

# Transportation Model Analysis of Green River Valley flooding

King County Department of Transportation  
October 26, 2009

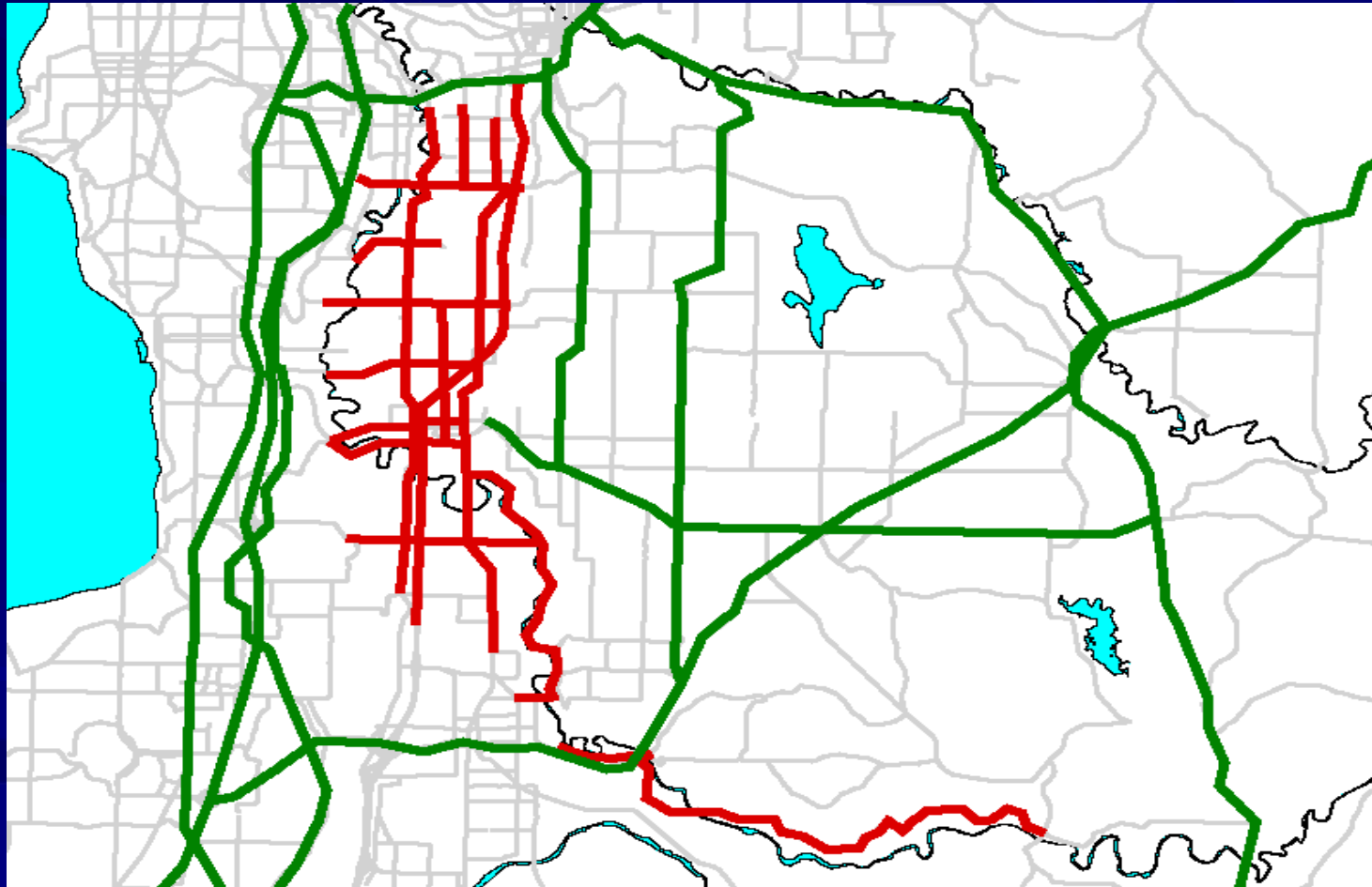
# Purpose of Model Analysis

- Identify which roads will be open/closed
- Identify traffic conditions during flooding
- Identify major congestion bottlenecks
- We will continue testing alternative scenarios/assumptions

# Model Assumptions

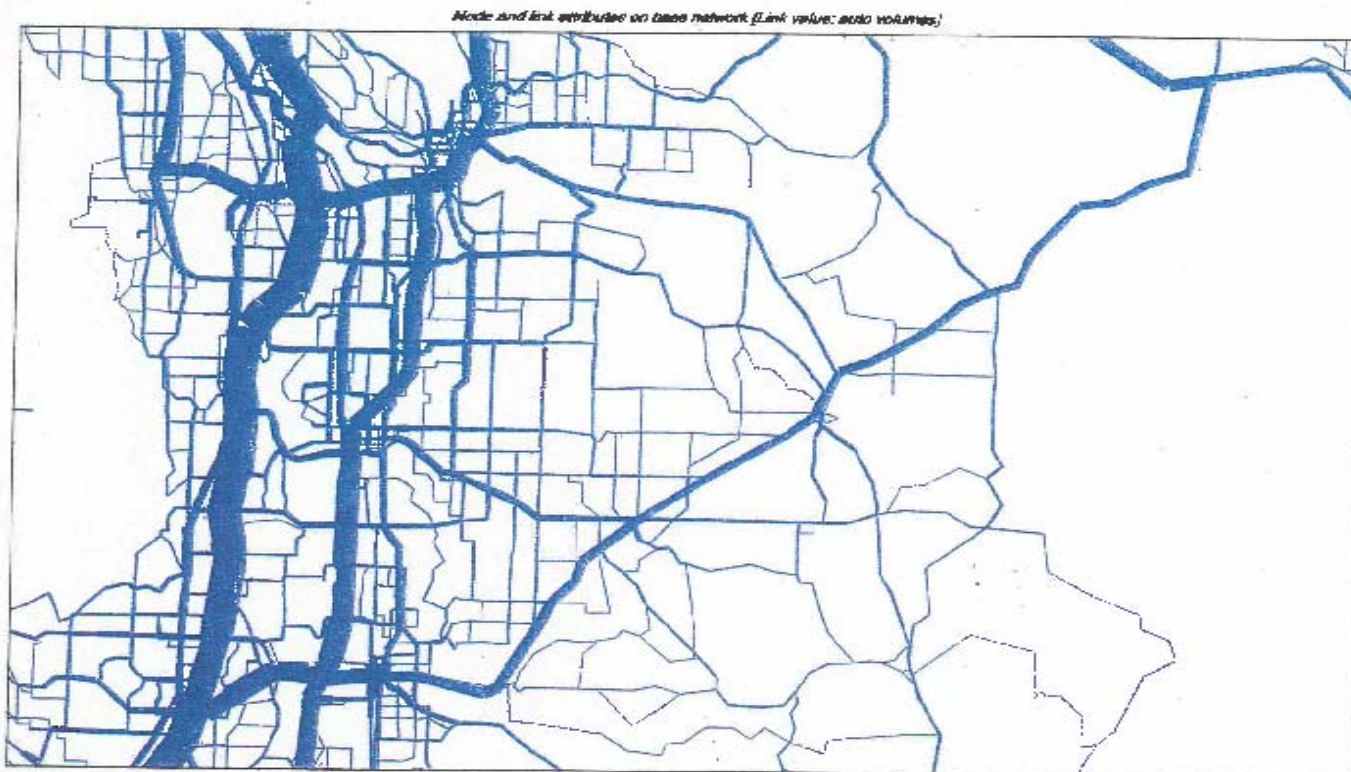
- Flood Scenario: 17,600 cu.ft./sec.
- All roadways closed in flood area
- Households and Jobs shift out of flood area
- PM Peak Hour traffic conditions

# Major Roads open/closed



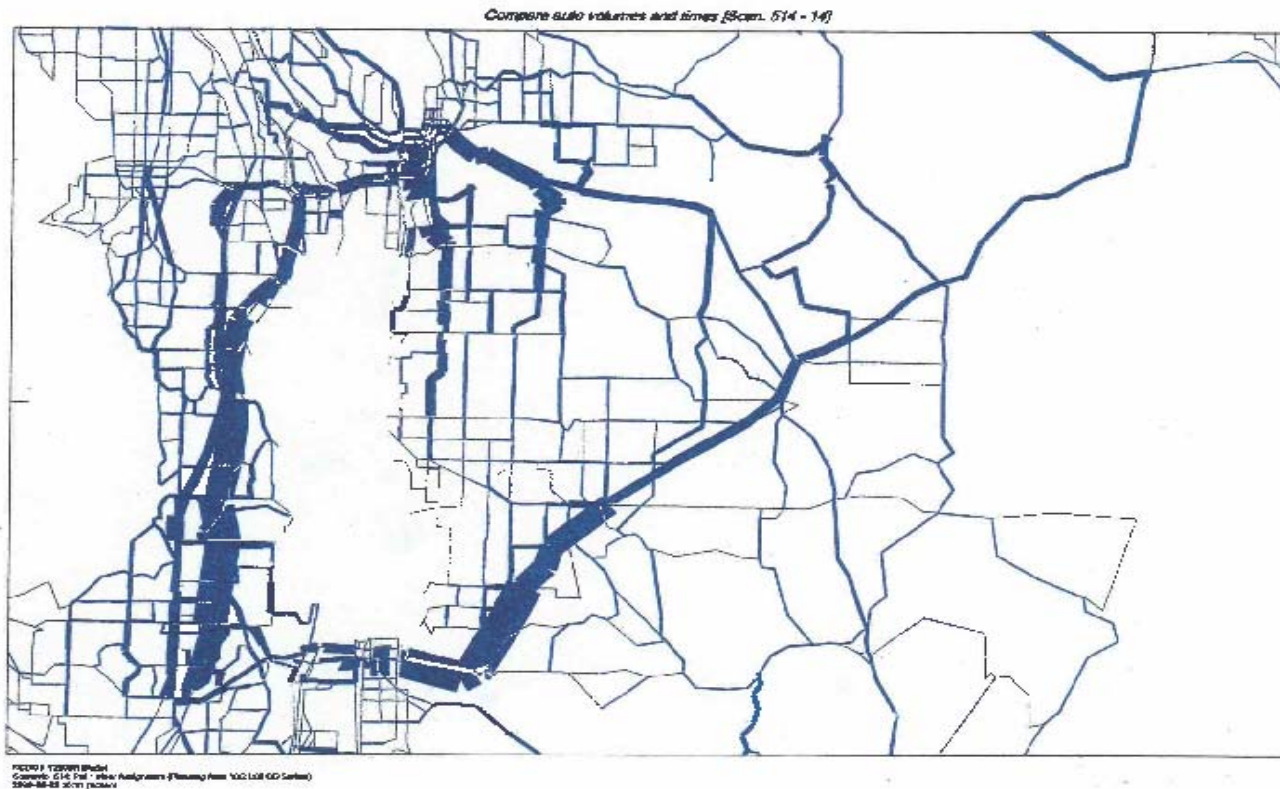
Green=Open Red=Closed

# Existing Traffic Flows (before flooding)

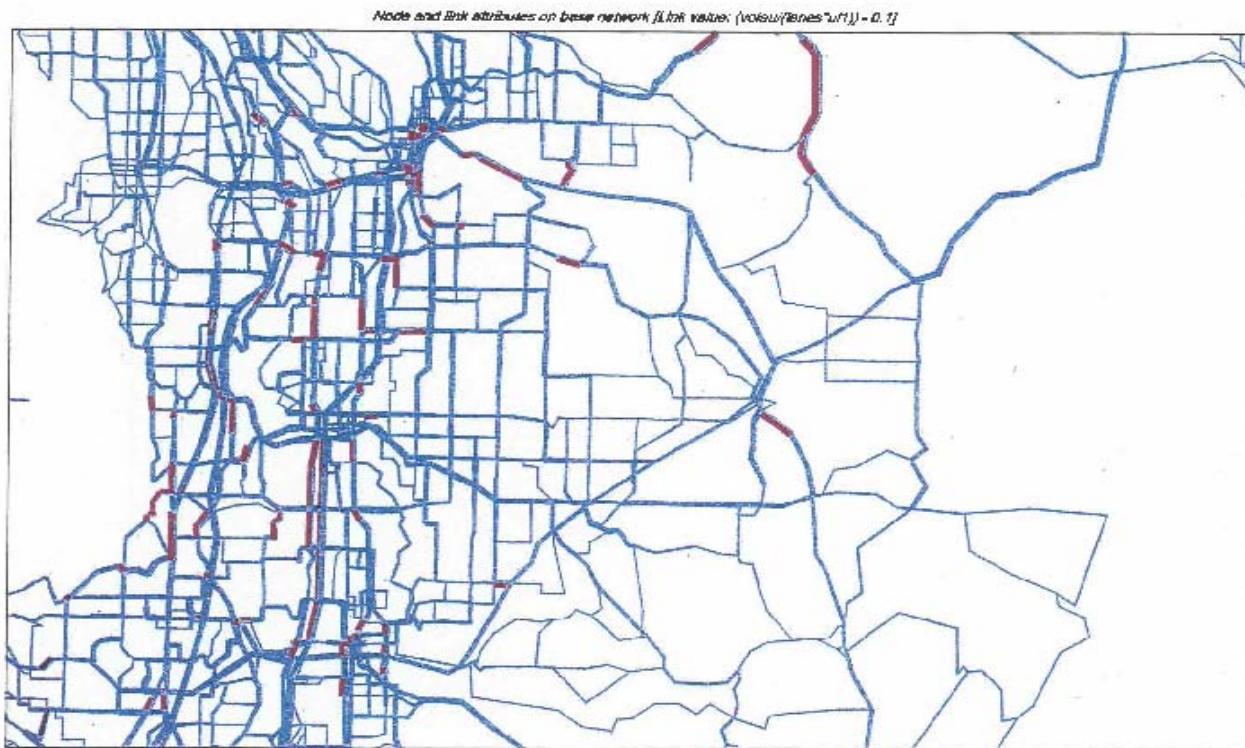




# Valley traffic: Where did it go?

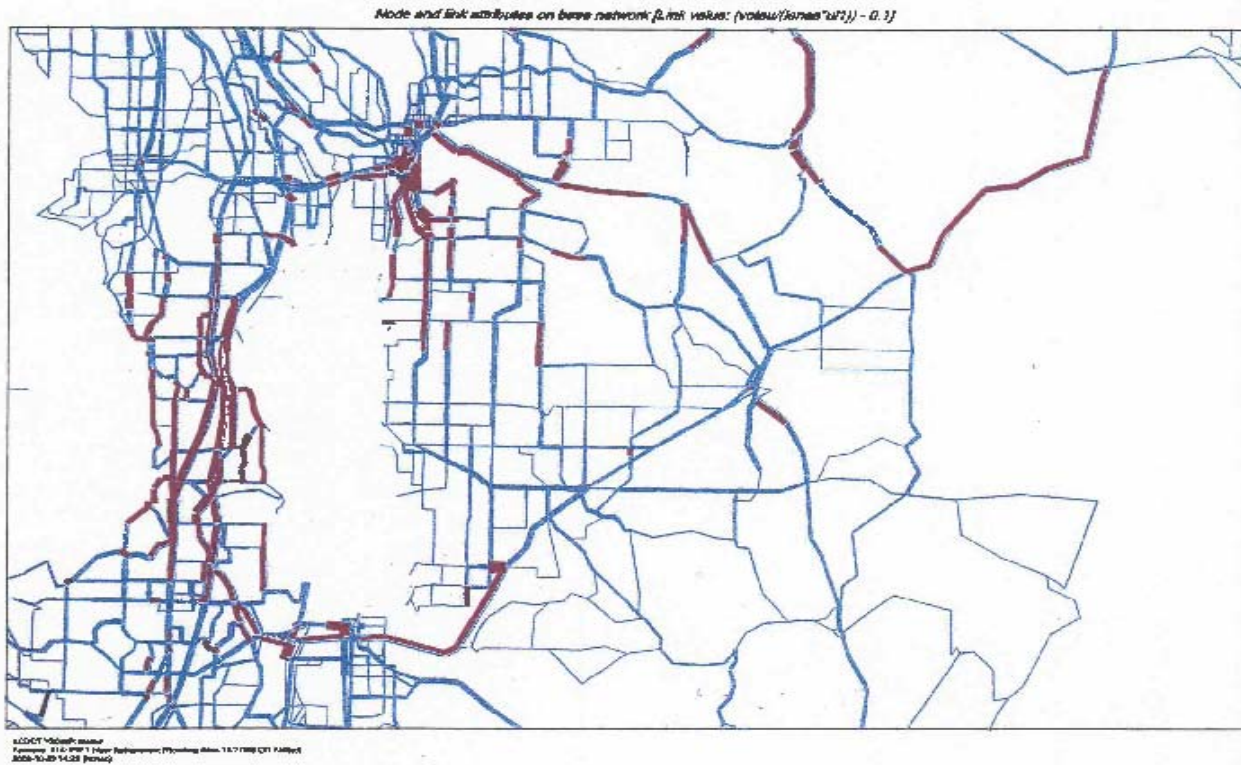


# Congestion Bottlenecks (before flooding)



EDOT 200600 Model  
Exp/Imp. of PM 1 hour - Public view  
2006-10-01 10:01 (active)

# Congestion Bottlenecks (after flooding)



# Transportation Model Findings:

- Traffic will divert to corridors East and West of the Green River Valley

East of Valley: SR-169, SR-515, 140<sup>th</sup> Ave. S.E., SR-18

West of Valley: I-5, SR-99, SR-509, Military Road

- Peak Period Spreading is expected to occur as congestion worsens

# Transportation Model Findings (cont.)

- Major Congestion Bottlenecks
  - I-5 from I-405 to SR-18
  - Major intersections along SR-99 from Federal Way to SeaTac
  - I-405 from I-5 to SR-169
  - SR-515 at Grady Way
  - SR-169 from I-405 to 140<sup>th</sup> Way S.E.
  - Elliot Bridge (154<sup>th</sup> Pl. S.E.) at SR-169
  - SR-18 at I-90