

Allen Lake Outlet Project

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King County

Water and Land Resources Division

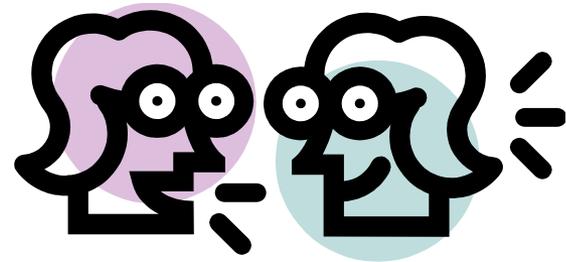


December 14, 2010
NE 8th Street approximately 1.5 feet
of water over roadway



Discussion Topics

- ▶ Project Objectives
- ▶ King County Actions since 2010 Flood
- ▶ Last meeting 10/2012 plans
- ▶ Current plans
- ▶ Hydrologic Modeling
- ▶ What services are available during a flood event



Project Objectives

- Maintain access of NE 8th Street
 - Prevent road closure due to severe flooding during 100-year storm
 - Severe flooding defined as 1 foot deep on the roadway
 - Avoid downstream impacts



King County Actions since 2010 Flood



Cleaned culverts under NE 8th street
2011 and installed a *beaver* deceiver
fence



Cleared Culverts from NE 8th
Street to 1,800 feet
downstream – December 2011



Replaced Failed Culvert at 1,450 feet downstream of NE 8th Street – March 2012



Sinkhole enlarged



Culvert replacement

Removal of Non-Native Vegetation August 2012

Before



After



NE 8th Street

King County Roads cleaned the culverts at NE 8th Street in June 2011 and 2014



LAST PUBLIC MEETING 10/2012

- ▶ Replace 3 driveway culverts to 4- foot diameter
- ▶ Plant native trees and plants along the stream buffer

Two year implementation period, 2013 – 2014



Current Plans

- ▶ Replace 6 private driveway culverts along the channel to fish passage requirements of 9-foot diameter.

Project Scope	Project Cost Estimate
Replace 3 culverts to 4 ft diameter	\$250,000
Replace 6 culverts to 9 ft diameter	\$1M

- ▶ Apply for grant for replacement of culverts when available

Current Plans- Continued

- ▶ Clear weeds from the channel from NE 8th Street to approximately 1500 feet downstream and plant native plants in 2015.
- ▶ Need permission from residents along the channel .

Aquatic Plants and Fish



publication #APF-1-98

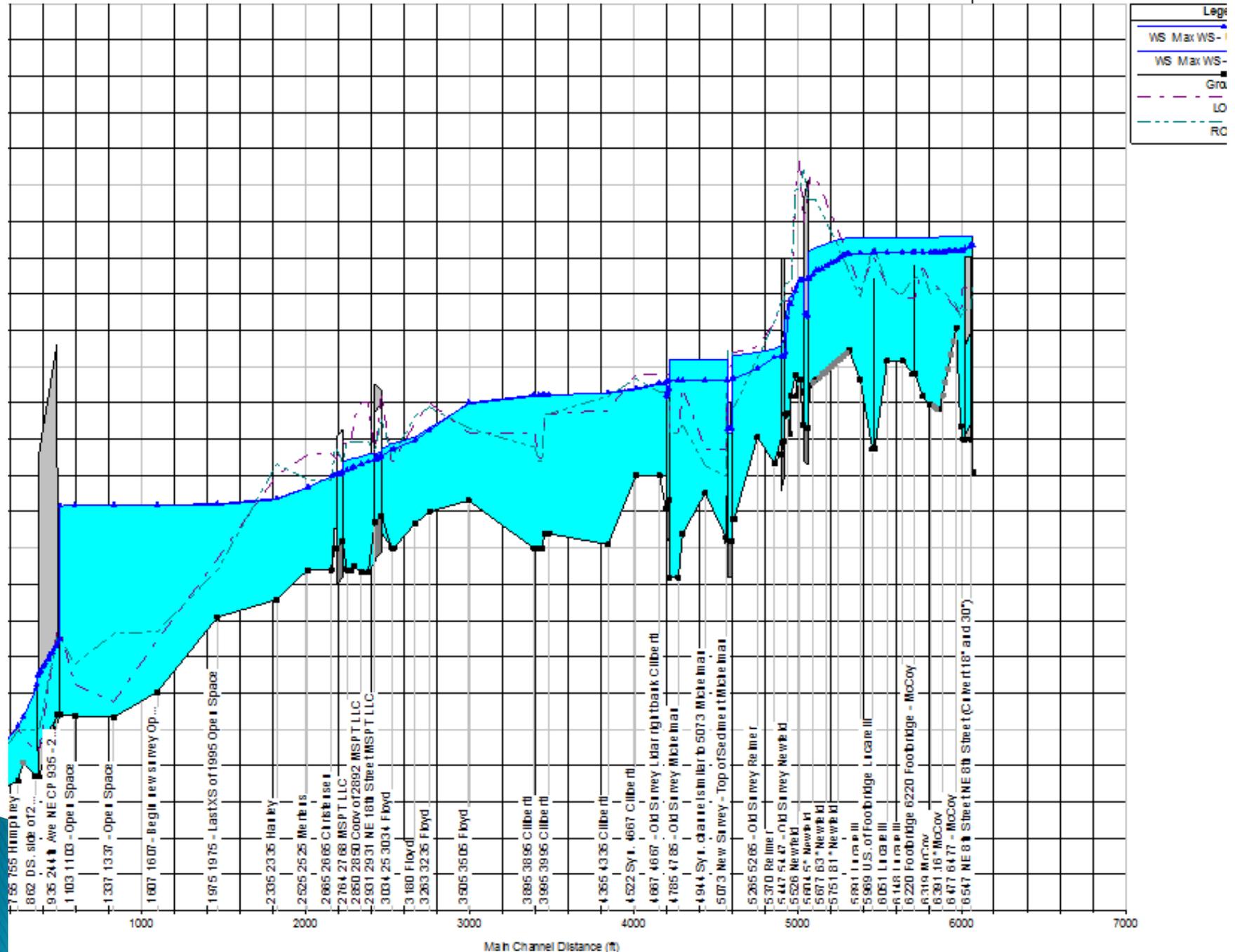
Hydrologic Modeling

	100-year storm Depth of water over NE 8 th Street
Current Conditions	1.4 feet
Removal of weeds from NE 8 th Street to about 1500 feet downstream	0.93 feet

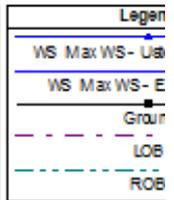
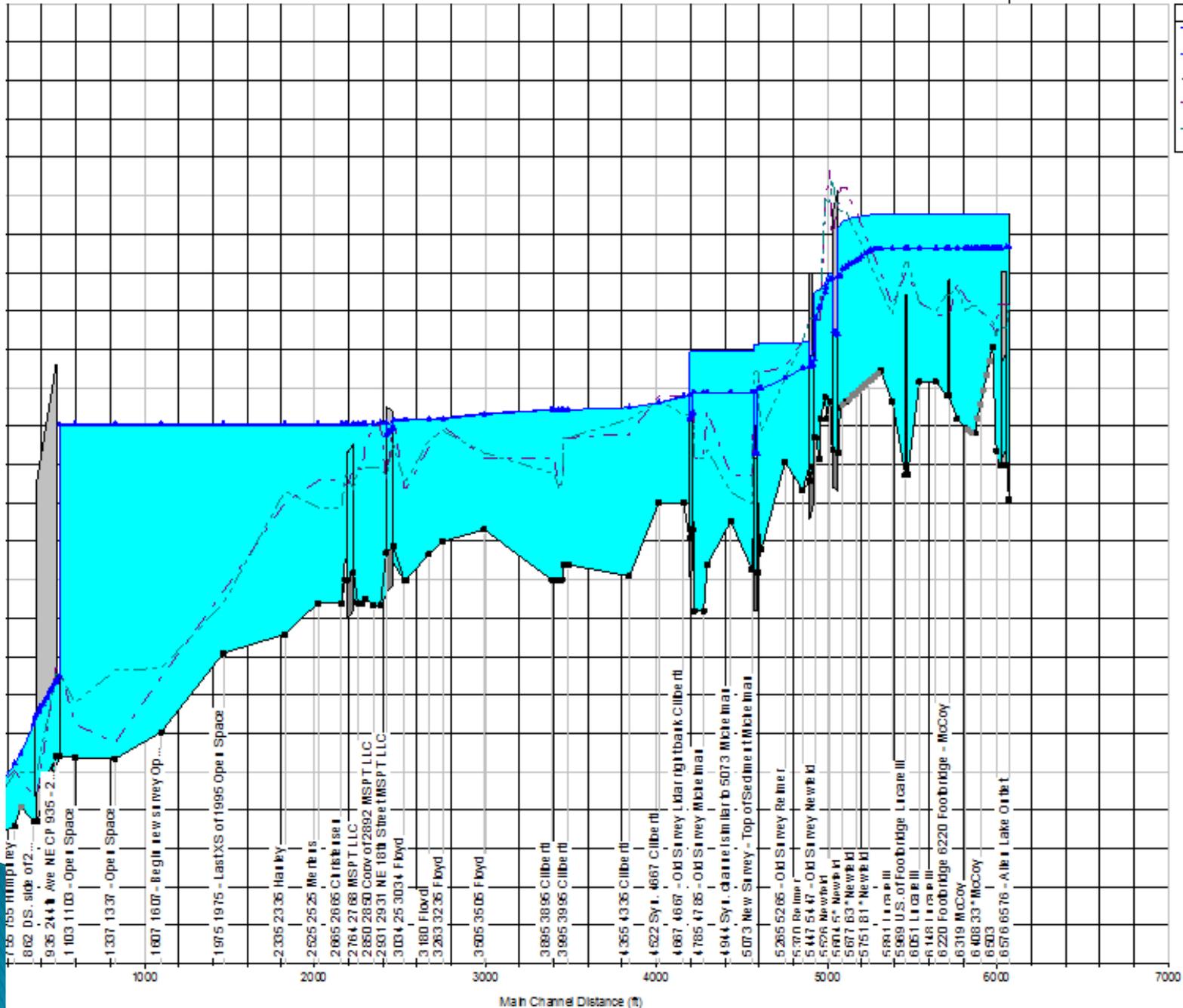
Hydrologic Modeling

Crossing	Elevation	100-year WSEL		100-year Depth Over		10-year WSEL		10-year Depth Over		Relative Difference	
		Existing	9ft Culverts	Existing	9ft Culverts	Existing	9ft Culverts	Existing	9ft Culverts	100yr	10yr
NE 8th Street	343.09	344.51	343.66	1.42	0.57	343.57	343.32	0.48	0.23	-0.85	-0.25
Newfeld	345.29	344.25	342.92	-1.04	-2.37	343.18	342.43	-2.11	-2.86	-1.33	-0.75
Roome/ Reimer	342.99	342.48	340.72	-0.51	-2.27	341.32	340.41	-1.67	-2.58	-1.76	-0.91
Michelman	341.02	341.14	339.96	0.12	-1.06	340.31	339.65	-0.71	-1.37	-1.18	-0.66
Vitale	340.69	340.95	339.87	0.26	-0.82	340.18	339.6	-0.51	-1.09	-1.08	-0.58
NE 18th Street	338.69	339.18	339.16	0.49	0.47	337.87	337.69	-0.82	-1	-0.02	-0.18
247th Ave NE	337.78	339.04	339.06	1.26	1.28	337.42	337.14	-0.36	-0.64	0.02	-0.28
244th Ave NE	340.8	339.03	339.06	-1.77	-1.74	336.17	336.19	-4.63	-4.61	0.03	0.02

RIVER-1 Reach-1



RIVER-1 Reach-1



Main Channel Distance (ft)

Hotlines

- **Drainage or Water Quality Problems**
206-477-4811
- **Road Problems (24 hour help line)**
206-296-8100
- **Emergency 911**

