

APPENDIX F

List of Exhibits (provided on CD)

- A. RPSCR Alternative
 - Map: Modeled Change in Flooded Area – RPSCR Alternative (1999Flood_HD_Alt1.pdf)
 - Stage Hydrograph: Downstream of Littlerock Road (cmphyd_at1.xls/Littlerock ds-hydrograph)
 - Stage Hydrograph: Upstream of Littlerock Road (cmphyd_at1.xls/Littlerock us-hydrograph)
 - Stage Hydrograph: Downstream of Jones Road (cmphyd_at1.xls/Jones ds-hydrograph)
 - Stage Hydrograph: SC9 North Depressional Area (Location 3) (cmphyd_at1.xls/ SC9 N.-hydrograph)
 - Stage Hydrograph: SC10 (Location 6) (cmphyd_at1.xls/ SC10-hydrograph)
 - Stage Hydrograph: SC11 – Rhondo Pond (Location 7) (cmphyd_at1.xls/ SC11-hydrograph)
- B. 93JR Alternative
 - Map: Modeled Change in Flooded Area – 93JR Alternative (1999Flood_HD_Alt2.pdf)
 - Stage Hydrograph: Downstream of Littlerock Road (cmphyd_at2.xls/Littlerock ds-hydrograph)
 - Stage Hydrograph: Upstream of Littlerock Road (cmphyd_at2.xls/Littlerock us-hydrograph)
 - Stage Hydrograph: Downstream of Jones Road (cmphyd_at2.xls/Jones ds-hydrograph)
 - Stage Hydrograph: SC9 North Depressional Area (Location 3) (cmphyd_at2.xls/ SC9 N.-hydrograph)
 - Stage Hydrograph: SC10 (Location 6) (cmphyd_at2.xls/ SC10-hydrograph)
 - Stage Hydrograph: SC11 – Rhondo Pond (Location 7) (cmphyd_at2.xls/ SC11-hydrograph)
- C. RPDNR Alternative
 - Map: Modeled Change in Flooded Area – RPDNR Alternative (1999Flood_HD_Alt3.pdf)
 - Stage Hydrograph: Downstream of Littlerock Road (cmphyd_at3.xls/Littlerock ds-hydrograph)
 - Stage Hydrograph: Upstream of Littlerock Road (cmphyd_at3.xls/Littlerock us-hydrograph)
 - Stage Hydrograph: Downstream of Jones Road (cmphyd_at3.xls/Jones ds-hydrograph)
 - Stage Hydrograph: SC9 North Depressional Area (Location 3) (cmphyd_at3.xls/ SC9 N.-hydrograph)
 - Stage Hydrograph: SC10 (Location 6) (cmphyd_at3.xls/ SC10-hydrograph)
 - Stage Hydrograph: SC11 – Rhondo Pond (Location 7) (cmphyd_at3.xls/ SC11-hydrograph)
- D. RPDNRSCR Alternative
 - Map: Modeled Change in Flooded Area – RPDNRSCR Alternative (1999Flood_HD_Alt4.pdf)
 - Stage Hydrograph: Downstream of Littlerock Road (cmphyd_at4.xls/Littlerock ds-hydrograph)
 - Stage Hydrograph: Upstream of Littlerock Road (cmphyd_at4.xls/Littlerock us-hydrograph)
 - Stage Hydrograph: Downstream of Jones Road (cmphyd_at4.xls/Jones ds-hydrograph)
 - Stage Hydrograph: SC9 North Depressional Area (Location 3) (cmphyd_at4.xls/ SC9 N.-hydrograph)
 - Stage Hydrograph: SC10 (Location 6) (cmphyd_at4.xls/ SC10-hydrograph)
 - Stage Hydrograph: SC11 – Rhondo Pond (Location 7) (cmphyd_at4.xls/ SC11-hydrograph)

E. RPFCCR Alternative

- Map: Modeled Change in Flooded Area – RPFCCR Alternative (1999Flood_HD_Alt4a.pdf)
- Stage Hydrograph: Headwater of Fish Trap Creek (cmphyd_at4a.xls/William-hydrograph)
- Flow Hydrograph: Headwater of Fish Trap Creek (cmphyd_at4a.xls/William-hydrograph Q)
- Stage Hydrograph: Upstream of Burlington Northern Rail Road (cmphyd_at4a.xls/BNRR us-hydrograph)
- Flow Hydrograph: Upstream of Burlington Northern Rail Road (cmphyd_at4a.xls/BNRR us-hydrograph Q)
- Stage Hydrograph: Upstream of 88th Avenue (cmphyd_at4a.xls/Access us-hydrograph)
- Flow Hydrograph: Upstream of 88th Avenue (cmphyd_at4a.xls/Access us-hydrograph Q)

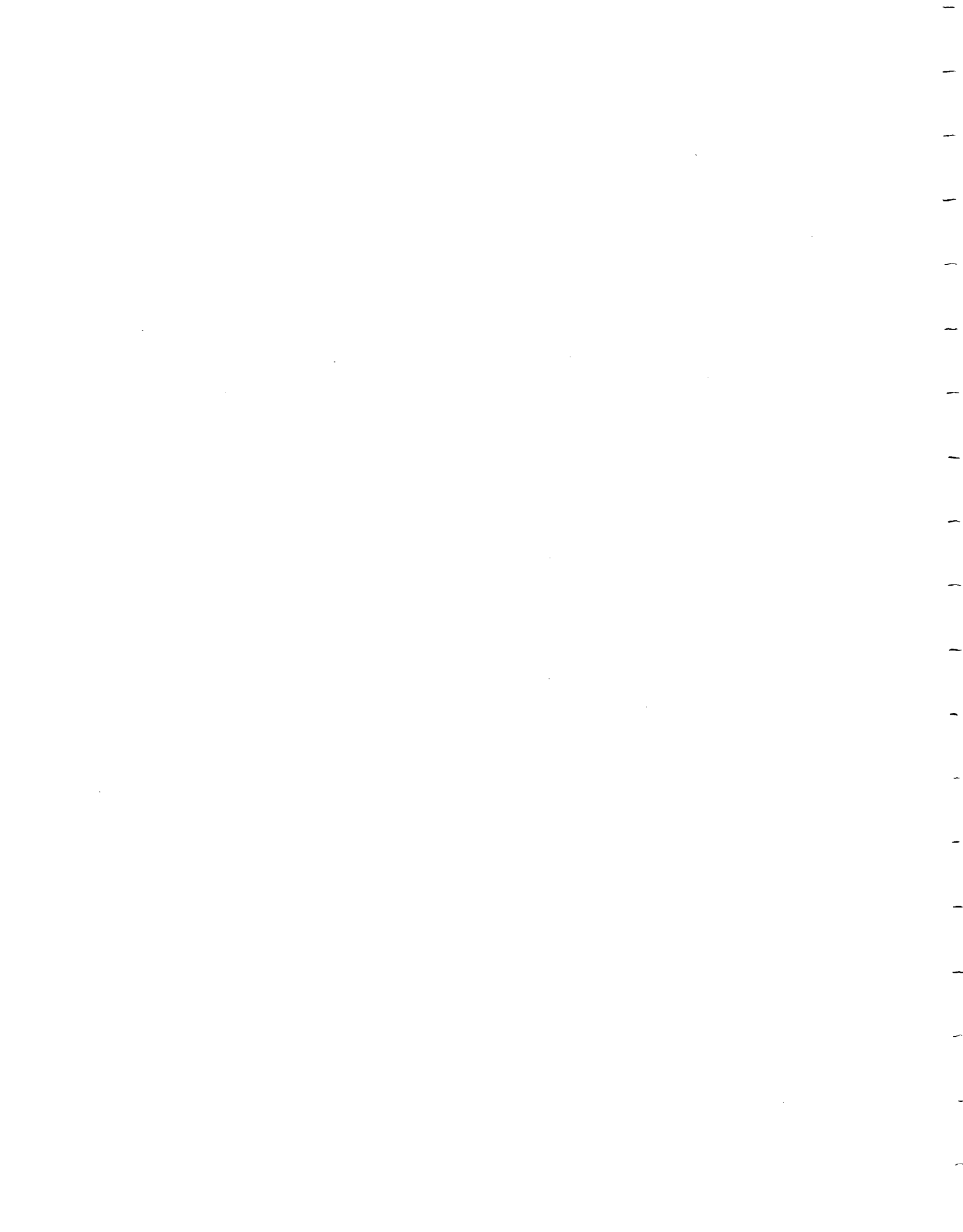
F. RPFCCR Alternative2 Scenario 1

- Map: Modeled Change in Flooded Area – RPFCCR Alternative Lower (42'') (1999Flood_HD_Alt4aL42.pdf)
- Stage Hydrograph: Headwater of Fish Trap Creek (cmphyd_at4aL42.xls/William-hydrograph)
- Flow Hydrograph: Headwater of Fish Trap Creek (cmphyd_at4aL42.xls/William-hydrograph Q)
- Stage Hydrograph: Upstream of Burlington Northern Rail Road (cmphyd_at4aL42.xls/BNRR us-hydrograph)
- Flow Hydrograph: Upstream of Burlington Northern Rail Road (cmphyd_at4aL42.xls/BNRR us-hydrograph Q)
- Stage Hydrograph: Upstream of 88th Avenue (cmphyd_at4aL42.xls/Access us-hydrograph)
- Flow Hydrograph: Upstream of 88th Avenue (cmphyd_at4aL42.xls/Access us-hydrograph Q)

G. RPFCCR Alternative2 Scenario 2

- Map: Modeled Change in Flooded Area – RPFCCR Alternative Lower (24'') (1999Flood_HD_Alt4aL24.pdf)
- Stage Hydrograph: Headwater of Fish Trap Creek (cmphyd_at4aL24.xls/William-hydrograph)
- Flow Hydrograph: Headwater of Fish Trap Creek (cmphyd_at4aL24.xls/William-hydrograph Q)
- Stage Hydrograph: Upstream of Burlington Northern Rail Road (cmphyd_at4aL24.xls/BNRR us-hydrograph)
- Flow Hydrograph: Upstream of Burlington Northern Rail Road (cmphyd_at4aL24.xls/BNRR us-hydrograph Q)
- Stage Hydrograph: Upstream of 88th Avenue (cmphyd_at4aL24.xls/Access us-hydrograph)

- Flow Hydrograph: Upstream of 88th Avenue (cmphyd_at4aL24.xls/Access us-hydrograph Q)
- H. East Basin Alternative
- Map: Modeled Change in Flooded Area – East Basin Alternative (1999Flood_HD_EBasin.pdf)
 - Stage Hydrograph: Confluence of North Tributary and Hopkins Ditch (cmphyd_at4.xls/ D120-hydrograph)
 - Stage Hydrograph: Headwater of North Tributary at Cross-Section SC20 (cmphyd_at4.xls/ U120-hydrograph)
 - Stage Hydrograph: SC13 (Location 8) (cmphyd_at4.xls/ SC13-hydrograph)
- I. Hopkins Ditch Clearing
- Stage Hydrograph: Downstream of Littlerock Road (cmphyd_dre.xls/Littlerock ds-hydrograph)
 - Stage Hydrograph: Upstream of Littlerock Road (cmphyd_dre.xls/Littlerock us-hydrograph)
 - Stage Hydrograph: Downstream of Jones Road (cmphyd_dre.xls/Jones ds-hydrograph)
 - Stage Hydrograph: SC9 North Depressional Area (Location 3) (cmphyd_dre.xls/ SC9 N.-hydrograph)
 - Stage Hydrograph: SC10 (Location 6) (cmphyd_dre.xls/ SC10-hydrograph)
 - Stage Hydrograph: SC11 – Rhondo Pond (Location 7) (cmphyd_dre.xls/ SC11-hydrograph)
 - Stage Hydrograph: Confluence of North Tributary and Hopkins Ditch (cmphyd_dre.xls/ D120-hydrograph)
 - Stage Hydrograph: Headwater of North Tributary at Cross-Section SC20 (cmphyd_dre.xls/ U120-hydrograph)
 - Stage Hydrograph: SC13 (Location 8) (cmphyd_dre.xls/ SC13-hydrograph)
 - Water Surface Profile of Salmon Creek Mainstem (wse.xls/mainstem plot)
- Water Surface Profile of Salmon Creek North Tributary (wse.xls/north trib plot)



APPENDIX G

Definitions, Acronyms, and Abbreviations

The following is a glossary of technical terms, acronyms, and abbreviations used in this report. The purpose of this glossary is to provide a reference for readers who are less familiar with terms often used in technical discussions about hydrogeologic concepts. This compilation includes a list of abbreviations and acronyms used throughout this report.

aquifer: An underground area such as sand and/or gravel that yields significant (economically feasible) amounts of water to wells.

aquitard: An underground area such as clay or glacial till that does not yield significant amounts of water to wells. Aquitards can store large quantities of water but do not readily transmit water.

base flow: The component of streamflow caused by groundwater discharging to a river or stream.

basin: The total area of land that drains water to a central stream, river, or other water body. Also called drainage basin, or watershed.

canopy: Upper layers of tree branches and leaves in a forest ecosystem.

confined aquifer: An aquifer that is overlain by an aquitard and contains groundwater under sufficient pressure to rise above the top of the aquifer. In some cases, groundwater levels may be above land surface and wells completed in a confined aquifer may flow.

conveyance alternative: In this basin plan, an action involving the construction of an engineered drainage project to lower flood levels.

conveyance system: Pipes, swales, ditches, or a combination thereof that carry surface water runoff.

detention: A stormwater system that delays the downstream progress of stormwater runoff in a controlled manner. This is typically accomplished by using temporary storage areas and a metered outlet device.

discharge: A volume of water that passes a given location within a given period of time.

effective impervious area: Area of non-permeable material (concrete, roof tops, etc.) which contributes to runoff that directly connects to a downstream water body.

ESA: Endangered Species Act, the federal law that prohibits “taking” of species that have been listed as in danger of becoming extinct. “Take” is defined in the ESA as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species. Harm may include significant habitat modification where it actually kills or injures a listed species through impairment of essential behavior (e.g. nesting or reproduction).

ESU: Evolutionarily Significant Unit, a population of organisms that is reproductively isolated from other populations of the same species, and represents an important component in the evolutionary legacy of the species.

Evapotranspiration: The portion of precipitation returned to the atmosphere by direct evaporation of water and by plant transpiration, both of which are greatest during the warmer months.

Facies: A lateral subdivision of a stratigraphic unit based on comparative characteristics, particularly texture.

ft/day: feet per day, a unit of measurement used to describe aquifer hydraulic conductivity. It is a simplification of ft^3 (volume of water) per ft^2 (area through which water flows) per day.

gpm: gallons per minute; a unit of measurement used to describe “instantaneous” pumping rate.

gpd/ft: gallons per day per foot; a unit of measurement used to describe aquifer transmissivity.

groundwater: Water that is stored under the earth’s surface in interconnected pores of materials that lie below the water table.

head: Numerically equal to the elevation of the upper groundwater level in a well. Where no well exists, its value is the sum of the water pressure and the elevation above a measuring point.

Holocene (or Recent) Epoch: The span of geologic history from about 10,000 years ago, after the last glaciers receded, to present time.

horizontal directional drilling: A technique for reducing groundwater levels by drilling and inserting a slotted, stainless steel pipe that would act as a groundwater drain.

hydraulic conductivity: In this report, also called permeability. A coefficient of proportionality describing the rate at which water moves through a porous medium under a certain hydraulic gradient, that is, the volume of water moving through a unit area during a unit time period. Commonly, it is expressed in units of feet per day (ft/day) or centimeters per second (cm/sec) or gallons per day per foot squared (gpd/ft²).

hydraulic gradient: The change in groundwater elevation over a distance in a given direction. Expressed as a unitless number representing ft (head change)/ft (distance), it is the driving force for groundwater flow.

hydrologic computer model: A computer model which simulates stream flow in a basin, given inputs such as precipitation, temperature, slopes, soils, groundwater, and land use. The model is used to predict future stream flows that may be impacted by land use or other changes.

hydrostratigraphy: The stratigraphy of hydrogeologic units. Stratigraphy is a branch of geology involving study of the formation, composition, sequence, and correlation of rock strata.

hydrograph: A chart of water elevation over time.

hydrophyte: A plant growing in and adapted to an aquatic or very wet environment.

impervious area: Hard, non-permeable surfaces such as paved roads or rooftops which contribute surface water runoff.

mitigate: To make or become less severe or intense; moderate, as in “The new stormwater pond should mitigate the effects of road runoff.”

msl: mean sea level. Elevation relative to 0 feet for mean sea level in accordance with the National Geodetic Vertical Datum (NGVD) of 1929.

non-conveyance alternative: In this basin plan, “non-conveyance alternative” refers to an action that does not involve an engineered drainage project to for lowering flood levels.

NPDES: National Pollutant Discharge Elimination System, the name of the surface water quality program authorized by Congress as part of the 1987 Clean Water Act, with oversight by EPA; a program to control the discharge of pollutants to waters of the United States .

outwash: Sand and gravel deposited by melt water streams from a glacier.

permeability: see hydraulic conductivity.

pervious area: An area with a surface such as plants or sand which allows water to percolate down through the soil.

precipitation: Moisture, such as rain or snow, falling to the ground.

Qal: modern alluvium deposits.

Qva: Vashon advance outwash deposits.

Qvr: Vashon recessional outwash deposits.

Qvt: Vashon till.

rating curve: A chart and equation that defines the relationship between stream water elevation and stream flow quantity.

recharge: Re-supplying of water to the aquifer.

regressed: The process of generating an equation that most-closely predicts one number, if another number is known.

retention: A process that halts the downstream progress of stormwater runoff. This is typically accomplished by using storage areas with infiltration devices to dispose of stored water via percolation over a specified period of time.

SEPA: State Environmental Policy Act, the state law designed to protect the natural resources of the state. SEPA checklists are completed by an applicant and reviewed by a lead agency. If there is a significant environmental impact, and EIS (Environmental Impact Statement) will be required.

specific capacity: A measure of how much water a well can produce; specifically, the rate of discharge from a well per foot of drawdown, expressed in gpm/ft. Specific capacity usually decreases with continued pumping over time, even though the pumping rate remains unchanged.

stage: The level or elevation of a river or other surface-water body.

storativity: Also referred to as “storage coefficient,” the volume of water an aquifer releases, or absorbs, per unit surface area of an aquifer per unit change in head.

surface water: Bodies of water on the earth’s surface, such as rivers, streams, creeks, lakes, and ponds.

synoptic: Involving data from a wide area at one point in time.

TMDL: Total Maximum Daily Load, an assessment of how much pollution “load” the stream can accept and still meet federal and state water quality standards.

till: Unstratified, poorly sorted sediments deposited along the bottom of a glacier; as such, they are typically very dense, compact, and consolidated. Till often looks like concrete and commonly is called “hardpan” by well drillers. The texture often ranges from clay to gravel.

transmissivity: A measure of an aquifer’s ability to transmit water; the rate at which water is transmitted through 1 foot of aquifer width under a hydraulic gradient of 1. Transmissivity equals the hydraulic conductivity of an aquifer times its saturated thickness. It is commonly expressed in gpd/ft, ft²/day, or m²/day.

UGA: Urban Growth Area: Those areas designated by a county pursuant to RCW 36.70A.110. They include the land area sufficient to accommodate the urban growth projected to occur in the county over the succeeding twenty-year period. Land uses within urban growth areas are usually governed by joint plans between a county and a city.

unconfined aquifer: An aquifer that is not overlain by a confining unit and in which pore water pressure at the upper groundwater surface is atmospheric; heads in such an aquifer lie below the top of the aquifer.

USGS: United States Geological Survey, Department of the Interior.

watershed: The land area potentially contributing water via runoff to a certain location.

water table: the top surface of a body of unconfined groundwater at which the pore pressure equals that of the atmosphere.

Wetland: Land with a wet, spongy soil, where the water table is at or above the land surface for at least part of the year.

APPENDIX H

Board of County Commissioners

Resolutions Relating to Salmon Creek Basin

RESOLUTION No. 12019

A RESOLUTION approving the implementation of a temporary emergency surface and groundwater drainage system project for the Hickman Subarea of the Salmon Creek Basin and establishing special benefit charges to fund design, construction, and maintenance of the drainage system.

WHEREAS, the Thurston County Board of County Commissioners (Board) has authority (RCW 36.94) to impose rates and charges for services provided by the Thurston County Storm and Surface Water Utility (Utility); and

WHEREAS, the Hickman Subarea is a portion of the Salmon Creek Basin, which basin was delineated and incorporated in the Utility by Resolution No. 12018; and

WHEREAS, the Hickman Subarea has experienced recurrent ground and surface water flooding during the past three years; and

WHEREAS, the Board declared a County Emergency in response, inter alia, to groundwater flooding in 1998/1999 pursuant to Resolution No. 11890 and extended the emergency via Resolution No. 11931; and

WHEREAS, On March 2, 1999, Governor Gary Locke declared a state emergency related to flooding (and landslides) affecting identified counties, including Thurston County; and

WHEREAS, the County has received multiple requests for surface and groundwater flooding assistance from residents within the Hickman Subarea during the past three years; and

WHEREAS, the Board recognizes the importance of providing assistance to the affected area, consistent with the County's Comprehensive Emergency Management Plan, including the provisions of Appendix B related to disaster assistance to private property, and recognizes that pursuant to these emergency provisions the steps necessary to affect the Hickman Subarea project should be expedited; and

WHEREAS, the ground and surface water flooding in the Hickman Subarea has affected private and public property and can be responded to, pending completion of a comprehensive drainage plan for the entire Salmon Creek Basin, by providing a temporary drainage system project to alleviate surface and groundwater flooding in the identified Hickman Subarea using a surface ditch/pipeline project across private property and along 93rd Avenue SW; and

WHEREAS, the Utility has conducted two public meetings and the Board has conducted a public hearing (August 2, 1999) with residents and owners of property within the Hickman Subarea to discuss a rate boundary extension proposal and a special benefit charge to construct the emergency temporary short term flood alleviation project along 93rd Avenue SW; and

WHEREAS, the Board finds it appropriate to use the existing Utility rate model as the rate allocation model for special benefit charges for subarea properties to support construction of the emergency surface water drainage system project for the Hickman Subarea; and

WHEREAS, the Thurston County Department of Roads and Transportation Services has developed special benefit charges based on the Utility rate model as amended by Resolution No. 11860 and has sent estimates of special benefit charges to subarea property owners;

NOW, THEREFORE, THE BOARD OF COUNTY COMMISSIONERS, OF THURSTON COUNTY, STATE OF WASHINGTON, DOES RESOLVE AS FOLLOWS:

Section 1. Findings: The Board finds as follows:

A. The emergency temporary drainage system for the Hickman Subarea is a project consistent with the County Comprehensive Emergency Management Plan and with the findings and response authority authorized by the Board pursuant to Resolution No. 11931.

B. The emergency temporary drainage system for the Hickman Subarea is a project consistent with the goals and objectives of the Storm and Surface Water Utility (Utility).

C. The emergency temporary drainage system is expected to provide the benefit of enhanced drainage to public and private sector properties within the Hickman Subarea at a level of service consistent with presently known variables affecting area surface and groundwater flooding and drainage to afford relief from current saturation conditions and seasonally occurring risks, as occurred during the winter of 1998/1999, while a comprehensive study and basin plan is being addressed by the Utility for the entire Salmon Creek Basin area.

Section 2. Area: the Hickman Subarea is defined and described on the Hickman Subarea map, Exhibit A hereto, which exhibit is incorporated by reference as though set forth herein in full. All properties lying within the boundaries of the Hickman Subarea, whether public or private, are subject to the provisions of this resolution.

Section 3. Emergency Temporary Drainage Project (Project). The Board approves the construction and implementation of the Project which shall consist of a surface ditch (southwesterly) across an easement on private property located immediately west of the Department of Natural Resources "Webster Nursery" to a point along 93rd Avenue SW and then westerly via a pipeline to existing culverts at 93rd Avenue SW and ultimately into Salmon Creek. A schematic design of the Project is attached as Exhibit B hereto, which exhibit is incorporated by reference as though set forth herein in full. The Project budget in the amount of \$100,000.00 (exclusive of any interest charges) is hereby approved. The Project is presently scheduled to be in effect for minimally three years with up to two one-year extensions as allowed under the easement agreement for that portion of the Project crossing private property.

Section 4. Special Charge. Funding for the Project approved in Section 3 shall be accomplished through assessment and collection of special benefit charges based on the current Utility rate model as described by Resolution No. 9345 and amended by Resolution No. 11860.

Hickman Subarea property owners shall pay the special benefit charge in a one time interest-free payment pursuant to Resolution No. 9345. Alternately, property owners may elect to pay over a five-year period with equal annual payments on principal, and interest at a rate not to exceed nine percent (9%) over a five-year period. Payments shall be received as provided for in Resolution No. 9345, Section 5.

Section 5. Emergency Relief. The Director of Emergency Management shall take all steps necessary to seek reimbursement from the State or Federal Governments for any qualifying costs or expenses incurred by the County in implementing the Project, and, to the extent allowed by law, responsible County Departments shall provide credit or reimbursement to property owners for payments made pursuant to Section 4 herein.

Section 6. Project Costs. Thurston County Roads and Transportation Services proposes constructing the Project for a cost not to exceed \$100,000. Providing that the cost of constructing the project exceeds the pro-rata share amount identified for Thurston County Roads and Transportation Services pursuant to Section 4 above, then Thurston County Roads and Transportation Services shall be repaid from special charges collected and administered by the Utility.

Section 7. Effectiveness. This resolution shall take effect on the date adopted below.

Section 8. Severability. If any Section, subsection, sentence, clause, phrase, or other portion of this Resolution, or its application to any person is, for any reason, declared invalid, in whole or in part by any court or agency of competent jurisdiction, said decision shall not affect the validity of the remaining portions hereof.

ADOPTED: 8/23/99

ATTEST:

BOARD OF COUNTY COMMISSIONERS
Thurston County, Washington

Kim Cross
Clerk of the Board

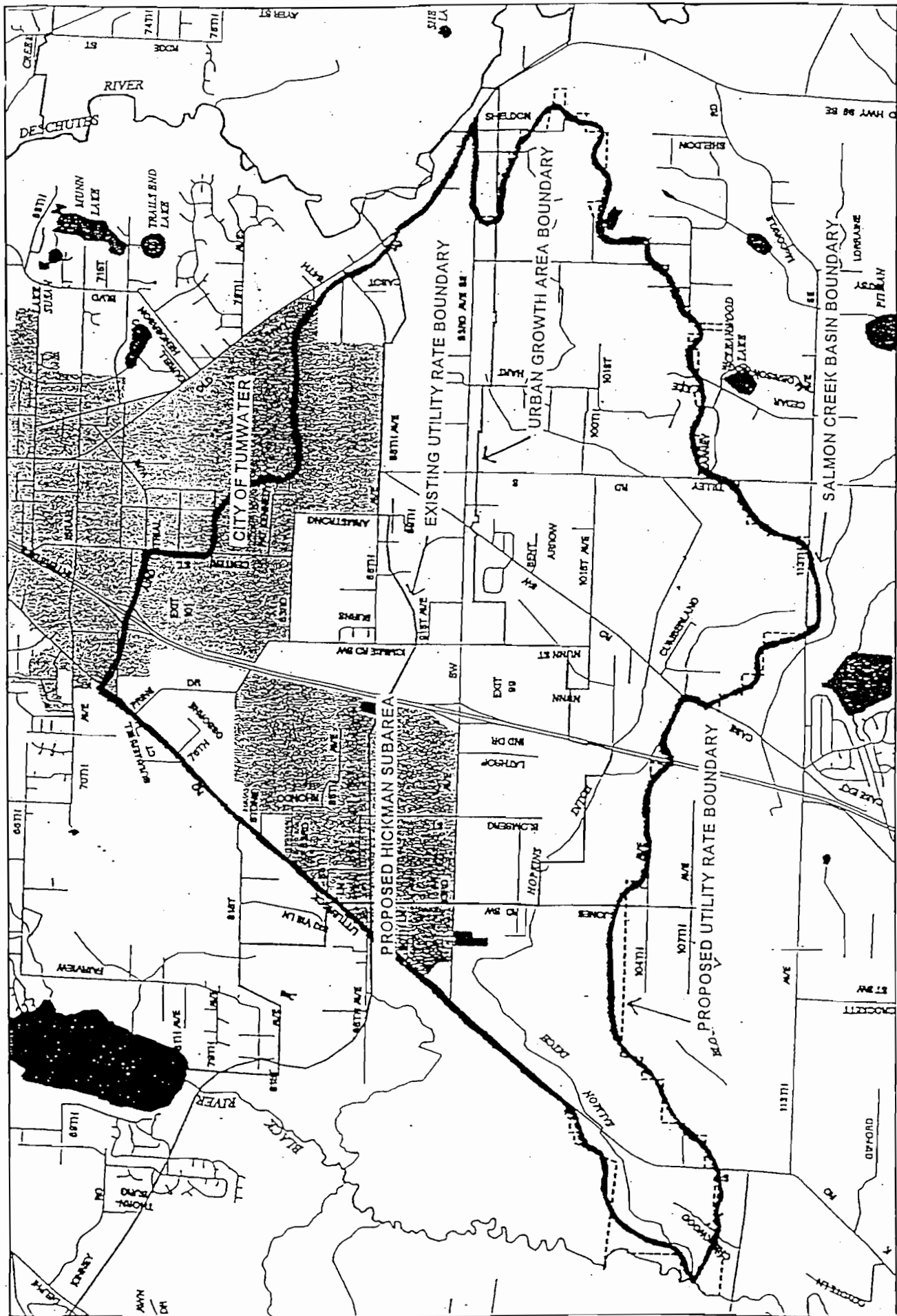
Judy Tillson
Chairman

APPROVED AS TO FORM:
EDWARD J. HOLM
PROSECUTING ATTORNEY

Marie Chapman
Commissioner

By: Mark H. Calkins
Mark H. Calkins
Deputy Prosecuting Attorney

[Signature]
Commissioner



Proposed Utility Rate Boundary Salmon Creek Basin Planning Area

- Existing Utility Rate Boundary
- Proposed Utility Rate Boundary
- Salmon Creek Basin Boundary
- Urban Growth Area Boundary
- Proposed Hickman Subarea Boundary
- City of Tumwater City Limits

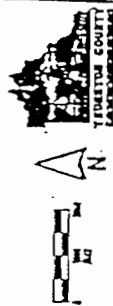


Exhibit A

RESOLUTION No. 12018

A RESOLUTION extending the existing Storm and Surface Water Utility Rate Boundary to include the area delineated as the Salmon Creek Basin; imposing Utility rates and charges on properties included in the extended rate boundary; and providing for a process to amend the Basin boundary.

WHEREAS, the Board of County Commissioners (Board) has the authority pursuant to RCW 36.94 to delineate areas to be included in the Thurston County Storm and Surface Water Utility; (Utility) and

WHEREAS, the Utility was established to provide services pursuant to Resolution No. 9345 for those areas included within the Utility rate boundary; and

WHEREAS, the Board has established rates and charges for properties within the Utility area pursuant to Resolution 9345 as amended by Resolution No. 11860; and

WHEREAS, the area delineated herein as the "Salmon Creek Basin" includes property not previously incorporated in the Utility rate boundary; and

WHEREAS, the Board and County staff have conducted public meetings that included discussion of the extension of the Utility rate boundary to include the Salmon Creek Basin and the Board held a public hearing on August 2, 1999 to hear and receive comment on the extension; and

WHEREAS, based upon public comment about the Basin boundary being potentially overinclusive in areas and based upon staff reports regarding how the Basin study will develop a more definitive data base for boundary delineation, the Board has determined that a process to amend Basin boundary delineation should be established;

WHEREAS, by findings adopted below, the Board has determined that the Salmon Creek Basin should be delineated as part of the Utility rate boundary;

NOW, THEREFORE, the Board of County Commissioners of Thurston County, Washington does resolve as follows:

Section 1. Findings

The Board adopts the following findings in support of the extension of the Storm and Surface Water Utility (Utility) to include all property within the area delineated as the "Salmon Creek Basin".

A. The extension of the Utility to include the Salmon Creek Basin is necessary to protect and preserve public health, safety and welfare.

B. The extension is a necessary action to make available additional resources and programs to the Salmon Creek Basin area, which area includes private and public property adversely impacted by surface and groundwater flooding in recent years, including flooding during the winter of 1998/1999.

C. The extension of the Utility is an action consistent with the County Comprehensive Emergency Management Plan, including Appendix B thereto, and with the findings and response authority authorized by the Board pursuant to Resolution No. 11931, including the findings adopted therein and by reference to Resolution No. 11890 related to groundwater flooding and the County's emergency response. Pursuant to these emergency conditions, the steps necessary to effect the Utility rate boundary extension should be expedited.

Section 2. Purpose. Upon extension of the Utility rate boundary to include the Salmon Creek Basin, the Utility can undertake a comprehensive basin study leading to proposed adoption of a Salmon Creek Basin Plan. The adoption of a Salmon Creek Basin Plan is a prerequisite for any comprehensive long-term solutions to problems including the ground and surface water flooding occurring in recent years. In addition the extension allows for potential implementation of short term projects to be carried out by the County pending adoption of a basin plan, including any program or project adopted under the Board's emergency authority pursuant to Resolution No. 11931.

Section 3. Rate Boundary Extension Area Delineated. The existing Utility rate boundary area is hereby extended to include all property delineated in the area to be known as the "Salmon Creek Basin", which area is delineated in Exhibit A. Exhibit A is attached hereto and adopted by reference as though set forth herein in full.

Section 4. Salmon Creek Basin Boundary amendment(s).

A. The proposed Basin boundary may be amended to take effect in 1999 by application to the Thurston County Drainage Manual Administrator (Administrator) pursuant to Section 1.5 of the "Drainage Design and Erosion Control Manual for Thurston County" (1994) (Manual) prior to 5:00 p.m. on November 30, 1999. After the above time/date no applications for boundary amendment will be accepted until January 3, 2000.

B. Beginning January 3, 2000, amendments to the Salmon Creek Basin boundary may be authorized by the Board, to take effect beginning in 2000, as follows. The Board shall set a public hearing following receipt of a request by the Administrator. The Administrator shall request that the Board set a public hearing to consider any qualified request for a Basin boundary amendment based upon Basin study information or other information submitted by affected property owners suggesting that a Basin boundary adjustment may be justified. One or more of the following sources of information is a prerequisite for consideration of a Basin boundary amendment application for 1999 or thereafter:

- ▶ Ground survey performed by a licensed professional land surveyor in the State of Washington detailing specific site topography in sufficient detail confirming drainage away from any waters tributary to Hopkins Ditch or Salmon Creek.
 - ▶ Subsurface exploration data which specifically identifies subsurface flow patterns prepared under the direct supervision of a licensed professional engineer in the State of Washington. Said data shall bear the seal and signature of the supervising engineer;
- or
- ▶ Subsurface exploration data which specifically identifies subsurface flow patterns prepared under the direct supervision of a "pre-qualified" hydrogeologist approved by the Thurston County Drainage Manual Administrator.

C. No property within the Utility rate boundary prior to the adoption of this resolution shall be entitled to withdraw from the rate boundary as a consequence of a Basin boundary amendment.

Section 5. Rates and Charges. All property newly included within the Utility rate boundary pursuant to Section 3 shall be subject to payment of the Utility rates and charges pursuant to the provisions set forth in Resolution No. 9345 as amended by Resolution No. 11860.

Section 6. Effectiveness. This resolution shall take effect upon the date adopted below.

Section 7. Severability. If any Section, subsection, sentence, clause, phrase, or other portion of this Resolution, or its application to any person is, for any reason, declared invalid, in whole or in part by any court or agency of competent jurisdiction, said decision shall not affect the validity of the remaining portions hereof.

ADOPTED: 8/23/99

ATTEST:

BOARD OF COUNTY COMMISSIONERS
Thurston County, Washington

Kim Cross
Clerk of the Board

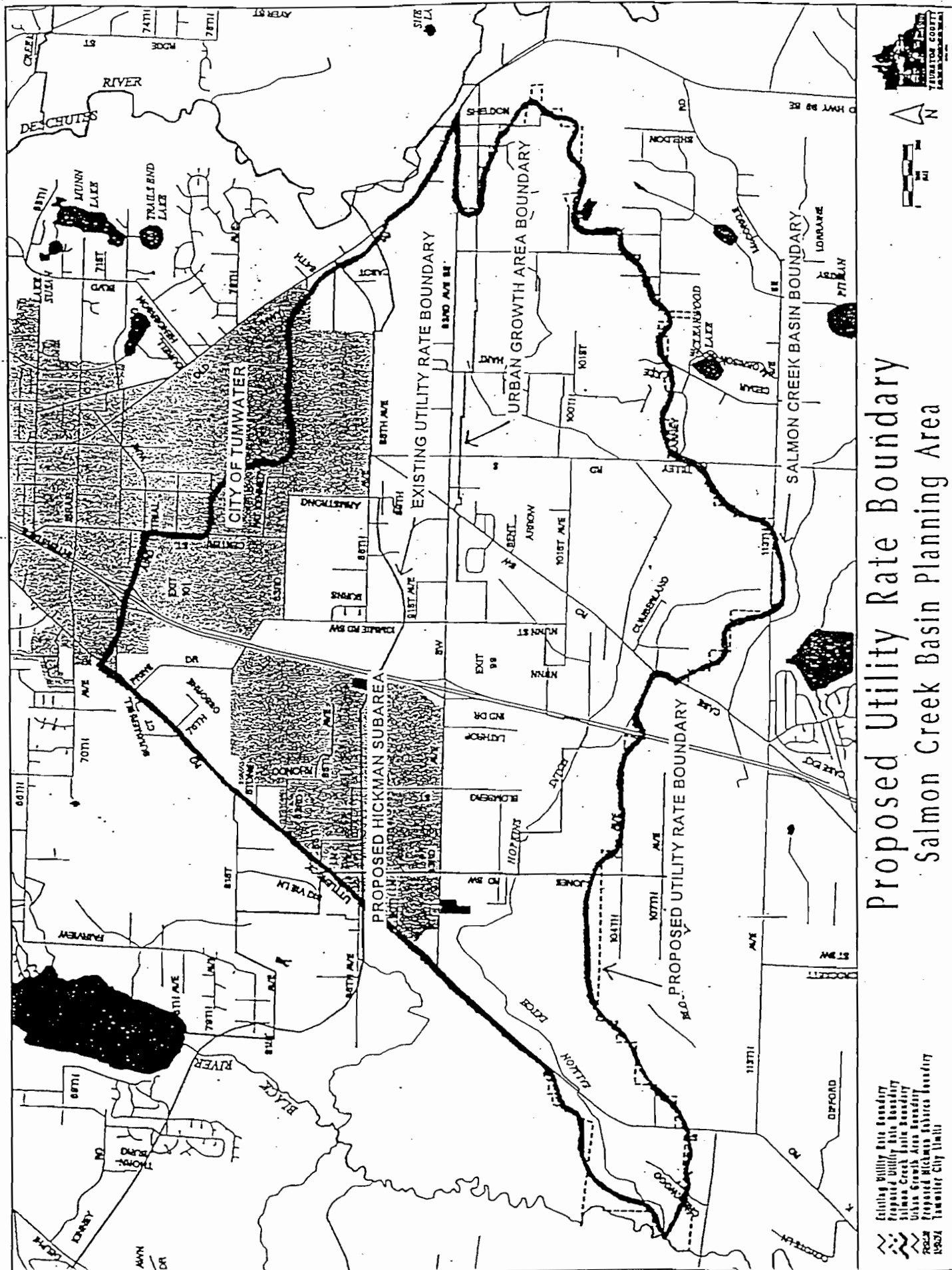
Gudy Tillson
Chairman

APPROVED AS TO FORM:
EDWARD J. HOLM
PROSECUTING ATTORNEY

Sharon O'Connell
Commissioner

By: Mark H. Calkins
Mark H. Calkins
Deputy Prosecuting Attorney

[Signature]
Commissioner



Proposed Utility Rate Boundary Salmon Creek Basin Planning Area

Existing Utility Rate Boundary
Proposed Utility Rate Boundary
City of Tumwater
Urban Growth Area Boundary
Proposed Hickman Subarea Boundary
Tumwater City Hall

RESOLUTION No. 12593

A RESOLUTION amending the existing Storm and Surface Water Utility Rate Boundary in the Salmon Creek Basin; imposing Utility rates and charges on properties included in the amended rate boundary; and rescinding Utility rates and charges on properties being removed from the Storm and Surface Utility Rate Boundary in the Salmon Creek Basin.

WHEREAS, the Board of County Commissioners (Board) has the authority pursuant to RCW 36.89 to delineate areas to be included in the Thurston County Storm and Surface Water Utility (Utility); and

WHEREAS, the Utility was established to provide services pursuant to Resolution No. 9345 for those areas included within the Utility rate boundary; and

WHEREAS, the Board has established rates and charges for properties within the Utility area pursuant to Resolution No. 9345 as amended by Resolution No. 11860; and

WHEREAS, the Board extended the Utility Rate Boundary into the Salmon Creek Basin pursuant to Resolution No. 12018; and

WHEREAS, the Board commissioned a scientific study of the Salmon Creek Basin's ground water and surface water hydrology; and

WHEREAS, findings of the scientific study provided the best available science to define the Salmon Creek Basin's Boundary; and

WHEREAS, the area delineated herein as the "Salmon Creek Basin" includes property not previously incorporated in the Utility rate boundary; and excludes some properties previously included in the Utility rate boundary; and

WHEREAS, the Board and County staff conducted public meetings that included discussion of the amendment to the Utility rate boundary in the Salmon Creek Basin and the Board held a public hearing on July 12, 2001 to hear and receive comment on the amendment; and

WHEREAS, by findings adopted below, the Board has determined that the Utility rate boundary in the Salmon Creek Basin should be amended.

NOW, THEREFORE, the Board of County Commissioners of Thurston County, Washington does resolve as follows:

Section 1. Findings

The Board adopts the following findings in support of the amendment to the Utility rate boundary to include all property within the area delineated as the "Salmon Creek Basin".

- A. The amendment is a necessary action to ensure that only those properties that contribute ground water and/or surface water flows to the Salmon Creek Basin are assessed a Utility rate; and

- B. The amendment is a necessary action to ensure that only those properties that contribute ground water and/or surface water flows to the Salmon Creek Basin are required to comply with Salmon Creek Interim Stormwater Standards; and
- C. The amendment is a necessary action to ensure that properties located in the Salmon Creek Ground Water Recharge Area are identified.

Section 2. Rate Boundary Amendment Area Delineated. The existing Utility rate boundary area is hereby amended to include all property delineated in the area to be known as the "Salmon Creek Basin", which is delineated in Exhibit A. Exhibit A is attached hereto and adopted by reference and set forth herein in full.

Section 3. Ground Water Recharge Area Delineated. The Salmon Creek Basin Boundary is amended to show an area within the Salmon Creek Basin that has unique hydrologic characteristics where surface water flows to the Deschutes River Basin and ground water flows to the Black River or Salmon Creek.

Section 4. Rates and Charges. All property newly included within the Utility rate boundary pursuant to Section 2 shall be subject to payment of the Utility rates and charges pursuant to the provisions set forth in Resolution No. 9345 as amended by Resolution No. 11860 beginning January 1, 2002.

Section 5. Effectiveness. This resolution shall take effect upon the date adopted below.

Section 6. Severability. If any Section, subsection, sentence, clause, phrase, or other portion of this Resolution, or its application to any person is, for any reason, declared invalid, in whole or in part by any court or agency of competent jurisdiction, said decision shall not affect the validity of the remaining portions hereof.

ADOPTED: September 10, 2001

ATTEST:

BOARD OF COUNTY COMMISSIONERS
Thurston County, Washington

Edw. J. Holm
Clerk of the Board

K. J. [Signature]
Chairman

APPROVED AS TO FORM:
EDWARD J. HOLM
PROSECUTING ATTORNEY

Cathy [Signature]
Commissioner

By: Jeffery G. Fancher
Jeffery G. Fancher
Deputy Prosecuting Attorney

Flaine [Signature]
Commissioner

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