street right-of-way as provided for in
4 RCW 35A.21.210.

5 PREAMBLE:

6 It is in the county's best interest to allow cities within King County to
7 manage the entirety of roads that coincide with the city's boundaries.
8 RCW 35A.21.210 provides the mechanism to allow cities with King
9 County to adjust their boundaries to fully include roads on the cities'
10 boundaries within the city. RCW 35A.21.210 provides that "[t]he
11 governing bodies of a county and any code city located therein may by
12 agreement revise any part of the corporate boundary of the city which
13 coincides with the centerline, edge, or any portion of a public street, road
14 or highway right-of-way by substituting therefor a right-of-way line of the
15 same public street, road or highway so as fully to include or fully to
16 exclude that segment of the public street, road or highway from the
17 corporate limits of the city."

18 Revision of the corporate boundary of a city is effective upon approval by
19 the city council and the county legislative authority as provided for in
20 RCW 35A.21.210.

21 King County has jurisdiction over the eastbound lane of Northeast 205th
22 Street from the intersection of the east margin of 80th Avenue Northeast to
23 the intersection with the east line of Lot 13, Cottonwood Grove.

24 It is in the city and the county's best interest to have the county right-of-
25 way portion of Northeast 205th Street under the city's jurisdiction so that
26 the city may provide local services to its residents including the
27 maintenance and operation of the public right-of-way.

28 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

29 SECTION 1. Findings:

30 A. The corporate boundary of the city of Bothell coincides with the centerline of
31 the road right-of-way of Northeast 205th Street. Approximately 0.5 miles of the
32 eastbound lane of Northeast 205th Street is located within unincorporated King County.

33 B. The Bothell city council approved city of Bothell Ordinance 2183 to revise the
34 city's corporate boundary at Northeast 205th Street to include the portion of
35 approximately 0.5 miles of public right-of-way currently within unincorporated King
36 County into the corporate limits of the city.

37 SECTION 2. The revision of the corporate boundary of the city of Bothell to
38 include the portion of Northeast 205th Street public right-of-way currently within
39 unincorporated King County, legally described as set forth in Attachment A to this
40 ordinance, is hereby approved.

41

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

J. Joseph McDermott, Chair

ATTEST:

Anne Noris, Clerk of the Council

APPROVED this ____ day of _____, _____.

Dow Constantine, County Executive

Attachments: A. NE 205th Street Half Street Description

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ATTACHMENT A

NE 205TH STREET HALF STREET DESCRIPTION

(KING COUNTY JURISDICTIONAL AREA BEING TRANSFERRED TO THE CITY OF BOTHELL)

That portion of the north half of Section 1, Township 26 North, Range 4 East, W.M, in King County, Washington described as follows:

Beginning at the intersection of the east margin of 80TH Avenue Northeast with the north line of Section 1, Township 26 North, Range 4 East, W.M., being also a point on the north line of King County which is the existing Bothell City Limits as established by King County Ordinance No. 12815;

Thence south along said east margin, being also the west boundary of the City of Kenmore as established by King County Ordinance No. 12815 to the point of intersection with the easterly extension of the south margin of Northeast 205th Street;

Thence westerly along said south margin, being also the north boundary of the City of Kenmore as established by King County Ordinance No. 12815 to the intersection with the east line of Lot 13, Cottonwood Grove according to the Plat filed in Volume 109 of Plats, at Page 90 and 91, records of King County, Washington;

Thence northerly along said east line, being also the east boundary of the City of Kenmore as established by King County Ordinance No. 12815 to the north line of the north half of Section 1, Township 26 North, Range 4 East, W.M., being a point on the north line of King County which is also the existing Bothell City Limits as established by City Ordinance No. 1452;

Thence easterly along said north line of King County and the Bothell City Limits to the point of beginning.

The intention of this description is to encompass all remaining King County half street right-of-way of NE 205TH Street lying between the cities of Kenmore and Bothell in this portion of the north half of Section 1, Township 26 North, Range 4 East, W.M.



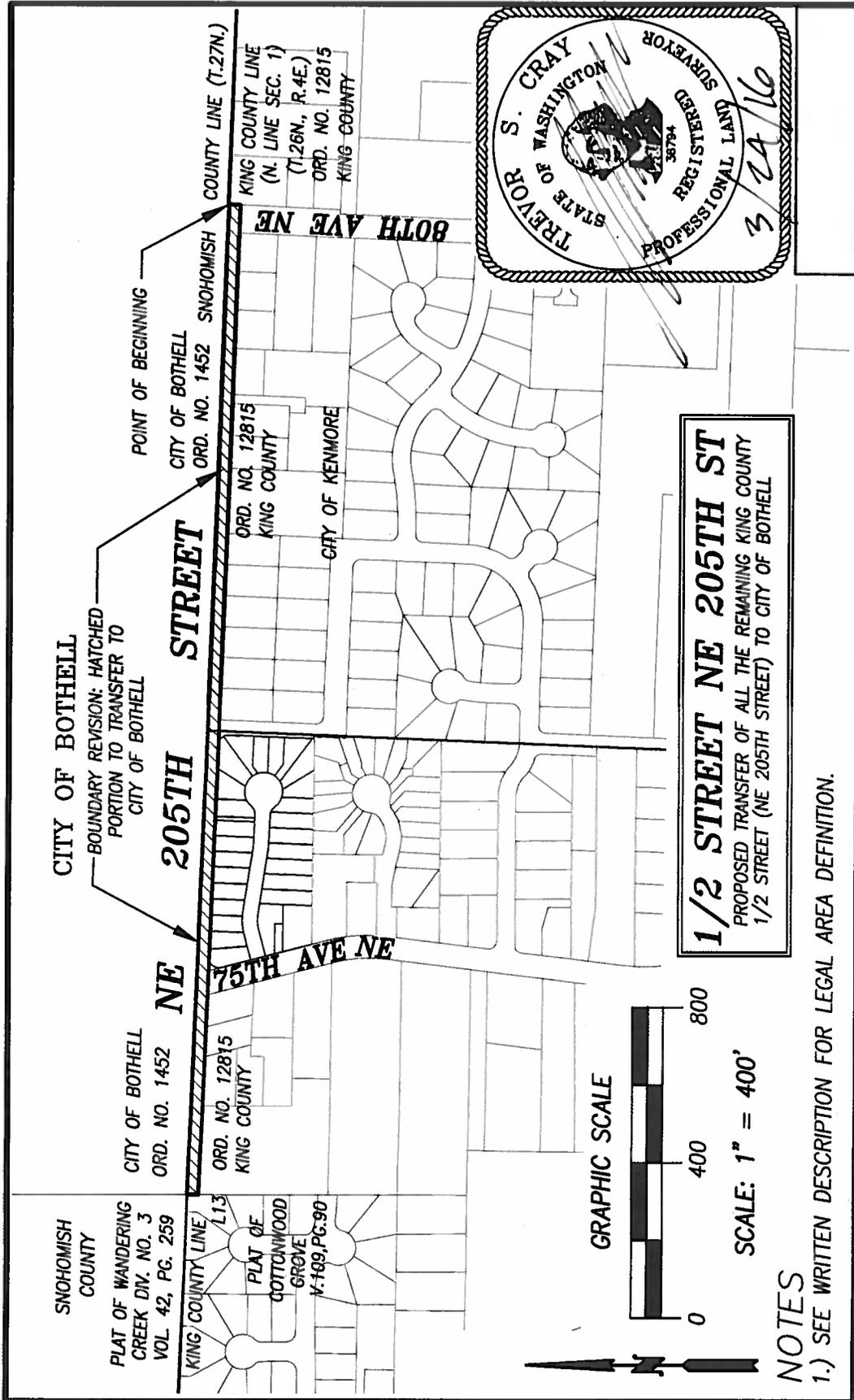


EXHIBIT MAP		N 1/2, SEC.01, T.26N., R.4E., W.M.	
DWN. BY JML	DATE 7/07/15	REV. BY TSC	DATE N/A
DRAWING FILENAME 15050EXH.DWG	CHK. BY TSC	F.B. NO. N/A	JOB NO. 15050
KING COUNTY SURVEY UNIT		PROJECT MANAGER J.LAURITZEN	SCALE 1"=400'
DEPT. OF TRANSPORTATION		REGISTRAR TREVOR S. CRAY	SHT. NO. 1 of 1
ROADS DIVISION 206-296-6508 (OFFICE)			
155 MONROE AVE NE * RENTON * WA * 98056			

NOTES
1.) SEE WRITTEN DESCRIPTION FOR LEGAL AREA DEFINITION.

June 24, 2016

The Honorable Joe McDermott
Chair, King County Council
Room 1200
C O U R T H O U S E

Dear Councilmember McDermott:

This letter transmits an ordinance that will approve the revision of the City of Bothell's corporate boundary to include the unincorporated portion of Northeast 205th Street road right-of-way within the City's corporate boundary. This will transfer the governance and fiscal responsibility of an orphaned road at Northeast 205th Street from the County to the City.

King County currently has jurisdiction over the eastbound lane of the Northeast 205th Street from the intersection of the east margin of 80th Avenue Northeast to the intersection with the east line of Lot 13, Cottonwood Grove. The County and the City agree that it is in the best interest of both parties to have the King County right-of-way portion of Northeast 205th Street under the City's jurisdiction so that the City may provide local services to its residents including the maintenance and operation of the public right-of-way. Since maintenance by the County of disparate segments of orphaned road reduce resources for core County roads, this boundary revision is consistent with the King County Strategic Plan to transition the governance and fiscal responsibility for local services in urban unincorporated areas to cities.

The procedure for a city boundary revision of this nature is in accordance with Revised Code of Washington 35A.21.210, which states:

The governing bodies of a county and any code city located therein may by agreement revise any part of the corporate boundary of the city which coincides with the centerline, edge, or any portion of a public street, road or highway right-of-way by substituting therefor a right-of-way line of the same public street, road or highway so as fully to include or fully to exclude that segment of the public street, road or highway from the corporate limits of the city.

The Honorable Joe McDermott
June 24, 2015
Page 2

This type of boundary revision is not subject to potential review by the Boundary Review Board. Revision of the corporate boundary of a city is effective upon approval by the City Council and the County Council.

It is in the City and the County's best interest to have the City revise its corporate boundary at Northeast 205th Street so that the City may provide local services to its residents including the maintenance and operation of the road. The City enacted Ordinance 2183 to revise its City boundary at Northeast 205th Street. The King County Council's approval of the enclosed ordinance will approve the revision of the corporate boundary of the City. This will transfer governance and fiscal responsibility for local services to the City.

If you have any questions regarding this ordinance, please contact Brenda Bauer, Director of the Road Services Division, at 206-477-3580.

Sincerely,

Dow Constantine
King County Executive

Enclosures

cc: King County Councilmembers
ATTN: Carolyn Busch, Chief of Staff
Anne Noris, Clerk of the Council
Carrie S. Cihak, Chief of Policy Development, King County Executive Office
Dwight Dively, Director, Office of Performance Strategy and Budget
Harold S. Taniguchi, Director, Department of Transportation (DOT)
Brenda Bauer, Director, Road Services Division, DOT

2015/2016 FISCAL NOTE

Ordinance/Motion:
 Title: Boundary revision at NE 205th Street by the city of Bothell taking remaining county road rights-of-way
 Affected Agency and/or Agencies: City of Bothell and King County
 Note Prepared By: Rey Sugui
 Date Prepared: March 24, 2015
 Note Reviewed By:
 Date Reviewed:

Description of request:

Revenue to:

Agency	Fund Code	Revenue Source	2015/2016	2017/2018	2019/2020
TOTAL			0	0	0

Expenditures from:

Agency	Fund Code	Department	2015/2016	2017/2018	2019/2020
Expenditure Savings	000001030		-2,042	-7,000	-7,000
TOTAL			-2,042	-7,000	-7,000

Expenditures by Categories

	2015/2016	2017/2018	2019/2020
Road Maintenance/Traffic Operations			
Labor	-1,082	-3,710	-3,710
Equipment	-613	-2,100	-2,100
Materials	-347	-1,190	-1,190
SUBTOTAL			
TOTAL	-2,042	-7,000	-7,000

Does this legislation require a budget supplemental? No, these funds will be re-allocated to other activities.

Notes and Assumptions:

Approval of this boundary revision will transfer the governance, fiscal, and maintenance responsibilities of a half-street orphaned road that is approximately 0.50 miles of NE 205th Street to the city with an anticipated effective date of June 1, 2016. The Division's 2015/16 annual average planned road/traffic maintenance costs per road mile is approximately \$14,000 in 2015 dollars. However, orphaned road segments are more expensive to maintain because they are often far away from maintenance shops and crews must drive equipment longer distances to reach them. Additionally, the maintenance of disparate segments of orphaned road such as the one at NE 205th Street reduce resources for core county roads.

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ORDINANCE NO. 2183 (2015)

AN ORDINANCE OF THE CITY OF BOTHELL, WASHINGTON, REVISING THE CORPORATE BOUNDARY OF THE CITY OF BOTHELL TO INCLUDE THE UNINCORPORATED PORTIONS OF NE 205TH STREET AS PROVIDED FOR IN RCW 35A.21.210

WHEREAS, The corporate boundary of the city of Bothell currently extends along the centerline of the road rights of way for NE 205th Street from the intersection of the east margin of 80th Avenue Northeast to the intersection with the east line of Lot 13, Cottonwood Grove;

WHEREAS, The City of Bothell's corporate boundary includes the northerly half of the road rights of way for NE 205th Street for the limits described above;

WHEREAS, When the City of Kenmore incorporated in August 1998, the centerline at NE 205th Street could not be used as its city boundary since RCW 35.02.170 prohibits the use of a portion of a right-of-way as the boundary of a newly incorporated city;

WHEREAS, With the City of Bothell boundary at the centerline of NE 205th Street and with the City of Kenmore boundary at the south margin of the road right-of-way for 205th Street, the southerly half of the road right-of-way for NE 205th Street remains unincorporated King County road right-of-way;

WHEREAS, It is in the city and the county's best interest to have this road right-of-way wholly within the City of Bothell's jurisdiction so that the City of Bothell may provide local services to its residents including the maintenance and operation of the public right of way;

WHEREAS, RCW 35A.21.210 authorizes "the governing bodies of a county and any code city located therein may by agreement revise any part of the corporate boundary of the city which coincides with the centerline, edge, or any portion of a public street, road or highway right of way by substituting therefor a right of way line of the same public street, road or highway so as fully to include or fully to exclude that segment of the public street, road or highway from the corporate limits of the city."

WHEREAS, Revision of the corporate boundary of a city is effective upon approval by the city council and the county legislative authority as provided for in RCW 35A.21.210.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF BOTHELL, WASHINGTON, DOES ORDAIN AS FOLLOWS:

Section 1. The revision of the corporate boundary of the city of Bothell to fully include the right-of-way for NE 205th Street as set forth in Exhibit A is hereby approved.

Section 2. SEVERABILITY. If any section, sentence, clause or phrase of this ordinance should be held to be invalid by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause or phrase of this ordinance.

Section 3. EFFECTIVE DATE. This ordinance, being an exercise of a power specifically delegated to the City legislative body, is not subject to referendum, and shall take effect five (5) days after passage and publication of an approved summary thereof consisting of the title.

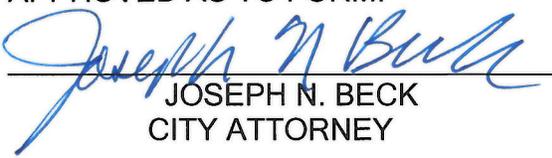
Section 4. CORRECTIONS. The City Clerk and the codifiers of this ordinance are authorized to make necessary corrections to this ordinance including, but not limited to, the correction of scrivener's/clerical errors, references, ordinance numbering, section/subsection numbers and any references thereto.

APPROVED: 

JOSHUA FREED
MAYOR

ATTEST/AUTHENTICATED:


LAURA HATHAWAY
CITY CLERK

APPROVED AS TO FORM:


JOSEPH N. BECK
CITY ATTORNEY

FILED WITH THE CITY CLERK: November 24, 2015
PASSED BY THE CITY COUNCIL: December 1, 2015
PUBLISHED: December 7, 2015
EFFECTIVE DATE: December 12, 2015
ORDINANCE NO.: 2183 (2015)

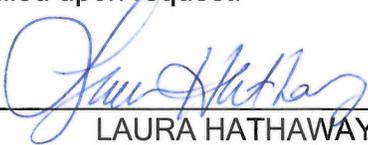
SUMMARY OF ORDINANCE NO. 2183 (2015)

City of Bothell, Washington

On the first day of December, 2015 the City Council of the City of Bothell passed Ordinance No. 2183 (2015). A summary of the content of said Ordinance, consisting of the title, is provided as follows:

AN ORDINANCE OF THE CITY OF BOTHELL, WASHINGTON, REVISING THE CORPORATE BOUNDARY OF THE CITY OF BOTHELL TO INCLUDE THE UNINCOPORATED PORTIONS OF NE 205TH STREET AS PROVIDED FOR IN RCW 35A.21.210

The full text of this Ordinance will be mailed upon request.



LAURA HATHAWAY
CITY CLERK

FILED WITH THE CITY CLERK: November 24, 2015
PASSED BY THE CITY COUNCIL: December 1, 2015
PUBLISHED: December 7, 2015
EFFECTIVE DATE: December 12, 2015
ORDINANCE NO.: 2183 (2015)

EXHIBIT A to Ordinance 2183

NE 205TH STREET HALF STREET DESCRIPTION

(KING COUNTY JURISDICTIONAL AREA BEING TRANSFERRED TO THE CITY OF BOTHELL)

That portion of the north half of Section 1, Township 26 North, Range 4 East, W.M, in King County, Washington described as follows:

Beginning at the intersection of the east margin of 80TH Avenue Northeast with the north line of Section 1, Township 26 North, Range 4 East, W.M., being also a point on the north line of King County which is the existing Bothell City Limits as established by King County Ordinance No. 12815;

Thence south along said east margin, being also the west boundary of the City of Kenmore as established by King County Ordinance No. 12815 to the point of intersection with the easterly extension of the south margin of Northeast 205th Street;

Thence westerly along said south margin, being also the north boundary of the City of Kenmore as established by King County Ordinance No. 12815 to the intersection with the east line of Lot 13, Cottonwood Grove according to the Plat filed in Volume 109 of Plats, at Page 90 and 91, records of King County, Washington;

Thence northerly along said east line, being also the east boundary of the City of Kenmore as established by King County Ordinance No. 12815 to the north line of the north half of Section 1, Township 26 North, Range 4 East, W.M., being a point on the north line of King County which is also the existing Bothell City Limits as established by City Ordinance No. 1452;

Thence easterly along said north line of King County and the Bothell City Limits to the point of beginning.

The intention of this description is to encompass all remaining King County half street right-of-way of NE 205TH Street lying between the cities of Kenmore and Bothell in this portion of the north half of Section 1, Township 26 North, Range 4 East, W.M.



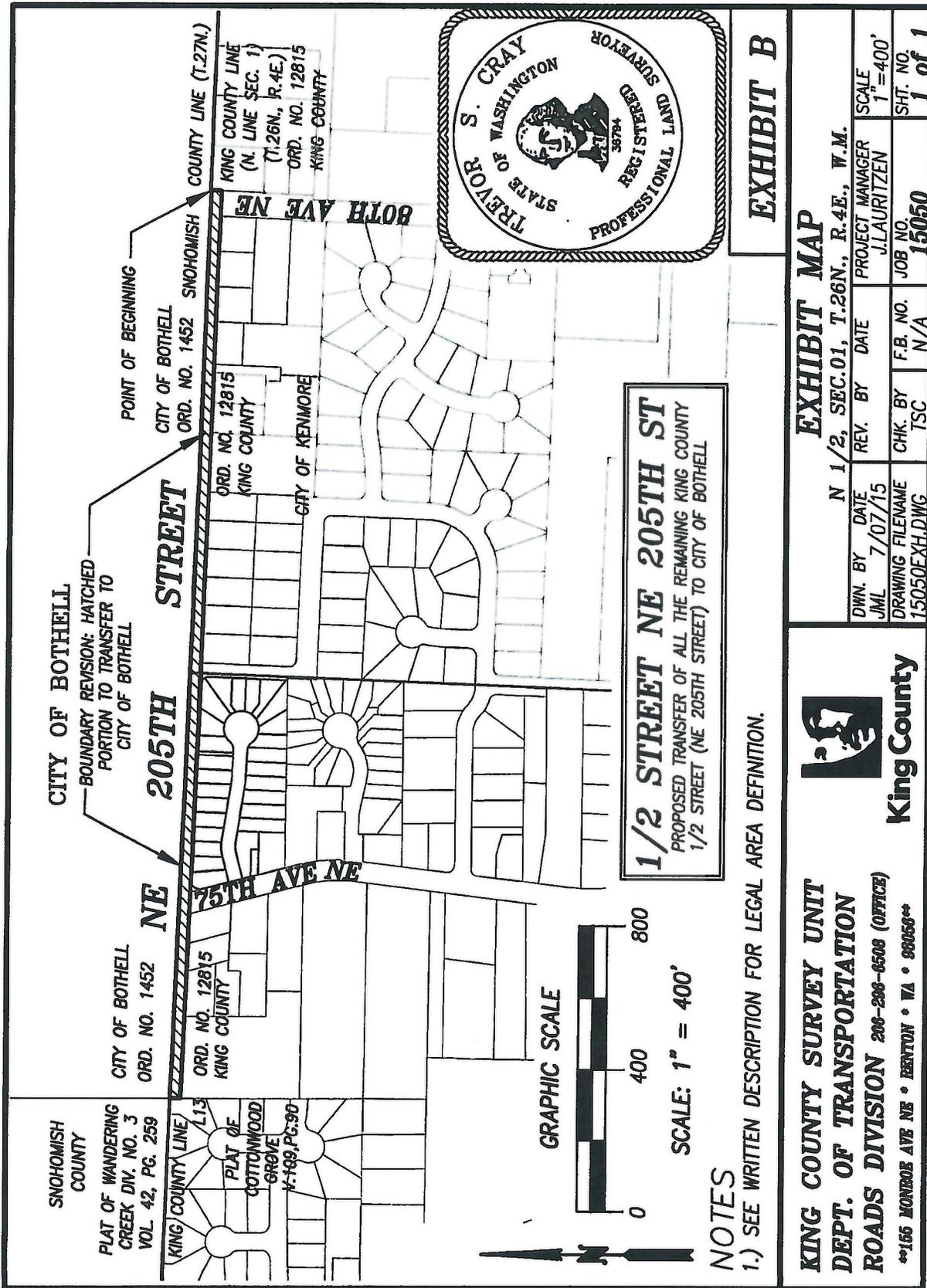


EXHIBIT B

EXHIBIT MAP

N 1/2, SEC.01, T.26N., R.4E., W.M.

DWN. BY JML	DATE 7/07/15	REV. BY	DATE	PROJECT MANAGER J.LAURITZEN	SCALE 1"=400'
DRAWING FILENAME 15050EXH.DWG	CHK. BY TSC	F.B. NO. N/A	JOB NO. 15050	SHT. NO. 1 of 1	



King County

**KING COUNTY SURVEY UNIT
DEPT. OF TRANSPORTATION
ROADS DIVISION**

200-298-6508 (OFFICE)
155 MONROE AVE NE • BENTON • WA • 98050



King County

**Metropolitan King County Council
Transportation, Economy and Environment Committee**

STAFF REPORT

Agenda Item:	6	Name:	Mary Bourguignon
Proposed No.:	2016-0415	Date:	August 30, 2016

SUBJECT

Proposed Motion 2016-0415 would nominate Apprenticeships & Nontraditional Employment for Women (ANEW) as an in-need organization under WAC 468-300-010.

SUMMARY

The Washington Administrative Code¹ allows “in-need” organizations to receive discounted rates for transportation on Washington State Ferries. To receive the designation as “in-need,” an organization must complete an application and be nominated by the local body that appoints State Ferry Advisory Committees. By State law,² the King County Council is responsible for appointing Ferry Advisory Committee members for each ferry terminal area in the county.³ As a result, the King County Council is the appropriate body to nominate an organization in King County for “in-need” status for discounted ferry fares.

Apprenticeships & Nontraditional Employment for Women (ANEW)⁴ is a public benefit corporation located in Renton. ANEW provides pre-apprenticeship training and employment services for unemployed or under-employed clients who are seeking living wage jobs in the construction trades, manufacturing, and other skilled industries. ANEW meets the criteria for an “in-need” organization, as it is a non-governmental organization that provides employment-seeking services to its clients.

ANEW has submitted an application to Washington State Ferries to receive reduced rate ferry fares for approximately 60 passengers each year on the Edmonds-Kingston ferry. Because ANEW is based in King County, Washington State Ferries forward the application to the King County Council and has asked the Council to review ANEW’s proposal to be nominated as an “in-need” organization to Washington State Ferries. Proposed Motion 2016-0415 would accomplish this nomination.

¹ WAC 468-300-010

² RCW 47.60.310

³ With the exception of Vashon Island, which has a separate appointment process

⁴ <http://anewaop.org/>

BACKGROUND

In-need Organizations. The Washington Administrative Code provides a mechanism for qualified organizations to receive discounted Washington State Ferry rates. This mechanism is to designate an organization as “in-need.”

The Washington Administrative Code describes the nominating process and the requirements to be designated “in-need”:

For qualified organizations serving in-need clients by providing tickets for transportation on WSF at no cost to clients, program would offer a monthly discount to approximate appropriate multiride media discount rates.

Appointing bodies (those that appoint Ferry Advisory Committees) will nominate to the Washington State Transportation Commission those organizations that meet the criteria of the program. The Commission will review such nominations and certify those organizations that qualify.

The following criteria will be used for nominating and certifying in-need organizations: Nongovernmental and not-for-profit organizations whose primary purpose is one or more of the following: Help clients with medical issues; provide clients with low-income social services; help clients suffering from domestic violence; provide clients with employment-seeking services; and/or help clients with Social Security. Travel will be initially charged based on full fare and billed monthly. The credits will be approximately based on the discount rates offered to multiride media users applicable on the date of travel.⁵

Appointing Body. The Washington Administrative Code designates the appointing body to nominate an organization for “in-need” status as “those that appoint Ferry Advisory Committees.”

Ferry Advisory Committee appointments are covered by State law, which provides special processes for San Juan, Skagit, Clallam, and Jefferson counties, and then notes that:

The legislative authorities of other counties that contain ferry terminals shall appoint ferry advisory committees consisting of three members for each terminal area in each county, except for Vashon Island, which shall have one committee, and its members shall be appointed by the Vashon/Maury Island community council. If the Vashon/Maury Island community council fails to appoint a qualified person to fill a vacancy within ninety days of the occurrence of the vacancy, the legislative authority of King county shall appoint a qualified person to fill the vacancy.⁶

⁵ WAC 468-300-010

⁶ RCW 47.60.310

The King County Council, as King County's legislative authority, is thus the appointing body for Ferry Advisory Committees within King County (except for Vashon Island, as noted above). As the appointing body, the Council holds the responsibility for nominating organizations for "in-need" status.

ANEW

ANEW is based in Renton. It was founded in 1980 as a pre-apprenticeship programs focused on helping women seek employment in non-traditional career areas, such as construction and manufacturing.

ANEW focuses its services on disadvantaged populations (both men and women) who are not traditionally working in construction and manufacturing. In addition to pre-apprenticeship training, ANEW provides employment navigation and other supportive services to its clients.

Earlier this summer, ANEW submitted an application to the Washington State Ferries seeking nomination as an "in-need" organization so that it could receive discounted ferry tickets to allow approximately 60 clients a year to use the Edmonds-Kingston ferry. The application was forwarded on to the King County Council for review and action. If approved, the Council's nomination will be sent to the Washington State Transportation Commission and copied to Washington State Ferries.

ANALYSIS

ANEW meets the criteria outlined in the Washington Administrative Code to be classified as an "in-need" organization for the purpose of receiving discounted ferry fares for its clients. ANEW has submitted an application to Washington State Ferries, which has forwarded it to the King County Council, which is the appropriate nominating body.

The Council's approval of the proposed legislation would nominate ANEW for this status and move its application to the next stage of the process.

LINKS

- ANEW: <http://anewaop.org/>

ATTACHMENTS

1. Proposed Ordinance 2016-0415
2. ANEW Application

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KING COUNTY
Signature Report

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

August 26, 2016

Motion

Proposed No. 2016-0415.1

Sponsors Upthegrove and Kohl-Welles

1 A MOTION nominating Apprenticeships & Nontraditional
2 Employment for Women as an in-need organization under
3 WAC 468-300-010.

4 WHEREAS, in the Washington Administrative Code, WAC 468-300-010
5 provides for qualifying in-need organizations to receive discounted rates for
6 transportation on Washington State Ferries, and

7 WHEREAS, qualifying in-need organizations must be nominated by the local
8 body that appoints state Ferry Advisory Committees, and

9 WHEREAS, the Washington state Transportation Commission reviews the
10 nominations to certify that organizations qualify, and

11 WHEREAS, Apprenticeship & Nontraditional Employment for Women
12 ("ANEW") has applied to be considered an in-need organization, and

13 WHEREAS, ANEW is a public benefit corporation based in Renton, Washington,
14 and

15 WHEREAS, ANEW provides preapprenticeship training to help women enter
16 nontraditional careers in construction trades and manufacturing, and

17 WHEREAS, ANEW provides employment-seeking services to help King County
18 residents who are unemployed or under-employed and seeking work in livable wage jobs
19 or apprenticeships;

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

21 Apprenticeship & Nontraditional Employment for Women is nominated to the
22 Washington state Transportation Commission as an in-need organization under WAC
23 468-300-010.

24

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

J. Joseph McDermott, Chair

ATTEST:

Anne Noris, Clerk of the Council

APPROVED this _____ day of _____, _____.

Dow Constantine, County Executive

Attachments: None



ORGANIZATION INFORMATION

Organization Legal Name: Apprenticeship & Non Traditional Employment for Women
(According to the IRS)

Organization DBA: A NEW
(Doing Business As) Name

Organization Address: Street: 550 SW 7th St
Street: B305
City: Renton State/Zip: WA 98057

Organization Phone #: (206) 381-1384 Organization Fax #: (206) 381-1389

Organization Website: www.anewaop.org

Employer Identification #: 91-1122763 Organization Tax Status: 503C
(9 digit tax ID number assigned by the IRS)

Geographical Area Served: Washington State

Primary Organization Purpose: Workforce development
Job Training

Estimated # Rides Per Year: Driver: _____ Passenger: 60
WSF Routes Likely to be Used: Edmonds to Kingston

CONTACT INFORMATION

Please provide information for the individual designated as the primary contact. Please also provide information for the individual designated as the authorized signatory for legal purposes, i.e. Executive Director or President, if different from the primary contact.

Primary Contact: Morgan Stonefield
(Ms., Mr., Dr.) First Name Last Name

Primary Contact Title: Program Director

Primary Contact Phone #: (206) 406-8138 Primary Contact E-Mail: Morgan@anewaop.org

Legal Contact: Karen Dove
(Ms., Mr., Dr.) First Name Last Name

Legal Contact Title: Executive Director
Legal Contact Phone #: (206) 381-1384 Legal Contact E-Mail: Karen@anewaop.org

Legal Contact Address: Street: 550 SW 7th St
Street: #B305
City: Renton State/Zip: WA

[Signature] In-Need Organization Applicant Signature Date: 06/3/2016

For Internal Office Use Only:

Local Jurisdiction Signature _____ Date _____

Washington Transportation Commission Signature _____ Date _____

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King County

**Metropolitan King County Council
Transportation, Economy and Environment Committee**

STAFF REPORT

Agenda Item:	7	Name:	Paul Carlson
Proposed No.:	2016-0387	Date:	August 30, 2016

SUBJECT

Proposed Ordinance 2016-0387 would amend the King County Code to require King County Metro to prepare a transit restructure impact study for any proposed bus service change that would modify five or more bus routes providing service in any single County Council district.

SUMMARY

Proposed Ordinance 2016-0387 would require a transit restructure impact study for bus service change ordinances that would modify five or more routes providing service in any single County Council district. The proposed Code revision would expand the public outreach requirements relating to these proposed service changes while incorporating current public outreach practices of King County Metro. A draft transit restructure impact study would be released for public comment when a proposed service restructure is initially presented to the public. The final transit restructure impact study, including a record of categories of public comments, would be transmitted to the Council along with a proposed service change ordinance.

The proposed ordinance would also update the King County Code references to public transportation plans, deleting one obsolete definition, adding new definitions, and changing the references in K.C.C. 28.94.020.

On August 16, the Committee heard an overview of the proposed ordinance. Following this meeting, the Committee Chair and King County Metro staff began work on an amendment to the ordinance to provide more clarity on the scope and timing required for each impact study. The amendment will be distributed at the Committee meeting.

BACKGROUND

King County Metro Transit conducts public outreach on transit service changes and other proposed actions such as fare changes, establishment of new service types, and operational changes that affect riders. The King County Metro public outreach model is mentioned in K.C.C. 2.124.010. Its goals are further defined in the Strategic Plan for

Public Transportation's Goal 7, Public Engagement and Transparency. The King County Metro Service Guidelines describes public engagement in more detail in the section titled Planning and Community Outreach. (For reference, Attachment 2 to this staff report consists of the Goal 7 section of the Strategic Plan for Public Transportation and the King County Metro Service Guidelines sections titled Restructuring Service and Planning and Community Engagement.)

With each service change ordinance transmitted to the County Council, the Executive includes a Public Engagement Report that describes the outreach process for the service change, including a summary of comments received. Once a service change ordinance has been transmitted to the Council, further public comment opportunities are provided through the Council's review process, which may include one or more special committee meetings in the area(s) affected by the proposed service changes, testimony at one or more regular committee meetings, a public hearing at the full Council, and internet outreach.

A recent large-scale service change was the University Link restructure (Ordinance 18133), which was subject to a months-long King County Metro outreach effort with two major phases. The Public Engagement Report generated for the proposed service change was approximately 2,100 pages long. A primary reason for this proposed service change was to provide bus connections to the new Capitol Hill and University of Washington Light Rail Stations. The service change also modified bus routes to improve service reliability.

Because of this proposed service change's complexity and its impact on many transit riders' travel options, challenges for the public engagement process included:

- Ensuring a clear understanding of the tradeoff between one-seat rides and new trips involving transfers (both bus-light rail and bus-bus transfers);
- Explaining the positive and negative consequences for riders whose bus routes would be eliminated or revised; and
- Addressing the lack of certainty that local jurisdictions (specifically the City of Seattle) would allow Metro to follow proposed route alignments that required sign-off by the local jurisdiction.

For future restructure proposals, the draft transit restructure impact study is intended to help members of the public understand how the proposal is estimated to affect ridership, estimates of how many passengers would have to make transfers to complete trips instead of their current one-seat rides, operating costs, travel time, hours of operation, and frequency of service compared to the no-action alternative, which would be to retain the existing service in its current form. Information would also be provided on proposed capital expenditures, equity and social justice impacts, implementation of the Strategic Plan for Public Transportation and King County Metro Service Guidelines, and interagency agreements or partnerships required to implement the proposed change. No changes to the Strategic Plan for Public Transportation and King County Metro Service Guidelines would be necessary because the transit restructure impact study would be consistent with the general policy direction provided in these documents.

In reviewing the King County Code while working on this proposed ordinance, Council staff identified obsolete references to the Comprehensive Plan for Public Transportation, an old plan that was repealed in 2011. To update the Code sections with these references, the proposed ordinance would delete the definition of “comprehensive plan” to mean the transit comprehensive plan (K.C.C. 28.92.050 proposed for deletion) and would add new definitions of the terms “King County Metro Service Guidelines,” “Public engagement report,” “Strategic Plan for Public Transportation,” and “Transit restructure impact study.” References to the Comprehensive Plan for Public Transportation would be replaced by references to the Strategic Plan for Public Transportation and King County Metro Service Guidelines.

ANALYSIS

If enacted, Proposed Ordinance 2016-0387 would amend the King County Code to require a more explicit public outreach process, the transit restructure impact study, for proposed bus service changes that affect five or more bus routes providing service in any single Council District. This definition is intended to capture the characteristics of a restructure, a set of changes to bus routes in a geographic area that is described in the Service Guidelines. Because restructures vary in size, the ordinance terminology is used to ensure that the transit restructure impact study requirement would apply to all restructures involving five or more bus routes.

The transit restructure impact study would compare a proposed set of bus route changes to a “no action” alternative that would not change bus routes. A draft impact study would be released for public comment; a final impact study would be transmitted along with the proposed service change ordinance. Much of the content of the draft and final impact studies would match information that is provided through current public outreach efforts. The proposed ordinance sets requirements for specific information to be included in the impact study that currently is not necessarily provided through the public outreach process but may be provided to the Council during its review of the proposed service change.

King County Metro currently invests substantial resources in public outreach. Although an exact accounting is not available, thousands of staff hours went into the University Link restructure effort. In response to questions raised about the potential cost and timing implications of a transit restructure impact study, Metro provided the following estimate on August 25 (summarized in Table 1 below and in a graphic timeline provided by Metro as Attachment 3 to this staff report). This estimate reflects provisions of the amendment now being drafted.

Table 1. Timing Information Provided by Metro

Impact Study Task	Added Time	Responsible Group
Compilation of capital projects & interagency agreements	30 hrs	Service Planning, partner agencies
Report development (e.g. mapping, writing)	120 hrs*	Service Planning
Public comment categorization & response	40 hrs	Communications & Service Planning
Report editing & graphic design	40 hrs	Communications
Report final review and editing	4 weeks	Communications & Metro/DOT Management

*This is estimated time above and beyond standard work for restructure processes. The time needed to develop public-facing information exceeds the amount of time needed to develop internal documents as has been standard practice in the past. We expect a significant amount of additional need for map development and writing to ensure information is clear. Some of this work used to be done during the council process but the impact study process requires this to be done earlier.

AMENDMENT

The Committee Chair and King County Metro are developing an amendment that would revise section 8 of the proposed ordinance to modify some of the requirements for impact study timing and contents. Further information will be provided at the August 30 Committee meeting.

ATTACHMENTS

1. Proposed Ordinance 2016-0387
2. King County Metro Service Guidelines – Public Engagement
3. Timeline Provided by Metro, August 25, 2016

INVITED

- Victor Obeso, Deputy General Manager, Planning and Customer Services, King County Transit Division
- Betty Gulledege-Bennett, Communications Manager, King County Department of Transportation Director’s Office
- Katie Chalmers, Service Planning Supervisor, King County Transit Division



KING COUNTY
Signature Report

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

August 26, 2016

Ordinance

Proposed No. 2016-0387.1

Sponsors Dembowski

1 AN ORDINANCE relating to public transportation;
2 requiring a transit restructure impact study for certain
3 transit service changes that require approval by ordinance,
4 and making technical corrections; amending Ordinance
5 11033, Section 5 and K.C.C. 28.94.020, adding new
6 sections to K.C.C. chapter 28.92, adding a new section to
7 K.C.C. chapter 28.94 and repealing Ordinance 11962,
8 Section 3, and K.C.C. 28.92.050.

9 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

10 **SECTION 1. Findings:**

11 A. The transit division public engagement model, adopted by K.C.C. 2.124.010,
12 and reflecting a League of Women Voters recommendation to the municipality of
13 Metropolitan Seattle, provides for public involvement in bus service changes including
14 documentation provided to the council.

15 B. The Strategic Plan for Public Transportation Goal 7, Public Engagement and
16 Transparency, calls for robust public engagement that informs, involves and empowers
17 people and communities. Detailed policy direction is outlined in Strategy 7.1.1, "engage
18 the public in the planning process and improve customer outreach," and Strategy 7.2.1,

19 "communicate service change concepts, the decision-making process, and public
20 transportation information in language that is accessible and easy to understand."

21 C. The King County Metro Service Guidelines, in its Planning and Community
22 Engagement section, describes the significant planning process required to ensure that
23 each major service change provides adequate public outreach.

24 D. The public engagement process for a service change affecting five or more
25 routes that have scheduled service in any single King County council district can be more
26 easily understood by members of the public through the provision of a transit restructure
27 impact study that clearly describes the changes under consideration and clearly explains
28 how a member of the public can comment on the proposed changes.

29 SECTION 2. Ordinance 11962, Section 3, and K.C.C. 28.92.050 are each hereby
30 repealed.

31 NEW SECTION. SECTION 3. There is hereby added to K.C.C. chapter 28.92 a
32 new section to read as follows:

33 King County Metro Service Guidelines means a planning document used to
34 design, assess and implement transit service, approved by Ordinance 18301.

35 NEW SECTION. SECTION 4. There is hereby added to K.C.C. chapter 28.92 a
36 new section to read as follows:

37 Public engagement report means a document that is submitted in conjunction with
38 a transit service change ordinance and that:

39 A. Describes the public outreach and communications activities carried out for
40 the proposed service change; and

41 B. Provides information on comments on the proposed service change submitted
42 by individuals and organizations.

43 NEW SECTION. SECTION 5. There is hereby added to K.C.C. chapter 28.92 a
44 new section to read as follows:

45 Strategic Plan for Public Transportation means a document establishing goals,
46 objectives and strategies for the future development of public transportation in King
47 county, as approved by Ordinance 18301.

48 NEW SECTION. SECTION 6. There is hereby added to K.C.C. chapter 28.92 a
49 new section to read as follows:

50 Transit restructure impact study means a comprehensive assessment of the
51 impacts of a proposed change to five or more regular routes that have scheduled service
52 in any single King County council district and that would be subject to approval by
53 ordinance under K.C.C. 28.94.020.B.

54 SECTION 7. Ordinance 11033, Section 5 as amended, and K.C.C. 28.94.020 are
55 each hereby amended to read as follows:

56 The director shall implement the system of public transit routes and services
57 described in this section.

58 A. Regular routes shall include numbered routes and descriptions therefor as
59 established and revised from time to time by the council. The regular routes, including
60 implementation dates, shall be described in a document called ((¹))Public Transit Regular
61 Routes.((²)) The director shall ensure that ((said)) the routes shall be operated and
62 implemented except as otherwise provided in this section.

63 B.1. Changes to regular routes shall be subject to approval by the council except
64 as specifically provided in this subsection.

65 4. The director is authorized to approve and implement the following changes of
66 established routes and schedules and to update the ((“))Public Transit Regular Routes((“))
67 document accordingly:

68 a. any single change or cumulative changes in a service schedule that affect the
69 established weekly service hours for a route by twenty-five percent or less;

70 b. any change in route location that does not move the location of any route
71 stop by more than one half mile; and

72 c. any changes in route numbers.

73 2. In addition, if, in the opinion of the director, an emergency exists that
74 requires any change to established routes, schedules or classes of service, the director
75 may implement such a change for such a period as may be necessary in the director's
76 judgment or until such a time as the council shall establish by ordinance otherwise. Such
77 changes that the director intends to be permanent shall be reported in writing to the chair
78 of the council. If an emergency exists as provided for in this subsection B.2., the director
79 may waive or discount fares otherwise established in K.C.C. chapter 4A.700.

80 3. Any service change proposal that requires approval by ordinance and that
81 would change five or more regular routes that have scheduled service in any single King
82 County council district, must include a final transit restructure impact study prepared in
83 accordance with section 8 of this ordinance. The service change proposal may comprise
84 a restructure as described in the King County Metro Service Guidelines.

85 C. Other routes, such as but not limited to tripper service, limited, special,
86 customized and other types of transit routes, may be established by the director consistent
87 with annual appropriations and the ~~((comprehensive))~~ Strategic ((p))Plan for Public
88 Transportation and King County Metro Service Guidelines.

89 D. The director shall establish transit schedules for all routes and classes of
90 service consistent with annual appropriations and the ~~((comprehensive))~~ Strategic
91 ((p))Plan for Public Transportation and King County Metro Service Guidelines.

92 E. The director shall periodically review and evaluate the effectiveness of all
93 public transit routes and services, requests for changes to the routes and services, and the
94 requirements of the ~~((comprehensive))~~ Strategic ((p))Plan for Public Transportation
95 and King County Metro Service Guidelines and shall prepare recommendations to the
96 council for changes to routes and services.

97 F. Within service area boundaries approved by the council and consistent with
98 annual appropriations and the ~~((comprehensive))~~ Strategic ((p))Plan for Public
99 Transportation and King County Metro Service Guidelines, the director is authorized to
100 plan, implement and modify dial-a-ride service ("DART"), including, but not limited to,
101 establishing general routes from which vehicles may deviate in response to demand.

102 G. The director is authorized and directed to establish such guidelines((;)) and
103 procedures as may be necessary to implement the policies set forth in this chapter. In
104 establishing such guidelines and procedures, the director shall provide for consultation
105 with citizens and each component jurisdiction in advance of any major route or service
106 changes affecting such jurisdictions.

107 NEW SECTION. SECTION 8. There is hereby added to K.C.C. chapter 28.94 a
108 new section to read as follows:

109 A.1. The executive shall submit a draft transit restructure impact study to the
110 public for comment in a manner consistent with subsection B. of this section.

111 2. The draft transit restructure impact study shall include, but not be limited to:

112 a. one or more proposals to change five or more regular bus routes by
113 ordinance, with a description of each proposal's service changes and their estimated
114 impacts on ridership, changes in the number of transfers required to complete trips that
115 can now be completed on a single bus, operating costs, travel time, hours of operation,
116 and frequency of service compared to a no-action alternative that does not change any
117 bus routes;

118 b. proposed capital expenditures that would be required to deliver the proposal,
119 that exceed the capital expenditures required to implement a no-action alternative that
120 does not modify any bus routes;

121 c. a comparison of the equity and social justice impacts of the proposed
122 changes and the no-action alternative;

123 d. an explanation of how each proposal implements the provisions of the
124 Strategic Plan for Public Transportation and the King County Metro service guidelines;
125 and

126 e. a summary of any existing, proposed, or contemplated interagency
127 agreements, funding partnerships or other agreements with any private firm or any
128 agency other than King County necessary to implement any proposed changes and a

129 comparison to any such agreements assumed by the no-action alternative that does not
130 change any bus routes.

131 B. The process for review of a transit restructure impact study shall be consistent
132 with the transit public involvement model established in K.C.C. 2.124.010 and with the
133 community engagement and outreach provisions of the Strategic Plan for Public
134 Transportation and King County Metro Service Guidelines. The review process shall at a
135 minimum include the following:

136 1. A schedule for public participation including a deadline not fewer than thirty
137 days from the release of the draft transit restructure impact study for submitting
138 comments in response to the draft transit restructure impact study;

139 2. A guide to the impact study process that provides information on
140 participation in the process and a description of the procedure and schedule for
141 individuals and organizations to submit comments on the draft impact study; and

142 3. Provision for dissemination of the draft impact study consistent with the
143 transit public involvement model established in K.C.C. 2.124.010 and with the process
144 described in the Planning and Community Engagement section of the King County Metro
145 Service Guidelines. The draft impact study shall consist of printed and electronic
146 information which clearly defines and visually portrays, when possible, the range of
147 options under consideration by the county. The information shall also include a
148 description of any policy considerations, the deadline for submittal of public comments,
149 the executive's anticipated date of transmittal of service change legislation to the council,
150 opportunities for public participation, ways to obtain additional information, and

151 information on the submittal and review procedures for written comments and the name,
152 address, telephone number and email address of the responsible official or officials.

153 C.1. The executive shall transmit a final transit restructure impact study,
154 including a public engagement report, to the council with the associated proposed service
155 change ordinance and shall notify all members of the public who have asked to be
156 notified of the action. The transmittal to the council shall be in the form of a paper
157 original and an electronic copy to the clerk of the council, who shall retain the original
158 and provide an electronic copy to all councilmembers.

159 2. The final transit restructure impact study shall compare the executive's
160 preferred alternative and a no-action alternative. The final transit restructure impact
161 study shall provide, but not be limited to, the information required for the draft transit
162 restructure impact study by subsection A.2. of this section, and shall include a list of all

163 categories of public comments submitted by the deadline required to be established by
164 subsection B. of this section and the department's response to each category of comment.
165

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

J. Joseph McDermott, Chair

ATTEST:

Anne Noris, Clerk of the Council

APPROVED this ____ day of _____, _____.

Dow Constantine, County Executive

Attachments: None

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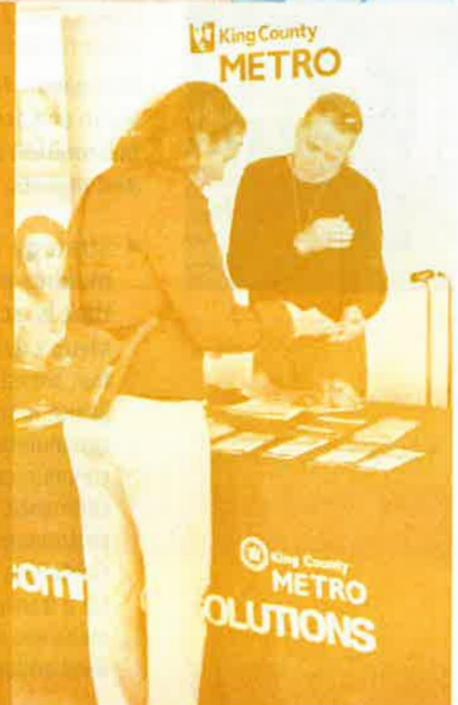
GOAL 7

PUBLIC ENGAGEMENT AND TRANSPARENCY

Promote robust public engagement that informs, involves, and empowers people and communities.



Metro is committed to informing and engaging the public as it develops products and services.





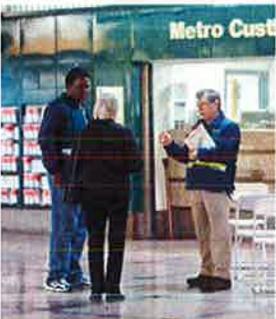
Objective 7.1: Empower people to play an active role in shaping Metro's products and services.

Metro is committed to being responsive and accountable to the public. One way Metro will meet this commitment is by continuing to conduct a community planning process and public outreach as part of any major service change or new service initiative. **Intended outcome: The public plays a role and is engaged in the development of public transportation.**

▪ **Strategy 7.1.1: Engage the public in the planning process and improve customer outreach.**

Metro's community engagement work is consistent with King County's Equity and Social Justice ordinance. Metro seeks to build its capacity to engage all communities in a manner that promotes and fosters trust among people across geographic, race, class and gender lines, resulting in more effective policies, processes, and services as well as supporting community-based solutions to problems.

Metro's planning process provides opportunities for the public to help design public transportation services. It involves riders, non-riders, elected officials, community leaders, city and County staff members, and social service agencies. Outreach targets historically under-represented populations, using translated materials or interpretation services as needed. Metro uses public meetings, open houses and a sounding board process to engage customers. Metro also does extensive public communication using direct mail, newspaper and radio ads, surveys and online information, and continually explores new media to reach a larger audience. Metro will strive to involve the public early in any planning process and offer opportunities for ongoing involvement.



Objective 7.2: Increase customer and public access to understandable, accurate and transparent information.

Transparent decision-making processes and information will help build public trust in Metro and acceptance of the decisions made. **Intended outcome: Metro provides information that people use to access and comment on the planning process and reports.**

▪ **Strategy 7.2.1: Communicate service change concepts, the decision-making process, and public transportation information in language that is accessible and easy to understand.**

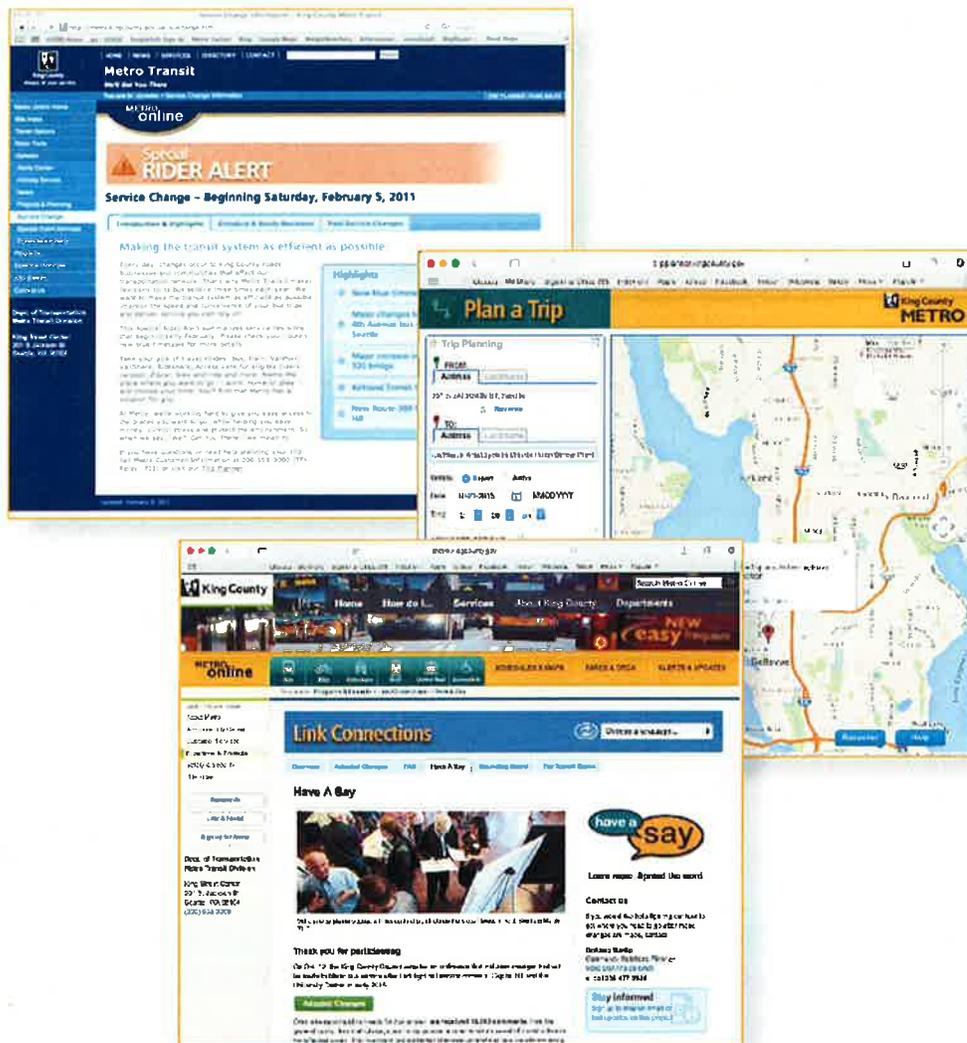
Metro's decision-making process should be clear, transparent and based on criteria that are easy for customers to understand. Metro considers equity and social justice in its decision-making process, particularly for people of color, low-income communities, people with limited English proficiency, and people with other communications barriers consistent with King County's Equity and Social Justice Ordinance, Executive Order on Translation, and federal law. Service guidelines and performance measures provide an outline of Metro's approach to decision-making. Guidelines are based on data that are understandable to the public and provide for a transparent process for making service allocation decisions. Performance measures will give the public a snapshot of Metro's performance on a systemwide level and allow for comparisons between service types and between peer

GOAL 7: PUBLIC ENGAGEMENT AND TRANSPARENCY

agencies. Using a variety of forums, media channels and accessible formats, Metro will reach out to customers and the public to share information on the decision-making process and on the performance measures that are the basis of Metro service changes and new service initiatives.

- **Strategy 7.2.2: Explore innovative ways to report to and inform the public.**

New forums for public outreach can help Metro reach more new and existing riders and make it easier for them to find the information they need. Metro will continue providing information to the public through various channels including printed materials, Metro Online, social media and other channels.





RESTRUCTURING SERVICE

Service restructures are changes to multiple routes along a corridor or within a large area consistent with the service design criteria in this document. Restructures may be prompted by a variety of circumstances, and in general are made to improve the efficiency and effectiveness of transit service as a whole, to better integrate with the regional transit network, or to reduce Metro's operating costs because of budget constraints. When planning for service restructures, factors other than route performance are taken into account, such as large-scale service and capital infrastructure enhancements. Restructures may result in the modification, addition, and deletion of corridors that align with future corridors in the long-range plan. These changes must be approved by council as part of a service change package.

- Under all circumstances, whether adding, reducing or maintaining service hours, service restructures will have the goals of focusing frequent service on the service segments with the highest ridership and route productivity, creating convenient opportunities for transfer connections between services, and matching capacity to ridership demand to improve the productivity and cost-effectiveness of service.
- Service restructures to manage the transit system will have a goal of increasing ridership.
- Under service reduction conditions, service restructures will have an added goal of an overall net reduction of service hours invested.
- Under service addition conditions, service restructures will have the added goals of increasing service levels and ridership.

When one or more circumstances trigger consideration of restructures, Metro specifically analyzes:

- Impacts on current and future travel patterns served by similarly aligned transit services.
- Passenger capacity of the candidate primary route(s) relative to projected consolidated ridership.
- The cost of added service in the primary corridor to meet projected ridership demand relative to cost savings from reductions of other services.

Restructures will be designed to reflect the following:

- Service levels should accommodate a projected minimum of 80 percent of the expected passenger loads per the established loading guidelines.
- When transfers are required as a result of restructures, the resulting service will be designed for convenient transfers. Travel time penalties for transfers should be minimized.
- A maximum walk distance goal of 1/4 mile in corridors where service is not primarily oriented to freeway or limited-access roadways. Consideration may be given to exceeding this maximum distance where the walking environment supports pedestrians or at transfer locations between very frequent services.

Based on these guidelines, Metro will recommend specific restructures that have compatibility of trips, have capacity on the consolidated services to meet anticipated demand, and can achieve measurable savings relative to the magnitude of necessary or desired change.

After a service restructure, Metro will regularly evaluate the resulting transit services and respond to chronically late performance and passenger loads that exceed the performance management guidelines as part of the ongoing management of Metro's transit system.

Key reasons that will trigger consideration of restructures include:

Sound Transit or Metro service investments

- Extension or service enhancements to Link light rail, Sounder commuter rail, and Regional Express bus services.
- Expansion of Metro's RapidRide network, investment of partner or grant resources, or other significant introductions of new Metro service.

Corridors above or below the All-Day and Peak-Only Network target service level

- Locations where the transit network does not reflect current travel patterns and transit demand due to changes in travel patterns, demographics, or other factors.

Services compete for the same riders

- Locations where multiple transit services overlap, in whole or in part, or provide similar connections.

Mismatch between service and ridership

- Situations where a route serves multiple areas with varying demand characteristics or situations where ridership has increased or decreased significantly even though the underlying service has not changed.
- Opportunities to consolidate or otherwise reorganize service so that higher ridership demand can be served with improved service frequency and fewer route patterns.

Major transportation network changes

- Major projects such as SR-520 construction and tolling and the Alaskan Way Viaduct replacement; the opening of new transit centers, park-and-rides, or transit priority pathways.

Major development or land use changes

- Construction of a large-scale development, new institutions such as colleges or medical centers, or significant changes in the overall development of an area.



PLANNING AND COMMUNITY ENGAGEMENT

For each major service change, Metro will undertake a significant planning process that includes outreach to involve the public in shaping the change. Through the outreach, Metro planners will better understand community mobility needs, where people are traveling and when, and how to provide the best service possible. During the planning process, Metro typically will engage with the community through several phases of outreach, and will complete a comprehensive community engagement report at the end that summarizes the results of this work and how public input was used to shape a final recommendation for change.

Each outreach effort will be guided by several goals:

- Transit planners are informed by members of the public who are reflective of those who may be affected by the change.
- Metro's outreach process is transparent, accessible, welcoming and understandable. Participants understand what is being considered, the timeline and how decisions are made, and that their input is valuable and welcome.
- The outreach process is meaningful. Regardless of how participants feel about the final result, they can see how public input shaped what is being considered and the final result.

Outreach should be scaled relative to the magnitude of the change being considered as well as the potential impacts of the change on riders.

For each outreach effort, Metro should identify the demographics of those who may be affected by the change being considered. Then, outreach strategies should be designed to inform and solicit input from these populations, creatively seeking to engage those who would not otherwise learn about our process via mainstream communication channels.

These outreach strategies should include, but not be limited to, the following:

- posting of information at bus stops or onboard buses and at community gathering places such as libraries, schools, and community centers
- conversations with people on the bus and at stops, community events, and information tables
- public meetings
- questionnaires
- conversations with community or stakeholder groups
- online and/or mailed information, social media, news releases, and advertisements
- community advisory groups or sounding boards
- outreach to community groups in the Community Service Areas of unincorporated King County
- translation and distribution of materials in accessible formats and/or provision of interpretation for populations with limited or no English proficiency and people with disabilities

- work with community partners that serve transit riders, such as those with limited English proficiency, low-income and homeless populations, youth, minorities, people with disabilities, elderly people, and those who are currently unserved or underserved by transit, to engage these populations in formats, locations and at times that work best for them.

For service changes that affect multiple routes or large areas, Metro may convene a community-based sounding board composed of people who may be affected by the change. Sounding board members attend public meetings, offer advice about public outreach, and provide feedback about what changes to bus service would be best for the local communities. Metro should consider both sounding board recommendations and public feedback in developing recommendations.

Proposed changes may require County Council approval. The Council holds a public hearing before making a final decision on changes.

Through the planning and outreach process, Metro should strive to:

- Understand and address potential issues regarding major travel origins and destinations
- Engage with key stakeholders including community-based organizations and the general public to understand the needs of transit riders and potential riders, such as those with limited English proficiency, low-income and homeless populations, youth, minorities, people with disabilities and Access users, elderly people, and those who are currently unserved or underserved by transit
- Match community needs with service provided. Metro may identify potential alternative services projects through the planning and outreach process.

PUBLIC ENGAGEMENT

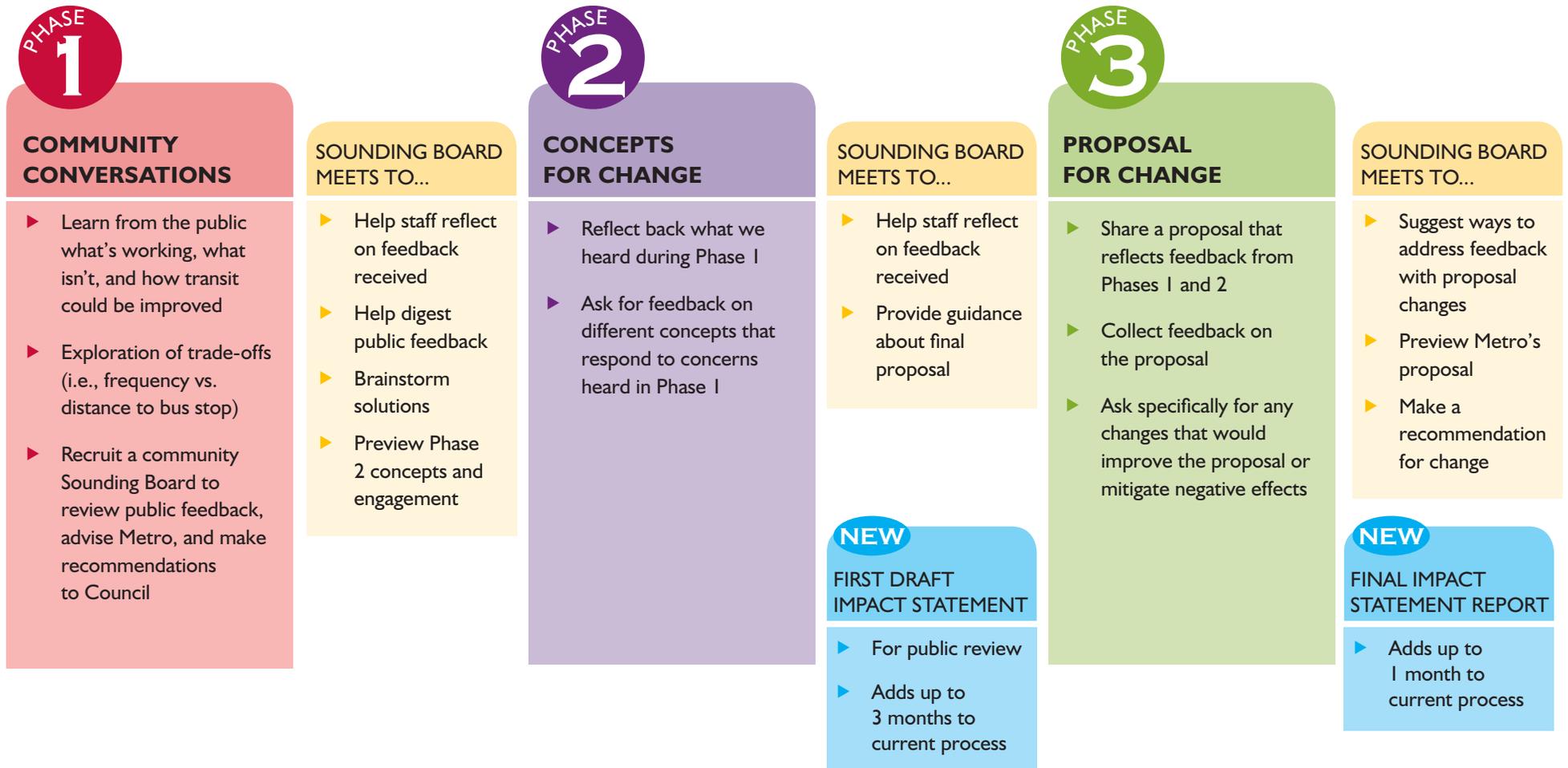


OVERVIEW

OUR ENGAGEMENT IS...

- ▶ **Customized.** How many phases, what we ask, and how we ask it are tailored to the size and scope of the change and who will be affected by it.
- ▶ **Equitable.** We strive to inform and hear from all communities that will be affected.
- ▶ **Informative.** Information is clear, understandable, and accessible.
- ▶ **Transparent.** We describe our input, planning, and decision making process.
- ▶ **Responsive.** At each step, we show how public feedback has informed our decisions.

OUTREACH EXAMPLE (service restructure)



HOW WE REACH OUT (every phase)

- ▶ Media, social media, ethnic/diverse media
- ▶ Posters at high-ridership stops and on buses in affected areas
- ▶ Rider alert brochures on buses in affected areas
- ▶ In-person contacts by teams of staff members on buses and at high-ridership locations
- ▶ Email and/or text notifications to transit alert subscribers
- ▶ Calls and emails to stakeholders
- ▶ Mailings to community centers, libraries, schools, etc.—and sometimes to residents and businesses—as appropriate
- ▶ Detailed information available online and in print about the planning process, timeline, how to participate, and what’s being considered
- ▶ Translated information and avenues for comment provided as appropriate

HOW WE GATHER INPUT

- ▶ Surveys (online and paper)
- ▶ Public meetings
- ▶ Stakeholder interviews and roundtables
- ▶ Presentations to stakeholder groups
- ▶ Outreach events targeted to underrepresented populations

OUTREACH DOCUMENTATION (submitted with ordinance)

- ▶ Public Engagement Report summarizing each phase of outreach, what we heard, how we responded
- ▶ Sounding Board consensus statement/report



**King County
Metropolitan King County Council
Transportation, Economy, and Environment Committee**

STAFF REPORT

Agenda Item:	8	Date:	August 30, 2016
Proposed No.:	2016-0405	Name:	Nick Wagner

SUBJECT

Approval of a memorandum of agreement with the Amalgamated Transit Union, Local 587 (ATU), regarding the ATU Benefits Plan for 2017 and related issues.

SUMMARY

Proposed Ordinance 2016-0405 (Att. 1) would approve a memorandum of agreement (MOA) (Att. 1-A), dated August 11, 2016, between King County and the Amalgamated Transit Union, Local 587 (ATU). The MOA would govern benefits for about 4,000 benefits-eligible employees represented by ATU in the Transit Division of the Department of Transportation (DOT) and would replace the parties' 2014-2016 MOA on benefits, which had been modified by a 2015 MOA.¹

The proposed new MOA includes the following provisions, which are described in greater detail in the Analysis section of this staff report:

1. 6.2 percent increase in the County's monthly contribution per bargaining unit employee for 2017 (from \$1,465 in 2016 to \$1,556 in 2017);
2. No change in benefit plan design (e.g., deductibles, coinsurance, copays) in 2017;
3. Agreement to review and possibly modify retroactively the current method of allocating retiree medical and COBRA costs to the ATU Protected Fund Reserve (PFR)²;
4. Agreement to negotiate modifications to the County's benefits contribution rate, the insured benefit provisions, the benefit plan design, and any employee premium share if needed to keep the ATU Protected Fund Reserve balance above \$4 million at the end of 2018, with dispute a resolution process to be used if the parties have negotiated and signed an agreement on the County's contribution rate for 2018;

¹ The 2014-2016 MOA was imposed by an interest arbitration award in the County's favor in August 2013. Since the MOA was imposed through interest arbitration (and therefore could not be rejected), it was not transmitted to the Council for adoption by ordinance, though the Council was informed about the MOA, and a copy was provided to the Council informally. The 2015 MOA was approved by the Council on October 26, 2015, by Ordinance 18134.

² The nature and purpose of the ATU PFR is explained in the Background section of this staff report.

5. Agreement that a successor benefits agreement (for the period after 2017) will be determined by statutory interest arbitration if the parties are unable to reach agreement through bargaining.

BACKGROUND

The Original, 2014-2016 MOA

King County and ATU are party to a Memorandum of Agreement Regarding Insured Benefits covering the period from January 1, 2014, through December 31, 2016 (“the 2014-2016 ATU MOA”) (Att. 1-A). The MOA was imposed by an interest arbitration award in the County’s favor in August 2013.³

The 2014-2016 ATU MOA provided for the County to establish a Protected Fund Reserve (PFR) of \$10.2 million “solely for the purpose of funding, providing and maintaining insured benefits, and providing a reserve fund to self-insure against unanticipated increases in the cost of those benefits, for [bargaining unit] Employees.”⁴ (Att. 4, § 2) The MOA further provided that the county's per-employee contribution toward benefit costs (also known as the "flex rate") would be increased by 4% each year and that if benefit costs increased at a rate greater than that, the difference would be made up by drawing down the PFR. If the PFR is projected to fall below \$4 million during the term of the agreement, the 2014-2016 ATU MOA provides that “the parties must consider plan changes and may consider other funding options to be implemented by the following January 1.” (Att. 1-A, § 11)

The 2015 Amendments

In April 2015, at the annual “reconciliation meeting” at which the status of the PFR is assessed jointly by the County and ATU, the County determined that the PFR was projected to fall to about \$1.8 million by the end of 2016. The County and ATU then entered into negotiations to make plan changes to address the projected shortfall in the PFR. They reached an agreement on June 5, 2015, and the agreement was signed by the parties.

Following a change of leadership in ATU, the new leadership felt that the interests of its members would be better served through a different set of changes to the benefit plan. The parties therefore agreed to nullify the June 5, 2015, agreement and entered into two MOAs that were approved by the Council on October 26, 2015, by Ordinances 18134 and 18135.

There have been no further changes to the 2014-2016 ATU MOA.

³ The agreement was eventually signed by the parties on March 4, 2015.

⁴ A similar agreement between the County and the Joint Labor Management Insurance Committee (JLMIC) created a separate Protected Fund Reserve for the employees covered by that agreement, who include almost all county employees except those represented by ATU or the King County Police Officers Guild.

ANALYSIS

Proposed Ordinance 2016-0405 would approve a new MOA between the parties that is intended to replace the 2014-2016 ATU MOA and cover the 2017 calendar year.

Continuing Provisions

Some elements of the 2014-2016 MOA would be carried over to the proposed new MOA for 2017. They include:

- PFR. The new MOA would maintain the PFR for its original purpose of “funding, providing and maintaining insured benefits, and providing a reserve fund to self-insure against unanticipated increases in the cost of those benefits, for [bargaining unit] Employees.” (Proposed New MOA (Att. 1-A), § 3)
- Response to Program Deficit or Surplus.
 - Deficit. To the extent that the County’s contributions, together with other revenues,⁵ toward the funding of health benefits prove “inadequate to fully fund the cost of providing insured benefits for Employees, the parties agree that the PFR will be used to fund the difference until such time as the PFR is exhausted.” (§ 5) (emphasis added)
 - Surplus. To the extent that the County’s contributions and other revenues provide “greater funding than is necessary to fully fund the cost of insured benefits for Employees, the parties agree that the excess shall be added to the PFR.” (§ 6) (emphasis added)
- Plan Configuration. “Insured benefit provisions (i.e., plan features) and plan designs (i.e., Employee costs such as deductibles and copays) for Employees commencing January 1, 2017, shall remain unchanged from 2016.” (§ 9)
- Annual Reconciliation Meeting. The parties will continue to meet no later than April 15 of each calendar year to review program expenditures for the prior, current, and future years and other relevant information and assess the need for changes to keep the PFR from falling below \$4 million. (§§ 10, 11)

The information available to the parties at this year’s reconciliation meeting projected the PFR to fall to about \$2.4 million by the end of 2016 and about \$600,000 by the end of 2017.

Changes from Amended 2014-2016 MOA

The most substantial changes in the proposed new MOA are described below.

⁵ The other revenues include “interest earnings [on the PFR], participant benefit access fees, and other plan participant contributions such as COBRA payments.” (Proposed New MOA (Att. 1-A), § 5)

1. County Contribution Toward Benefit Costs

The MOA would increase by 6.2 percent, from \$1,465 to \$1,556, the County's monthly contribution per bargaining unit employee toward the cost of health benefits (the flex rate) (Proposed New MOA (Att. 1-A), § 4). The annual increase under the 2014-2106 ATU MOA had been 4.0 percent. The larger increase is intended to help keep the balance of the Protected Fund Reserve from falling below \$4 million before the end of 2017. With the proposed change (together with an increase in enrollment, earlier plan design changes, and an improvement in claims experience), the PFR balance is currently projected to be at about \$8.5 million at the end of 2017. About \$1.4 of that amount is due to the increase in the flex rate.

2. No Changes in Plan Configuration

The proposed MOA for 2017 would make no changes in the plan configuration, with no changes in the plan features or the employee costs (e.g., deductibles, coinsurance, copays, or maximum annual cost). (§ 9) It should be noted, however, that this year, and continuing into 2017, the out-of-pocket health care costs of ATU members covered by the County's Regence plan are higher than those of employees represented by the unions participating in the Joint Labor Management Insurance Committee (JLMIC) (see Att. 2). In addition, ATU members covered by the County's Group Health plan are required to pay a \$50 benefit access fee for spousal coverage, whereas there is no such fee for employees who have Group Health coverage through the JLMIC. These higher costs for ATU members are the result of an earlier effort by the parties to maintain the balance of the ATU PFR.

3. Allocation of Retiree Medical and Cobra Costs

The parties have agreed to review and possibly modify retroactively the current method of allocating retiree medical and COBRA costs to the ATU PFR. (§ 8) According to executive staff, both parties believe that the costs allocated to the ATU PFR may have been excessive, primarily due to mistaken assumptions about the proportion of those costs that are attributable to former members of the ATU bargaining unit (as opposed to other former county employees). The review process could result in an upward adjustment of the ATU PFR.

4. Dispute Resolution Process for 2018 Changes

The proposed new MOA provides that if, at the parties' 2017 reconciliation meeting, the ATU PFR is projected to fall below \$4 million by the end of 2018, and if the parties are able to agree on the County's contribution rate for 2018, but not on other necessary changes, "then the parties may devise a dispute resolution process or may refer the sole unresolved issue(s) of insured benefits provisions, plan design changes, and any Employee premium(s) share to an interest arbitrator with an expectation of a ruling issued by August 15, 2017." (§ 12)

5. Statutory Interest Arbitration If Needed to Reach Next Benefits Agreement

The proposed new MOA provides that “the County's funding rate, insured benefits provisions, plan designs for Employees, and any Employee premium(s) share in 2018 and 2019” will be determined as part of the parties’ bargaining for their next collective bargaining agreement.⁶ If the parties cannot reach agreement, the MOA provides that the parties will submit their unresolved benefits issues, along with any other unresolved collective bargaining issues, to the statutory interest arbitration process under RCW 41.56.492. (§ 13)

FISCAL IMPACT

The fiscal impact described in the Fiscal Note (Att. 4) is attributable to the proposed increase in the County’s monthly contribution per bargaining unit employee toward the cost of health benefits. The fiscal impact would be \$3,741,833 for 2017.

INVITED

- David Levin, Labor Negotiator, King County Office of Labor Relations
- Robert Railton, Interim Labor Relations Manager, King County Office of Labor Relations
- Kenny McCormick, President/Business Representative, Amalgamated Transit Union, Local 587.

ATTACHMENTS

1. Proposed Ordinance 2016-0405
Att. A (Memorandum of Agreement)
2. Summary of Selected Current Benefits under King County Regence plan for 2016
3. Transmittal Letter
4. Fiscal Note

⁶ The parties’ current collective bargaining agreement expires at the end of October 2016.

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KING COUNTY
Signature Report

ATTACHMENT 1
1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

August 18, 2016

Ordinance

Proposed No. 2016-0405.1

Sponsors

1 AN ORDINANCE approving and adopting the
2 memorandum of agreement regarding Insured Benefits for
3 Represented Benefits-Eligible Employees negotiated by
4 and between King County and Amalgamated Transit
5 Union, Local 587 (Department of Transportation - Transit)
6 representing employees in the department of transportation;
7 and establishing the effective date of said agreement.

8 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

9 SECTION 1. The memorandum of agreement regarding Insured Benefits for
10 Represented Benefits-Eligible Employees negotiated by and between King County and
11 Amalgamated Transit Union, Local 587 (Department of Transportation - Transit)
12 representing employees in the department of transportation, which is Attachment A to
13 this ordinance, is hereby approved and adopted by this reference made a part hereof.

14 SECTION 2. Terms and conditions of said agreement shall be effective from
15 January 1, 2017, through and including December 31, 2017.

16

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

J. Joseph McDermott, Chair

ATTEST:

Anne Noris, Clerk of the Council

APPROVED this ____ day of _____, _____.

Dow Constantine, County Executive

Attachments: A. Memorandum of Agreement By and Between King County and Amalgamated Transit Union, Local 587

**Memorandum of Agreement
By and Between
King County
and
Amalgamated Transit Union, Local 587**

Subject: Insured Benefits Agreement for Represented Benefits-Eligible Employees

1. 2017 Insured Benefits Agreement. This Agreement replaces a Memorandum of Agreement between King County (“County”) and Amalgamated Transit Union, Local 587 (“ATU”) on the subject of insured benefits, which will expire on December 31, 2016, and was coded by the Office of Labor Relations as 410U0515 (hereinafter, the “Expiring Benefits Agreement”).

2. Scope of Agreement. This Agreement shall apply to all employees represented by the ATU who are eligible for insured benefits under the terms of the Collective Bargaining Agreement and related Memoranda of Agreement. All employees that this Agreement applies to shall be referred to as “Employees.”

3. ATU Protected Fund Reserve. The Expiring Benefits Agreement established an ATU Protected Fund Reserve (“PFR”). The PFR, which supports the County’s defined contribution to ATU’s benefits, shall continue under this Agreement. The PFR is established and maintained solely for the purpose of funding, providing and maintaining insured benefits, and providing a reserve fund to self-insure against unanticipated increases in the cost of those benefits, for Employees. It is further agreed that the County and organizations handling PFR funds have a responsibility to ensure that the PFR funds are being used solely for the insured benefits for Employees.

4. County Funding for Covered Employees in 2017. The County’s total funding rate for January 1, 2017, to December 31, 2017, shall be \$1,556 per benefits-eligible Employee per month.

5. Insufficient County Funding. To the extent that the County’s funding identified in paragraph 4 and other yearly non-flex rate revenue (interest earnings, participant benefit access fees, and other plan participant contributions such as COBRA payments), attributed proportionally to Employees covered under the terms of this Agreement, is at any time inadequate to fully fund the cost of providing insured benefits for Employees, the parties agree that the PFR will be used to fund the difference until such time as the PFR is exhausted.

6. Excess County Funding. To the extent that the County’s funding identified in paragraph 4, and other yearly non-flex rate revenue (interest earnings, participant benefit access fees, and other plan participant contributions such as COBRA payments), attributed proportionally to employees covered under the terms of this Agreement, provides greater funding

than is necessary to fully fund the cost of insured benefits for Employees, the parties agree that the excess shall be added to the PFR.

7. Calculations. All calculations that must be made under this Agreement will be based on ATU-specific claims experience.

8. Calculations of Retiree Medical and COBRA subsidies. King County and the Union have identified a concern about the allocation of costs relating to the retiree medical plan and COBRA to ATU's Protected Fund Reserve. King County will work with ATU to identify an accurate and practical calculation methodology for the retiree medical and COBRA subsidies on a going forward basis and further commit to a retroactive adjustment to the ATU Protected Fund Reserve to rectify inaccurate calculations that may have been made during the term of the 2014-2016 benefits agreement. The parties shall work in good faith to complete the reallocation of costs prior to December 31, 2016.

9. Health and Welfare Plan Provisions. Insured benefits provisions (i.e. plan features) and plan designs (i.e. Employee costs) for Employees commencing January 1, 2017 shall remain unchanged from 2016.

10. Scope and Purpose of the Annual Reconciliation Meeting. The parties will convene an "annual reconciliation meeting" (the "True Up Meeting") no later than April 15th to review the insured benefits expenditures for the prior year, projected expenditures for the current and future year(s), insured benefits provisions and plan designs for Employees, and any other information or factors that the parties deem relevant.

11. Modification to Plan Provisions, Plan Designs, and Administration of the Protected Fund Reserve. If at the True Up Meeting, the PFR is projected to fall below four million dollars (\$4,000,000) in 2018, the parties are empowered to negotiate and implement modifications to the County's funding rate, insured benefits provisions, plan designs for Employees, and any Employee premium(s) share to be effective on January 1, 2018.

12. Dispute Resolution Process when the Employer Contribution has Been Established in Bargaining. If Paragraph 11 is triggered, and the parties have signed an agreement on the Employer Contribution rate for 2018, but the parties are unable to reach agreement on the Employee premium(s) share, insured benefits provisions and the plan design changes to bring the projected PFR above four million dollars (\$4,000,000), then the parties may devise a dispute resolution process or may refer the sole unresolved issue(s) of insured benefits provisions, plan design changes, and any Employee premium(s) share to an interest arbitrator with an expectation of a ruling issued by August 15, 2017.

13. Subsequent Agreement. This Agreement establishes the County's funding rate, the insured benefits provisions and plan designs for Employees for 2017 only. The County's funding rate, insured benefits provisions, plan designs for Employees, and any Employee premium(s) share in 2018 and 2019 shall be determined per successor contract bargaining, presumably for a contract term period covering November 1, 2016, to October 31, 2019; except, as provided under sections 11 and 12 herein. If the parties are unable to reach a subsequent

Insured Benefits Agreement that establishes the County's funding rate, insured benefits provisions, plan designs for Employees, and any Employee premium(s) share for 2018 and 2019, the parties shall submit their unresolved issues, along with any other unresolved collective bargaining issues, to an interest arbitration process governed by RCW 41.56.492.

14. Total Agreement. This Agreement constitutes the entire Agreement of the parties with respect to the matters covered herein, and no other agreement, statement or promise made by any party which is not included herein shall be binding or valid. This Agreement may be modified or amended only by a written agreement.

15. Term. This Agreement shall be in effect, after approval of the King County Council, from January 1, 2017, through December 31, 2017.

APPROVED this 11 day of AUGUST, 2016.

By: 
King County Executive

For Amalgamated Transit Union, Local 587:


Kenny McCormick
President/Business Representative

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Selected Current Benefits - Regence - 2016

		JLMIC Regence			ATU Regence		
		Gold	Silver	Bronze	Gold	Silver	Bronze
Annual deductible							
	Person	\$300	\$600	\$800	\$350	\$650	\$850
	Family	\$900	\$1,800	\$2,400	\$1,050	\$1,950	\$2,550
Copays		None*	None*	None*	None*	None*	None*
Coinsurance							
	Network	15%	25%	25%	15%	25%	25%
	Out-of-network	35%	45%	45%	35%	45%	45%
Annual out-of-pocket max - excl. prescrip. drugs							
	Person						
	Network	\$1,100	\$1,600	\$2,000	\$1,350	\$1,850	\$2,350
	Out-of-network	\$1,900	\$2,400	\$2,800	\$2,350	\$2,850	\$3,350
	Family						
	Network	\$2,500	\$3,800	\$4,800	\$3,050	\$4,350	\$5,550
	Out-of-network	\$4,100	\$5,400	\$6,400	\$5,050	\$6,350	\$7,550
Lifetime max		No limit					

*Except for emergency room care and prescription drugs.

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August 9, 2016

The Honorable Joe McDermott
Chair, King County Council
Room 1200
C O U R T H O U S E

Dear Councilmember McDermott:

The enclosed ordinance, if approved, will ratify the Amalgamated Transit Union (ATU), Local 587 (Department of Transportation - Transit) memorandum of agreement regarding insured benefits effective January 1, 2017, through December 31, 2017, which will enable King County to continue to provide public transportation services. This agreement covers approximately 3,900 employees in the Department of Transportation.

Employees covered by this agreement perform work in support of the Transit Division's bus, streetcar and light rail operations. Their work groups include Transit Operations, Vehicle Maintenance, Rail, Sales and Customer Service, Power and Facilities, and Service Development.

King County and ATU, Local 587 have been parties to an agreement concerning the provision of insured benefits covering a term of January 1, 2014, through December 31, 2016. This new agreement for insured benefits covers the year 2017 only. It is substantially similar to the expiring benefits agreement, in that it maintains the "defined contribution" approach to the employer's provision of insured benefits. This agreement maintains the concept of the protected fund reserve, which provides a buffer to the benefits plan should the value of claims exceed revenues. It also maintains the current plan design features that are in effect for the ATU, Local 587 bargaining unit. This agreement increases the County's per-employee-per-month contribution to \$1,556 in 2017. It maintains the \$4 million critical mark for the protected fund reserve.

Substantial changes have also been made to the process the parties will use for resolving disputes and reaching a successor agreement. The parties will send any disputes to the statutory interest arbitration process that governs transit workers.

The Honorable Joe McDermott
August 9, 2016
Page 2

The parties' main collective bargaining agreement will expire on October 31, 2016. The parties have just entered negotiations for a successor labor agreement, a collective bargaining process that will settle benefits levels for 2018 and 2019, as well as wages, terms and conditions of employment.

This agreement furthers the goals of the King County Strategic Plan in that it helps keep the cost of business down and it promotes the long-term sustainability of County services.

The settlement reached is a product of good faith collective bargaining between King County and the Union. The agreement compares favorably with other settlements and is within our capacity to finance. This agreement has been reviewed by the Office of the Prosecuting Attorney, Civil Division.

We respectfully request the approval of this agreement. Resolution of insured benefits for 2017 will set the stage for the collective bargaining process that has just commenced for wages, benefits, and terms and conditions of employment through 2019.

If you have questions, please contact Megan Pedersen, Interim Director, Office of Labor Relations, at 206-263-2898.

Sincerely,

Dow Constantine
King County Executive

Enclosures

cc: King County Councilmembers
ATTN: Carolyn Busch, Chief of Staff
Anne Noris, Clerk of the Council
Carrie S. Cihak, Chief of Policy Development, King County Executive Office
Dwight Dively, Director, Office of Performance, Strategy and Budget
Megan Pedersen, Interim Director, Office of Labor Relations



FISCAL NOTE

Ordinance/Motion No.	Memorandum of Agreement		
Title:	Amalgamated Transit Union, Local 587 (Department of Transportation - Transit): Insured Benefits for Represented Benefits-Eligible Employees		
Effective Date:	1/1/17		
Affected Agency and/or Agencies:	Department of Transportation		
Note Prepared by:	Matt McCoy, Labor Negotiator II, Office of Labor Relations	Phone: 263-1966	
Department Sign Off:	Karleen Sakumoto, Health Reform Director	Phone: 263-2442	
Note Reviewed by: Supplemental Required?	Helene Ellickson, Budget Manager	Phone: 263-9691	
NO <input checked="" type="checkbox"/>	YES <input type="checkbox"/>		

EXPENDITURES FROM:					
Fund Title	Fund Code	Department	2017		
Benefits	5500	DES	\$ 3,741,833		
TOTAL: Increase FM previous year			\$ 3,741,833		
TOTAL: Cumulative			\$ 3,741,833		

EXPENDITURE BY CATEGORIES:						
Expense Type	Fund Code	Department	2016 Base	2017		
Health Benefits				\$ 3,741,833		
TOTAL: Increase FM previous year				\$ 3,741,833		
TOTAL: Cumulative				\$ 3,741,833		

ASSUMPTIONS:	
Assumptions used in estimating expenditure include:	
1. Contract Period(s):	1/1/2017 – 12/31/2017
2. Wage Adjustments & Effective Dates:	
COLA:	
Other:	
Retro/Lump Sum Payment:	
3. Other Wage-Related Factors:	
Step Increase Movement:	
PERS & FICA:	
Overtime:	
4. Other Cost Factors:	Increase in health and welfare benefits contribution rate from \$1,465 per employee per month (PEPM) to \$1,556 PEPM for ATU employees. Assumed 3,433 employees receiving benefits.

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King County

**Metropolitan King County Council
Transportation, Economy and Environment Committee**

STAFF REPORT

Agenda Item:	9	Name:	Paul Carlson
Proposed No.:	2016-0423	Date:	August 30, 2016

SUBJECT

Approving a transit service change effective in March 2017, implementing one route change that is part of a larger alternative services implementation package for Southeast King County.

SUMMARY

Proposed Ordinance 2016-0423 approves a change to Metro Route 907, which currently provides service between the Renton Transit Center and Enumclaw via Maple Valley and Black Diamond. The southern part of the route would be deleted (Black Diamond to Enumclaw) and service frequency would increase to 60 minutes. Alternative service would be available in the Black Diamond-Enumclaw area.

This proposed change is part of a comprehensive alternative services package for Southeast King County, one of the original three areas (along with the Snoqualmie Valley and Vashon Island) identified for alternative services outreach in the original Five-Year Delivery Plan for Alternative Services.

BACKGROUND

Current Service – Route 907 provides a connection between Enumclaw and the Renton Transit Center via Black Diamond and Maple Valley. The route provides eight northbound trips between 7:31 a.m. and 4:33 p.m., and six southbound trips leaving between 6:26 a.m. and 3:27 p.m. Buses run at 90 minute intervals for most of the operating period. Route 143 also serves the area, providing morning peak service from Black Diamond to downtown Seattle via the Renton Transit Center, and afternoon peak service from downtown Seattle to Black Diamond.

Route 907 provides Dial-a-Ride-Transit (DART) service, which means that riders can request a deviation from the regular route in designated areas of Renton, Black Diamond, and Enumclaw. King County Metro staff reports that the DART area in Renton is underused.

According to the most recent Service Guidelines Report, Route 907 is one of the lowest performing routes by riders/platform hour (second lowest performing route in peak periods, lowest performing route in the off-peak or midday period). The segment between Enumclaw and Black Diamond has an average of one rider per trip.

Proposed Ordinance Change – As part of a broader package of alternative services, this proposed ordinance would delete the southern part of the route (Black Diamond to Enumclaw) and service frequency would increase to 60 minutes. The DART service area in Renton would also be discontinued.¹

Other Changes – Though not part of this ordinance, the Black Diamond-Enumclaw area deleted from the route would be served by new demand responsive service operating as a DART-style service without the fixed route portion. It will be available weekdays between 6:30 a.m. and 4:30 p.m. which mirrors Route 907's current availability. The service is expected to begin operating by February 20, 2017.

Also planned for implementation in March 2017 is a revision to the Route 915, extending it south in Auburn from Griffin Avenue and Wells Street to McDougal Avenue. This is proposed as an administrative change.

Attachment 5 to the staff report is a map showing all these changes. Metro also plans to begin a program to distribute ORCA fare cards and educate riders to help area residents make use of transfers between Metro and Sound Transit service in Auburn and the new demand-response service between Enumclaw and Black Diamond.

Attachment 6 to this staff report is a summary of the alternative services process including changes planned for future implementation. Southeast King County outreach has been carried out as part of the 2015-2018 alternative services demonstration program funded through the 2015-2016 budget.

Title VI – The legislative package includes a Title VI Service Equity Analysis (Attachment 4 to the Executive's transmittal letter). A Title VI Analysis evaluates whether a proposed service change has a disparate impact on minorities or a disproportionate burden on low-income people. Title VI analysis is required by the Federal Transit Administration (FTA) but is not subject to FTA approval.

The King County Metro analysis is carried out at a census tract level; a minority census tract is one that has a higher percentage of minority residents than the county average, and a low-income census tract has a higher percentage of low-income residents than the county average. An adverse effect of a service change is defined as a reduction of 25 percent or more of the transit trips serving a census tract, or 25 percent or more of the service hours on a route.

¹ K.C.C. 28.94.020 requires Council approval of Metro bus route changes that modify the weekly service hours by more than 25 percent or relocate a bus stop a distance of more than one-half mile. Changes that do not reach this threshold can be approved by the King County Department of Transportation Director or his designee. The change to Route 907 meets the threshold requiring approval by ordinance.

The proposed service change affects 20 census tracts:

Table 1. Low-Income and Minority Characteristics of Affected Census Tracts

Census Tract Classification				
Total Census Tracts Affected	Minority & Low-income	Minority ONLY	Low-income ONLY	Neither Minority nor Low-income
20	4	2	2	12

There are four adversely affected census tracts (with more than 25 percent of bus trips reduced). Since three of them are low-income, 75 percent of the adversely affected census tracts are low-income census tracts. Countywide, 41 percent of census tracts are low-income census tracts. Therefore the analysis finds there is a disproportionate burden on low-income people. There is not a disparate impact on minorities because only 25 percent of adversely affected census tracts are minority census tracts, which is less than the comparable countywide figure (43 percent of census tracts are minority census tracts).

The Title VI report notes that the adversely affected census tracts have other service available or will have alternative service provided:

“Alternative service for riders traveling between Black Diamond and Enumclaw will be available with the new Black Diamond-Enumclaw Demand-Responsive Transportation Service. Alternative service for riders traveling within Enumclaw will be available on Route 915, which will be extended to operate through South Enumclaw. Alternate service for riders in Renton traveling within the DART area is available on Routes 101, 106, 107,169 and the RapidRide F Line, connecting with Route 907 at the Renton Transit Center.”

ANALYSIS

Proposed Ordinance 2016-0423 would revise Route 907 to provide more frequent service (60-minute frequency, up from approximately 90-minute frequency) between the Renton Transit Center and Black Diamond. New demand-responsive service would be made available in the Black Diamond-Enumclaw corridor that would lose Route 907 coverage. Additional alternative service options are being implemented in this area. Modifications to the Route 915 would be implemented administratively, not via ordinance. The proposed changes are consistent with a package of alternative services identified through a public outreach process; deleted route segments have low ridership and other transit options will be available to customers in those areas.

ATTACHMENTS

1. Proposed Ordinance 2016-0423 with attachment
2. Transmittal Letter
3. Fiscal Note

4. Exhibit 1: Title VI Service Equity Analysis
5. Exhibit 2: Changes Map
6. Exhibit 3: Southeast King County Alternative Service Project Overview

INVITED

- Katie Chalmers, Service Planning Supervisor, King County Transit Division



KING COUNTY
Signature Report

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

August 26, 2016

Ordinance

Proposed No. 2016-0423.1

Sponsors Dembowski

1 AN ORDINANCE approving public transportation service
2 changes for March 2017, substantially for Route 907,
3 operating in Southeast King County.

4 **STATEMENT OF FACTS:**

5 1. The proposed changes to Metro Route 907 consist of changes that
6 affect service in the cities of Black Diamond, Enumclaw, Maple Valley
7 and Renton, as well as portions of unincorporated King County.

8 2. The proposed changes are consistent with the policy direction and
9 priorities adopted in Ordinance 18301, enacted June 16, 2016, in the 2015
10 update to King County Metro's Strategic Plan for Public Transportation
11 2011-2021 and associated Service Guidelines.

12 3. Ordinance 17143, Section 7, enacted July 13, 2011, which adopted the
13 original version of King County Metro's Strategic Plan for Public
14 Transportation 2011-2012, required the executive to transmit to the
15 council by June 15, 2012, a five-year implementation plan for alternatives
16 to traditional transit service delivery.

17 4. The Five-Year Implementation Plan for Alternatives to Traditional
18 Transit Service Delivery ("the plan") was accepted by the council
19 September 17, 2012, via Motion 13736.

20 5. The plan identified three candidate areas for alternative transportation
21 services, including southeast King County.

22 6. In accordance with the plan and Ordinance 17941, enacted November
23 20, 2014, which established a budget for Alternative Services, Metro
24 conducted appropriate planning and outreach with community
25 stakeholders and local jurisdictions to develop an alternative service
26 proposal that restructures southeast King County routes 915 and 907, to
27 improve efficiency and provide right-size services in that market.

28 7. The changes to Route 915, as adopted in Ordinance 18132, enacted
29 October 22, 2015, were implemented in March 2016.

30 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

31 SECTION 1. The March 2017 Public Transportation Service Changes,

32 substantially as described in Attachment A to this ordinance, are hereby approved and
33 shall be implemented effective March 11, 2017.

34

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

J. Joseph McDermott, Chair

ATTEST:

Anne Noris, Clerk of the Council

APPROVED this ____ day of _____, _____.

Dow Constantine, County Executive

Attachments: A. March 2017 Public Transportation Service Chages - August 24, 2016

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August 24, 2016

**MARCH 2017
PUBLIC TRANSPORTATION SERVICE CHANGES**

ROUTE: 907

OBJECTIVES:

Restructure Southeast King County service in order to improve efficiency and right-size services in their respective markets, in accordance with the Strategic Plan for Public Transportation, 2011-2021 and King County Metro Service Guidelines:

- *Strategic Plan Strategy 2.1.1:* Design and offer a variety of public transportation products and services appropriate to different markets and mobility needs.
- *Strategic Plan Strategy 2.1.4:* In areas that are not well-served by fixed-route service or where geographic coverage service gaps exist, seek to complement or “right-size” transportation service by working with partners to develop an extensive range of alternative service to serve the general public.
- *Strategic Plan Strategy 3.2.1:* Expand services to accommodate the region’s growing population and serve new transit markets.
- *Strategic Plan Strategy 6.2.3:* Develop and implement alternative public transportation services and delivery strategies.

IMPACTED SERVICE AREA:

Enumclaw, Black Diamond, Maple Valley, Renton

SERVICE CHANGE:

Revise Route 907 to operate between Black Diamond and the Renton Transit Center, via Maple Valley and improve the service frequency to approximately every 60 minutes.

Service between Black Diamond and Enumclaw including the Enumclaw Dial-A-Ride (DART) service area would be deleted. The Renton DART service area would be deleted. The resources saved by this change will make it possible to improve the service frequency on the revised routing.

Alternative service for riders traveling between Black Diamond and Enumclaw will be available with the new Black Diamond-to-Enumclaw Demand-Responsive Transportation Service. Alternative service for riders traveling within Enumclaw will be available on Route 915, which will be extended to operate through South Enumclaw through an administrative change. Alternate service for riders in Renton traveling within the DART area is available on routes 101, 106, 107,169 and the RapidRide F Line, connecting with Route 907 at the Renton Transit Center.

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August 24, 2016

The Honorable Joe McDermott
Chair, King County Council
Room 1200
C O U R T H O U S E

Dear Councilmember McDermott:

This letter transmits an ordinance for Council approval of the March 2017 Public Transportation Service Changes. This ordinance seeks approval to revise Route 907, which is a Dial-A-Ride Transit (DART) route. This route operates in Southeast King County between Enumclaw and Renton via Maple Valley and Black Diamond.

The proposed service revisions for Route 907 are the result of Metro's engagement with Southeast King County communities as part of Metro's Alternative Services program. The Five Year Implementation Plan for Alternatives to Traditional Transit Service Delivery, which was adopted by King County Council via Motion 13736 on September 17, 2012, identified Southeast King County as a demonstration project area for alternative service delivery within the five-year period of 2012-2017. Through a collaborative process that included area jurisdictions and community stakeholders, Metro identified opportunities where community travel needs could be better met with a combination of alternative services and a modified fixed-route network.

Route 907 would be revised to terminate in Black Diamond instead of Enumclaw, with service improved to operate approximately every 60 minutes on the revised routing between Black Diamond and Renton. Service between Black Diamond and Enumclaw, including the DART area within Enumclaw, would be deleted and replaced with demand-responsive transportation through the alternative services program. Route 915, also a DART route, will be extended with an administrative change through South Enumclaw to provide replacement service coverage where the fixed-route portion of Route 907 has been removed.

In Renton, the DART area of Route 907 would also be deleted due to very low usage. Service on Route 907 would terminate at the Renton Transit Center, and replacement service in the

DART area would be available on other Metro service connecting at the Renton Transit Center.

The proposal for the Southeast King County demonstration project was developed with input from local jurisdictions and community stakeholders and has involved a phased service implementation. The currently proposed ordinance for the March 2017 Service Change is the second phase of service implementation for this demonstration project. The first phase of changes was implemented through Ordinance 18132 at the March 2016 Service Change, as service on Route 915 operating between Auburn and Enumclaw, was improved to operate approximately every 60 minutes to accommodate increasing ridership. Prior to this change, Route 915 had provided trips approximately every 90 minutes on weekdays.

The new demand-responsive transportation service between Black Diamond and Enumclaw will maintain the connection for riders traveling between these two communities, with a level of service appropriately scaled for the area. This new alternative service will operate as a DART-style service without the fixed route portion – customers will call to reserve trips at least 24 hours in advance, though the service provider may accommodate a shorter reservation window. The service is expected to begin operating by February 20, 2017, and will be available weekdays between 6:30 a.m. and 4:30 p.m., which mirrors Route 907's current availability. Route 907 currently averages less than one rider per trip in this segment of the route.

The proposed revisions to Route 907, and the new alternative service between Black Diamond and Enumclaw are consistent with the Strategic Plan for Public Transportation 2011-2021 and King County Metro's Service Guidelines. Together, they will provide services appropriately sized for the communities where they operate without loss of service coverage. The improved transit service on Route 907 will also further the goals of the Strategic Climate Action Plan by making it possible for area residents to choose transit more often, thereby reducing emissions from their privately owned vehicles.

In accordance with U.S. Department of Transportation (USDOT) Title VI regulations (49 CFR Part 21) and King County Code and policy, Metro prepared and considered the "March 2017 Public Transportation Service Changes Title VI Service Equity Analysis," which is enclosed with this transmittal. In addition to ensuring compliance with USDOT Title VI regulations, the service equity analysis helps to ensure consistency with King County's goals related to equity and social justice. Identifying the relative impacts of proposed changes to low-income and minority communities is an important step in applying the "fair and just" principle as stated in the King County Strategic Plan 2010-2014.

Thank you for your consideration of this ordinance to approve the public transportation service changes for March 2017. If you have any questions, please contact Victor Obeso, Deputy General Manager, Planning and Customer Services, King County Metro Transit Division, at 206-477-5778.

The Honorable Joe McDermott
August 24, 2016
Page 3

Sincerely,

Dow Constantine
King County Executive

Enclosure

cc: King County Councilmembers
ATTN: Carolyn Busch, Chief of Staff
Anne Noris, Clerk of the Council
Carrie S. Cihak, Chief of Policy Development, King County Executive Office
Dwight Dively, Director, Office of Performance, Strategy and Budget
Harold S. Taniguchi, Director, Department of Transportation (DOT)
Rob Gannon, Interim General Manager, Metro Transit Division, DOT
Victor Obeso, Deputy General Manager, Planning and Customer Services, Metro
Transit Division, DOT

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2017/2018 FISCAL NOTE

Ordinance/Motion:
Title: March 2017 Public Transportation Service for King County
Affected Agency and/or Agencies: Transit Division
Note Prepared By: David VanderZee
Date Prepared: 7/15/2016
Note Reviewed By: Jill Krecklow
Date Reviewed: 7/29/2016

Description of request:

This fiscal note provides the financial impacts of the package of bus service changes being proposed for March 2017. Detail on the individual route changes can be found in the supporting materials. The service change includes services associated with proposed changes to Route 907.

Revenue to:

Agency	Fund Code	Revenue Source	2017/2018	2019/2020	2021/2022
Public Transportation	4640	Fare Revenue	-21,004	-30,117	-30,117
Public Transportation	4640	Fare Revenue (Alternative Service - see note)	2,945	3,392	3,392
TOTAL			-18,059	-26,725	-26,725

Expenditures from:

Agency	Fund Code	Department	2017/2018	2019/2020	2021/2022
Public Transportation	4640	Transportation	244,890	224,923	228,546
TOTAL			244,890	224,923	228,546

Expenditures by Categories

	2017/2018	2019/2020	2021/2022
Salaries & Benefits	-50,156	-70,781	-75,091
Supplies and Services	-21,496	-30,335	-32,182
Other - Alternative Services	316,542	326,038	335,819
TOTAL	244,890	224,923	228,546

Does this legislation require a budget supplemental?

No

Notes and Assumptions:

Net Hours

		2017 (Current Year)	2018	2019	2020	2021
Hour changes in 2016, 2017 and 2018 are based on daily hours, including 79 weekdays, 17 Saturdays, and 17 Sunday/holidays in 2016; 256 weekdays, 52 Saturdays, and 57 Sunday/holidays in 2017; and 255 weekdays, 52 Saturdays and 58 Sunday/Holidays in 2018.	35' Diesel/Hybrid	0	0	0	0	0
	40' Diesel/Hybrid	0	0	0	0	0
	60' Diesel/Hybrid	0	0	0	0	0
	60' Diesel/Hybrid, RapidRide	0	0	0	0	0
	40' Trolley	0	0	0	0	0
	60' Trolley	0	0	0	0	0
	DART	-152	-306	-306	-306	-306

Hourly Rate

See notes below.	35' Diesel/Hybrid	\$131.19	\$135.13	\$139.18	\$143.36	\$147.66
	40' Diesel/Hybrid	\$134.42	\$138.45	\$142.60	\$146.88	\$151.29
	60' Diesel/Hybrid	\$163.09	\$167.98	\$173.02	\$178.21	\$183.56
	60' Diesel/Hybrid, RapidRide	\$157.21	\$161.93	\$166.79	\$171.79	\$176.94
	40' Trolley	\$145.15	\$149.51	\$153.99	\$158.61	\$163.37
	60' Trolley	\$157.78	\$162.52	\$167.39	\$172.41	\$177.59
	DART	\$153.43	\$158.04	\$162.78	\$167.66	\$172.69

Salaries and Benefits

Salaries and benefits in each year's marginal cost are estimates based upon a system-wide average of 70% of the hourly rate.	35' Diesel/Hybrid	\$91.84	\$94.59	\$97.43	\$100.35	\$103.36
	40' Diesel/Hybrid	\$94.09	\$96.92	\$99.82	\$102.82	\$105.90
	60' Diesel/Hybrid	\$114.16	\$117.59	\$121.12	\$124.75	\$128.49
	60' Diesel/Hybrid, RapidRide	\$110.05	\$113.35	\$116.75	\$120.25	\$123.86
	40' Trolley	\$101.61	\$104.66	\$107.79	\$111.03	\$114.36
	60' Trolley	\$110.45	\$113.76	\$117.17	\$120.69	\$124.31
	DART	\$107.40	\$110.63	\$113.95	\$117.36	\$120.88

Fare Revenue

The average system-wide fare paying ridership is estimated to be 37 rides per service hour. The average system-wide fare is assumed to be \$1.24 in 2016 and \$1.24 in 2017. Average system-wide fares will rise to \$1.33 in 2018 because of an assumed adult fare increase.	1.24	1.24	1.33	1.33	1.33
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Notes:

Operating rates-

Rates are typically developed based on the adopted budget, and do not take into account any supplemental revisions that occur during a year. Such changes are reflected in the annual reconciliation.

The Operating rates are developed through an allocation process that identifies costs in a variety of cost pools that are spread across services (e.g. Access, Vanpool, Link, Streetcar, Motorbus and Trolley) through application of variables such as hours, miles or FTEs.

Revenues-

The above farebox revenues are estimates only and are based on the system-wide estimated rides per service hour and average system-wide fare as noted above.

Alternative Service fare revenues are based on a projected daily ridership of 5 rides per day, as estimated in the alternative service RFP, and the average system fare. Alternative Service revenues may be netted against the contract expense (noted as Other in Expenditures).

Expenditures-

"Other" expenditures represent the contract cost for providing alternative service and assumes operations begin on February 20, 2017, and continues until December 31, 2018, and is assumed to continue, growing consistently with bus costs per hour. Ongoing programmatic costs are subject to continuation of the Alternative Services program and this service meeting any future criteria for funding.

March 2017 Public Transportation Service Changes

Title VI Service Equity Analysis

July 2016



Introduction

Federal Transit Administration (FTA) Circular 4702.1B, Chapter V, Section 7 requires transit agencies serving large urbanized areas to evaluate major service changes and to determine whether proposed changes would have a discriminatory impact as defined in the United States Department of Transportation's Title VI regulations.

In accordance with these FTA regulations, this report summarizes Metro's service equity analysis of service changes proposed for the March 2017 service change submitted to the King County Council for approval. Metro is proposing changes to service in Southeast King County to Route 907, and includes new alternative service in Enumclaw and Black Diamond.

Equity and social justice are key priorities for the King County Executive and the King County Council. In addition to assuring compliance with federal Title VI regulations, the service equity analysis also helps to ensure consistency with King County's goals related to equity and social justice. Identifying the relative impacts of proposed changes to low-income and minority communities is an important step in applying the "fair and just" principle as stated in the King County Strategic Plan 2010-2014. This analysis is part of an integrated effort throughout King County to achieve equitable opportunities for all people and communities.

This report details the impacts of one project proposed to be implemented in March 2017. The areas affected include Auburn, Renton, Maple Valley, Black Diamond, Enumclaw, and parts of unincorporated King County.

Through a collaborative process of working with area jurisdictions and community stakeholders, Metro identified opportunities where community travel needs could be better met with a combination of alternative services and a modified fixed-route network. The proposal was developed with input from local jurisdictions and community stakeholders and has involved a phased service implementation. These outreach activities and the feedback generated will be summarized in a public engagement report, which will be submitted to the King County Council along with the service change ordinance.

Service Guidelines Overview

The 2015 update to King County Metro's *Strategic Plan for Public Transportation, 2011-2021* and related service guidelines outline the methodology Metro uses to evaluate service changes, consistent with FTA Title VI requirements (FTA Circular 4702.1B). The most relevant excerpts from the service guidelines are included below.

Implementation

Metro revises service twice a year—in spring and fall. Major and minor service revisions occur during the spring and fall service changes. In rare cases of emergency or time-critical construction projects, Metro may make changes at times other than the two regularly

scheduled service changes. However, such situations are kept to a minimum because of the high level of disruption and difficulty they create. Many alternative service projects can be implemented at any time and do not need to follow the same schedule as fixed-route service.

Proposed route changes are subject to approval by the Metropolitan King County Council except as follows (per King County code 28.94.020):

- Any single change or cumulative changes in a service schedule which affect the established weekly service hours for a route by 25 percent or less.
- Any change in route location which does not move the location of any route stop by more than one-half mile.
- Any changes in route numbers.

Each year, Metro publishes a Service Guidelines report that outlines the analysis of target service levels and route performance management. The annual report will include a comprehensive list of the prior years' service changes and will identify and discuss service changes that address performance-related issues. Metro works to provide transparency in Metro's process and help jurisdictions plan for the future by conducting regular outreach throughout the county about the results of the Service Guidelines Report.

Adverse Effect of a Major Service Change

An adverse effect of a major service change is defined as a reduction of 25 percent or more of the transit trips serving a census tract, or 25 percent or more of the service hours on a route. Title VI of the Civil Rights Act of 1964 requires all transit agencies to evaluate major service change impacts on minority and low-income populations; the King County Strategic Plan and the County's Equity and Social Justice ordinance reflect similar commitments to addressing these impacts.

Disparate Impact Threshold

A disparate impact occurs when a major service change results in adverse effects that are significantly greater for minority populations than for non-minority populations. Metro's threshold for determining adverse effects is when the percentage of routes or tracts adversely affected by a major service change and classified as minority is 10 or more percentage points higher than the percentage of routes or tracts classified as minority in the system as a whole. Should Metro find a disparate impact, consideration will be given to modifying the proposed changes in order to avoid, minimize or mitigate the disparate impacts of the proposed changes.

Metro will measure disparate impacts by comparing changes in the number of trips serving minority or non-minority census tracts, or by comparing changes in the number of service

hours on minority or non-minority routes. Metro defines a minority census tract as one in which the minority population percentage is greater than that of the county as a whole. For regular fixed-route service, Metro defines a minority route as one for which the percentage of inbound weekday boardings in minority census tracts is greater than the average percentage of inbound weekday boardings in minority census tracts for all Metro routes.

Disproportionate Burden Threshold

A disproportionate burden occurs when a major service change results in adverse effects that are significantly greater for low-income populations than for non-low-income populations. Metro's threshold for determining adverse effects is when the percentage of routes or tracts adversely affected by a major service change and classified as low-income is 10 or more percentage points higher than the percentage of routes or tracts classified as low-income in the system as a whole. Should Metro find a disproportionate burden, consideration will be given to modifying the proposed changes in order to avoid, minimize or mitigate the disproportionate burden of the proposed changes.

Metro will measure disproportionate burden by comparing changes in the number of trips serving low-income or non-low-income census tracts, or by comparing changes in the number of service hours on low-income or non-low-income routes. Metro defines a low-income census tract as one in which the percentage of low-income population is greater than that of the county as a whole. For regular fixed-route service, Metro defines a low-income route as one for which the percentage of inbound weekday boardings in low-income census tracts is greater than the average percentage of inbound weekday boardings in low-income census tracts for all Metro routes.

I. Service Change Area and Routes

Affected Areas

The proposed changes will affect 20 census tracts with a total population of about 100,000 residents.

Affected Routes

Metro is proposing changes to one route in Southeast King County, Route 907 and the introduction of a new alternative service between Black Diamond and Enumclaw. With this change, Route 907 would be revised to begin and end in Black Diamond, with service improved to operate about every 60 minutes on the revised routing between Black Diamond and Renton. Service between Black Diamond and Enumclaw, including the Route 907 Dial-Ride (DART) area within Enumclaw, would be deleted in conjunction with the implementation of a new demand-responsive transportation service. In Renton, the Route 907 Dial-A-Ride (DART) area would also be deleted, with service terminating at the Renton Transit Center.

II. Threshold 1: Is this a Major Service Change? YES

For the purposes of complying with FTA Circular 4702.1B, Chapter IV, Metro defines any change in service as “major” if King County Council approval of the change is required pursuant to KCC 28.94.020.

The proposed changes meet all criteria for a major service change by Metro and FTA definitions. Appendix A lists the specific routes being changed in March 2017.

III. Threshold 2: Are Minority or Low-Income Census Tracts Affected? YES

Classifying minority and low income census tracts

Metro classifies census tracts as minority tracts if the percentage of the population that is minority within a tract is greater than the percentage for King County as a whole. Based on the American Community Survey five-year average for 2010-2014 data, 36.5 percent of the population is classified as minority within the county as a whole. Similarly, Metro classifies census tracts as low-income tracts if the percentage of the population classified as low-income (based on the population below 200% of federal poverty line) within a tract is greater than the percentage for King County as a whole.

In line with recommendations made by the Service Guidelines Task Force, Metro recently changed the definition of “low-income” that is used to determine census tract designations from 100% to 200% of the federal poverty line. In addition to aligning the threshold with other programs, including ORCA LIFT, this has the effect of giving more representation to youth, elderly, and people with disabilities. Based on the American Community Survey five-year average for 2010-2014, 24.4 percent of the population is classified as low-income within the county as a whole.

The proposed service changes addressed in this report will affect the level of service provided to 20 King County census tracts currently served by Metro. The low-income and minority characteristics of affected census tracts are provided in Table 1 below.

Table 1. Low-Income and Minority Characteristics of Affected Census Tracts

Census Tract Classification				
Total Census Tracts Affected	Minority & Low-income	Minority ONLY	Low-income ONLY	Neither Minority nor Low-income
20	4	2	2	12

IV. Threshold 3: Is there a Disproportionate Burden on Low-Income Populations or a Disparate Impact on Minority Populations? YES

The determination as to whether the proposed changes resulting in a reduction in service would have a disparate impact on minority populations was made by comparing changes in the

number of Metro bus trips serving minority or non-minority census tracts. Similarly, the determination as to whether the proposed changes resulting in a reduction in service would have a disproportionate burden on low-income populations was made by comparing changes in the number of Metro bus trips serving low-income and non-low-income census tracts. The March 2016 service change was used as the baseline for calculating the change in trips.

Impacts are summarized in Tables 2 and 3 below and in Figures 1 and 2. Adverse effects of the project were limited to four census tracts, Tracts 262, 313.02, 314 and 315.02, which include portions of Auburn and Enumclaw. Tract 262 is classified as both a low-income and minority census tract. Tracts 313.02 and 314 are both classified as a low-income tract only. Because tracts 262, 313.02 and 314 with adverse effects are classified as low-income tracts, the analysis indicates that there would be a disproportionate burden on low-income populations. While tract 262 is classified as a minority census tract, the analysis does not show a disparate impact because the percentage of minority tracts with adverse effects does not exceed the percentage of minority tracts countywide by greater than 10%.

One census tract – Tract 262 in Renton – was identified as being adversely affected due to the proposed elimination of the Route 907 DART area in this tract. While the current service is designed to serve the DART area on up to 14 trips a day, because service in the DART area is provided on a demand-responsive basis only, service may not operate in Tract 262 on days when no demand-response deviation is requested. The proposed changes will result in more frequent service in the adjacent tract, with proposed frequency on Route 907 increasing from every 90 minutes to every 60 minutes.

Similarly, Tracts 313.02 and 314, classified as low-income tracts, were identified as having adverse effects due to the elimination of the DART area in these tracts, as well as the elimination of the segment of Route 907 that currently serves this area on 14 trips per day. However, a replacement alternative service is being proposed that would provide service to this DART area, as well as service between Black Diamond and Enumclaw. A more detailed description is described under Alternatives and Mitigation.

A detailed description of the impacts to residents in Tracts 262, 313.02 and 314 is provided in Section 5, along with the alternatives available to riders in this area. Figure 3 shows the changes being proposed.

Notes for Tables 2 and 3

1. An adverse effect is defined as a reduction of 25 percent or more in trips per week.
2. Tracts are classified as low-income or minority when the percentage of low-income or minority persons in the tract is greater than the percentage of low-income or minority persons in the county as a whole.
3. A disproportionate burden occurs when the percentage of low-income tracts with adverse effects is more than 10 percentage points greater than the countywide percentage of low-income tracts.
4. A disparate impact occurs when the percentage of minority tracts with adverse effects is more than 10 percentage points greater than the countywide percentage of minority tracts.

Impacts of Proposed Changes for March 2017

Table 2. Impacts of the March 2017 Service Change on Low-Income Populations

Category ²	Tracts with Adverse Effects ¹	% of tracts adversely affected	% of tracts system-wide	Difference	Disproportionate Burden ³ ?
Low-Income	3	75%	41%	34%	YES
Non-Low-Income	1	25%	59%		
Total	4	100%	100%		

Table 3. Impacts of the March 2017 Service Change on Minority Populations

Category ²	Tracts with Adverse Effects ¹	% of tracts adversely affected	% of tracts system-wide	Difference	Disparate Impact ⁴ ?
Minority	1	25%	43%	18%	NO
Non-Minority	3	75%	57%		
Total	4	100%	100%		

Figure 1. Impact of proposed changes on minority census tracts.

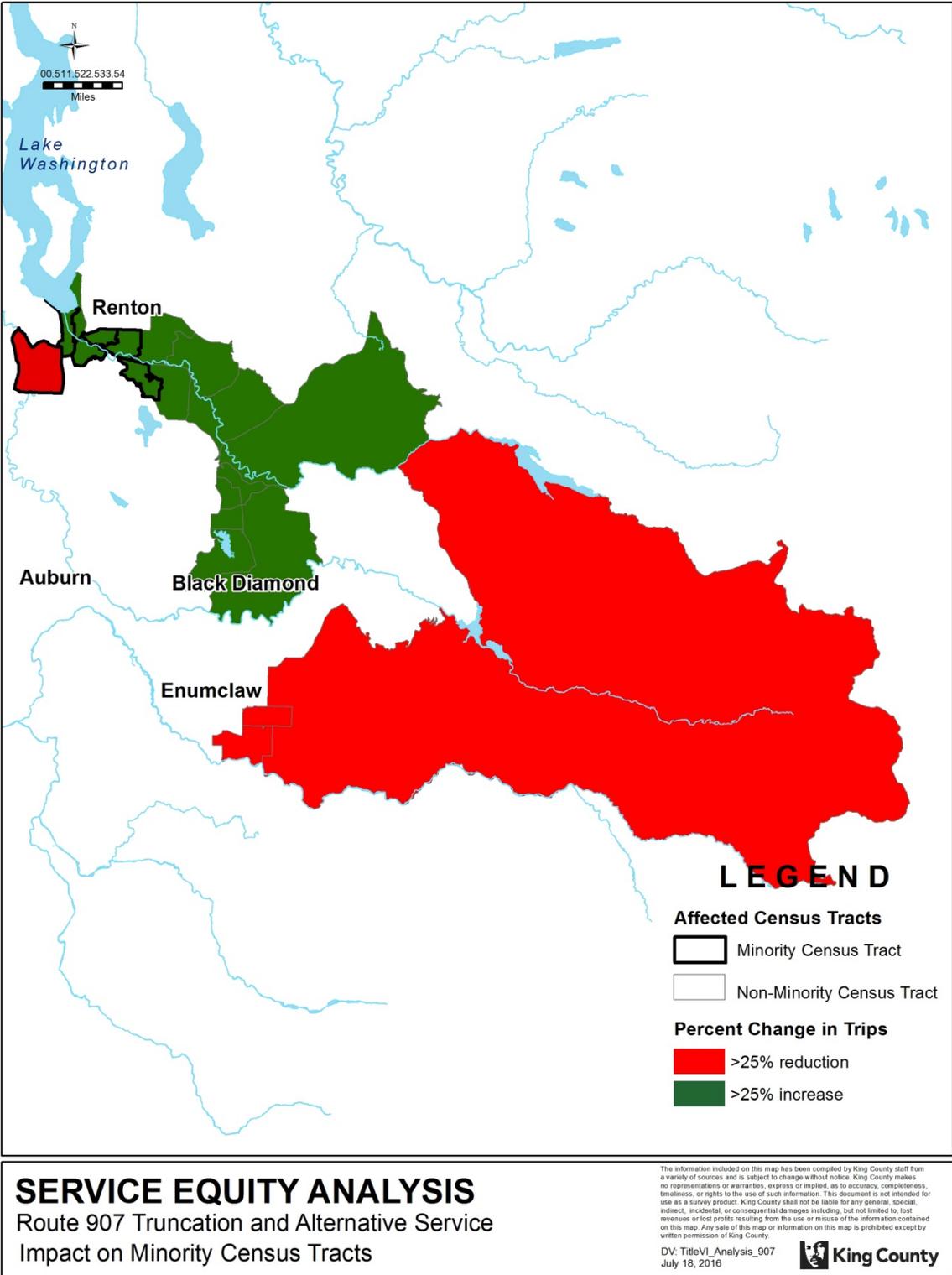


Figure 2. Impact of proposed changes on low-income census tracts.

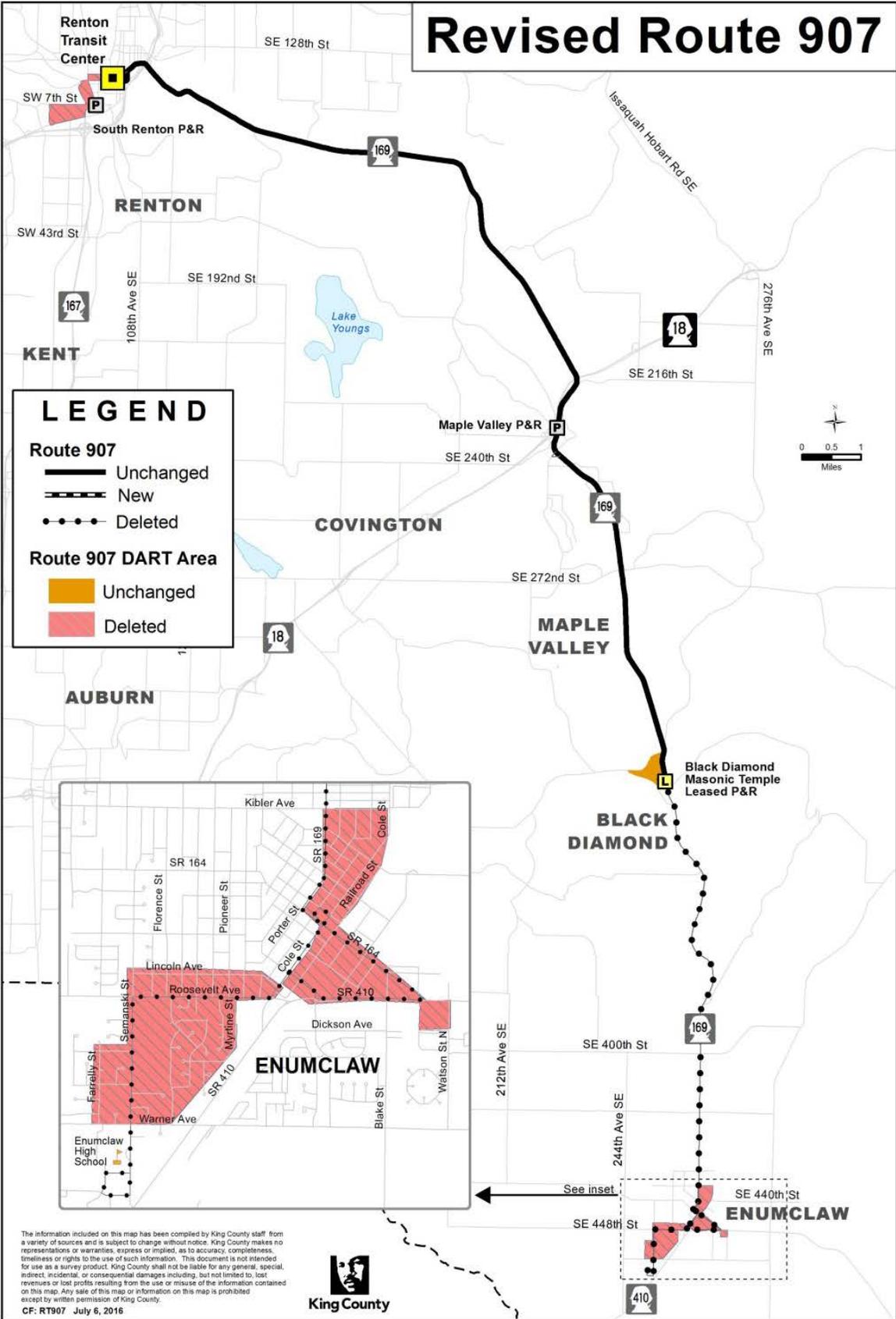


V. Threshold 4: Alternatives and Mitigation

As stated in Section IV, adverse effects of the proposed changes for March 2017 are limited to Census Tracts 262, 313.02, 314 and 315.02, with 313.02 and 314 also being low-income census tracts. As shown in Figures 1 and 2, Census Tracts 313.02, 314 and 315.02 includes Enumclaw and unincorporated King County. Impacts are summarized below. Route 907 will be truncated to operate between Black Diamond and Renton only. However, the current Route 907 DART area in Black Diamond, as well as the connection between Black Diamond and Enumclaw will continue to be served by a new alternative service. Despite the truncation of Route 907 in Black Diamond, the proposed changes will preserve a connection between Black Diamond and Enumclaw, and allow for service frequency to be improved on Route 907 from every 90 minutes to every 60 minutes. The number of daily trips on weekdays will increase from 14 to 18.

Alternative service for riders traveling between Black Diamond and Enumclaw will be available with the new Black Diamond-Enumclaw Demand-Responsive Transportation Service, which will provide service in Census Tracts 313.02, 314 and 315.02. Alternative service for riders traveling within Enumclaw will be available on Route 915, which will be extended to operate through South Enumclaw. For Tract 262, alternate service for riders in Renton traveling within the DART area is available on Routes 101, 106, 107,169 and the RapidRide F Line, connecting with Route 907 at the Renton Transit Center.

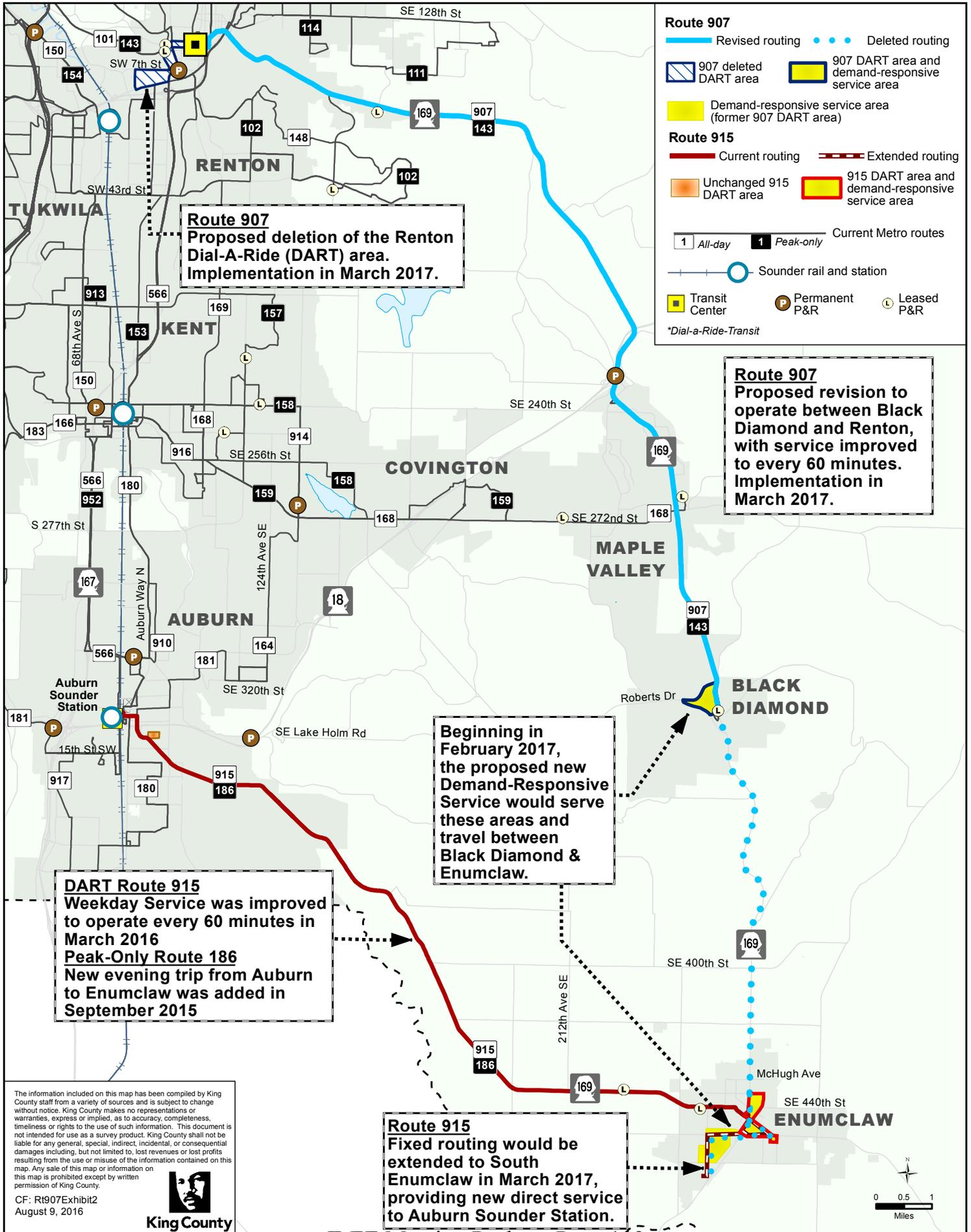
Figure 3. Proposed changes to service.



APPENDIX A: Affected Routes and Alternatives

Route	Action	Alternatives
907	Revise Route 907 to operate between Black Diamond and the Renton Transit Center, via Maple Valley and improve the service frequency to approximately every 60 minutes. Service between Black Diamond and Enumclaw including the Enumclaw Dial-A-Ride (DART) service area would be deleted. The Renton Dial-A-Ride (DART) service area would be deleted.	Alternative service for riders traveling between Black Diamond and Enumclaw will be available with the new Black Diamond-Enumclaw Demand-Responsive Transportation Service. Alternative service for riders traveling within Enumclaw will be available on Route 915, which will be extended to operate through South Enumclaw. Alternate service for riders in Renton traveling within the DART area is available on Routes 101, 106, 107,169 and the RapidRide F Line, connecting with Route 907 at the Renton Transit Center.

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Southeast King County Alternative Service Project Overview

Southeast King County was identified as a candidate for Alternative Services in the King County Metro Transit Five-Year Implementation Plan for Alternatives to Traditional Transit Service Delivery adopted in September 2012. Community outreach began to the Southeast King County area in May 2015 with the formation of a working group to guide the community outreach process. The following jurisdictions and groups participated on the working group:

- Auburn School District
- City of Auburn
- City of Black Diamond
- City of Covington
- City of Enumclaw
- City of Maple Valley
- City of Renton
- Greater Maple Valley Community Center
- South County Mobility Coalition
- Office of Councilmember Reagan Dunn

Findings from community outreach were

- General satisfaction (~70%) with existing service
- Lack of evening and weekend service
- Lack of parking is barrier for commuters
- Very little transit use between Enumclaw and Black Diamond
- Very few route deviations requested in Enumclaw and Renton
- Reliability could be improved

To address these findings, Metro staff and the working group developed these solutions:

- **Fixed Route, Dial-a-Ride (DART) and Demand-responsive Transit Service Changes** to address lack of evening service and reliability issues. Changes on routes 186 and 915 were implemented in September 2015 and March 2016. Changes on Route 907 are proposed for March 2017 along with the introduction of a new demand-responsive transportation service between Black Diamond and Enumclaw. This new service will maintain the connection for riders traveling between these two communities and operate as a DART-style service without the fixed route portion. It will be available weekdays between 6:30 a.m. and 4:30 p.m. which mirrors Route 907's current availability. The service is expected to begin operating by February 20, 2017 and, in order to meet that start date, the County issued an Invitation to Bid on May 19, 2016. Bids were due June 30, 2016 and review is underway.
- **Emergency Ride Home Program** to address lack of evening service and reliability issues.
- **Commuter Rideshare Promotion** to address lack of parking at park-and-rides.
- **Community Van** to address lack of evening service and the need for non-commute trips.

Southeast King County Alternative Service Project Overview

As these solutions are implemented, they will be monitored for potential adjustment.



King County

**Metropolitan King County Council
Transportation, Economy and Environment Committee**

STAFF REPORT

Agenda Item:	10	Name:	Lise Kaye Hiedi Popochock
Proposed No.:	2016-0348	Date:	August 30, 2016

SUBJECT

Proposed Motion 2016-0348 would approve a plan regarding ongoing surface water management participation in funding roadway drainage projects.

SUMMARY

The County Council included a proviso in the 2015/2016 budget ordinance¹ requiring the Executive to transmit to Council a plan regarding ongoing surface water management participation in funding roadway drainage projects and a motion that approves the plan. The Executive transmitted a report entitled, “Ongoing Surface Water Management Participation in Funding Roadway Drainage Projects” (“the Report”) on June 28, 2016. The Report provides information requested in the proviso, including alternative approaches for using surface water management revenues for drainage projects in King County road rights-of-way (ROW) and other information to support decision-making in the 2017/2018 budget development process. The Report does not propose to change current guiding legislation or discount structures for the Surface Water Management (SWM) fee.

BACKGROUND

Shared Responsibility for Drainage Infrastructure

Following King County’s merger in 1994 with the Municipality of Metropolitan Seattle, the then-Public Works Department was dissolved and its functions reassigned to a new Department of Natural Resources and Parks (DNRP) and a new Department of Transportation (KCDOT). This reorganization directed how the county’s surface water drainage system would be managed: KCDOT’s new Roads and Engineering Division (now Road Services Division) would manage drainage infrastructure located within the ROW, and DNRP’s new Water and Land Resources Division would manage the drainage infrastructure located outside of the ROW.

¹ Ordinance 17941, Section 77, Proviso P1

Surface Water Management (SWM) Program

King County Code (K.C.C.) Chapter 9.08.02E authorizes the surface water management program to provide services including, but not limited to, basin planning, facilities maintenance, regulation, financial administration, public involvement, drainage investigation and enforcement, aquatic resource restoration, surface and storm water quality and environmental monitoring, natural surface water drainage system planning, intergovernmental relations, and facility design and construction.

King County funds the SWM program by imposing a service charge on all developed parcels² within unincorporated King County. The rate reflects relative contribution of increased surface water runoff from a parcel, as generally measured by the amount of impervious surface on the property (see Table 1 below). However, residential properties (less than three residences), pay a flat rate; and roads and highways pay 30% of the rate of other properties with a comparable impervious surface.³

State law mandates that a county cannot charge a SWM fee to state highways greater than that charged to its own county roads.⁴ King County set its discount for county and State roads to “generally reflect both their impact on downstream surface waters and their management of the road drainage system.”⁵

Over time, the cost of providing surface water management services has increased due to the impacts of inflation and annexations and federal and state requirements for the proper management of surface water quality and quantity.⁶ In response, Council approved a 14% SWM Fee increase in 2013 (Single Family Residence [SFR] rates increased from \$133 to \$151.50) and a 13% increase in 2014 (SFR rates increased from \$151.50 to the current level of \$171.50). According to Executive staff, WLR currently has a \$12 million backlog of high priority stormwater facilities that will continue to grow if addressed at the currently funded level of service. Executive staff estimate that adding \$6.5 million for the biennium to the existing program would address current needs prior to failure and eliminate the backlog over 10 years.

² K.C.C. 9.08.010(C) "Developed parcel" means any parcel altered from the natural state by the construction, creation or addition of impervious surfaces.

³ RCW 90.03.500 - .525 provides the authorization for the county, as well as cities, towns, water-sewer districts and flood control zone districts, to impose rates and charges for storm water control facilities. RCW 90.03.525 states that the discounted rate charged to state highways is “presumptively fair and equitable because of the traditional and continuing expenditures of the department of transportation for the construction, operation, and maintenance of storm water control facilities designed to control surface water or storm water runoff from state highway rights-of-way.”

⁴ Per RCW 90.03.525

⁵ Per 2011-RPT0171 Surface Water Management Fee Discount Rates for Non-Residential Parcels – Proviso Report

⁶ These include the permitting requirement of the National Pollutant Discharge Elimination System (NPDES) General Municipal Stormwater Permit.

Table 1. Current Surface Water Management Service Charges⁷

SURFACE WATER MANAGEMENT SERVICE CHARGES (effective 1/1/2014)		
Class	Impervious Surface %	Rate
Residential	NA	\$171.50/parcel/year
Very Light	0 to less than or equal to 10%	\$171.50/parcel/year
Light	greater than 10% to less than or equal to 20%	\$413.38/acre/year
Moderate	greater than 20% to less than or equal to 45%	\$905.91/acre/year
Moderately Heavy	greater than 45% to less than or equal to 65%	\$1,546.40/acre/year
Heavy	greater than 65% to less than or equal to 85%	\$2,116.79/acre/year
Very Heavy	greater than 85% to less than or equal to 100%	\$2,638.96/acre/year
County Roads	NA	Set in accordance with RCW 90.03.525
State Highways	NA	Set in accordance with RCW 90.03.525

Road Services Division Drainage Program

The Road Services Division (RSD) has budgeted drainage preservation at about \$4 million each year since 2010⁸. The drainage preservation capital program (CIP No. 1111819) addresses high priority drainage projects (existing or emergent) that pose a high safety and/or regulatory risk. The Water and Land Resource Division (WLR) provides a prioritized list of improvements identified by combining the Field Priority Score and Habitat Evaluations to inform the drainage preservation work program.⁹

The 2014 update of the Strategic Plan for Road Services (SPRS) estimated it would take an annual investment of \$11.4 million over a period of more than 10 years to reduce the RSD's backlog of known drainage projects. Subsequently, the recent Road Right-of-Way Drainage Trunk Line Inventory report completed in response to a proviso in the 2015-2016 adopted budget (Ordinance 17941, Section 53, Proviso P1) estimated that the cost to replace all failing drainage assets (24 inches in diameter or greater) as they fail over a 10 year period would be \$335 million.¹⁰ More aggressive levels of service are more expensive. The accompanying consultant report recommended immediate preservation action for 33 critical risk drainage assets and

⁷ Source: <http://www.kingcounty.gov/depts/dnrp/wlr/surface-water-mgt-fee/rates.aspx>

⁸ First in the operating budget in 2010 and 2011; in the capital budget since then

⁹ Scores for field priority reflect the problem's threat to the public safety associated with the roadway and its contribution to drainage problems, on private property, downstream of the roadway. Habitat Evaluation identifies a project's impacts or benefits to aquatic areas, fish habitats and their buffers and potential regulatory mitigation requirements. See draft 2016 Transportation Needs Report (TNR) transmitted with PO 2016-0155.

¹⁰ Road Right-of-Way Drainage Trunk Line Inventory, May 2016, page 3

<http://mkcclegisearch.kingcounty.gov/LegislationDetail.aspx?ID=2738332&GUID=54F4277D-46EF-4BB0-B6CC-956C501C4FC0&Options=ID|Text|&Search=trunk>

estimated the associated cost to be \$6.46 million, with all estimated costs subject to -50% to 100% accuracy.¹¹

Property taxes fund over three-fourths of the RSD's budget, but property tax rates are capped¹² and inflation together with property annexations have resulted in a major funding shortfall. (RSD also receives a share of the state gas tax and revenue from its service contracts with cities.) The updated SPRS included a new policy that roadway ROW users should pay for repairs within the ROW¹³.

Funding for Roadway Drainage Improvements in the 2015/2016 Biennial Budget

As part of the adopted 2015/2016 budget,¹⁴ Council appropriated \$12 million to CIP No. 1111819, RSD CW Drainage Preservation. This included \$4 million in SWM revenue to pay for drainage improvements in the Roadway ROW as follows:

- a \$2 million transfer from the fund balance of the SWM CIP fund to RSD, and
- a \$2 million transfer from SWM operating reserves to RSD, linked to an expenditure restriction¹⁵

Council also included the following proviso in the 2015/2016 budget ordinance requiring the Executive to transmit to Council a plan regarding ongoing surface water management participation in funding roadway drainage projects:

"P1 PROVIDED THAT:

Of this appropriation, \$500,000 shall not be expended or encumbered until the executive transmits a plan regarding ongoing surface water management participation in funding roadway drainage projects and a motion that approves the plan and the motion is passed by the council. The motion shall reference the subject matter, the proviso's ordinance, ordinance section and proviso number in both the title and body of the motion.

A. The plan shall include, but not be limited to:

- 1. Information on the amount of surface water management revenue received and estimated to be received at the current rate from the state highway and county roads division for the ten year period from 2011 to 2020;*
- 2. A plan describing how expenditures of state funding comply with state law;*

¹¹ Road Right-of-Way Drainage Trunk Line Assessment Final Report February 12, 2016, pp ES-4 and ES-5.

¹² At a maximum of 1 percent per year, plus the value of new construction or capped at \$2.25 per \$1000 assessed value, whichever is highest (it is currently at the capped limit).

¹³ King County Department of Transportation Strategic Plan For Road Services, July 2014 update, page 22.

¹⁴ Ordinance 17941

¹⁵ Expenditure restriction ER1 in Section 77 required that \$2 million of the appropriation to SWM be expended or encumbered "solely for transfer to the road services division to fund surface water management projects within the public right-of way in unincorporated King County."

3. A plan for continued use of revenues for investments in drainage projects in King County unincorporated area rights of way;

4. A plan for replenishing the operating rate stabilization reserve, the rainy-day reserve and the capital reserve, consistent with the county's comprehensive financial management policies;

5. A review of the state law and county ordinance regarding the amount paid for state and county roads and recommendations on changing the county's ordinance regarding this fee; and

6. A plan and schedule for future rate changes for the period from 2016 to 2027, as well as anticipated revenues from these rates, and identifying the anticipated revenues from the state and county roads division.

B. If this plan recommends any King County Code changes, a proposed ordinance that would implement those changes shall be transmitted at the same time as the plan required by this proviso.

The executive must file the plan and motion required by this proviso by June 30, 2016, in the form of a paper original and an electronic copy with the clerk of the council, who shall retain the original and provide an electronic copy to all councilmembers, the council chief of staff, the policy staff director and the lead staff for the transportation, economy and environment committee, or its successor."

As part of the first omnibus 2015/2016 budget supplemental ordinance¹⁶, the Executive proposed to reduce the transfer from SWM's operating reserves to \$1 million, eliminate the \$2 million transfer from the SWM CIP fund balance, and appropriate \$3 million in new Road Services Division fund balance to pay for the previously identified drainage projects in the roadway right-of-way.¹⁷ Council instead directed the Executive to keep the \$4 million in SWM transfers intact and directed RSD to spend the additional \$3 million in new Road Services Division operations revenue on drainage projects.

In August 2015, the King County Flood Control District¹⁸ awarded a total of \$351,064 in Flood Reduction Grants to the RSD to fund three flood risk reduction projects.¹⁹ The RSD subsequently moved \$1.5 million from its operating budget to the drainage program to fully fund the three projects, resulting in a \$15 million drainage program for the 2015/2016 biennium. Attachment 3 lists by funding source the budget, actuals and balance for drainage projects currently programmed in the 2015/2016 biennial budget.²⁰

¹⁶ Ordinance 18110

¹⁷ The new fund balance was due to cost savings from other projects and better-than-expected property taxes. The proposed SWM reductions were driven by an updated SWM financial plan and additional information with respect to projects previously programmed against the SWM fund balance.

¹⁸ The King County Flood Control District is a special purpose government created to provide funding and policy oversight for flood protection projects and programs in King County.

¹⁹ Approved by Resolution FCD 2015-10.1 and memorialized in a Memorandum of Understanding between WLR and RSD effective 12/7/15 and in effect until 10/31/18.

²⁰ Data provided by the King County Office of Performance, Strategy and Budget

Table 2 below provides a summary of the spreadsheet in Attachment 3.

Table 2: 2015/2016 Drainage Program by Funding Source

Funding Source	2015/2016 Inception to Date Budget	2015/2016 Actuals Biennium to Date at 6/30/16	2015/2016 Balance
Road Services Division	\$9,751,071 ²¹	\$7,257,093	\$2,493,978
Surface Water Management Fund	\$4,000,000	\$350,616	\$3,649,384
Flood Control District	\$1,574,070	\$102,571	\$1,471,499
TOTAL	\$15,325,141	\$7,710,280	\$7,614,861

ANALYSIS

In response to Proviso P1 shown above, the Executive transmitted a report titled Ongoing Surface Water Management Participation in Funding Roadway Drainage Projects, dated June 2016, as Attachment A to Proposed Motion 2016-0348 (“the Report”). As required by the proviso, the Report provides information about applicable laws and revenue sources, and it also presents a number of scenarios for expending SWM revenue, including alternative levels of investment in drainage projects in roadway rights-of-way. The Executive will transmit a specific rate proposal tied to specific expenditures as part of the 2017/2018 budget process.

SWM Revenue Received from State Highways and RSD

The Report provides current and projected SWM revenue from state highways and RSD as shown in Table 3 below. According to the Report, the decrease in SWM revenue from RSD in 2017/2018 and 2019/2020 is due reduced roadway miles due to anticipated annexations.²²

Table 3. SWM Revenue from State Highways and County Roads (\$ millions)

	2011/2012	2013/2014	2015/2016	2017/2018	2019/2020
WSDOT	\$1.59	\$1.96	\$2.08	\$2.08	\$2.08
County Roads	\$7.59	\$8.87	\$9.31	\$9.23	\$8.70
Total	\$9.18	\$10.83	\$11.39	\$11.31	\$10.78

²¹ Includes \$8 million from 2015/16 appropriation, \$1.5 million from mid-biennial budget adjustment and \$251,017 carryover from 2013/14.

²² Anticipated annexations, per March 2016 King County Office of Economic and Financial Analysis forecast, include NH Sliver and Triangle (January 2018), and N Highline Y, Renton West Hill and East Federal Way (January 2020)

Compliance with State Law

The Report notes that state law requires that funds collected from the state must be used solely for stormwater control facility purposes. The law was amended in 2015 removing the previous requirement that funds collected from WSDOT had to be spent on WSDOT facilities. Additional information with respect to how the county's expenditures of state funding comply with state law is provided in the section of the report entitled, "Review of Legal Basis for SWM Rate and State and County Roads" (see below).

Plans for Use of Revenues for Drainage Projects in Rights-of-way and for Replenishing Reserves

The Report states that only \$2 million of the \$4 million in SWM funds from the 2015/2016 budget appropriation can be transferred without either cancelling approved WLR stormwater and water quality programs or depleting the reserves in the SWM fund. The report proposes instead that more than \$2 million be carried over into the 2017/12018 biennium for specified projects. The report states that the 2017/2018 SWM rate can be developed to cover those project costs, thereby eliminating the need to deplete reserves and "thus not require a plan to replenish reserves." According to the report, the rate impact of an additional \$2 million expenditure would be \$7 per single family residential payer (a four percent increase above the current rate).

The Report references the abovementioned Road Right-of-Way Drainage Trunk Line Inventory report completed in response to a proviso in the 2015/2016 adopted budget (Ordinance 17941, Section 53, Proviso P1), which estimates that an outlay of \$355 million to \$500 million would be needed over a 10-year period to adequately maintain and preserve drainage assets that are 24 inches in diameter or greater.²³ The Report estimates that this would require a SWM fee increase of 150% - 200% above the current rate (up to \$251 - \$354 per single family residential payer per year).

Legal Basis for SWM Rate and State and County Roads

The Report identifies RCW 36.90,080, RCW 90.03.525 and King County Code Chapter 9.08 as the applicable state and local legal framework for the SWM rate, generally as shown below. The Report notes that the Executive does not anticipate proposing any changes in the SWM fee structure for WSDOT or RSD.

RCW 36.89.080: Storm water control facilities – Rates and charges

- Statutory authority for collection of the SWM fee

RCW 90.03.525: Storm water control facilities—Imposition of rates and charges with respect to state highway rights-of-way—Annual plan for expenditure of charges

²³ See report transmitted with proposed Motion 2016-0279.

- SWM fees to WSDOT state road rights of within a local jurisdiction can be no more than 30% of the rate for comparable real property.
- WSDOT cannot be charged a rate higher than what the local jurisdiction charges for its own road ROW
- Funds collected from the state must be used solely for stormwater control facilities

King County Code 9.08 Surface Water Management Program

- The SWM fee is collected based on a percentage of impervious surface
- Discounts are allowed to properties that have onsite stormwater management mechanisms
- Both county and state roads pay a maximum of 30% of what would be paid by a comparable property

SWM Rate Plan, Schedule and Forecast

The Report provides costs associated with potential components of the SWM fee and combines these into seven SWM fee scenarios. The Report notes that the Executive will transmit a detailed rate proposal in connection with the 2017/2018 proposed budget in September 2016.

SWM Fee Components: WLR Programs. Table 4 below identifies the WLR programs currently funded by the SWM fee and illustrates how ongoing funding for those components and/or several additional expenditures might impact the 2017/2018 SWM fee for a single family residence. The table shows that continuing the status quo WLR programs (not including \$2 million of the \$4 million 2015/16 carryover transfer for ROW drainage projects) would require a 10% SWM fee increase. If status quo is defined as including the full \$4 million carryover transfer, the required SWM fee increase would be 14%. Maintaining the status quo, plus all of the program expansions would require a 37% increase in the SWM fee (or 41% if the full carryover transfer is included in the status quo).

SWM Fee Components: Right-of-Way Drainage. Table 4 also presents additional incremental costs and SWM rate impacts for funding drainage needs in the roadway ROW. These costs include the abovementioned \$2 million carryover transfer; \$3.4 million to repair some of the identified facilities at risk of imminent failure; and \$4.6 million to mitigate the impacts of a the SWM fee increase to RSD as a result of the additional roadway projects. (If the SWM fee is increased to provide more revenue to fund drainage work, RSD would have to pay more as a ratepayer in the current rate structure.) These three expenditures together would require an approximately 20% increase in the SWM fee.²⁴

Implementing all of the improvements listed in the table (WLR and RSD) would require an overall 57% increase in the SWM fee, with the annual fee for a single family residence rising from \$171.50 to \$269.98.

²⁴ Actual costs may vary, as funding to mitigate impacts of a fee increase for RSD would depend upon the size of the fee increase.

Table 4. Potential Funding Packages for the SWM Fee

Rate Component	2017/18 Costs (\$ million)	2017/18 Annual fee for a SFR*	Percent Increase of Rate
Existing services within existing rate	48.5	171.5	0%
Inflation to maintain existing services	4.9	17.32	10%
<i>Based on OEFA March forecast labor rates</i>			
Implement asset management for WLR assets	6.5	23.12	13%
<i>This funding amount would implement the asset management program for WLR-maintained stormwater assets, prioritize investment based on condition assessments, and eliminate backlog of high priority facilities in 10 years.</i>			
Expand programs to support agriculture and rural residents	2.3	8.02	5%
<i>This funding amount could expand local flood response and respond to rural flooding in 4 – 5 drainages, pilot beaver management strategies in response to rural flooding concerns, and expand the Agricultural Drainage Assistance Program (ADAP) to expand rural farm production 200 acres / year.</i>			
Habitat restoration and water quality improvement capital program expansion	1.7	6.00	4%
<i>This funding could increase habitat projects along rivers by 7 projects and implement continuous improvement monitoring of habitat investments.</i>			
Programs that improve performance – best run government	2.5	8.67	5%
<i>This could provide fee discounts to low income property owners, provide grants for community projects, and improve data management in support of asset management.</i>			
Sub-total for WLR programs	66.4	234.63	37%

Table 4. Potential Funding Packages for the SWM Fee (cont'd)

Rate Component	2017/18 Costs (\$ million)	2017/18 Annual fee for a SFR*	Percent Increase of Rate
2015/2016 unfunded carryover transfer for ROW drainage projects <i>\$2 million of the \$4 million transfer</i>	2.0	7.07	4%
Funding to mitigate impacts of fee increase for RSD <i>Offsets cost of increased SWM fee to roads from additional ROW drainage work (unfunded carryover and response to imminent failure as shown in this table)</i>	4.6	16.26	9%
Respond to imminent failure in ROW <i>Would address some actual failures</i>	3.4	12.02	7%
Sub-total for WLR programs	66.4	234.63	37%
Sub-total for ROW Drainage	10.0	35.35	20%
TOTAL	76.4	269.98	57%

Alternative Funding and SWM Fee Scenarios. The Report creates seven potential scenarios that illustrate revenue and fee impacts from alternate decision packages. Five of the scenarios include \$17.9 million (a 37% SWM Fee increase) to fund scenario 3, which provides \$4.9 million to preserve existing programs and \$13 million to enhance and/or expand existing WLR programming. Table 5 below summarizes information in the report as to revenue raised, expenditures, and SFR rate impacts for each of the seven scenarios.

SWM Fee and Revenue Forecast. The report also includes a table illustrating a six-year forecast for scenario 6, (respond to imminent failure of ROW drainage plus expand WLR programs), showing that the existing \$171.50 SFR SWM fee would rise to \$404.33 in the year 2021. According to Executive staff, fees for other user classifications would rise proportionately. This forecast assumes continual expansion of WLR programs (adding approximately \$35 million through 2021) and gradually increasing funds to respond to imminent failure of ROW drainage (adding \$34 million through 2021).

Table 5. Alternative Funding and SWM Fee Scenarios

Scenario	Total Revenue Raised (\$ millions)	2017/2018 Annual fee for a SFR*	Change from Status Quo	WLR Expenditures (\$ millions)	ROW Drainage Expenditures (\$ millions)	RSD's SWM Payment (\$ millions)
1. Status quo	48.5	171.50	0%	46.5	2.0	9.1
2. Status quo plus inflation²⁵	55.4	195.87	14%	53.4	2.0	10.4
3. Enhance/ expand existing WLR programming	66.3	234.52	37%	66.3	0.0	12.5
4. Eliminate SWM fee to RSD and WSDOT; + S3*	66.3	306.01	78%	66.3	0.0	0.0
5. Allocate marginal increase in RSD SWM fee to ROW drainage; cover 2015/16 carryover; +S3	73.0	258.00	50%	66.3	6.6	13.7
6. Respond to imminent failure of ROW drainage + S3	76.3	269.77	57%	66.3	10.0	14.4
7. RSD SWM fee to ROW drainage +S3	81.7	288.86	68%	66.3	15.4	15.4

* S3 = Scenario 3

Policy Considerations

The Report's seven scenarios suggest a number of policy considerations when balancing the need for investments in right-of-way drainage, in drainage-related programs outside of the right-of-way and setting the level of the SWM fee. For example, scenarios 2 and 3 show that enhancing or expanding existing WLR programs would require a SWM fee increase in addition to an increase simply to maintain existing programs at current levels. Scenarios 5, 6 and 7 show that expanding existing WLR programs while increasing funding for right-of-way drainage will require even more significant SWM fee increases. And scenario 4 illustrates how the cost

²⁵ This rate includes the full \$4 million 2015/2016 carryover transfer and so is approximately \$7 higher than the status quo cost shown in Table 4, which assumed only \$2 million of the \$4 million carryover transfer. This translates to a 14% percent increase in the SWM fee to maintain existing programs, compared to 14% in Table 5.

burden would shift to other rate payers if RSD, which is the largest SWM ratepayer, were exempt from paying a SWM fee.²⁶

However, other potential scenarios not shown in the Report could factor in additional policy considerations. These could include, at a minimum, trade-offs such as providing more or less aggressive investment in critical drainage infrastructure, increasing or decreasing the proposed WLR program expansions across the board or selectively, and/or allocating costs differently among rate payers.

Next Steps

While the Report notes that the Executive will transmit a detailed rate proposal in connection with the 2017/2018 proposed budget in September 2016, the information provided in the proviso response provides an initial baseline that can help cost out a range of policy approaches to funding drainage costs in King County.

The Proposed Motion would approve the report required by proviso.

ATTACHMENTS

1. Proposed Motion 2016-0348
2. Transmittal Letter
3. 2015-2016 Drainage Program by Funding Source

INVITED

- John Taylor, Assistant Director, Water and Land Resources Division
- Jay Osborne, Deputy Director, Road Services Division
- Tricia Davis, Budget Manager, Performance, Strategy and Budgeting

²⁶ Other ratepayers include other public entities, non-profit property owners, commercial and investment property owners, and owners of single family homes.



KING COUNTY
Signature Report

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

August 26, 2016

Motion

Proposed No. 2016-0348.1

Sponsors Dembowski

1 A MOTION approving a plan regarding ongoing surface
2 water management participation in funding roadway
3 drainage projects in accordance with 2015/2016 Biennial
4 Budget Ordinance 17941, Section 77, Proviso P1.

5 WHEREAS, Ordinance 17941, Section 77, Proviso P1, states that five hundred
6 thousand dollars may not be expended or encumbered until the executive transmits a plan
7 regarding ongoing surface water management participation in funding roadway drainage
8 projects and a motion that approves the plan and the motion is passed by the council, and

9 WHEREAS, surface water management fee revenues have been programmed to
10 support roadway drainage projects in the 2015/2016 Biennial Budget Ordinance, and

11 WHEREAS, the water and land resources division of the department of natural
12 resources and parks, the road services division of the department of transportation, the
13 office of the prosecuting attorney and the office of performance, strategy and budget in
14 the office of the King County executive have worked together to analyze and address the
15 technical and policy issues associated with the surface water management fee, its uses, its
16 payers and funding needs for roadway drainage projects, and

17 WHEREAS, the plan identifies different alternatives for surface water funding of
18 roadway drainage projects and the impacts of these alternatives on the surface water
19 management fee, and

20 WHEREAS, the executive has transmitted to the council the requested plan and
21 motion;

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

23 The plan regarding ongoing surface water management participation in funding
24 roadway drainage projects, submitted as Attachment A to this motion in accordance with
25 Ordinance 17941, Section 77, Proviso P1, is hereby approved.

26

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

J. Joseph McDermott, Chair

ATTEST:

Anne Noris, Clerk of the Council

APPROVED this ____ day of _____, _____.

Motion

Dow Constantine, County Executive

Attachments: A. Ongoing Surface Water Management Participation in Funding Roadway Drainage Projects - June 2016

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**Ongoing Surface Water Management Participation in Funding
Roadway Drainage Projects**

Prepared in accordance with
Ordinance 17941, Section 77, Proviso P1

June 2016



King County

Department of Natural Resources and Parks
Water and Land Resources Division
and
Department of Transportation
Road Services Division

Table of Contents

Introduction	3
Executive Summary	3
Overview of Managing Drainage Assets in Unincorporated King County	4
Report Requirements	5
Surface Water Management (SWM) Revenue Received from State Highways and County Roads	5
Plan Describing How Expenditures of State Funding Comply with State Law	5
Plans for Use of Revenues for Drainage Projects in Rights of Way and for Replenishing Reserves	5
Review of Legal Basis for SWM Rate and State and County Roads	6
SWM Rate Plan, Schedule, and Forecast	7
Conclusion and Next Steps	12

Introduction

Ordinance 17941, Section 77, Proviso P1 requires the King County Executive to transmit to the Council a plan regarding ongoing surface water management participation in funding roadway drainage projects and a motion that approves the plan.

Specifically, the Ordinance requires that the plan include, but not be limited to:

- Information on the amount of surface water management revenue received and estimated to be received at the current rate from the state highway and county roads division for the ten year period from 2011 to 2020;
- A plan describing how expenditures of state funding comply with state law;
- A plan for continued use of revenues for investments in drainage projects in King County unincorporated area rights of way;
- A plan for replenishing the operating rate stabilization reserve, the rainy-day reserve and the capital reserve, consistent with the county's comprehensive financial management policies;
- A review of the state law and county ordinance regarding the amount paid for state and county roads and recommendations on changing the county's ordinance regarding this fee; and
- A plan and schedule for future rate changes for the period from 2016 to 2021, as well as anticipated revenues from these rates, and identifying the anticipated revenues from the state and county roads division.

If this plan recommends any King County Code changes, a proposed ordinance that would implement those changes shall be transmitted at the same time as the plan required by the proviso.

This report addresses each requirement under a separate heading that corresponds to the particular requirement.

Executive Summary

This report provides background on the legal basis and policy basis for collecting Surface Water Management (SWM) fee revenues from the Washington State Department of Transportation and the Road Services Division (Roads) of the King County Department of Transportation. Additionally, this report provides revenue and rate impacts for different alternatives for expenditures of SWM revenue in the Roads Right of Way (ROW). This report does not provide any proposals to change current guiding legislation or discount structures for the SWM fee. It does provide information to support decision-making on the SWM fee rate and the programs it will fund in the 2017/2018 budget development process.

Overview of Managing Drainage Assets in Unincorporated King County

The unincorporated King County road network, like many other road networks, conveys more than just vehicles. The public road rights of way (ROW) is also used as a pathway for public and private utilities (water, sewer, cable, electricity, gas, and fiber optics) and is a primary means of conveyance for stormwater. As development in unincorporated King County occurred, stormwater management included routing stormwater through the road system for conveyance purposes, and roads were designed with this in mind. At one time King County had a public works department that managed county roads as well as all public stormwater infrastructure, both within and outside of the ROW. When the county government was re-organized and the public works department was eliminated, the Road Services Division (Roads) in the Department of Transportation took responsibility for public drainage infrastructure within the ROW and the Water and Land Resources (WLR) Division of the Department of Natural Resources and Parks took responsibility for public drainage infrastructure outside of the ROW and outside of property owned by other County agencies.

The Road Services Division is primarily funded by the unincorporated area property tax levy assessed on all property in unincorporated King County. This amount is limited by state law to growth of 1 percent a year plus new construction or capped at \$2.25 / \$1000 assessed value, whichever is highest (it is currently at the capped limit). The WLR Division's stormwater program is primarily funded by the surface water management (SWM) fee, which is charged to non-residential property owners based on the parcel size and percentage of impervious surface on the property; all residential parcels are charged a flat rate (currently \$171.50). This rate is set by the King County Council.

As a result of annexations reducing the property inventory and the recent recession which caused decline in total assessed value of property in unincorporated King County, the amount of property tax collected is increasingly insufficient to meet the demands of an aging road network and its associated maintenance and repair. Roads has made substantial reductions in staff and service levels as revenues decreased. The division is also finding more efficient ways of doing business, seeking creative ways to reduce inventory, changing its service model, and looking for new revenue to help address the existing funding gap.

Roads is the largest single payer of the SWM fee due to the large area of impervious surface that makes up the roadway. If the SWM fee is increased to provide more revenue to fund drainage work, Roads would have to pay more as a ratepayer in the current rate structure. Conversely, if the rate structure is changed such that Roads does not pay a SWM fee, the costs of programs funded by this fee are shifted to the remaining rate payers. Rate payers include other public entities, non-profit property owners, commercial and investment property owners, and owners of single family homes.

Report Requirements

SWM Revenue Received from State Highways and County Roads

The SWM revenue received and projected at the current rate from the Washington State Department of Transportation (WSDOT) and Roads for the ten-year period from 2011 to 2020 is as follows:

Table 1: SWM revenue from WSDOT and Roads (\$ millions)

	2011/2012	2013/2014	2015/2016	2017/2018	2019/2020
WSDOT	\$ 1.59	\$ 1.96	\$ 2.08	\$ 2.08	\$ 2.08
Roads	\$ 7.59	\$ 8.87	\$ 9.31	\$ 9.23	\$ 8.70
Total	\$ 9.18	\$ 10.83	\$ 11.39	\$ 11.31	\$ 10.78

The SWM rate for 2011 and 2012 was \$133 for a single family residence (SFR), in 2013 the rate was \$151.50, and since 2014, the fee has been \$171.50 per SFR. Rates for non-residential properties are tiered, based on impervious surface, and are adjusted proportionately with residential rates. The decrease in SWM revenue from Roads in 2017/2018 and 2019/2020 is due to a reduction in County lane miles as unincorporated areas annex into cities.

A Plan Describing How Expenditures of State Funding Comply with State Law

State law requires that funds collected from the state must be used solely for stormwater control facility purposes. The authorizing statute was amended by the 2015 legislature to remove the previous requirement that the jurisdiction submit a plan to WSDOT showing how funds were to be expended. Also by striking “state highway” in a clause describing how funds must be spent, the statute appears to remove the previous requirement that funds collected from WSDOT had to be spent on WSDOT facilities. The full discussion of the legal basis for the SWM fee rate as applied to state and county roads is below.

A Plan for Continued Use of Revenues for Drainage Projects in the Right of Way and a Plan for Replenishing Reserves

The 2015/2016 adopted budget appropriated \$4 million of SWM revenues to be transferred to Roads for drainage projects in the ROW. While \$4 million has been programmed for drainage projects in the ROW, there is only \$2 million in SWM revenues that can be transferred without either cancelling approved WLR stormwater and water quality programs or depleting the reserves in the SWM fund in 2015/2016. The selected drainage projects in the ROW do not require that all \$4 million be spent in 2015/2016, however, so the transfer of more than \$2 million will be carried over into the 2017/2018 biennium for specified projects. The 2017/2018 SWM rate can be developed to include enough revenue to complete these projects. This would eliminate the need to deplete reserves and thus not require a plan to replenish reserves. The rate impact of an additional \$2 million expenditure for 2017/2018 is \$7 per single family residential payer a year, a 4 percent increase above the current rate.

In addition to the carryover to support drainage projects programmed in 2015/2016, there are additional drainage projects that can be funded with SWM revenue in 2017/2018 and beyond. A consultant report studying the inventory of drainage trunk lines in the road ROW determined that it would cost between \$355 and \$500 million over a 10-year period to adequately maintain and preserve drainage assets that are 24 inches or greater in size. This report also identifies \$25.7 million of work in the next 10 years for assets evaluated as in critical condition out of the 15 percent of assets that were visually inspected. This estimate does not include needed inspection, preservation, and maintenance of drainage assets that were not inspected as part of the study. A report summarizing this inventory study was transmitted to the King County Council on May 27, 2016 in response to a proviso in the 2015/2016 adopted budget (Ordinance 17941, Section 53, Proviso P1). Potential changes in the SWM fee will be considered as part of the 2017/2018 budget process. To fund the adequate maintenance and preservation of drainage assets 24 inches or greater with the SWM fee would necessitate increasing the fee by up to \$251 – \$354 per single family residential payer a year, a 150 – 200 percent increase above the current rate.

Review of Legal Basis for SWM Rate and State and County Roads

Under King County Code (KCC) Chapter 9.08, a SWM fee is collected based on a system of classification of properties using percentage of impervious surface as the basis. The KCC also allows for discounts to properties that utilize various mechanisms to manage stormwater onsite. Revised Code of Washington (RCW) 36.89.080 is the statutory authority for collection of the SWM fee.

RCW 90.03.525 provides that local governments charging SWM fees to WSDOT for state road rights of way within the local jurisdiction are to charge no more than 30 percent of the rate for comparable real property. This translates into a minimum 70 percent discount for WSDOT road ROW. The statute also provides that WSDOT cannot be charged a rate higher than what the local jurisdiction charges for its own road ROW. Finally, the statute requires that the funds collected from the state must be used solely for stormwater control facility purposes.

KCC 9.08.060.O. contains a series of findings applicable to both county and state roads and concludes that the service charge for county and state roads is to be calculated in accordance with RCW 90.03.525. Thus both county and state roads pay a maximum of 30 percent (or receive a discount of 70 percent) of what would be paid by a comparable property.

No changes are proposed to authorizing legislation regarding the classification system on which the SWM fees are charged. The King County Executive expects to propose an option for changes to the SWM fee rate in a separate ordinance that will support different service level choices in the 2017/2018 proposed budget. The budget ordinance may contain changes regarding the expenditure of SWM funds for Roads drainage facilities in the road ROW. However, it is not currently anticipated that proposals will include any changes in the discount structure for WSDOT or Roads.

SWM Rate Plan, Schedule, and Forecast

The SWM fee rate will be developed to take into account the following:

- The expenditure level for WLR programs;
- The amount of SWM fee that Roads pays; and
- The amount of SWM fee revenue that is spent on drainage in the ROW.

WLR Division programs address the following priorities:

- Maintain existing county assets and drainage infrastructure – this includes maintenance and operations of stormwater facilities such as pipes, ponds, culverts, and catch basins to meet requirements of the federal Clean Water Act as delineated in the state National Pollutant Discharge Elimination System (NPDES) stormwater permit.
- Support local agriculture and rural residents – this includes the agriculture drainage assistance program (ADAP) and responding to natural flooding events.
- Restore critical habitat, support salmon recovery forums (i.e., multi-stakeholder interjurisdictional partnerships commonly referred to as the Water Resource Inventory Areas (WRIAs)), and continue basin stewardship to improve water quality.
- Be the Best Run Government – this includes complying with regulations and NPDES permit requirements, and assisting businesses and residents with their stormwater management.

These programs are supported by the current SWM fee revenues as well as grants. The last rate increase was in 2013/2014, however, and because of inflation, the current fee can no longer fully fund these programs.

In addition, there are a number of programs that can be expanded to better achieve these priorities. These include:

- Implementing proactive asset management of existing stormwater facilities to prevent costly failures in the future;
- Expanding capacity to respond to natural flooding events in rural areas;
- Boosting agricultural production by expanding ADAP;
- Increasing the number of [capacity to implement] habitat restoration and water quality improvement projects;
- Improving the ability to maintain King County assets by implementing standardized tools, systems, and processes;
- Offering a fee discount to low-income property owners;
- Providing grants for community projects that improve water quality.

In addition to the programs in WLR, there are the Roads drainage capital projects that are programmed with SWM funding that are not yet backed by SWM revenue. As any increase in the SWM rate under the current rate structure would increase the amount that Roads pays in SWM fees, impacts of a rate increase for Roads are also taken into consideration. If the SWM rate increases and there is no additional funding for ROW drainage projects, Roads would need to cut other programs to pay this increased fee amount. Even using the SWM fee to support drainage projects in the ROW could take

away from other Roads programs if they did not have planned drainage work at the level of the fee. Other planned work might have to be deferred to pay the fee, and if the fee dollars were returned to Roads for regional drainage work in the ROW, those dollars would be restricted for that purpose.

The funding and rate implications of these various programs are noted below in Table 2:

Table 2: Potential Funding Packages for the SWM Fee

Rate Component	2017/2018 Costs (\$ Million)	2017/2018 Annual fee for a single family residence	% Increase of Rate
Existing services funded with current rate	48.5	171.50	0%
Inflation to maintain existing services	4.9	17.32	10%
Implement asset management for WLR assets	6.5	23.12	13%
Expand programs to support agriculture and rural residents	2.3	8.02	5%
Habitat restoration and water quality improvement capital program expansion	1.7	6.00	4%
Programs that improve performance - best run government	2.5	8.67	5%
Sub-total for WLR programs	66.4	234.63	37%
2015/2016 unfunded carryover transfer for ROW drainage projects	2.0	7.07	4%
Funding to mitigate impacts of fee increase for Roads	4.6	16.26	9%
Respond to imminent failure in ROW	3.4	12.02	7%
Total	76.4	269.98	57%

Below are a series of scenarios that takes into account different decision levers and their impact on the rate. The impact of these scenarios on revenue generated from the SWM fee, the SWM fee rate, the expenditure levels in the different programs, and the amount of SWM fee paid by Roads is included in Table 3.

Scenarios:

1. Status quo rate of \$171.50; this would require a reduction in current programming as it does not cover inflationary impacts.
2. Fund existing programs taking into account only inflationary impacts.
3. Enhance / expand existing programming in WLR (detailed below).
4. Do not charge Roads and WSDOT a SWM fee; fund programming in Scenario 3.
5. Allocate the amount of SWM fee paid by Roads associated with the fee increase to drainage in the ROW; cover the 2015/2016 carryover, and fund WLR programming from Scenario 3.

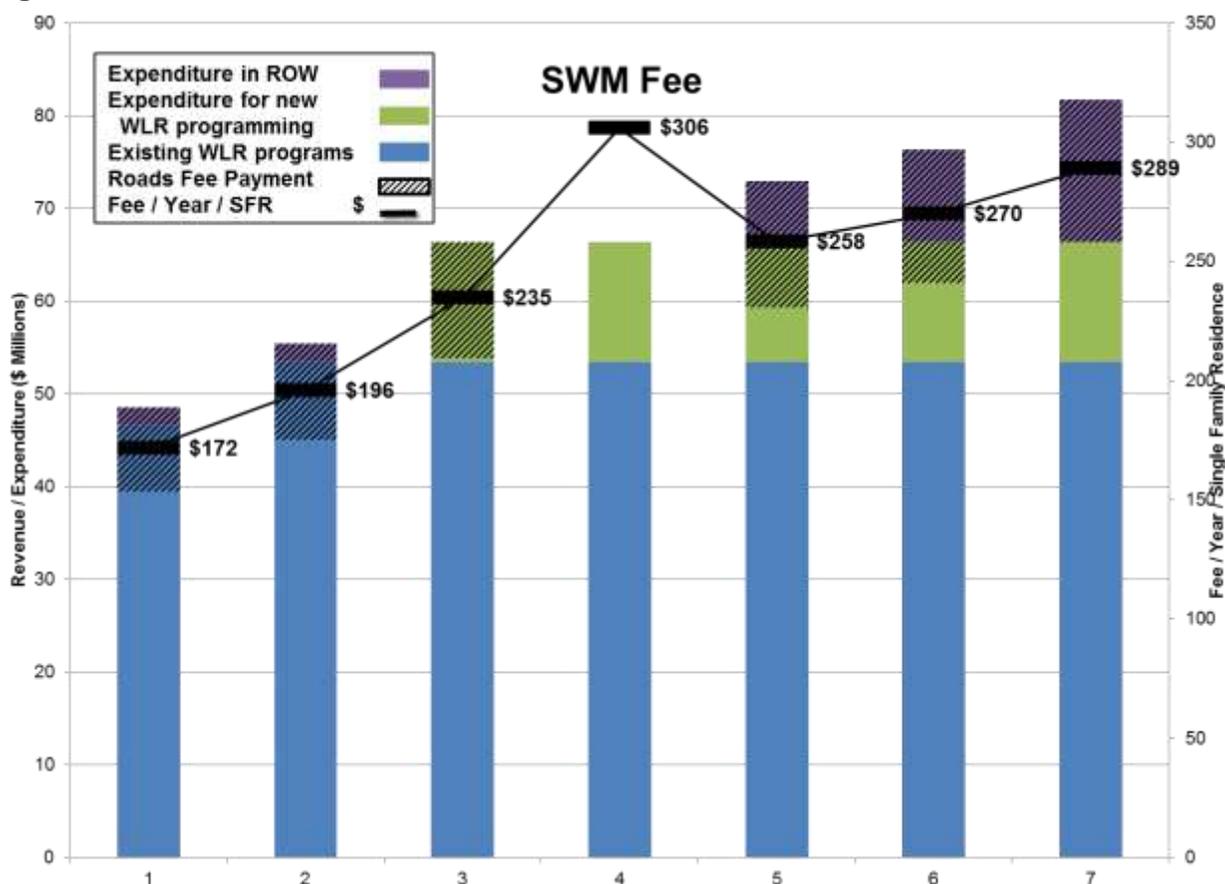
6. Add funding to respond to potential for imminent failure of drainage assets in the ROW in addition to elements in Scenario 3.
7. Spend the amount of fee collected from Roads in the ROW in addition to elements in Scenario 3.

Table 3: Different Funding and SWM Fee Scenarios

Scenario	Total Revenue Raised (\$ M)	Rate (\$ / SFR / Yr.)	Spend for WLR Programs	Spend for ROW Drainage	Roads SWM Payment
1	48.5	171.50	46.5	2.0	9.1
2	55.4	195.87	53.4	2.0	10.4
3	66.3	234.52	66.3	0.0	12.5
4	66.3	306.01	66.3	0.0	0.0
5	73.0	258.00	66.3	6.6	13.7
6	76.3	269.77	66.3	10.0	14.4
7	81.7	288.86	66.3	15.4	15.4

Figure 1 shows these different scenarios in a bar graph. For each scenario, all of the colored bars align with the left vertical axis that indicates the amount of revenue needed to support different scenarios' program expenditures. The blue bar represents the amount of revenue that would be required to generate the funding for existing program expenditures. The green bar represents the amount of funding required for expanded programs in WLR. The purple bar represents funding for drainage work in the ROW. The hashed bars represent the amount of the total SWM revenues collected that are paid for by Roads. The black bar and line represent the SWM fee that would be needed to generate sufficient revenue for the programming in each respective scenario. The fee is aligned with the right vertical axis. While for most of the scenarios the fee and the revenues/expenditures track together, in scenario 4 the fee is significantly increased because it assumes that other rate payers would need to pay the portion of the fee that would otherwise be paid by Roads and WSDOT.

Figure 1: SWM Fee Scenarios



The SWM fee rate will be set to fund programmed expenditures. Decisions about what services will be funded out of the next SWM rate will be determined during the 2017/2018 budget process. To prepare for these decisions, Figure 2 shows a forecast of Scenario 6 to demonstrate how different expenditure packages could affect the rate over time. As with Figure 1, in Figure 2 all of the colored bars align with the left vertical axis that indicates the amount of revenue needed to support the scenario’s program expenditures. The first set of expenditures (blue) represent existing programming funded by SWM fee revenues that is adjusted for inflation. Layered on top of the existing programming is the carryover of appropriation for drainage projects in the ROW from the 2015/2016 budget (red). The next layer (green) represents the funding for the expansion of programs for WLR drainage assets and water quality improvement programs. The last layer (purple) represents funding for additional drainage work in the road right of way. These cost packages illustrate what could be included in a SWM rate.

The right vertical axis shows the rate for a single family residence that would generate those revenues. The rate in each year is represented by a black bar. These rates are shown as biennial rates to align with the biennial budget process, but rates do not need to be set biennially; they could be established as annual rates or with durations longer than two years. The rate jump from 2016 to 2017/2018 is a function of both additional programming and the fact that there are accumulated inflationary impacts on existing

programs since the rate was last adjusted in 2014. A primary driver of the rate increase from 2017/2018 to 2019/2020 is a result of anticipated annexations. These annexations would not significantly change expenditure needs, but would reduce the number of ratepayers, shifting the cost burden to a smaller number of payers.

Figure 2: SWM Fee and Revenue Forecast

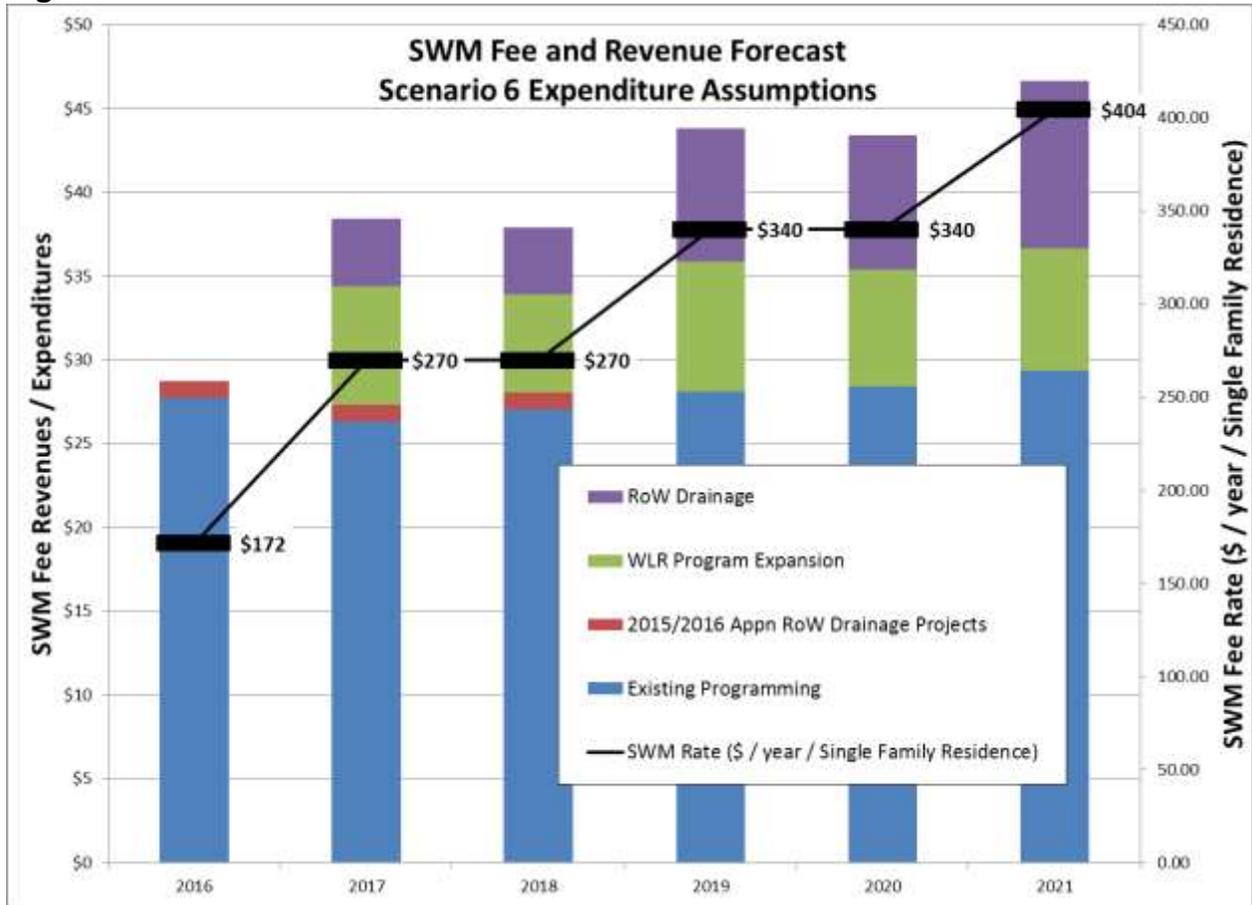


Table 4. SWM Fee and Revenue Forecast

	2016	2017	2018	2019	2020	2021
Existing WLR SWM-Funded Programming	27.7	26.3	27.1	28.1	28.4	29.4
2015/2016 Carryover Drainage Projects in ROW	1.0	1.0	1.0			
WLR Program Expansion		7.1	5.8	7.7	7.0	7.3
Respond to Failure in ROW		4.0	4.0	8.0	8.0	10.0
SWM Rate (\$ / year / Single Family Residence)	171.50	269.87	269.87	340.00	340.00	404.33
WSDOT SWM Payments	1.0	1.7	1.7	2.2	2.2	2.6
Roads SWM Payments	4.6	7.2	7.2	9.1	8.4	10.0

Note: all numbers are in millions of dollars with the exception of the SWM rate which is the total fee per year for a single family residence.

Conclusion and Next Steps

This report provides background to inform discussions about the SWM rate and drainage in the ROW that will occur as part of the 2017/2018 budget process. The rate process will include a public outreach component and a detailed rate proposal will be transmitted in connection with the 2017/2018 Proposed Budget in September 2016.

June 28, 2016

The Honorable Joe McDermott
Chair, King County Council
Room 1200
C O U R T H O U S E

Dear Councilmember McDermott:

This letter transmits a report that will provide information about how King County can fund drainage projects in the roadway with the Surface Water Management (SWM) fee, in accordance with Ordinance 17941, Section 77, Proviso P1.

Specifically, the report will accomplish the following:

- Provide information about SWM revenue attributable to state highways and County roads;
- Describe how expenditures of state funding comply with state law;
- Outline plans for the use of SWM revenues for drainage projects in King County road rights-of-way (ROW);
- Review the legal basis for the SWM rate and state and County roads; and
- Provide a SWM rate plan, schedule, and forecast.

The report also furthers the goals of key County plans and initiatives as follows:

- The report furthers the Environmental Sustainability goal of the King County Strategic Plan by exploring how to fund stormwater management projects that protect water quality. The report also furthers the Economic Growth and Built Environment goal by exploring ways to mitigate barriers to mobility that could be caused by the failure of drainage assets in the roadway.
- The report is applicable to residents and property owners in unincorporated King County. Unincorporated area property owners pay the SWM fee and use the roadway, and are the primary stakeholders in the policy decisions that will be informed by this report.

In developing the report, the Department of Natural Resources and Parks (DNRP) engaged residents of unincorporated King County by attending community service area meetings to

The Honorable Joe McDermott
June 28, 2016
Page 2

discuss stormwater management and the funding challenges for roadway drainage issues. DNRP staff partnered with Department of Transportation (DOT) staff to develop this report and DOT staff support the findings in this report. DNRP will continue to reach out to stakeholders with the information provided in the report, and gather input to inform future decisions about the SWM rate.

It is estimated that the report required 80 staff hours to produce, costing \$8,000. The estimated printing cost for this report is \$20.

Thank you for considering this report. The actions mentioned in this report will help King County residents understand how SWM funding can support roadway drainage and the implications of this funding on the SWM fee rate.

If you have any questions about this report, please contact Mark Isaacson, Division Director of the Water and Land Resources Division of the Department of Natural Resources and Parks, at 206-477-4601.

Sincerely,

Dow Constantine
King County Executive

Enclosures

cc: King County Councilmembers
 ATTN: Carolyn Busch, Chief of Staff
 Anne Noris, Clerk of the Council
Carrie S. Cihak, Chief of Policy Development, King County Executive Office
Dwight Dively, Director, Office of Performance, Strategy and Budget
Harold Taniguchi, Director, Department of Transportation (DOT)
Brenda Bauer, Division Director, Road Services Division, DOT
Christie True, Director, Department of Natural Resources and Parks (DNRP)
Mark Isaacson, Division Director, Water and Land Resources Division, DNRP

Attachment 3: Roads Countywide 2015-2016 Drainage Program by Funding Source

Project by Funding Source		Council District	2015-16 Inception to Date (ITD) Budget (New Appropriations + Carryforward)	2015-16 Actuals Biennium to Date at 6/30/2016)	2015-16 Balance	Project Scope
Road Services Division Funding						
1111819	RSD C W DRAINAGE PRESERVATION					Countywide ongoing maintenance and preservation program for drainage assets by geographic area.
	Unallocated		910,642			
	Shouldering		1,805,704	1,372,430	433,273	
	Preservation		7,034,904	5,884,662	1,150,242	
	Total Road Funded		9,751,071	7,257,093	2,493,978	ITD Budget Includes \$251,017 carryover from 2013/14, \$8 million from 2015/16 budget and \$1.5 million from mid-biennial budget
Surface Water Management Funding						
1126436	RSD NE UNION HILL RD&225 AV NE	3	1,267,297	105,168	1,162,129	Install a new box culvert and provide for fish passage on Rutherford Creek.
1126437	RSD XPIPE 16215 NE 124 ST	3	501,299	82,839	418,460	Install a new cross-culvert
1126438	RSD XPIPE NE 124 ST&164 AVE NE	3	642,164	84,965	557,199	Install a new crosspipe on NE 124th Street
1126441	RSD S 96 ST STORMWATER PIPES	8	1,407,048	29,793	1,377,255	Evaluate, design, and install new pipe liners or install new pipe
1126443	RSD CROSSPIPE 229 DRIVE SE	6	182,192	47,852	134,340	Study solutions including potentially installing new bridge or box culvert at this crossing of McDonald Creek
	Total SWM Funded		4,000,000	350,616	3,649,384	
Flood Control District Funding						
1127589	RSD 165 ST FLD RSK RDUCTN	3	760,146	38,660	721,486	Raise road elevation on NE 165th St between 179th PI NE and 183rd PI NE
1127590	RSD 212 AV SE FLD RSK RDUCTN	7	409,594	30,715	378,879	Install underground overflow conveyance system
1127591	RSD 185 AV NE FLD RSK RDUCTN	3	404,330	33,196	371,134	Raise road elevation of 185th Avenue NE, between NE Woodinville Duvall Road and NE 179th Street
	Total Flood Control District Funded		1,574,070	102,571	1,471,499	
Total Roads CIP Drainage Program			15,325,141	7,710,280	7,614,861	

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King County

**Metropolitan King County Council
Transportation, Economy and Environment Committee**

STAFF REPORT

Agenda Item:	11	Name:	Hiedi Popochock Lise Kaye
Proposed No.:	2016-0279	Date:	August 30, 2016

SUBJECT

A Motion approving a report on the road right-of-way drainage trunk line inventory prepared by the Water and Land Resources Division and the Road Services Division.

SUMMARY

Proposed Motion 2016-0279 would approve a report on King County's road right-of-way drainage trunk line inventory transmitted by the Department of Natural Resources and Parks' Water and Land Resources Division (WLRD) and the Department of Transportation's Road Services Division (RSD) in accordance with 2015/2016 Biennial Budget Ordinance 18110, Section 30, Proviso P3.

WLRD and RSD transmitted the budget proviso response on May 27, 2016 prior to the May 30, 2016 deadline outlined in the budget proviso. The Report provides an extrapolated inventory of the drainage trunk system within major road rights-of-way in unincorporated King County, with an associated low level of confidence in the resultant accuracy of the database. Approximately 15 percent of the drainage system assets were mapped and inspected to verify condition in the assessment. Council may wish to consider a number of associated policy issues in the 2017/2018 budget process.

Council staff has prepared a title and technical striking amendment to correct the budget proviso section and proviso number referenced in the Proposed Motion and Attachment A, Road Right-of-Way Drainage Trunk Line Inventory (**Attachment 2 & 3**).

BACKGROUND

Following King County's merger in 1994 with the Municipality of Metropolitan Seattle, the then-Public Works Department was dissolved and its functions reassigned to a new Department of Natural Resources and Parks (DNRP) and a new Department of Transportation (KCDOT). This reorganization directed how the county's surface water drainage system would be managed: KCDOT's new Roads and Engineering Division (now Road Services Division or RSD) would manage drainage infrastructure located within the rights-of-way (ROW) of unincorporated King County, and DNRP's new Water

and Land Resources Division (WLRD) would manage the drainage infrastructure located outside of the ROW in unincorporated King County.

In the 2015/2016 budget process, WLRD requested to transfer \$1 million to RSD for data collection. The data collection tasks would create an inventory of the drainage trunk system that would provide baseline data for the extent and condition of the system within major road ROW. The \$1 million was a mid-range estimate of the costs of this effort, which included county and consultant-supported record compilation, field investigations using mobile cameras, and prioritization of acquired data. The result of this effort would be mapped assets and asset condition information that could inform future prioritization of a program for replacement and repair, and identify risks of failure and failure impacts.

The County Council approved Ordinance 17941 that required the executive to transmit a report that provided a comprehensive assessment of King County's drainage trunk line inventory.

The 2015/2016 Budget Ordinance 18110, Section 30, Proviso P3 reads:

“Of this appropriation, \$1,000,000 shall not be expended or encumbered until the executive transmits a drainage trunk line inventory report and a motion that approves the report and the motion is passed by the council. The motion shall reference the subject matter, the proviso's ordinance, ordinance section and proviso number in both the title and body of the motion.

The report shall include, but not be limited to:

- A. The location and condition of the drainage trunk system within major road rights-of-way in unincorporated King County;*
- B. The estimated accuracy of the resultant database;*
- C. An analysis of the data to assess risks of failure and failure impacts;*
- and*
- D. A prioritized program for maintenance, including replacement schedule and costs.*

The executive must file the report and motion required by this proviso by May 30, 2016, in the form of a paper original and an electronic copy with the clerk of the council, who shall retain the original and provide an electronic copy to all councilmembers, the council chief of staff, the policy staff director and the lead staff for the transportation, economy and environment committee, or its successor.”

ANALYSIS

WLRD and RSD transmitted the Road Right-of-Way Drainage Trunk Line Inventory Report (“the Report”) to Council on May 27, 2016 prior to the May 30 deadline as outlined in the budget proviso P3, previously described in this staff report. The Report provides information on the four required elements prescribed in the budget proviso and are described below. The Report provides an extrapolated inventory of the drainage

trunk system within major road ROW in unincorporated King County, with an associated low level of confidence in the resultant accuracy of the database. Approximately 15 percent of the drainage system assets were mapped and inspected to verify condition in the assessment. The Report also provides a link to the report (“the Consultant Report”) that HDR, Inc. (“the Consultant”) prepared detailing its assessment of King County’s drainage trunk system¹.

Location and condition of the drainage trunk system. The Report explains that historically, when King County road drainage systems were built, they were not necessarily mapped or recorded, nor was the condition of the drainage assets that were mapped assessed and updated on a regular basis. In order to locate and assess the condition of King County’s drainage trunk line system, the Report notes that WLRD and RSD hired the Consultant to conduct an inventory assessment (Phase 1) and a business risk assessment (Phase 2) within the major road ROW. According to the Report, WLRD and RSD directed the Consultant to develop different data sets according to three criteria: 1) whether the assets were known; 2) whether they were mapped; and 3) whether their condition was verified by onsite inspection.

The Consultant Report indicates that WLRD provided the Consultant with approximately 1,266 pre-selected drainage assets² to be inspected. Of the 1,266 pre-selected assets, 1,174 were active (i.e., not retired), 24-inches in diameter or greater and were inspected in Phase 1.

According to the Report, the analysis is built on the following asset data sets:

1. Mapped and inspected to verify condition: The Report indicates that there were 897 assets where the age³ and material⁴ suggested that these assets could be of concern; these were inspected by the Consultant to verify the condition.
2. Mapped, condition not verified: The Report further notes that 123 assets were not accessible for inspection and the age and material of 3,315 assets suggested they were not of concern in the near term; for purposes of analysis, the asset conditions were presumed based on age and material rather than inspection.
3. Unknown therefore not mapped and not inspected: By utilizing a Geographic Information System (GIS) model to extrapolate assumed assets where the actual location and condition was unknown, the Report states that the model projected approximately 1,627 assets by looking at areas of similar zoning and ratios of drainage assets to roadway length.

¹ http://your.kingcounty.gov/dnrp/library/water-and-land/stormwater/KC_ROW_Drainage_Assessment_Final_Report.pdf

² According to Executive staff, the pre-selected asset information was extracted from WLRD’s Stormwater Geodatabase.

³ The Consultant Report notes that the “age” of the assets ranged from less than 25 years to greater than 100 years.

⁴ The Consultant Report notes that the “material” of the assets consisted of corrugated metal pipe, high density polyethylene pipe, poly vinyl chloride pipe, concrete, ductile iron and corrugated plastic pipe made by Advanced Drainage Systems (ADS).

Table 1 below summarizes the results of the asset inspections, the extrapolation model projections and the level of confidence of the condition rating provided by the Consultant in the Report.

Table 1. Summary of Assets by Data Set

Data Set	# of Assets in Data Set	% of Total Assets	# of Critical Assets	% of Critical Assets in Data Set	Confidence Level in Condition Rating
Mapped assets, inspected to verify condition	897	~15%	33	~3.7%	71%
Mapped assets, not inspected, condition not verified	3,438	~58%	104	~3%	37%
Unknown and unmapped assets, condition not known	1,627	~27%	102	~6%	6%
TOTAL:	5,962	100%	239	~4%	

To illustrate the location of the drainage assets within the major road ROW, the Consultant divided the unincorporated areas of King County into 14 areas as shown in Figure 1. In addition to locating the assets, the Report indicates that assets in each data set and area were rated critical, high, medium and low for risk exposure according to the verified, presumed, or extrapolated condition assessment. Critical assets were defined as posing an imminent threat⁵ of failure. Table 2 below summarizes the mapped and inspected assets that have a critical or high risk exposure in the 14 areas in King County, according to the Report.

⁵ The Consultant Report defines "imminent threat" as a threat of failure which is present now, although the impact of the threat may not be felt until later.

Figure 1. Map areas used to locate drainage assets in major road ROW

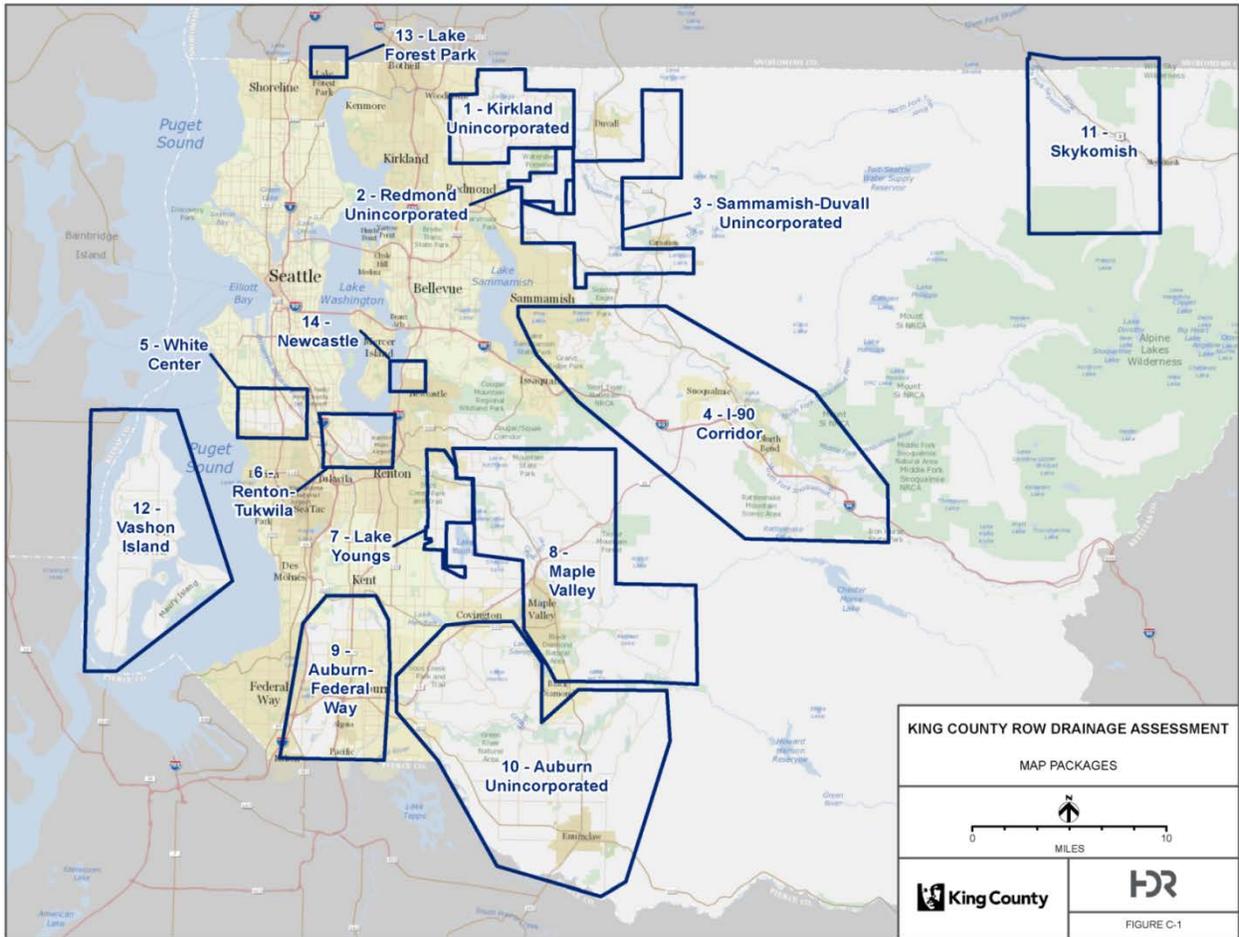


Table 2. Number of Assets Mapped and Inspected by Area including the Number of Assets that have a Critical/High Risk Exposure

Map Area #	Area	Total Assets Mapped & Inspected	# of Mapped & Inspected Assets w/ Critical/High Risk Exposure	% of Mapped & Inspected Assets w/ Critical/High Risk Exposure	% of Total Critical/High Risk Exposure Assets
1	Kirkland Unincorporated	58	39	67%	11%
2	Redmond Unincorporated	183	33	18%	9%
3	Sammamish-Duvall Unincorporated	73	41	56%	11%
4	I-90 Corridor	82	40	49%	11%
5	White Center	41	18	44%	5%
6	Renton/Tukwila	58	28	48%	8%
7	Lake Youngs	100	42	42%	12%
8	Maple Valley	117	44	38%	12%
9	Auburn-Federal Way	66	16	24%	4%
10	Auburn Unincorporated	74	37	50%	10%
11	Skykomish	7	5	71%	1%
12	Vashon Island	33	16	48%	4%
13	Lake Forest Park	1	1	100%	0%
14	Newcastle	4	2	50%	1%
	Totals:	897	362		

Estimated accuracy of the resultant database. As shown in Table 1 above, the Report shows that the Consultant has a confidence level of 71 percent for the condition ratings of the 897 assets that were inspected. Alternatively, the Consultant’s confidence level for the 3,438 assets that were mapped but not inspected is 37 percent, but the confidence level is only six percent for the 1,627 assets that were extrapolated, unmapped and uninspected.

Analysis of the data to assess risks of failure and failure impacts. According to the Report, the Consultant projected four different levels of service over a 10-year and 100-year period in order to compare the risks of failure and failure impacts for different maintenance and investment strategies in the near and long-terms.

- *Level of Service A* – This level would manage all assets to lowest risk tolerance and would not create a backlog in the future.
- *Level of Service B* – This level would manage all assets to lowest risk tolerance; eliminate the backlog in 25 years and would prevent a new backlog accumulating.

- *Level of Service C* – This level would manage only critical risk assets; slowly eliminate the backlog however, it would increase the backlog over time.
- *Level of Service D* – This level would run assets to failure and would respond to emergencies only.

Table 3 below illustrates three of the four levels of service, including each level's business risk exposure and the costs of ownership by levels of service. The Report does not list Level of Service B in Table 3 since the assumptions used treated the backlog of actions inconsistently from the other levels of service, resulting in skewed preservation costs that could not be fairly compared to the other levels of service. The Consultant Report states that the business risk exposure rating was calculated by using the product of two input values: Probability of Failure (POF) multiplied by the Consequence of Failure (COF).⁶ The Consultant Report also notes that the estimated ownership costs has a margin of error range of -50 percent to +100 percent. Level of Service D, which would run assets to failure and respond to emergencies has a business risk exposure of 81, the highest of the three levels, and ownership costs of \$335 million in real costs over the next 10 years.

Table 3. Costs of Ownership by Levels of Service

ID	Level of Service	Backlog	Ownership Costs over Next 100 Years, in Net Present Value	100-Year Maximum Business Risk Exposure ⁷	Ownership Costs over Next 10 Years, in Real Costs	Variance: -50% to +100%, in Real Costs*
A	Manage all assets to lowest risk tolerance	Eliminated in first year, none created in future	\$750M	58	\$500M	\$250M – \$1B
C	Manage critical risk assets	Slowly eliminated, more added over time	\$815M	66	\$348M	\$174M – \$696M
D	Run assets to failure, respond to emergencies	Grows over time	\$829M	81	\$335M	\$167.5M – \$670M

*Costs represents Class 5 estimates as defined by the Association for the Advancement of Cost Estimating with an expected accuracy range of -50 percent to +100 percent.⁸

⁶ According to the Consultant Report, POF is defined as the relative likelihood that an asset might fail. This factor is driven largely by structural condition. COF is defined as the relative cost (i.e., monetary, public health, safety, etc.) that may result from failure. This factor is driven largely by an asset's location relative to other structures and is less sensitive to structural condition.

⁷ The business risk exposure runs on a scale of 0 to 100, where 0 is the lowest risk exposure and 100 is the highest.

⁸ Source: HDR, Inc report on King County's Drainage Trunk Line System Assessment, Section 5.6, page 75

The Report further notes that the Consultant found the highest level of service (A) costs the most to manage in the 10-year timeframe. Under this scenario, assets are rehabilitated or replaced prior to their expected failure date, which increases the near-term management costs but decreases the long-term costs associated with potential asset collapse.

Prioritized program for maintenance, including replacement schedule and costs.

The Report states that the Consultant provided estimates of the costs associated with one-time preservation actions and ongoing operations in order to recommend immediate actions for the mapped assets where the condition was verified through inspection. Table 5 below summarizes the estimated costs over a 10-year period and the associate risk mitigation action needed for the 897 assets that were mapped and inspected. The Consultant Report notes that the cost estimates are in 2016 dollars based on the average costs from RSD’s records, recent available contractor bids and RSMMeans construction cost data⁹.

Table 5. Cost estimate for near-term risk mitigation actions for mapped and inspected assets

Action	Cost Estimate	Cost Basis
On-going mapping, inventory, and condition assessment	\$2,000,000	10-year cost
Enhanced condition assessment ^a	\$900,000	10-year cost
Routine inspection ^b	\$140,000	10-year cost
Triggered inspection ^c	\$60,000	10-year cost
Maintenance cleaning ^d	\$340,000	10-year cost
Maintenance repair ^e	\$1,720,000	10-year cost
Preservation rehabilitation ^f	\$700,000	one-time cost
Preservation replacement ^g	\$19,880,000	one-time cost
Total Cost:	\$25,740,000	

Assumptions used to build the prioritized maintenance program in Table 5:

- a. Enhanced condition assessment for 140 assets every 2 years, 116 assets every 5 years, and 242 assets every 10 years; assigned based on calculated business risk exposure scores.
- b. Routine inspection of 25% of assets each year.
- c. Triggered inspection of 10% of assets each year.
- d. Cleaning of 30% of manhole and catch basin assets and 10% of pipe and culvert assets each year.
- e. Repair of 2% of assets each year.
- f. Rehabilitation of 23 catch basins and 21 pipes with a total length of 1500 feet.
- g. Replacement of 39 culverts, 23 catch basins, 21 pipes with a total length of 1500 feet, and 1 manhole. Includes cost estimates for the NE Union Hill Road @ 225th Ave NE box culvert (\$1.35 M) and S 96th St stormwater pipes projects (\$1.48 M).

http://your.kingcounty.gov/dnrp/library/water-and-land/stormwater/KC_ROW_Drainage_Assessment_Final_Report.pdf

⁹ RSMMeans data was used to estimate costs for pipe bursting only.

The Consultant Report also provides a breakdown of cost estimates categorized by the risk condition of the asset: critical, high, medium and low. Table 6 provides a list of estimated near-term preservation rehabilitation and replacement costs needed for assets that were inspected in Phase 1.

Table 6. Near Term Preservation Costs by Risk Category for Inspected Assets

Risk Category	Number of Asset	Preservation Action Cost
Critical	33	\$6,460,000
High	93	\$12,620,000
Medium	2	\$1,500,000
Low	0	\$0
Total:	128	\$20,580,000

Policy considerations. Council may wish to consider a number of policy considerations in the Report and in the Consultant Report when deliberating the potential surface water management fee rate increase in the 2017/2018 budget process in which proposed Motion 2016-0279 and proposed Motion 2016-0348 may assist in guiding budget discussions.

Confidence level of assessment. As previously discussed, the Report does not reflect a map and/or inspection of all of the county’s drainage trunk line system assets. The Consultant mapped and inspected a total of 897 drainage assets of the estimated 5,962 assets. This represents only 15 percent of the projected total drainage system assets within the major road ROW in unincorporated King County. Of note, the Consultant provided a confidence level of the condition of the 897 assets at 71 percent. The remaining drainage assets have a confidence level of 37 percent (3,438 assets) or 6 percent (1,627 assets). The absence of reliable information presents challenges when seeking to prioritize investments or to cost out anticipated levels of service for system maintenance. The finding with respect to mapped and inspected assets in critical states of disrepair appears to present a reliable picture of that data set of assets.

Future SWM/RSD investments. Council may also wish to evaluate how the Report’s findings affect future SWM and RSD funding for roadway drainage projects. The Strategic Plan for Road Services (2014 Update) estimated a \$90 million backlog of drainage project needs and estimated that an annual investment of \$15 million per year would reduce the backlog of needs in 2020 by 80 percent, to \$24 million.¹⁰ According to the Report, even the lowest estimated level of service (allowing systems to fail and then providing emergency response) would cost \$335 million over the next 10 years. Council may wish to see comparative analyses of these two projections.

Unknown implementation costs. The Consultant Report provides a number of recommended actions for the county to implement for its drainage system. However, it

¹⁰ Source: Strategic Plan for Road Services, page 24

does not provide estimated costs related to the specific recommendation. Table 6 provides a list of recommendations provided by the Consultant where the costs associated with the action were not quantified. Funding for some or all of these actions may be considered in upcoming budget discussions.

Table 6. Programmatic Asset Management Recommendations Costs not included in the Consultant Report

Programmatic Asset Management Recommendations
Costs for implementing steps to select the desired level of service
Costs for using inspection data to adjust the asset management framework and update plans accordingly
Costs to review/revise probability of failure to include failure factors beyond mortality
Costs to review and revise consequence of failure factors based on selected level of service alternative
Costs to validate unmapped asset inventory
Costs to validate business risk exposure risk scores for uninspected assets
Costs to administer an enhanced condition assessment program and rescoring risks or updating risk mitigation actions and associated cost estimates
Costs to conduct hotspot mapping to identify problem areas in the system
Costs to develop and implement a formal CIP prioritization process
Costs to formalize the stormwater asset management program

The proposed Motion would approve the report prepared by WLRD and RSD as required by the budget proviso. The Consultant Report's Executive Summary is attached to this staff report as Attachment 5.

AMENDMENT

Striking amendment 1 would correct the internal references of the budget proviso section and proviso number for the required SWM Drainage Trunk Line Inventory Report. Title amendment 1 would reflect the changes in striking amendment 1.

ATTACHMENTS

1. Proposed Motion 2016-0279 and Attachment A, Road Right-of-Way Drainage Trunk Line Inventory
2. Striking Amendment 1
3. Title Amendment 2
4. Transmittal Letter
5. King County Road Right-of-Way Drainage Trunk Line Assessment Executive Summary prepared by HDR, Inc.

INVITED

1. John Taylor, Assistant Division Director, King County Water and Land Resources Division
2. Jay Osborne, Deputy Director, Road Services Division
3. Tricia Davis, Budget Manager, Performance, Strategy and Budgeting



KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

August 26, 2016

Motion

Proposed No. 2016-0279.1

Sponsors Lambert

1 A MOTION approving a report on the road right-of-way
2 drainage trunk line inventory in accordance with 2015/2016
3 Biennial Budget Ordinance 17941, Section 53, Proviso P1.

4 WHEREAS, Ordinance 17941, Section 53, Proviso P1 states that one million
5 dollars could not be expended or encumbered until the executive transmits a drainage
6 trunk line inventory report and a motion that approves the report and the motion is passed
7 by the council, and

8 WHEREAS, much of the county's road drainage system is at or nearing the end of
9 its useful life, and

10 WHEREAS, the largest and most costly components of this aging network are the
11 pipe systems and metal culverts twenty-four inches or larger in diameter, and

12 WHEREAS, the water and land resources division of the department of natural
13 resources and the road services division of the department of transportation have worked
14 together with a consultant to conduct an inventory and business risk assessment of the
15 drainage trunk system within major road rights-of-way in unincorporated King County,
16 and

17 WHEREAS, the inventory report provides information on the location and
18 condition of the drainage trunk system within major road rights-of-way in unincorporated
19 King County, estimates accuracy of the resultant database, analyzes data to assess risks of

20 failure and failure impacts, and includes a prioritized program for maintenance that
21 contains a replacement schedule and costs, and

22 WHEREAS, the executive has transmitted to the council the requested report and
23 motion;

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

Motion

25 The report on the road right-of-way drainage trunk line inventory, submitted as
26 Attachment A to this motion, is hereby approved.
27

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

J. Joseph McDermott, Chair

ATTEST:

Anne Noris, Clerk of the Council

APPROVED this ____ day of _____, _____.

Dow Constantine, County Executive

Attachments: A. Road Right-of-Way Drainage Trunk Line Inventory

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Road Right-of-Way Drainage Trunk Line Inventory

Prepared in accordance with
Ordinance 17941, Section 53, Proviso P1

May 2016



King County

Department of Natural Resources and Parks
Water and Land Resources Division
and
Department of Transportation
Road Services Division

Table of Contents

Introduction	3
Executive Summary	3
Report Requirements	4
• The location and condition of the drainage trunk system within major road rights-of-way in unincorporated King County	4
• The estimated accuracy of the resultant database	6
• An analysis of the data to assess risks of failure and failure impacts	6
• A prioritized program for maintenance, including replacement schedule and costs	7

Introduction

Ordinance 17941, Section 53, Proviso P1 requires the King County Executive to transmit a report to the Council that inventories and assesses the drainage trunk line within major road rights-of-way in unincorporated King County.

Specifically, the Ordinance requires the report to include:

- The location and condition of the drainage trunk system within major road rights-of-way in unincorporated King County;
- The estimated accuracy of the resultant database;
- An analysis of the data to assess risks of failure and failure impacts; and
- A prioritized program for maintenance, including replacement schedule and costs.

This report addresses each requirement under a separate heading that corresponds to the particular requirement.

Executive Summary

The Water and Land Resources (WLR) Division of the Department of Natural Resources and Parks and the Road Services Division (Roads) of the Department of Transportation collaborated on the development of this report. The two agencies hired HDR, Inc. as the prime consultant to conduct an inventory and business risk assessment of the drainage trunk system within major road rights-of-way.

Much of the County's road drainage system is at or nearing the end of its useful life. Since the largest and most costly components of this aging network are the pipe systems and metal culverts 24 inches or larger in diameter, that is where the consultant focused the inventory and assessment. Below are key findings from the consultant.

- There are just under 6,000 drainage assets ≥ 24 " in the road rights-of-way in unincorporated King County.
- About 4 percent of these drainage assets are projected to be in critically poor condition, at imminent threat of failure.
- For the next 10 years, costs of ownership range from \$335 million to \$500 million, depending on level of service provided.
- The lowest level of service evaluated (\$335 million over 10 years) assumes that all failing assets are replaced as they fail. If this level of service is not funded, then the response to failing assets will be less replacement and more road or lane closures or posting of warning signs to manage and minimize risk within available budget.

For the approximately 900 assets (15 percent) that have been mapped and inspected, the consultant identified \$25.7 million in on-going and one-time actions over the next 10

years to mitigate risk. This includes \$6.5 million in immediate preservation actions for 33 mapped and inspected assets verified to be at critical risk.

The results of this study are being used to inform the analysis for the development of the surface water management fee and the 2017/2018 budget proposals for the two participating agencies, WLR and Roads. The consultant's report can be found online at http://your.kingcounty.gov/dnrp/library/water-and-land/stormwater/KC_ROW_Drainage_Assessment_Final_Report.pdf.

Report Requirements

The location and condition of the drainage trunk system within major road rights-of-way in unincorporated King County

Historically when road drainage systems were built, they were not necessarily mapped or recorded. This meant WLR and Roads could not assume the existing inventory was complete. In addition, the condition of the drainage assets that were mapped was not assessed and updated on a regular basis. To undertake the analysis for this report, WLR and Roads directed the consultant to develop different data sets according to three criteria – whether the assets were known, whether they were mapped, and whether their condition was verified by onsite inspection.

The analysis is built on the following data sets of assets:

1. Mapped and inspected to verify condition: Age and material suggested these assets could be of concern, so the consultant inspected them to verify condition (897 assets);
2. Mapped, condition not verified: These assets were not inspected because either they were inaccessible (123 assets) or age and material suggested they were not of concern in the near term (3,315 assets); for purposes of analysis, the asset conditions were presumed based on age and material rather than inspection;
3. Unknown so not mapped and not inspected: Actual location and condition of these assets were not known but were extrapolated using a Geographic Information System (GIS) model that looked at areas of similar zoning and ratios of drainage assets to roadway length (extrapolation model projected approximately 1,627 assets).

To locate and assess drainage assets within major road rights-of-way, the consultant divided the Unincorporated County into 14 areas as shown in Figure 1. Assets in each data set and area were rated critical, high, medium, and low for risk exposure according to the verified, presumed, or extrapolated condition assessment. Critical assets were those considered at imminent threat of failure.

Table 1 shows for each data set the quantity of assets, percent of total drainage assets, number and percent of assets rated critical, and the confidence level in the condition ratings. The condition rating used to determine the confidence level considers the probability of the asset failing.

Figure 1. Map areas used to locate drainage assets in major road rights-of-way.

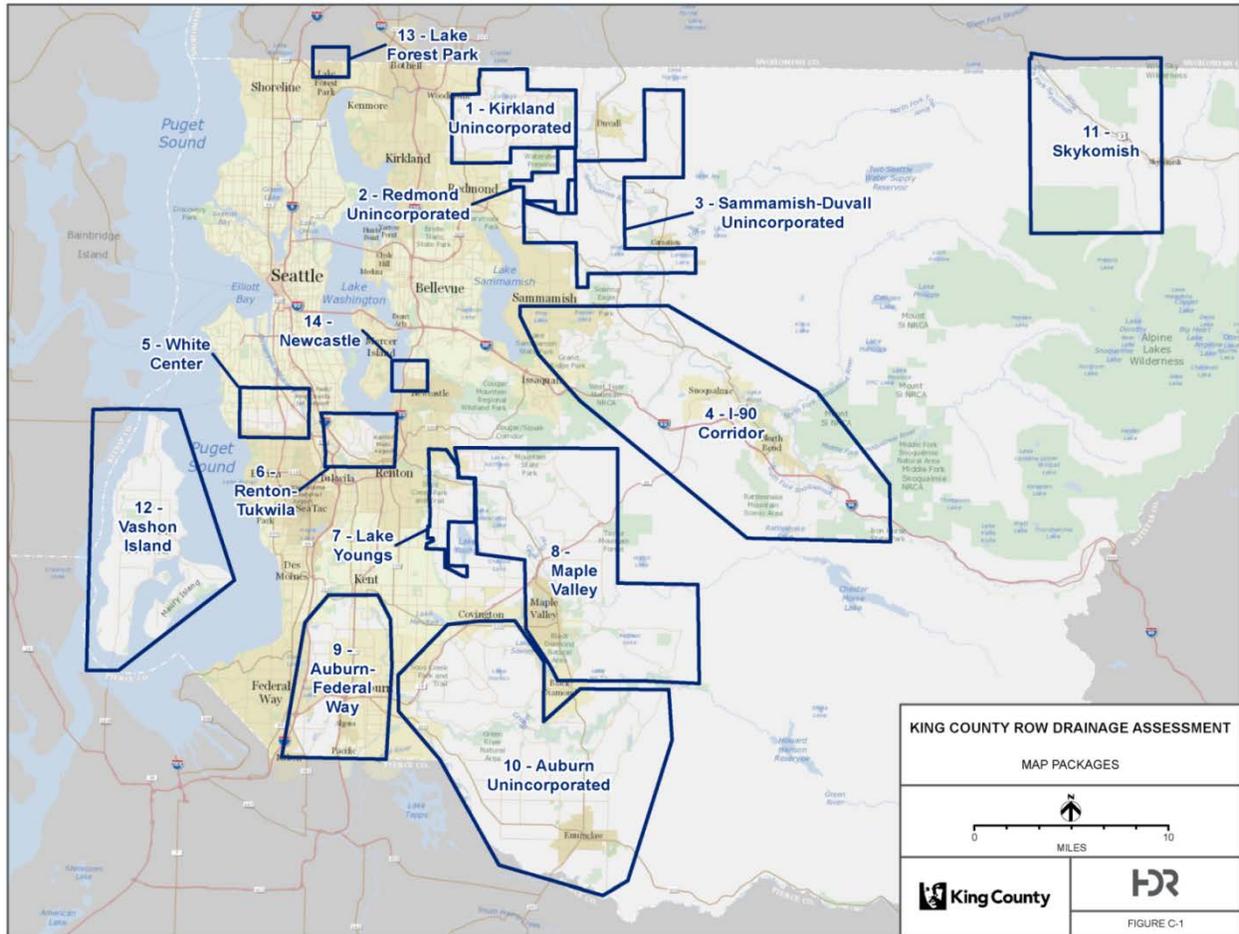


Table 1. Summary of assets by data set.

Data Set	# of Assets in Data Set	% of Total Assets	# of Critical Assets	% of Critical Assets in Data Set	Confidence Level in Condition Rating
Mapped assets, inspected to verify condition	897	~15%	33	~3.7%	71%
Mapped assets, not inspected, condition not verified	3,438	~58%	104	~3%	37%
Unknown and unmapped assets, condition not known	1,627	~27%	102	~6%	6%
TOTAL:	5,962	100%	239	~4%	

The estimated accuracy of resultant database

The estimated accuracy of the database can be measured by the confidence level in the condition ratings for the drainage assets. As shown in Table 1, the confidence level in the condition ratings for the mapped assets that were not inspected by the consultant is roughly half (37 percent) that of those assets the consultant did inspect (71 percent). The confidence level in the condition rating for the extrapolated assets that have not been mapped or inspected is very low (6 percent). This makes sense because field verifying an asset's condition provides greater accuracy than extrapolating an asset's existence, location, and condition through assumptions and GIS projections.

An analysis of the data to assess risks of failure and failure impacts

To assess risks of failure and failure impacts in both the near term and the long term, the consultant projected costs of ownership and business risk exposure for four different levels of service over 10 years and 100 years, using all three data sets of drainage assets ≥ 24 " in the major road rights-of-way in unincorporated King County. The consultant found the highest level of service costs the most to manage in the 10-year timeframe but has the lowest business risk exposure and costs the least over the 100-year timeframe; under this scenario, assets are rehabilitated or replaced before they are expected to fail, which increases the near-term management costs but decreases the long-term costs associated with potential asset collapse, such as for property damage, impacts to adjacent landowners, and possible road closures.

Table 2 below presents the costs of ownership and business risk exposure by levels of service. The table defines each level of service and its respective backlog of uncompleted actions, provides ownership costs over the next 100 years and the next 10 years, and states the 100-year maximum business risk exposure. The business risk exposure runs on a scale of 0 to 100, where 0 is the lowest risk exposure and 100 is the highest.

As Table 2 shows, over 10 years, the lowest level of service (D) costs less than the highest level of service (A); on the other hand, D has a very high maximum risk exposure (81 out of 100). In addition, level of service A costs less over the 100-year timeframe than level of service D when computed in net present value. Level of service B is not included in Table 2 because assumptions upon which it was built treated the backlog of actions inconsistently from the other levels of service, resulting in skewed preservation costs that could not be fairly compared to those of the other levels of service.

Table 2. Costs of ownership by levels of service.

ID	Level of Service	Backlog	Ownership Costs over Next 100 Years, in Net Present Value	100-Year Maximum Business Risk Exposure	Ownership Costs over Next 10 Years, in Real Costs
A	Manage all assets to lowest risk tolerance	Eliminated in first year, none created in future	\$750 M	58	\$500 M
C	Manage critical risk assets	Slowly eliminated, more added over time	\$815 M	66	\$348 M
D	Run assets to failure, respond to emergencies	Grows over time	\$829 M	81	\$335 M

A prioritized program for maintenance, including replacement schedule and costs

In addition to projecting costs and risk levels for both the mapped and extrapolated drainage assets in the major road rights-of-way, the consultant also looked at immediate risk mitigation actions for assets known to be in critical condition. To recommend immediate actions for the mapped assets where the condition was verified through inspection, the consultant estimated costs for one-time preservation actions and ongoing operations. To reduce the likelihood of failures, the focus is on replacing assets in the most critical condition, monitoring assets nearing critical condition, conducting essential maintenance, and expanding what is known about the inventory and condition of the remaining assets.

The recommendations are shown in Table 3 and include only the 897 mapped and inspected assets. Not included are the mapped assets where the condition has not yet been verified and the unknown assets that are unmapped and condition unknown. Exhibit A summarizes mapped and inspected assets by verified condition and recommended mitigation action for each map area.

Table 3. Cost estimate for near-term risk mitigation actions for mapped and inspected assets.

Action	Cost Estimate	Cost Basis
On-going mapping, inventory, and condition assessment	\$2,000,000	10-year cost
Enhanced condition assessment ^a	\$900,000	10-year cost
Routine inspection ^b	\$140,000	10-year cost
Triggered inspection ^c	\$60,000	10-year cost
Maintenance cleaning ^d	\$340,000	10-year cost
Maintenance repair ^e	\$1,720,000	10-year cost
Preservation rehabilitation ^f	\$700,000	one-time cost
Preservation replacement ^g	\$19,880,000	one-time cost
Total Cost	\$25,740,000	

Assumptions used to build the prioritized maintenance program in Table 3:

- a. Enhanced condition assessment for 140 assets every 2 years, 116 assets every 5 years, and 242 assets every 10 years; assigned based on calculated business risk exposure scores.
- b. Routine inspection of 25% of assets each year.
- c. Triggered inspection of 10% of assets each year.
- d. Cleaning of 30% of manhole and catch basin assets and 10% of pipe and culvert assets each year.
- e. Repair of 2% of assets each year.
- f. Rehabilitation of 23 catch basins and 21 pipes with a total length of 1500 feet.
- g. Replacement of 39 culverts, 23 catch basins, 21 pipes with a total length of 1500 feet, and 1 manhole. Includes cost estimates for the NE Union Hill Road @ 225th Ave NE box culvert (\$1.35 M) and S 96th St stormwater pipes projects (\$1.48 M).

Exhibit A

Summary of mapped and inspected assets by condition and recommended mitigation action in each map area

Map Area Risk Exposure	Count of Assets	Percent of System Total
Map Area 1: Kirkland Unincorporated	58	6%
Critical	1	0%
Immediate Preservation	1	0%
High	38	4%
Preservation Rehabilitation	19	2%
Preservation Replacement	5	1%
Enhanced Condition Assessment	14	2%
Medium	9	1%
Preservation Rehabilitation	1	0%
Enhanced Condition Assessment	6	1%
Status Quo	2	0%
Low	10	1%
Status Quo	10	1%
Map Area 2: Redmond Unincorporated	183	20%
Critical	2	0%
Enhanced Condition Assessment	2	0%
High	31	3%
Preservation Rehabilitation	5	1%
Preservation Replacement	2	0%
Enhanced Condition Assessment	24	3%
Medium	60	7%
Enhanced Condition Assessment	6	1%
Status Quo	54	6%
Low	90	10%
Status Quo	90	10%
Map Area 3: Sammamish-Duval Unincorporated	73	80%

Map Area Risk Exposure	Count of Assets	Percent of System Total
Critical	7	1%
Immediate Preservation	5	1%
Enhanced Condition Assessment	2	0%
High	34	4%
Preservation Rehabilitation	11	1%
Preservation Replacement	6	1%
Enhanced Condition Assessment	17	2%
Medium	12	1%
Enhanced Condition Assessment	6	1%
Status Quo	6	1%
Low	20	2%
Status Quo	20	2%
Map Area 4: I-90 Corridor	82	9%
Critical	3	0%
Immediate Preservation	3	0%
High	37	4%
Preservation Rehabilitation	17	2%
Preservation Replacement	5	1%
Enhanced Condition Assessment	15	2%
Medium	17	2%
Enhanced Condition Assessment	6	1%
Status Quo	11	1%
Low	25	3%
Status Quo	25	3%
Map Area 5: White Center	41	5%
Critical	1	0%
Immediate Preservation	1	0%
High	17	2%
Preservation Rehabilitation	10	1%
Preservation Replacement	2	0%

Map Area Risk Exposure	Count of Assets	Percent of System Total
Enhanced Condition Assessment	5	1%
Medium	12	1%
Enhanced Condition Assessment	6	1%
Status Quo	6	1%
Low	11	1%
Status Quo	11	1%
Map Area 6: Renton-Tukwila	58	6%
Critical	2	0%
Immediate Preservation	2	0%
High	26	3%
Preservation Rehabilitation	14	2%
Preservation Replacement	5	1%
Enhanced Condition Assessment	7	1%
Medium	22	2%
Preservation Rehabilitation	4	0%
Enhanced Condition Assessment	5	1%
Status Quo	13	1%
Low	8	1%
Status Quo	8	1%
Map Area 7: Lake Youngs	100	11%
Critical	7	1%
Immediate Preservation	5	1%
Enhanced Condition Assessment	2	0%
High	35	4%
Preservation Rehabilitation	8	1%
Preservation Replacement	5	1%
Enhanced Condition Assessment	22	2%
Medium	25	3%
Preservation Rehabilitation	2	0%
Enhanced Condition Assessment	6	1%

Map Area Risk Exposure	Count of Assets	Percent of System Total
Status Quo	17	2%
Low	33	4%
Status Quo	33	4%
Map Area 8: Maple Valley	117	13%
Critical	4	0%
Immediate Preservation	4	0%
High	40	4%
Preservation Rehabilitation	14	2%
Preservation Replacement	9	1%
Enhanced Condition Assessment	17	2%
Medium	34	4%
Enhanced Condition Assessment	11	1%
Status Quo	23	3%
Low	39	4%
Status Quo	39	4%
Map Area 9: Auburn-Federal Way	66	7%
Critical	1	0%
Immediate Preservation	1	0%
High	15	2%
Preservation Rehabilitation	2	0%
Enhanced Condition Assessment	13	1%
Medium	29	3%
Enhanced Condition Assessment	4	0%
Status Quo	25	3%
Low	21	2%
Status Quo	21	2%
Map Area 10: Auburn Unincorporated	74	8%
High	37	4%
Preservation Rehabilitation	15	2%
Preservation Replacement	9	1%

Map Area Risk Exposure	Count of Assets	Percent of System Total
Enhanced Condition Assessment	13	1%
Medium	31	3%
Preservation Rehabilitation	1	0%
Enhanced Condition Assessment	9	1%
Status Quo	21	2%
Low	6	1%
Status Quo	6	1%
Map Area 11: Skykomish	7	1%
Critical	2	0%
Immediate Preservation	2	0%
High	3	0%
Preservation Rehabilitation	1	0%
Enhanced Condition Assessment	2	0%
Medium	2	0%
Status Quo	2	0%
Map Area 12: Vashon Island	33	4%
Critical	3	0%
Immediate Preservation	3	0%
High	13	1%
Preservation Rehabilitation	6	1%
Preservation Replacement	4	0%
Enhanced Condition Assessment	3	0%
Medium	9	1%
Enhanced Condition Assessment	3	0%
Status Quo	6	1%
Low	8	1%
Status Quo	8	1%
Map Area 13: Lake Forest Park	1	0%
High	1	0%
Preservation Rehabilitation	1	0%

Map Area Risk Exposure	Count of Assets	Percent of System Total
Map Area 14: New Castle	4	0%
High	2	0%
Preservation Rehabilitation	1	0%
Preservation Replacement	1	0%
Medium	2	0%
Preservation Rehabilitation	2	0%
Grand Total	897	100%

August 26, 2016
HSP

Sponsor: Dembowski

Proposed No.: 2016-0279

1 **STRIKING AMENDMENT TO PROPOSED MOTION 2016-0279, VERSION 1**

2 On page 1, beginning on line 4, strike everything through page 3, line 26, and insert:

3 " WHEREAS, Ordinance 17941, Section 77, as amended by Ordinance 18110, Section
4 30, Proviso P3 states that one million dollars could not be expended or encumbered until
5 the executive transmits a drainage trunk line inventory report and a motion that approves
6 the report and the motion is passed by the council, and

7 WHEREAS, much of the county's road drainage system is at or nearing the end of
8 its useful life, and

9 WHEREAS, the largest and most costly components of this aging network are the
10 pipe systems and metal culverts twenty-four inches or larger in diameter, and

11 WHEREAS, the water and land resources division of the department of natural
12 resources and the road services division of the department of transportation have worked
13 together with a consultant to conduct an inventory and business risk assessment of the
14 drainage trunk system within major road rights-of-way in unincorporated King County,
15 and

16 WHEREAS, the inventory report provides information on the location and
17 condition of the drainage trunk system within major road rights-of-way in unincorporated
18 King County, estimates accuracy of the resultant database, analyzes data to assess risks of

19 failure and failure impacts, and includes a prioritized program for maintenance that
20 contains a replacement schedule and costs, and

21 WHEREAS, the executive has transmitted to the council the requested report and
22 motion;

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

24 The report on the road right-of-way drainage trunk line inventory, submitted as
25 Attachment A to this motion, is hereby approved."

26 Delete Attachment A, Road Right-of-Way Drainage Trunk Line Inventory, dated May
27 2016, and insert Attachment A, Road Right-of-Way Drainage Trunk Line Inventory,
28 dated August 2016.

29 **EFFECT: A technical amendment to correct the internal references of the budget**
30 **proviso section and proviso number in Proposed Motion 2016-0279 and its**
31 **Attachment A, Road ROW Drainage Trunk Line Inventory Report.**

Road Right-of-Way Drainage Trunk Line Inventory

Prepared in accordance with
Ordinance 17941, Section 77, as amended by Ordinance 18110, Section 30, Proviso P3

August 2016



King County

Department of Natural Resources and Parks
Water and Land Resources Division
and
Department of Transportation
Road Services Division

Table of Contents

Introduction	3
Executive Summary	3
Report Requirements	4
• The location and condition of the drainage trunk system within major road rights-of-way in unincorporated King County	4
• The estimated accuracy of the resultant database	6
• An analysis of the data to assess risks of failure and failure impacts	6
• A prioritized program for maintenance, including replacement schedule and costs	7

Introduction

Ordinance 17941, Section 77, as amended by Ordinance 18110, Section 30, Proviso P3 requires the King County Executive to transmit a report to the Council that inventories and assesses the drainage trunk line within major road rights-of-way in unincorporated King County.

Specifically, the Ordinance requires the report to include:

- The location and condition of the drainage trunk system within major road rights-of-way in unincorporated King County;
- The estimated accuracy of the resultant database;
- An analysis of the data to assess risks of failure and failure impacts; and
- A prioritized program for maintenance, including replacement schedule and costs.

This report addresses each requirement under a separate heading that corresponds to the particular requirement.

Executive Summary

The Water and Land Resources (WLR) Division of the Department of Natural Resources and Parks and the Road Services Division (Roads) of the Department of Transportation collaborated on the development of this report. The two agencies hired HDR, Inc. as the prime consultant to conduct an inventory and business risk assessment of the drainage trunk system within major road rights-of-way.

Much of the County's road drainage system is at or nearing the end of its useful life. Since the largest and most costly components of this aging network are the pipe systems and metal culverts 24 inches or larger in diameter, that is where the consultant focused the inventory and assessment. Below are key findings from the consultant.

- There are just under 6,000 drainage assets ≥ 24 " in the road rights-of-way in unincorporated King County.
- About 4 percent of these drainage assets are projected to be in critically poor condition, at imminent threat of failure.
- For the next 10 years, costs of ownership range from \$335 million to \$500 million, depending on level of service provided.
- The lowest level of service evaluated (\$335 million over 10 years) assumes that all failing assets are replaced as they fail. If this level of service is not funded, then the response to failing assets will be less replacement and more road or lane closures or posting of warning signs to manage and minimize risk within available budget.

For the approximately 900 assets (15 percent) that have been mapped and inspected, the consultant identified \$25.7 million in on-going and one-time actions over the next 10 years to mitigate risk. This includes \$6.5 million in immediate preservation actions for 33 mapped and inspected assets verified to be at critical risk.

The results of this study are being used to inform the analysis for the development of the surface water management fee and the 2017/2018 budget proposals for the two participating agencies, WLR and Roads. The consultant's report can be found online at http://your.kingcounty.gov/dnrp/library/water-and-land/stormwater/KC_ROW_Drainage_Assessment_Final_Report.pdf.

Report Requirements

The location and condition of the drainage trunk system within major road rights-of-way in unincorporated King County

Historically when road drainage systems were built, they were not necessarily mapped or recorded. This meant WLR and Roads could not assume the existing inventory was complete. In addition, the condition of the drainage assets that were mapped was not assessed and updated on a regular basis. To undertake the analysis for this report, WLR and Roads directed the consultant to develop different data sets according to three criteria – whether the assets were known, whether they were mapped, and whether their condition was verified by onsite inspection.

The analysis is built on the following data sets of assets:

1. Mapped and inspected to verify condition: Age and material suggested these assets could be of concern, so the consultant inspected them to verify condition (897 assets);
2. Mapped, condition not verified: These assets were not inspected because either they were inaccessible (123 assets) or age and material suggested they were not of concern in the near term (3,315 assets); for purposes of analysis, the asset conditions were presumed based on age and material rather than inspection;
3. Unknown so not mapped and not inspected: Actual location and condition of these assets were not known but were extrapolated using a Geographic Information System (GIS) model that looked at areas of similar zoning and ratios of drainage assets to roadway length (extrapolation model projected approximately 1,627 assets).

To locate and assess drainage assets within major road rights-of-way, the consultant divided the Unincorporated County into 14 areas as shown in Figure 1. Assets in each data set and area were rated critical, high, medium, and low for risk exposure according to the verified, presumed, or extrapolated condition assessment. Critical assets were those considered at imminent threat of failure.

Table 1 shows for each data set the quantity of assets, percent of total drainage assets, number and percent of assets rated critical, and the confidence level in the condition

ratings. The condition rating used to determine the confidence level considers the probability of the asset failing.

Figure 1. Map areas used to locate drainage assets in major road rights-of-way.

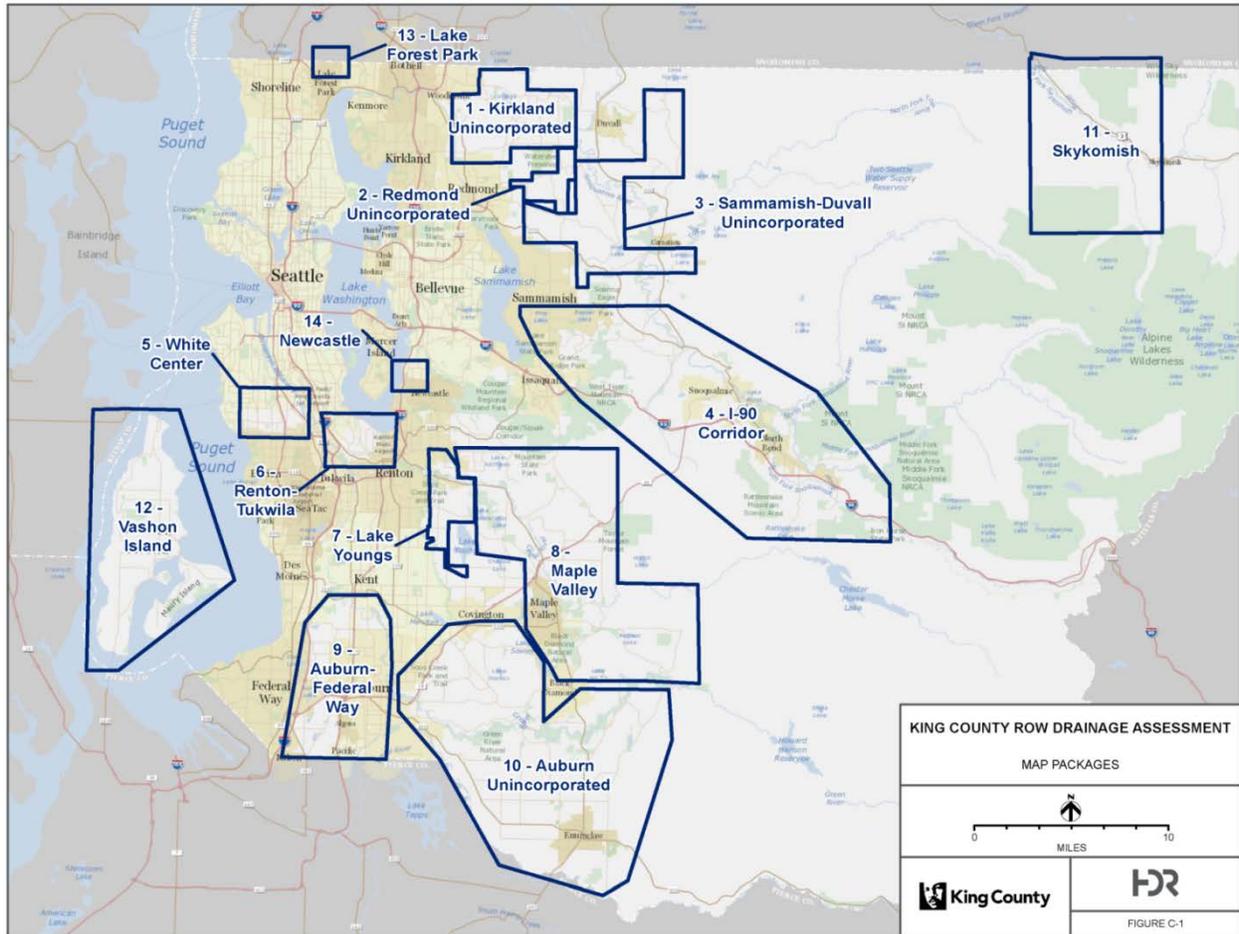


Table 1. Summary of assets by data set.

Data Set	# of Assets in Data Set	% of Total Assets	# of Critical Assets	% of Critical Assets in Data Set	Confidence Level in Condition Rating
Mapped assets, inspected to verify condition	897	~15%	33	~3.7%	71%
Mapped assets, not inspected, condition not verified	3,438	~58%	104	~3%	37%
Unknown and unmapped assets, condition not known	1,627	~27%	102	~6%	6%
TOTAL:	5,962	100%	239	~4%	

The estimated accuracy of resultant database

The estimated accuracy of the database can be measured by the confidence level in the condition ratings for the drainage assets. As shown in Table 1, the confidence level in the condition ratings for the mapped assets that were not inspected by the consultant is roughly half (37 percent) that of those assets the consultant did inspect (71 percent). The confidence level in the condition rating for the extrapolated assets that have not been mapped or inspected is very low (6 percent). This makes sense because field verifying an asset's condition provides greater accuracy than extrapolating an asset's existence, location, and condition through assumptions and GIS projections.

An analysis of the data to assess risks of failure and failure impacts

To assess risks of failure and failure impacts in both the near term and the long term, the consultant projected costs of ownership and business risk exposure for four different levels of service over 10 years and 100 years, using all three data sets of drainage assets ≥ 24 " in the major road rights-of-way in unincorporated King County. The consultant found the highest level of service costs the most to manage in the 10-year timeframe but has the lowest business risk exposure and costs the least over the 100-year timeframe; under this scenario, assets are rehabilitated or replaced before they are expected to fail, which increases the near-term management costs but decreases the long-term costs associated with potential asset collapse, such as for property damage, impacts to adjacent landowners, and possible road closures.

Table 2 below presents the costs of ownership and business risk exposure by levels of service. The table defines each level of service and its respective backlog of uncompleted actions, provides ownership costs over the next 100 years and the next 10 years, and states the 100-year maximum business risk exposure. The business risk exposure runs on a scale of 0 to 100, where 0 is the lowest risk exposure and 100 is the highest.

As Table 2 shows, over 10 years, the lowest level of service (D) costs less than the highest level of service (A); on the other hand, D has a very high maximum risk exposure (81 out of 100). In addition, level of service A costs less over the 100-year timeframe than level of service D when computed in net present value. Level of service B is not included in Table 2 because assumptions upon which it was built treated the backlog of actions inconsistently from the other levels of service, resulting in skewed preservation costs that could not be fairly compared to those of the other levels of service.

Table 2. Costs of ownership by levels of service.

ID	Level of Service	Backlog	Ownership Costs over Next 100 Years, in Net Present Value	100-Year Maximum Business Risk Exposure	Ownership Costs over Next 10 Years, in Real Costs
A	Manage all assets to lowest risk tolerance	Eliminated in first year, none created in future	\$750 M	58	\$500 M
C	Manage critical risk assets	Slowly eliminated, more added over time	\$815 M	66	\$348 M
D	Run assets to failure, respond to emergencies	Grows over time	\$829 M	81	\$335 M

A prioritized program for maintenance, including replacement schedule and costs

In addition to projecting costs and risk levels for both the mapped and extrapolated drainage assets in the major road rights-of-way, the consultant also looked at immediate risk mitigation actions for assets known to be in critical condition. To recommend immediate actions for the mapped assets where the condition was verified through inspection, the consultant estimated costs for one-time preservation actions and ongoing operations. To reduce the likelihood of failures, the focus is on replacing assets in the most critical condition, monitoring assets nearing critical condition, conducting essential maintenance, and expanding what is known about the inventory and condition of the remaining assets.

The recommendations are shown in Table 3 and include only the 897 mapped and inspected assets. Not included are the mapped assets where the condition has not yet been verified and the unknown assets that are unmapped and condition unknown. Exhibit A summarizes mapped and inspected assets by verified condition and recommended mitigation action for each map area.

Table 3. Cost estimate for near-term risk mitigation actions for mapped and inspected assets.

Action	Cost Estimate	Cost Basis
On-going mapping, inventory, and condition assessment	\$2,000,000	10-year cost
Enhanced condition assessment ^a	\$900,000	10-year cost
Routine inspection ^b	\$140,000	10-year cost
Triggered inspection ^c	\$60,000	10-year cost
Maintenance cleaning ^d	\$340,000	10-year cost
Maintenance repair ^e	\$1,720,000	10-year cost
Preservation rehabilitation ^f	\$700,000	one-time cost
Preservation replacement ^g	\$19,880,000	one-time cost
Total Cost	\$25,740,000	

Assumptions used to build the prioritized maintenance program in Table 3:

- a. Enhanced condition assessment for 140 assets every 2 years, 116 assets every 5 years, and 242 assets every 10 years; assigned based on calculated business risk exposure scores.
- b. Routine inspection of 25% of assets each year.
- c. Triggered inspection of 10% of assets each year.
- d. Cleaning of 30% of manhole and catch basin assets and 10% of pipe and culvert assets each year.
- e. Repair of 2% of assets each year.
- f. Rehabilitation of 23 catch basins and 21 pipes with a total length of 1500 feet.
- g. Replacement of 39 culverts, 23 catch basins, 21 pipes with a total length of 1500 feet, and 1 manhole. Includes cost estimates for the NE Union Hill Road @ 225th Ave NE box culvert (\$1.35 M) and S 96th St stormwater pipes projects (\$1.48 M).

Exhibit A

Summary of mapped and inspected assets by condition and recommended mitigation action in each map area

Map Area Risk Exposure	Count of Assets	Percent of System Total
Map Area 1: Kirkland Unincorporated	58	6%
Critical	1	0%
Immediate Preservation	1	0%
High	38	4%
Preservation Rehabilitation	19	2%
Preservation Replacement	5	1%
Enhanced Condition Assessment	14	2%
Medium	9	1%
Preservation Rehabilitation	1	0%
Enhanced Condition Assessment	6	1%
Status Quo	2	0%
Low	10	1%
Status Quo	10	1%
Map Area 2: Redmond Unincorporated	183	20%
Critical	2	0%
Enhanced Condition Assessment	2	0%
High	31	3%
Preservation Rehabilitation	5	1%
Preservation Replacement	2	0%
Enhanced Condition Assessment	24	3%
Medium	60	7%
Enhanced Condition Assessment	6	1%
Status Quo	54	6%
Low	90	10%
Status Quo	90	10%
Map Area 3: Sammamish-Duval Unincorporated	73	80%

Map Area Risk Exposure	Count of Assets	Percent of System Total
Critical	7	1%
Immediate Preservation	5	1%
Enhanced Condition Assessment	2	0%
High	34	4%
Preservation Rehabilitation	11	1%
Preservation Replacement	6	1%
Enhanced Condition Assessment	17	2%
Medium	12	1%
Enhanced Condition Assessment	6	1%
Status Quo	6	1%
Low	20	2%
Status Quo	20	2%
Map Area 4: I-90 Corridor	82	9%
Critical	3	0%
Immediate Preservation	3	0%
High	37	4%
Preservation Rehabilitation	17	2%
Preservation Replacement	5	1%
Enhanced Condition Assessment	15	2%
Medium	17	2%
Enhanced Condition Assessment	6	1%
Status Quo	11	1%
Low	25	3%
Status Quo	25	3%
Map Area 5: White Center	41	5%
Critical	1	0%
Immediate Preservation	1	0%
High	17	2%
Preservation Rehabilitation	10	1%
Preservation Replacement	2	0%

Map Area Risk Exposure	Count of Assets	Percent of System Total
Enhanced Condition Assessment	5	1%
Medium	12	1%
Enhanced Condition Assessment	6	1%
Status Quo	6	1%
Low	11	1%
Status Quo	11	1%
Map Area 6: Renton-Tukwila	58	6%
Critical	2	0%
Immediate Preservation	2	0%
High	26	3%
Preservation Rehabilitation	14	2%
Preservation Replacement	5	1%
Enhanced Condition Assessment	7	1%
Medium	22	2%
Preservation Rehabilitation	4	0%
Enhanced Condition Assessment	5	1%
Status Quo	13	1%
Low	8	1%
Status Quo	8	1%
Map Area 7: Lake Youngs	100	11%
Critical	7	1%
Immediate Preservation	5	1%
Enhanced Condition Assessment	2	0%
High	35	4%
Preservation Rehabilitation	8	1%
Preservation Replacement	5	1%
Enhanced Condition Assessment	22	2%
Medium	25	3%
Preservation Rehabilitation	2	0%
Enhanced Condition Assessment	6	1%

Map Area Risk Exposure	Count of Assets	Percent of System Total
Status Quo	17	2%
Low	33	4%
Status Quo	33	4%
Map Area 8: Maple Valley	117	13%
Critical	4	0%
Immediate Preservation	4	0%
High	40	4%
Preservation Rehabilitation	14	2%
Preservation Replacement	9	1%
Enhanced Condition Assessment	17	2%
Medium	34	4%
Enhanced Condition Assessment	11	1%
Status Quo	23	3%
Low	39	4%
Status Quo	39	4%
Map Area 9: Auburn-Federal Way	66	7%
Critical	1	0%
Immediate Preservation	1	0%
High	15	2%
Preservation Rehabilitation	2	0%
Enhanced Condition Assessment	13	1%
Medium	29	3%
Enhanced Condition Assessment	4	0%
Status Quo	25	3%
Low	21	2%
Status Quo	21	2%
Map Area 10: Auburn Unincorporated	74	8%
High	37	4%
Preservation Rehabilitation	15	2%
Preservation Replacement	9	1%

Map Area Risk Exposure	Count of Assets	Percent of System Total
Enhanced Condition Assessment	13	1%
Medium	31	3%
Preservation Rehabilitation	1	0%
Enhanced Condition Assessment	9	1%
Status Quo	21	2%
Low	6	1%
Status Quo	6	1%
Map Area 11: Skykomish	7	1%
Critical	2	0%
Immediate Preservation	2	0%
High	3	0%
Preservation Rehabilitation	1	0%
Enhanced Condition Assessment	2	0%
Medium	2	0%
Status Quo	2	0%
Map Area 12: Vashon Island	33	4%
Critical	3	0%
Immediate Preservation	3	0%
High	13	1%
Preservation Rehabilitation	6	1%
Preservation Replacement	4	0%
Enhanced Condition Assessment	3	0%
Medium	9	1%
Enhanced Condition Assessment	3	0%
Status Quo	6	1%
Low	8	1%
Status Quo	8	1%
Map Area 13: Lake Forest Park	1	0%
High	1	0%
Preservation Rehabilitation	1	0%

Map Area Risk Exposure	Count of Assets	Percent of System Total
Map Area 14: New Castle	4	0%
High	2	0%
Preservation Rehabilitation	1	0%
Preservation Replacement	1	0%
Medium	2	0%
Preservation Rehabilitation	2	0%
Grand Total	897	100%

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August 26, 2016

Title Amendment to
SWM Drainage
Trunk Line Inventory
Report



HSP

Sponsor: Dembowski

Proposed No.: 2016-0279

1 **TITLE AMENDMENT TO PROPOSED 2016-0279, VERSION 1**

2 On page 1, beginning on line 1, strike everything through page 1, line 3, and insert:

3 "A MOTION approving a report on the road right-of-way
4 drainage trunk line inventory in accordance with 2015/2016
5 Biennial Budget Ordinance 17941, Section 77, as amended
6 by Ordinance 18110, Section 30, Proviso P3."

7 **EFFECT: Title amendment 1 would reflect the changes in Striking amendment 1.**

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May 26, 2016

The Honorable Joe McDermott
Chair, King County Council
Room 1200
C O U R T H O U S E

Dear Councilmember McDermott:

This letter transmits a report that inventories and assesses the drainage trunk line within major road rights-of-way in unincorporated King County in accordance with Ordinance 17941, Section 53, Proviso P1.

The report provides an inventory and assessment of the largest and most costly pipe systems and culverts in the County's aging road drainage network.

Specifically, the report includes the following:

- The location and condition of the drainage trunk system within major road rights-of-way in unincorporated King County;
- The estimated accuracy of the resultant database;
- An analysis of the data to assess risks of failure and failure impacts; and
- A prioritized program for maintenance that contains a replacement schedule and costs.

The report also furthers the goals of key County plans and initiatives as follows:

- The report furthers the Environmental Sustainability goal of the King County Strategic Plan by safeguarding and enhancing King County's natural resources and environment through recommendations on risk and costs to update the County's aging road drainage system.
- The report affects residents in unincorporated King County by analyzing the business risk exposure of the aging road drainage system in the unincorporated area.

In developing the report, the Department of Natural Resources and Parks (DNRP) engaged the Road Services Division of the Department of Transportation (DOT) on conducting the inventory and analysis and making recommendations for actions to mitigate risk. DNRP

The Honorable Joe McDermott
May 26, 2016
Page 2

worked to incorporate the input into the report, and DOT has indicated that it supports the report.

It is estimated that the report required 50 staff hours to produce, costing \$5,000. The estimated printing cost for this report is \$20. In addition, about \$1 million went to a consultant to conduct the drainage trunk line assessment; staff time on that project cost about \$300,000.

Thank you for considering this report. The actions mentioned in this report will help King County residents understand the inventory, condition, costs, and priorities for maintaining drainage assets in the major County road rights-of-way.

If you have any questions about this report, please contact Mark Isaacson, Division Director of the Water and Land Resources Division of the Department of Natural Resources and Parks, at 206-477-4601.

Sincerely,

Dow Constantine
King County Executive

Enclosures

cc: King County Councilmembers
 ATTN: Carolyn Busch, Chief of Staff
 Anne Noris, Clerk of the Council
Carrie S. Cihak, Chief of Policy Development, King County Executive Office
Dwight Dively, Director, Office of Performance, Strategy and Budget
Harold Taniguchi, Director, Department of Transportation (DOT)
Brenda Bauer, Division Director, Road Services Division, DOT
Christie True, Director, Department of Natural Resources and Parks (DNRP)
Mark Isaacson, Division Director, Water and Land Resources Division, DNRP



KING COUNTY
**ROAD RIGHT-OF-WAY
DRAINAGE TRUNK LINE
ASSESSMENT**

FINAL REPORT

FEBRUARY 12, 2016

Prepared For:



King County

Department of
Natural Resources and Parks
Water and Land Resources Division
and

Department of Transportation
Road Services Division

Report

To: Shannon Kelly, King County Department of Natural Resources and Parks

From: HDR
Robin Kirschbaum

Date: February 12, 2016

Subject: Task 500 Report

Executive Summary

This executive summary provides a brief introduction of the King County Right-of-Way Drainage Condition Assessment project and the problem being considered, discusses the methodology used to address the problem, and lists the principal conclusions and recommendations.

Introduction

The King County (County) Road Services Division (Roads) manages the majority of the drainage within the right-of-way (ROW) in unincorporated King County. A large portion of this drainage system is at or nearing the end of its useful life. The largest and most costly components of this aging system are pipe systems and metal culverts 24-inch or larger in diameter, referred to in this study as the regional trunk drainage system.

County Roads has an on-going effort to map and inventory the trunk drainage system. Drainage features are assigned an asset identification number and components of each asset are inventoried. This data is stored in the County's Stormwater Geodatabase (SWGDB), which will be used to inform asset management decisions for managing the system cost-effectively within the County's selected risk tolerance.

The County Council has requested a report from County staff that will describe the location and condition of the drainage system within major road ROWs in unincorporated King County, the estimated accuracy of the resultant database, an analysis of the data to assess risks and impacts, and a prioritized program for maintenance, including replacement schedule and costs. The County Council has also called for a second report that will include, among other items, a plan for investments in drainage projects.

Roads and the Water and Land Resources Division (WLRD) have formed a partnership to respond to the County Council and to administer this project. WLRD retained HDR as the Prime Consultant to lead the project, which entails asset inventory validation, data collection, and mapping and recommending the level of service and asset management strategies for the regional drainage system. The results of this project will be used by County staff to complete their reports to the County Council.

The work performed under this contract is organized into two phases, as follows:

- **Phase 1** included inspecting regional trunk drainage assets that were pre-selected for inspection by the County, assessing the County's current Business Risk Exposure (BRE), and recommending system maintenance and renewal needs to manage the identified risks.
- **Phase 2** included updated risk assessment and risk mitigation planning; cost estimates for recommended near-term actions on the assets inspected in Phase 1; and analysis and comparison of alternative levels of service and their relative risks and financial impacts over the next 100 years.

Methodologies

The methodologies for this work included the following main components:

- Asset inspections;
- Assessment of Business Risk Exposure (BRE);
- Predicting unmapped system assets;
- Extrapolating available asset risk information to mapped and unmapped portions of the system;
- Rating confidence in the available BRE risk information;
- Developing near-term risk mitigation actions and cost estimates; and
- Identifying, analyzing, and comparing Level of Service (LOS) alternatives and their long-term cost of ownership.

King County selected a sub-set of assets that were identified as potentially high risk to verify, update, and collect attribute and positional location and structural condition ratings using the County's Environmental Systems Research Institute (Esri)-compatible, mobile collection platform. Asset data collected in the field was stored in the County's SWGDB and used to support analysis and development of asset management recommendations.

BRE risk score is a calculated value that represents the County's relative overall assumed risk of the failure of an asset or asset group. Values range between 1 and 100, with higher values indicating increasing levels of risk. The BRE scoring results are used to help prioritize investments in inspection, maintenance, rehabilitation, and replacement activities, informing the prioritization of near-term actions needed to mitigate asset risks and/or help meet level of service goals. BRE assessment entailed calculating Probability of Failure (POF), Consequence of Failure (COF), and BRE risk scores for each asset using a modified version of the County's guidelines (NDc King County).

Predicting unmapped assets was necessary because portions of the County-owned regional trunk drainage system assets are currently unmapped and therefore do not exist within the SWGDB. While the unmapped assets have unknown locations, attribute information, and condition, their management is expected to affect strategic and budgetary planning and needed to be factored into the analysis.

The available asset risk information for the Phase 1 inspected assets was used to extrapolate risk information to the assets that were not inspected. This extrapolation was done for both mapped and unmapped assets that were not inspected. Significantly more information was available to support the analysis for mapped assets as compared to the unmapped assets, such as Geographic Information System (GIS) data that could be used to calculate the COF factors directly. Thus, the risk extrapolation methodologies used was tailored for the mapped and unmapped asset groups accordingly.

Confidence ratings provide an asset-by-asset assessment of the quantity and quality of the data used to calculate POF and COF scores. The confidence ratings use percentages to allow for a relative comparison of the actions taken to establish asset condition or assign attribute information (e.g. depth, diameter, etc.), with higher values indicating higher confidence. This method is adapted from the Water Environment Research Foundation (WERF) (2016). The asset-level confidence rating information can be used by Roads on a planning level to assess how reliable existing information might be and how it may be improved over time. As the asset management program develops, Roads can use a similar methodology to determine when the available information is of sufficient quality to support asset management decision-making on a project level, or when additional information is needed, based on procedures and tolerances for data quality.

Near-term risk mitigation actions were defined in coordination with County staff. The actions were assigned to the inspected assets based on their calculated BRE/POF scores, using a decision logic model in Excel. To mitigate the identified critical risks, immediate corrective actions were recommended. To mitigate the identified high, medium, and low risks, recommendations were provided to conduct specified actions within the next 10 years.

Four (4) LOS alternatives were developed in coordination with County staff and were modeled to assess and compare their long-term (100-year) cost of ownership. One alternative represents a regime of responding to emergencies and running assets to failure. The remaining 3 alternatives represent various levels of risk tolerance. Cost of ownership calculations were performed in an Excel model.

Conclusions and Next Steps

Key conclusions from the results of the analysis and recommended next steps for sustained programmatic asset management are provided below.

Asset Inspections

This study conducted asset inspections to validate, update, and collect attribute data for high priority portions of the regional trunk drainage system within major road right-of-way areas in unincorporated King County. The data collected were used to support risk assessment and development and prioritization of risk mitigation actions.

The County pre-selected the assets to be inspected using an age-based structural condition rating approach and best available information at the time. A total of 1,266 assets were prioritized for inspection in Phase 1 of this study. During the course of inspecting these prioritized assets, some additional assets were found and some assets were retired (i.e., no longer in use). A net total of 1,174 assets that are active (i.e., not retired) and are 24-inch diameter or greater were inspected in Phase 1.

Predicted Unmapped Assets

The Phase 1 inspection data was used to predict unmapped (i.e., unknown) 24-inch or larger assets in the unincorporated roadway right-of-way areas. A total of 1,627 additional unmapped assets (termed Phase 2 unmapped assets) were predicted to potentially exist, representing an approximate 38% increase in the number of 24-inch or larger roadway right-of-way assets currently included in the County's SWGDB.

Business Risk Exposure Assessment

BRE risk scores were calculated for 897 of the inspected assets using a modified version of the County's approach to structural condition rating (NDb King County) and probability of failure calculation (NDc King County). The remaining 277 inspected assets (1,174 – 897) were not analyzed because they lacked sufficient condition assessment data and/or photographs to support the calculations. The assets lacking information were generally inaccessible or could not be photographed during the Phase 1 inspections. The assessment identified 33 critical risk assets because they were either failing or at risk of imminent failure and have a high consequence of failure.

The calculated BRE risk scores for these 897 inspected assets were used to extrapolate risk scores for 5,065 uninspected assets (3,438 mapped and 1,627 unmapped assets, see Table ES-1). From this extrapolation, a total of 206 additional critical risk assets (104 mapped and 102 unmapped critical risk assets) were estimated to potentially exist within the regional trunk drainage system.

Table ES-1 summarizes the number of assets for which BRE risk assessment was performed, including the Phase 1 inspected (mapped) assets and Phase 2 assets that were not inspected (mapped and unmapped assets).

Table ES-1. Summary of BRE Risk Score Calculations for Mapped and Unmapped Assets, Inspected and Not Inspected

Component	Phase 1 Inspected	Phase 2 Not Inspected		Total
	Mapped Assets	Mapped Assets	Unmapped Assets	
Pipe/Culvert	482	2,490	1,040	4,012
Manhole	20	53	36	109
Structure with sump	355	848	531	1,734
Structure without Sump	40	47	20	107
Total	897	3,438	1,627	5,962

Near-Term Risk Mitigation for Assets Inspected in Phase 1

The discussion in this section applies only to the assets inspected in Phase 1, as explained in the previous section titled Asset Inspections. Near-term risk mitigation actions and costs were not estimated for the uninspected assets (see Table ES-1 for summary of inspected and uninspected assets).

For the 33 critical risk assets identified through the Phase 1 asset inspections, immediate preservation action is recommended due to the critical nature of their observed condition and calculated POF/COF scores. These immediate actions are estimated to cost approximately \$6,460,000. Failure to implement the recommendations immediately would increase the likelihood of emergency repairs being needed.

For the 864 high, medium, and low risk assets identified through the asset inspections (897-33), on-going mapping, inventory, condition assessment, inspection, and maintenance actions and one-time preservation rehabilitation and replacement should be implemented within the next 10 years. The estimated cost for implementing the 10-year risk mitigation actions for assets inspected in Phase 1 is estimated to be \$19,280,000. Thus, the total estimated near-term costs, including the immediate and 10-year recommended risk mitigation actions for the Phase 1 inspected assets (897 assets) is estimated to be \$25,740,000.

As discussed above, the cost figures presented in this section do not include the Phase 2 uninspected assets (mapped nor unmapped), nor do they include other unknown assets that may be addressed by the County later. While critical risk asset numbers were estimated for the Phase 2 uninspected assets, the actual locations and numbers of these critical risks is unknown. Therefore, the near-term costs to address the true number of critical risks for all regional trunk drainage assets is unknown, and is expected to be higher than the cost figures presented above for the Phase 1 inspected assets only.

The decision logic model used to assign risk mitigation actions is useful to support strategic business planning efforts. However, it does not include the detailed decision-making parameters that should be applied on a project-by-project basis. For instance, though preservation rehabilitation was assumed to be feasible and cost-effective for a portion of the assets, further assessment is required to determine whether rehabilitation is feasible for specific assets and, if so, the most appropriate type of rehabilitation to be used.

Therefore, more detailed analysis will be needed to support development and prioritization of specific projects (or packages of projects) to be implemented by Roads. The near-term risk mitigation actions recommended herein should be reviewed, updated as needed, and factored into other project identification and prioritization techniques used by Roads, such as business case evaluation or options analysis.

Confidence Ratings

Confidence in the quantity and quality of the data used to calculate POF, COF, and BRE risk scores was assessed using an approach adapted from the Water Environment Research Foundation (WERF) Capital Investment Validation and Prioritization Tool (2016). The approach was modified to reflect County guidelines for calculating POF, COF, and BRE risk scores.

As may be expected, the Phase 1 inspected assets have the highest confidence rating, because their locations and attribute information are known and most assets were visually inspected in Phase 1. Confidence in the unmapped assets is very low due to the lack of information available regarding their location and attributes. While GIS-based prediction techniques were implemented using best available information, there was a limited available database upon which to base or validate the model.

Comparing POF and COF confidence ratings, the values are generally higher for COF than for POF scores. This is because POF calculation requires extrapolating condition information for the majority of the assets that were not inspected. COF calculation, on the other hand, can be calculated for mapped assets largely on available information (i.e., location in sensitive areas and floodplains, proximity to roadways, etc.), without the need to visit the assets.

The confidence ratings developed can be used by County staff to assess whether sufficient information is available to support decision-making for individual assets or whether additional data is needed. This assessment should be based on County procedures and tolerances for quantity and quality of data needed to base such decisions.

Level of Service Analysis

The LOS analysis is similar to the near-term analysis (discussed above), but is different in that this analysis evaluates the cost of ownership for all assets (See Table ES-1) over a long-term (100-year) period, for 4 various service level alternatives. The 4 alternatives, labeled LOS A through D, were developed in coordination with County staff. LOS D represents a scenario in which assets are run to failure, emergency response is provided, and backlog continues to grow over time. LOS C focuses on managing critical risk assets and, like LOS D, allows backlog to continue to grow over time. LOS B eliminates backlog in 25 years and prevents new backlog from accumulating. LOS A tolerates the least amount of system risk, eliminating the current backlog immediately and preventing new backlog from accumulating.

A 100-year cost of ownership model was developed in Excel to analyze and compare the cost of ownership of the alternatives. The model simulates asset deterioration, assigns risk mitigation actions, and calculates costs over the 100-year period for the Phase 1 inspected and Phase 2 uninspected (mapped and unmapped) assets. The model does not simulate the social and environmental costs of implementing or not implementing actions in the given timeframes, but recommendations to consider these additional costs are provided in Section 5.

Reported costs represent Class 5 estimates as defined by AACE International (previously known as the Association for the Advancement of Cost Estimating International or AACEI) with an expected accuracy range of -50% to +100%. All reported costs could vary within those ranges.

The modeled net present value costs were \$750 million for LOS A, \$667 million for LOS B, \$815 million for LOS C, and \$829 million for LOS D. Although the modeled net present value for LOS B was the lowest, the modeled total real cost of over \$9 billion is more than twice as high as LOS C and D. This is because the net present value cost calculations use a discount rate of 5.5% to account for the time value of money. The discount rate used significantly dampens the effect of large capital expenditures that would be needed late in the 100-year simulation period for LOS A and LOS B, diminishing the impact on the calculated net present

value. The cost comparisons also reflect the fact that LOS A and B do not require emergency repairs.

The following items should be considered by the County when reviewing and comparing the LOS alternatives presented in this report:

- Revisit the assumption that running assets to failure (i.e. POF = 10) will significantly increase preservation costs. Currently, it is assumed that replacing or rehabilitating an asset at the time of failure will result in an emergency preservation cost premium of 50%, as compared to the cost of preserving the assets prior to failure (i.e., non-emergency mode). The 50% premium cost assumption for emergency preservation has not been verified due to lack of available historical County costs. It should be noted however, that social, environmental, and other ancillary costs are certainly higher when an asset is allowed to fail. Because these costs are difficult to quantify, they are not included in the cost of ownership produced in this report. They should continue to be considered, and estimated when possible, at both the planning-level and during CIP prioritization.
- As the County moves from high-level planning and risk analysis to budget and financial planning, real costs should be considered over net present value (NPV). It should also be noted that predictions and estimates far into the future are more variable than those in the near-term.

Recommendations from the LOS alternatives analysis should be implemented in coordination with Roads' Strategic Plan for Road Services (King County 2014). The Strategic Plan for Road Services establishes the goals for road services delivery and the policies and guidelines for managing the County's roadway system.

Recommended Next Steps for County Implementation

The following next steps are recommended for implementation by the County for sustaining and expanding the asset management program

- I. Implement recommended near-term risk mitigation actions** – These costs are included in the recommended near-term risk mitigation action cost estimates.
- II. Conduct on-going asset inspections** – These costs are included in the LOS alternatives analysis cost estimates.
- III. Review/revise POF to include failure factors beyond mortality (e.g. capacity, financial efficiency, maintainability)** – These costs are not included in the cost estimates presented in this report.
- IV. Review and revise COF factors as appropriate based on selected LOS alternative** – These costs are not included in the cost estimates presented in this report.
- V. Validate unmapped asset inventory** – These costs are not included in the cost estimates presented in this report.
- VI. Validate BRE risk scores for uninspected assets** – These costs are not included in the cost estimates presented in this report.
- VII. Implement enhanced condition assessment program to inspect assets that could not be entirely seen during Phase 1 inspection and/or assets that were not prioritized by the County for Phase 1 inspection** – These costs are included in the recommended near-term risk mitigation action costs and the recommended long-term (i.e., LOS alternatives analysis costs).
- VIII. Conduct hotspot mapping to identify problem areas in the system** – These costs are not included in the recommended near-term risk mitigation action costs.
- IX. Develop and implement a formal CIP prioritization process** – These costs are not included in the cost estimates presented in this report.

- X. Formalize the Stormwater Asset Management Program** – These costs are not included in the cost estimates presented in this report.

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