



2011-2012 Budget Proposal

Section 1: Proposal Descriptors

Proposal Title: Nature Trail Expansion – 2008 Parks Levy Project		Proposal Number: 100.61NN
Outcome: Healthy and Sustainable Environment		Proposal Type: Enhancing an Existing Service
Staff Contact: Dan DeWald, x6048; Geoff Bradley, x2740		One-Time/On-Going: One-Time
Fund: Parks Levy/CIP	Attachments: Yes	Enter CIP Plan #: P-AD-89
List Parent/Dependent Proposal(s): N/A		

Section 2: Executive Summary

This proposal seeks \$2 million (\$2 million Parks Levy/\$0 CIP) to provide new trails and amenities for increased recreation opportunities in Bellevue’s Parks and Open Space system. The program will plan, design, permit and build “missing links” in the Lake to Lake Greenway, Richards Valley Trail, and Coal Creek system connecting Bellevue’s parks to regional trails and facilities. Access to a well planned and managed trail system provides a nature experience to help build an urban environment that supports personal health and well being. This project is funded entirely by the 2008 voter approved Parks and Natural Areas Levy (**Attachment 1**).

Section 3: Required Resources

CIP Expenditure	Projected Spending Thru							
	2010	2011	2012	2013	2014	2015	2016	2017
Costs	0.0	\$1,000	\$1,000					
2011-2017 Total					\$2,000			
CIP M&O		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Supporting Revenue								
		\$0	\$0	\$0	\$0	\$0	\$0	\$0
LTE/FTE								
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0

Section 4: Cost Savings/Innovation/Partnerships/Collaboration Efficiencies/Innovations

- Trail development will utilize volunteer labor to reduce costs.

Partnerships/Collaboration

- An innovative collaboration with Mountains to Sound Greenway will be used to provide cost-effective site planning, construction, and community involvement.
- Contractual agreement with Jubilee Reach will be used to help with less technical aspects of trail development.
- The program will collaborate with Transportation to implement projects identified in the Ped/Bike plan.

Section 5: Budget Proposal Description

This proposal seeks \$2 million over the next two years to plan, design, permit and construct trails and trail-related amenities such as bridges, signage, interpretive markers and trailhead facilities throughout Bellevue. The project supports the Council-endorsed outcome of a Healthy and Sustainable Environment by providing



2011-2012 Budget Proposal

funding for continued expansion and enhancement of Bellevue’s trail system. Trails will be developed using Best Management Practices including environmentally sensitive trail layout and design and low impact construction techniques.

Section 6: Mandates and Contractual Agreements

Project was identified in the 2008 City of Bellevue Parks & Natural Areas Levy endorsed by 67% of voters. This offer will fulfill that obligation.

Section 7: Proposal Justification/Evidence (may insert charts, graphs, tables, etc.)

Pedestrian and bicycle circulation systems are becoming increasingly important for recreational use, as well as transportation routes. The public has identified trails as a top priority in recent citizen surveys and heavy use of newly built walking and jogging paths is evidence of the need for continuing to fill gaps in the trail network. The most popular outdoor recreation activities in Washington are walking/hiking, team/individual sport, nature activity, picnicking and playground recreation (Washington State Recreation and Conservation Survey). A survey conducted for Bellevue’s 2010 Park & Open Space Plan yielded similar results, with the top five priorities for recreational development being nature trails, waterfront access, picnic, playground and sports fields/courts. Well planned and developed trail systems add value to the community by connecting parks, neighborhoods, schools, and business with non-motorized transportation alternatives. It helps decrease environmental degradation, increase user safety, add mobility, and create quality neighborhoods by providing access to nature for recreation, exploration, environmental education and personal health and well being.

A. Factors/Purchasing strategies addressed by this proposal - for the PRIMARY outcome:

Water Resources

- Developed trails create controlled access to reduce social paths that cause erosion and stream sedimentation.
- Construction activities use Best Management Practices to reduce erosion and sedimentation.
- Creates controlled access points to water resources to reduce water pollution.

Clean Living Environment

- Trails provide access for maintenance activities to remove noxious vegetation and illegal dumping.

Nature Space

- Trails provide controlled access to nature space to help support community health and well being.
- Provide controlled access for environmental education programming.
- Trailheads provide native landscaping for pollution abatement and wildlife habitat.

Clean Air

- Trails provide non-motorized transportation alternative to reduce carbon emissions.

B. Factors/Purchasing strategies addressed by this proposal - for the OTHER outcome(s):

Safe Community

- Well planned and develop trails provide safe access to open space, reducing liabilities.
- Well developed trails provide better access and response to open space emergencies (i.e. brush fires).

Improved Mobility

- A well planned trail system provides alternative travel options increasing community mobility.
- Improved linkages between transportation and land use provide convenient access to destinations.

Innovative, Vibrant and Caring Community

- Trails provide cost effective recreational experiences for individuals and families of all income levels.
- Well developed trails provide access to community centers and services.

2011-2012 Budget Proposal

Quality Neighborhood

- A well planned and developed trail system increases adjacent land values.
- Trails provide connections between neighborhoods facilitating community interaction.
- Trails provide safe access to neighborhood schools, parks and businesses.
- Trails create opportunities for meaningful family interaction and recreation.

C. Short- and long-term benefits of this proposal:

- Satisfies public expectations established by the master planning process and voter approved levy.
- Increased passive recreational opportunities to serve the neighborhood and overall community.
- Increased opportunities to access nature space and improve park visitor experience.
- Enhances Bellevue's image as "City within a Park" and contributes to citizens' quality of life.

D. Performance metrics/benchmarks and targets for this proposal:

The Nature Trail Expansion Program uses nationally recognized International City Manager's Association (ICMA) performance measurements as indicators for outcome success. Our objective is to meet or exceed the following 2009 effectiveness and efficiency measures:

- 95% of households visited a Bellevue park or park facility in the last year
- 92% of citizens rated overall satisfaction with parks and recreation good or better
- 95% of citizens surveyed rated appearance of Bellevue parks and park facilities as good or excellent
- 1,696 Acres of City property and more than 50 linear miles of trails managed

E. Describe why the level of service being proposed is the appropriate level:

Council has endorsed similar levels of service with previous adopted CIP budgets (P-AD-34). Further public endorsement of the project demonstrated by the 67% voter approval of the 2008 Park and Natural Areas Levy.

Section 8: Provide a Description of Supporting Revenue:

Although no additional source of supporting revenue currently exists there are many opportunities for state and matching grants including Washington RCO, Federal RTA, ISTEA, and others.

Section 9: Consequences of Not Funding the Proposal

A. Consequence of not funding the proposal at all

1. Legal: Levy obligation
2. Customer Impact:
 - Voter initiative obligations unmet
 - Trails systems left fragmented and uncompleted
3. Investment/Costs already incurred: N/A
4. Other: N/A

B. Consequence of funding at a lower level

Reduced trail capacity; many connections left unrealized.



2011-2012 Budget Proposal

Section 1: Proposal Descriptors

Proposal Title: Open Space Acquisition & Trail Development – KC Levy Project		Proposal Number: 100.70NN
Outcome: Healthy and Sustainable Environment		Proposal Type: Existing Service
Staff Contact: Glenn Kost, x5258; Lorrie Peterson, x4355		One-Time/On-Going: One-Time
Fund: CIP	Attachments: No	Enter CIP Plan #: P-AD-79
List Parent/Dependent Proposal(s): N/A		

Section 2: Executive Summary

This proposal seeks \$936,000 over three years (\$312,000/yr from King County Levy/\$0 from CIP) to complete open space acquisition and trail development. Funds are exclusively from a 2007 voter-approved King County Levy, part of which is distributed to cities for open space acquisition and trail development.

Section 3: Required Resources

CIP	Projected Spending Thru	2011	2012	2013	2014	2015	2016	2017
Expenditure	2010							
Costs	\$0	\$312	\$312	\$312	\$0	\$0	\$0	\$0
2011-2017 Total		\$936						
CIP M&O		\$0	\$0	\$0	\$0	\$0	\$0	\$0
Supporting Revenue		\$312	\$312	\$312	\$0	\$0	\$0	\$0
LTE/FTE								
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
LTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0

Section 4: Cost Savings/Innovation/Partnerships/Collaboration

No City funds are in this proposal. All funds are collected by King County from a special property tax and made available to the City as part of an Agreement that requires the partners to combine/leverage resources to create a larger funding pool for high-priority acquisition and trail development options in Bellevue.

Section 5: Budget Proposal Description

In August, 2007 the citizens of King County approved a 6-year tax increase to expand parks and recreation opportunities countywide. A portion of those funds is distributed to cities to assist with the acquisition and development of open space, natural lands and regional trail connections. Bellevue is eligible to receive approximately \$312,000/yr through 2013 in accordance with the terms of an Agreement between the City and King County. To-date, the City has used these funds to supplement City funds to purchase property in the Richards Valley Greenway and Coal Creek Natural Area, and is assisting the Transportation Department in a regional trails planning effort. Other target areas for this funding source include acquisition and key trail development in the Coal Creek Natural Area, South Bellevue Greenway, Richards Valley Greenway, and the West Lake Sammamish Parkway trails. Staffing to implement this project is contained in proposal #100.46.



2011-2012 Budget Proposal

Section 6: Mandates and Contractual Agreements

To be eligible to receive King County's Tax Levy funding, the City must utilize the funds to purchase open space or develop regional trail connections within the City of Bellevue. The City Council authorized Ordinance No. 5835, which approved the partnership Agreement and amended the CIP budget accordingly.

Section 7: Proposal Justification/Evidence (may insert charts, graphs, tables, etc.)

A. Factors/Purchasing strategies addressed by this proposal - for the PRIMARY outcome:

Natural Space & Conservation

Purchasing Strategies:

Continuing the acquisition of open space and natural areas, and development of trails that provide linkage to city or county trails responds to the following purchasing strategies and factors:

- Conservation, preservation and restoration of valuable ecosystems provide critical habitat for plant and animal species, control flooding, filter pollutants, store the earth's carbon, and provide education and recreation benefits.
- Lakes, streams and wetlands provide a source of recreation and also a source of food for all species. Continuing to have clean and healthy lakes, streams and wetlands will ensure that we have a healthy and sustainable environment.
- Land in its natural state supports native plants and wildlife.
- Parks and trails promote contact with nature which in turn helps promote and contribute to healthy behaviors and encourages personal responsibility for one's own health and well-being both physically and mentally.
- Trees that are preserved help remove pollutants from the air, regulate temperature, and help to reduce storm water flow and erosion.

B. Factors/Purchasing strategies addressed by this proposal - for the OTHER outcome(s):

Quality Neighborhoods: Facilities and Amenities; Sense of Community; Mobility

Purchasing Strategies: acquiring open space and natural areas, and developing trails and trail linkages:

- Preserves and enhances neighborhood character
- Promotes the community's use of public spaces
- Provides active, clean and safe gathering places
- Provides safe and convenient connectivity within neighborhoods

Innovative, Vibrant & Caring Communities: Built Environment & Opportunities for Interaction

Purchasing Strategies: acquiring open space and natural areas, and developing trails and trail linkages:

- Offers an increased variety of recreational and cultural opportunities for people to express creativity, learn new skills, and enjoy the outdoors
- Provides attractive and accessible outdoor spaces for people to gather, interact, and recreate
- Helps accommodate future growth and development in terms of demographics, amount, location, design, environmental factors, and infrastructure

C. Short- and long-term benefits of this proposal:

Short-term: Leveraging the City's capacity to acquire open space and develop trails using County funding; continued opportunity to purchase open space and natural areas as properties become available, immediate environmental benefits and recreational benefits of land purchases.

Long-term: Improved ecological environment of Bellevue, preservation of wetland, critical areas and natural areas in Bellevue, improved community trail connections, additional tree canopy preserved, preservation and expansion of habitat areas for northwest native plants and animals.

2011-2012 Budget Proposal

D. Performance metrics/benchmarks and targets for this proposal:

- 95% of households visited a Bellevue park or park facility in the last year
- 92% of citizens rating overall satisfaction with parks and recreation good or better
- 95% of citizens surveyed rated appearance of Bellevue parks and park facilities as good or excellent

E. Describe why the level of service being proposed is the appropriate level:

Current land valuations are depressed relative to previous valuations, allowing the city to take advantage of lower property acquisition costs. The city has previously purchased several properties using this levy funding that preserved open space and natural areas. Current funding levels will allow the city to have continued opportunities to purchase environmentally valuable property in Bellevue.

Section 8: Provide a Description of Supporting Revenue

Funds for land acquisition and development is available from the King County Special Property Tax Levy in the amount of \$312,000 annually through 2013.

Section 9: Consequences of Not Funding the Proposal

A. Consequence of not funding the proposal at all:

1. **Legal:** None. Though Council has approved an ordinance to accept the funds under the conditions set forth in the levy, the City is not mandated to accept the County funds.
2. **Customer Impact:** Lost opportunity to preserve local open space, nature areas, environmentally sensitive land, reduced opportunities for local trail development, loss of funding and ability to leverage city funds to purchase land, reduction in the quality of local neighborhoods and environment.
3. **Investment/Costs already incurred:** N/A
4. **Other:** The King County funding is only available through 2013. Funding will terminate at that point.

B. Consequence of funding at a lower level:

The opportunity for the city to purchase appropriate properties would be diminished based on reductions in total available funding.



2011-2012 Budget Proposal

Section 1: Proposal Descriptors

Proposal Title: Forest, Greenways, Trails & Nature Space Improvement Program		Proposal Number: 100.78NA
Outcome: Healthy and Sustainable Environment		Proposal Type: Existing Service
Staff Contact: Dan DeWald, x6048; Glenn Kost, x5258		One-Time/On-Going: On-Going
Fund: CIP	Attachments: Yes	Enter CIP Plan #: P-R-11 Parks Renovation
List Parent/Dependent Proposal(s): N/A		

Section 2: Executive Summary

This ongoing program funds \$3.85million (\$550,000/yr) to restore, enhance, and renovate degraded natural areas including shorelines, streams, wetlands, forests, greenways, trails and nature space trees and landscaping within the 2600 acre Parks & Open Space system. This ongoing program strongly supports citywide goals set forth in the City's Environmental Stewardship Initiative Strategic Plan and provides resources to improve and renovate natural areas, trails, developed park trees and landscape plantings, and enhance citywide Native Growth Protection Areas (NGPAs) for short-and long-term protection of the environment.

Section 3: Required Resources Section

CIP Expenditure	Projected Spending Thru 2010	2011	2012	2013	2014	2015	2016	2017
Costs	\$0	\$550	\$550	\$550	\$550	\$550	\$550	\$550
2011-2017 Total		\$3,850						
CIP M&O		\$0	\$0	\$0	\$0	\$0	\$0	\$0
Supporting Revenue		\$0	\$0	\$0	\$0	\$0	\$0	\$0
LTE/FTE								
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
LTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0

Section 4: Cost Savings/Innovation/Partnerships/Collaboration

Service delivery would expand partnership agreements with private non-profit organizations, and include other efforts to increase volunteer involvement. Past techniques have included volunteer work days with neighborhoods and Home Owner Associations on Stewardship Saturdays, Natural Resource Week and Earth Day/Arbor Day community involvement events. Communities have included Whispering Heights, Collingswood, Silverleaf, Westwood Highlands, Weowna Park neighbors, Woodridge Community, Wilburton Hill Neighborhood, Forest Park, Forest Park Meadows Home Owners Association (HOA), Forest Glen East, Lakemont Highlands, Lakemont HOA and the 41.5 HOA. Other partners include: Jubilee Reach, Mountains to Sound Greenway Trust, Starbucks, Master Gardeners, WA Dept of Natural Resources, PSE, Eastlake Washington Audubon Society, WA Dept of Parks and Recreation, National Arbor Day Foundation (Tree City USA Award recipient for 19 years), United States Forest Service, and the National Urban and Community Advisory Council. Cost savings are also achieved by using native water-wise plant materials to reduce irrigation costs.

2011-2012 Budget Proposal

Section 5: Budget Proposal Description

This proposal requests \$3.85 million in ongoing funds (\$550,000/yr) to renovate, restore and enhance the City's natural assets ranging from natural areas with riparian corridors, greenway-trails, forests and wetlands to developed parks and nature space with trees, shrub beds and extensive landscaping. This program funds planning, design, permitting and implementation of nature space/natural area forest restoration, enhancement and habitat improvement projects on degraded park, forest, wetland, and riparian corridor for sites ranging in size from 5 to 10 acres annually.

There are no service increases requested, as this proposal combines existing ongoing programs currently housed in the Parks Renovation Program, including Environmental Stewardship Initiative Funding for enhanced forest management. This program remains essential to protect the City's investment in over 2,600 acres of parks and open space system properties and 80 miles of trails, bridges and boards along the Lake to Lake Trail connecting Lake Washington to Lake Sammamish via the Mercer Slough Nature Park, Wilburton Hill Park, Kelsey Creek Park, Lake Hills Greenbelt and Weowna Park. If not proactively managed, this resource is impacted by the deterioration of park and trail infrastructure, lack of forest regeneration, tree death and loss of tree canopy, park landscape degradation, vandalism, severe wind storms, noxious weed invasion, illegal cutting, property encroachment, illegal dumping, and bisected fish and wildlife corridors. Nature spaces will continually decline if not aggressively managed and maintained for the primary purpose for which they were acquired, designed and constructed.

Section 6: Mandates and Contractual Agreements

- This proposal responds to policies for Bellevue Parks & Open Space System Plan-Environmental and Urban Design Elements of the City Comprehensive Plan (See attachments 1-3)
- RCW 36.70A.060: Natural resource lands and critical areas — Development regulations
- Bellevue Land Use Code, Title 20.25H, Critical Areas Overlay District
- Federal Americans with Disabilities Act (ADA) which protects the civil rights of disabled citizens to have unobstructed access to public facilities.

Section 7: Proposal Justification/Evidence (may insert charts, graphs, tables, etc.)

A. Factors/Purchasing strategies addressed by this proposal - for the PRIMARY outcome:

This proposal directly supports primary factors for a healthy and sustainable environment. Urban nature spaces must be managed with the same skill and commitment as any other community resource in order to provide environmental values and benefits that contribute to an enhanced quality of life for citizens who live, work and play in Bellevue today and into the future. Protecting and conserving a healthy natural environment is a deeply held traditional value for Bellevue as a community. Bellevue residents care about environmental stewardship, conserving natural areas for fish, wildlife and people.

This proposal funds the improvement and renovation of these public assets to help provide an interconnected greenway and park system that connects neighborhoods to neighborhoods, parks and businesses and ensures multiple benefits including public safety, healthy park trees and plants, quality fish and wildlife habitat, preservation of water quality, erosion control, noise reduction and land use buffering.

An interconnected system of parks and open space sustains Bellevue's Pacific Northwest character and is the primary reason why residents call Bellevue a "City in a Park". Bellevue's natural areas, parks, nature spaces and greenways provide beauty and have significant environmental, social and ecological benefits, including protection of water quality, provision of habitat for fish and wildlife, preservation of native vegetation that helps clean our air, improved community and neighborhood appeal, and enhanced real estate values that

2011-2012 Budget Proposal

create attractive settings for commercial businesses. Preservation and continued stewardship of Bellevue's natural assets also helps create a pedestrian friendly environment, increases pedestrian mobility and provides outdoor recreation opportunities for mental and physical health. Providing and maintaining them are critical to creating and maintaining community identity and memorable experiences.

The 2009 Parks & Open Space Plan Survey states:

- 97% say the parks and recreational opportunities contribute to the quality of life
- Approximately 70,000 residents use trails through natural areas six times or more per year – 400,000 visitor use days
- 76% of Bellevue residents said (2nd highest priority) Parks & Community Services should improve the health and ecological function of forest, wetlands, lakes and streams
- Park Use – 74% (2nd highest) used trails, wetlands and natural areas at least twice in the past year
- Purpose of Use – 72% (highest rating) of residents state “to enjoy nature and open space”
- 95% of households visited a Bellevue park or park facility in the last year
- 92% of citizens rating overall satisfaction with parks and recreation good or better
- 95% of citizens surveyed rated appearance of Bellevue parks and park facilities as good or excellent

In 2008, the City of Bellevue contracted with American Forests to conduct an ecological audit of Bellevue's Tree Canopy. American Forests utilized satellite imagery and computer modeling to analyze Bellevue's Tree Canopy. Major findings include:

- From 1986 to 1996, Bellevue lost 12% of its tree canopy. From 1996 to 2006, Bellevue lost another 9%. Bellevue's tree canopy loss translates to the ability to remove 90,000 lbs. fewer lbs. of air pollutants, valued at \$68,000 per year.
- City Park & Open Space trees provide 10.3 million cu/ft .of storm water retention, valued at \$20,650,005.
- American Forest recommends a 40% tree canopy for a healthy community. Bellevue's tree canopy citywide is 36%.
- Bellevue's Park & Open space system has over 2600 acres with a tree canopy cover of 67%.

B. Factors/Purchasing strategies addressed by this proposal - for the OTHER outcome(s):

This CIP proposal contributes to:

Quality Neighborhoods

Through healthy and sustainable nature spaces and trails that provide economical, ecological and social benefits to the community.

Innovative, Vibrant & Caring Community

Bellevue's nature space and trails is a key element to people feeling Bellevue is a “City in A Park”.

Responsive Government

76% of Bellevue' residents stated in the 2009 Park survey that Bellevue Parks places a high priority on (2nd highest rating) on improving the health and ecological function of forest, wetlands, lakes and streams. This would enable the city to continue to respond to this high citizen priority.

Economic Growth & Competitiveness

Protecting Bellevue's natural spaces attracts people and businesses to the Pacific Northwest to live, work and play.

C. Short- and long-term benefits of this proposal:

Short-term: Improves and renovates Bellevue's nature spaces and parks to ensure public health, safety and welfare and protect the investment the community has made in the Park and Open Space system.

2011-2012 Budget Proposal

Long-term: Improvement and renovation of existing assets, which preserves air quality, reduces stormwater runoff, filters pollutants before they enter our streams, provides habitat for fish and wildlife and enhances natural beauty and neighborhood livability. This investment protects natural areas and enhances Bellevue's quality of life for current and future generations.

D. Performance metrics/benchmarks and targets for this proposal:

This CIP investment uses nationally recognized International City Manager's Association (ICMA) performance measurements as indicators for outcome success. Our objective is to meet or exceed the 2009 effectiveness and efficiency measures:

- 75% of citizens surveyed rating the safety of Bellevue Parks and facilities as good or excellent
- 85% of citizens surveyed rating appearance of Bellevue Parks and facilities as good or excellent
- Cost per square foot of developed parks and tree and plant establishment success of forest management restoration and enhancement projects

E. Describe why the level of service being proposed is the appropriate level:

This proposal will fund the renovation of Bellevue's natural assets and trails at a level that provides safe and healthy nature spaces and satisfies citizen expectations. To provide the values and benefits that these areas were set aside for they must be managed and maintained with the same skill and diligence as any other important community asset. Due to a variety of environmental factors, these assets are constantly changing and it is important to monitor and respond to issues as they arise because opportunities may be lost, or become more costly if they can't be addressed when they are first needed.

Section 8: Provide a Description of Supporting Revenue

Funding this proposal provides opportunities for matching grant dollars. The City has been successful in receiving grant funding through the King Conservation District for recent projects including the West Tributary of Kelsey Creek Stream Restoration Project and the Larsen Lake Shoreline Restoration Project with CIP match money.

Section 9: Consequences of Not Funding the Proposal

A. Consequence of not funding the proposal at all:

1. **Legal:** Increased risk and liability exposure to the City of Bellevue (See Section 6 Mandates)
2. **Customer Impact:** Not funding this proposal will result in the degradation of Bellevue's park system and trails, depriving the community of the environmental, social, economic benefits these asset provide.
3. **Investment/Costs already incurred:** N/A
4. **Other:** N/A

B. Consequence of funding at a lower level:

Lower funding of this proposal will also result in the degradation of Bellevue's Nature Space/Natural Areas and deprive the community of the environmental, social and economic benefits that healthy-sustainable natural areas provide. Funding at the proposed service level is extremely important because opportunities could be lost forever to protect and enhance natural areas and improve tree canopy.



2011-2012 Budget Proposal

Section 1: Proposal Descriptors

Proposal Title: Replacement of Aging Water Infrastructure		Proposal Number: 140.02A1
Outcome: Healthy and Sustainable Environment		Proposal Type: Reduction of Service
Staff Contact: Pamela Maloney, x4625		One-Time/On-Going: On-Going
Fund: Water CIP	Attachments: Yes	Enter CIP Plan #: W-16, W-67, W-69, W-82, W-85, W-91, W-98, W-99
List Parent/Dependent Proposal(s): Proposal 140.01NA, Capital Project Delivery includes the FTE/ LTEs who manage the design and construction of Utility CIP projects.		

Section 2: Executive Summary

This proposal will fund replacement of the water system components, or rehabilitate facilities to maximize their service life at a reduced level, assuming suspension of W-82, Fire Hydrant Improvements, in 2011 and 2012, reducing the proposal cost by \$113,485.

Bellevue's water system is a complex network of pipes, reservoirs, pump stations, supply inlets and other components required to deliver 6+ billion gallons of drinking water annually. System replacement value is estimated at \$1.2 Billion, and most of the system is more than halfway through its useful life. Frequent pipe failures provide evidence that many pipes are rapidly approaching the end of their lives and must be replaced. These are long term renewal and replacement programs, with individual programs for each major water system component, each right-sized for sustainable water system management.

Section 3: Required Resources

CIP Expenditure	Projected Spending Thru 2010	Projected Spending						
		2011	2012	2013	2014	2015	2016	2017
W-16	\$28,114,000	\$3,980,080	\$4,645,472	\$5,359,024	\$6,124,427	\$6,942,490	\$7,815,758	\$8,748,103
W-91	\$3,507,000	\$1,055,600	\$1,097,824	\$1,141,774	\$1,538,419	\$1,599,961	\$1,663,870	\$1,730,409
W-85	\$9,591,000	\$555,360	\$577,574	\$600,697	\$624,727	\$649,718	\$675,670	\$702,691
W-67	\$5,439,000	\$520,000	\$540,800	\$562,450	\$584,950	\$608,350	\$632,650	\$657,950
W-98	\$956,000	\$307,840	\$346,112	\$359,968	\$374,368	\$389,344	\$404,896	\$421,088
W-69	\$3,799,000	\$215,280	\$223,891	\$232,854	\$242,169	\$251,857	\$261,917	\$272,391
W-99	\$1,247,000	\$166,400	\$173,056	\$179,984	\$233,980	\$243,340	\$253,060	\$263,180
W-82	\$1,074,000	\$0	\$0	\$59,620	\$62,005	\$64,485	\$67,061	\$69,743
Total costs/yr:		\$6,800,560	\$7,604,730	\$8,496,370	\$9,785,044	\$10,749,545	\$11,774,882	\$12,865,554
2011-2017 Total		\$68,076,684						
CIP M&O		\$0	\$0	\$0	\$0	\$0	\$0	\$0
Supporting Revenue		\$6,800,560	\$7,604,730	\$8,496,370	\$9,785,044	\$10,749,545	\$11,774,882	\$12,865,554
LTE/FTE								
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
LTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0

The programs in this proposal are all included in the adopted 2009-2015 CIP; no scope changes are proposed. As part of the last budget update, Council approved a ten-year plan to ramp up water main replacement rates to a sustainable level, and approved corresponding water rate increases for 2009-10. Revenue has been collected since then for accelerated main replacement. W-16 includes continued implementation of that program acceleration. This proposal assumes suspension of W-82, Fire Hydrant Improvements, in 2011 and 2012, reducing the proposal cost by \$113,485.



2011-2012 Budget Proposal

This proposal assumes 4% inflation per year for 2011-17, consistent with City Budget Office recommendations based on a review of relevant cost indices.

Section 4: Cost Savings/Innovation/Partnerships/Collaboration

Cost Savings:

The annual budget for each program has been reduced 8% for inflation that was anticipated in 2009-10, but which did not occur. The approximate total inflationary savings is \$3,553,000. Inflationary savings do not include new CIP years of 2016 and 2017. The budget for W-82, Fire Hydrant Improvements, is suspended for 2011 and 2012.

W-69 project budget reflects a one time savings of \$150,000.

Proposal reflects a one time savings of \$350,000 for project W-92, which will be completed under budget in 2010.

Partnerships/Collaboration: We coordinate with Transportation to assure utility work in public rights-of-way is completed prior to planned street paving. In particular, W-16 constructs 2-3 miles of water main each year, mostly under streets. Selection of water pipes for replacement and streets for overlay is a collaborative, iterative inter-departmental process to achieve both programs' objectives. Utilities also works with jurisdictions outside Bellevue where we provide water service (Medina, Hunts Pt, Yarrow Pt, Clyde Hill, Kirkland, Issaquah, and King Co.) to coordinate with planned street work.

Efficiencies/Innovations:

- Utilities partners with Transportation to combine asphalt pavement restoration into a single large contract for lower bids.
- New repair and replacement technologies and asset management strategies are continuously identified, evaluated and, when appropriate, implemented. For example, Utilities is participating on a national Water Research Foundation study focused on better management of AC water main replacement. We are evaluating each element in consultant's pump station rehabilitation recommendations to determine the least cost approach that will meet our service needs.

Cost Avoidance:

- Timely replacement of water system infrastructure reduces the potential for catastrophic failure and costly damage claims.
- The proposed annual program budgets are established to minimize the total life-cycle cost of ownership. Underfunding any of the programs will increase the total cost over time.
- Utility bid results during the recessionary economy have been significantly below engineering estimates. Deferring these programs to future budget cycles would likely result in higher bid costs, and higher utility rates.

Section 5: Budget Proposal Description

This proposal will fund replacement of water system components as they approach the end of their functional life, or rehabilitate facilities to maximize their service life. Bellevue's water system is a complex network of 620 miles of pressurized pipes, 27 storage reservoirs, 22 pump stations, 14 supply inlets and various other component parts required to deliver over 6 billion gallons of drinking water every year. System replacement value is estimated at \$1.2 Billion, or about \$9000 for each of the 135,000+ customers who receive water service. Most of the system is more than halfway through its useful life; many pipes are rapidly approaching the end of their lives and no longer reliably deliver drinking water. These are long term renewal and replacement programs, with individual programs for each major water system component. Each program is right-sized for sustainable water system management, as recommended by Asset Management Program analysis.

See attachment 140.02NA_Attach1_Project_Breakdown for a breakdown of projects funded under this proposal.

2011-2012 Budget Proposal

Section 6: Mandates and Contractual Agreements

- Utilities Financial Policies (adopted by Council) require Utilities capital investment for implementation of short and long term capital projects, including asset replacement.
- WAC 246-290-235 requires sufficient water storage to meet service demands per state law.

Section 7: Proposal Justification/Evidence

A. Factors/Purchasing strategies addressed by this proposal - for the PRIMARY outcome:

Factors 1, 3, and 5 are addressed. Replacement of aging water infrastructure ensures a continued supply of clean drinking water, reliably available and in sufficient quantity for homes and businesses (Water Resources). Minimizing water system failures means reduced environmental damage such as flooding and erosion, which damage lakes, streams, and wetlands (Nature Space). Timely replacement of aging water pipes and appurtenances reduces the volume of treated, potable water lost to leakage into the ground or following system breaks (Conservation).

Purchasing Strategies in the Healthy and Sustainable Environment outcome:

These programs replace aging drinking water infrastructure to ensure the delivery of safe drinking water in an environmentally sensitive and sustainable way by minimizing the cost of service over the life of assets, while maintaining expected service delivery. They are right-sized to assure we don't prematurely replace assets that should be repaired and maintained. It is proactive system management, rather than responding after systems fail. It looks to the future, incorporating a 75-year forecast of resources needed for system replacement, considering inter-generational cost equity, and precluding sharp rate increases. It reduces the chance of failure and minimizes the likelihood of large damage claims. Maximizing asset component life means efficient system replacement, avoiding wasting materials.

B. Factors/Purchasing strategies addressed by this proposal - for the OTHER outcome(s):

Quality Neighborhoods and Safe Communities require reliable, safe, and affordable basic support services including drinking water. A high quality infrastructure with reliable service delivery supports Bellevue's Economic Growth and Competitiveness.

Citywide purchasing strategies addressed by this proposal:

- How we deliver best value and consider long- and short-term financial impacts: Life cycle cost analyses that consider economic, environmental and social (triple bottom line) costs and benefits are used to evaluate project alternatives so that the best value, not only in pure economic terms but also in terms of the environment and 'quality of life,' can be identified. Life cycle cost includes design, construction, operations, maintenance, risk (failure costs), and decommissioning. Other best value activities: We are participating in a Water Research Foundation project to identify optimum strategies for AC pipe replacement. Various saddle materials (e.g., stainless steel, bronze, brass, or epoxy coated) are being evaluated to determine which provides the most value. Utilities is evaluating whether using thicker-walled ductile iron (DI) watermains that could last longer would result in lower life cycle cost than the current DI industry standard.
- Leverage collaboration or partnerships w/ others: See Section 4, Partnerships and Collaboration.
- Consider best practices: The asset management program Utilities uses to identify and prioritize wastewater infrastructure rehab and replacement projects based on criticality and business risk is a US EPA best practice.
- Eliminate low value-added activities: Asset replacement practices are continually evaluated and improved. For example, when W-99 was first funded, we "potholed" (dug a pit to observe) water service saddle condition prior to deciding whether to replace them. Potholing required keeping a maintenance crew on standby at the project in case saddles blew apart once they were unearthed. Experience

2011-2012 Budget Proposal

showed that even saddles that didn't fall apart nearly always required replacement. Potholing saddles provided little value at significant expense so it has been discontinued.

- Environmental stewardship is promoted by reducing the likelihood of water main failures that damage the environment.

C. Short- and long-term benefits of this proposal:

Short-term benefits: These programs reduce the likelihood of catastrophic system failures, damage claims to the city, and sharp rate increases to react to system failures rather than proactively managing the system.

Long-term benefits: Timely replacement or repair of water facility assets keeps customer rates as low as practical by managing the system at the least life-cycle cost, while maintaining service levels and meeting regulatory requirements.

D. Performance metrics/benchmarks and targets for this proposal:

See attachment 140.02NA_Attach1_Project_Breakdown for a breakdown of the metrics, benchmarks and targets for each project.

E. Describe why the level of service being proposed is the appropriate level:

The proposed annual investment for each program in this proposal was developed based on Asset Management Program recommendations to minimize the life-cycle cost of ownership/operation of the water utility system, and to assure we don't prematurely replace assets that should be repaired and maintained. An example is the ramping up of W-16 for water main replacement, so that the expected life of a water main is reduced from a non-defensible 400 years, to a more appropriate 100-125 years. Underfunding any of the programs will increase the total cost of system replacement over time.

Section 8: Provide Description of Supporting Revenue

Activities are supported by utility rates.

Section 9: Consequences of Not Funding the Proposal

A. Consequence of not funding the proposal at all

1. **Legal:** Aging water infrastructure would fail with increasing frequency, often catastrophically, resulting in significant damage claims and lawsuits.
2. **Customer Impact:** See individual program descriptions, above.
3. **Investment/Costs already incurred:** N/A (ongoing programs)
4. **Other:** A summary of significant consequences of deferred water system replacement or repair (of pipes, reservoirs, pump stations, valves, saddles, or other components):
 - Increase in sudden failures requiring emergency response and repair at a higher total cost
 - Increased likelihood of drinking water flooding private and public facilities, and damaging streams, lakes, and other sensitive areas
 - Increased risk of claims and associated poor customer service
 - Increased risk of regulatory action; and
 - Increased operations and maintenance costs

In summary, funding less than the cost of system repair and replacement as recommended to minimize the life-cycle cost of system ownership and operation will cost more over time. It is truly "Pay me now or pay me more, later."

B. Consequence of funding at a lower level:

See alternate proposal 140.02NB, Replacement of Aging Water Infrastructure Alternate.



2011-2012 Budget Proposal

Section 1: Proposal Descriptors

Proposal Title: Replacement of Aging Sewer Infrastructure		Proposal Number: 140.03NA
Outcome: Healthy and Sustainable Environment		Proposal Type: Existing Service
Staff Contact: Pamela Maloney, x4625		One-Time/On-Going: On-Going
Fund: Sewer CIP	Attachments: Yes	Enter CIP Plan #: S-16, S-24, S-32, S-58
List Parent/Dependent Proposal(s): Proposal 140.01NA, Capital Project Delivery includes the FTE/ LTEs who manage the design and construction of Utility CIP projects.		

Section 2: Executive Summary

This proposal funds replacement of sewer system infrastructure, or rehabilitation of facilities to maximize their service life. Bellevue’s wastewater system is comprised of pipes and pump stations that reliably remove 11 million gallons of sewage from homes and businesses every day, and convey it safely to King Co. Metro’s regional system for treatment and disposal. System replacement value is estimated at \$1.3 Billion, and most of the system is more than halfway through its useful life. Ongoing inspection of sewer asset condition and increasing claims experience provide evidence that much of the system requires significant repair, or will soon need to be replaced. These are long term renewal and replacement programs, with individual programs for each major sewer system component, each right-sized for sustainable wastewater system management.

Section 3: Required Resources

CIP Expenditure	Projected Spending							
	Thru 2010	2011	2012	2013	2014	2015	2016	2017
S-24	\$12,278,000	\$1,086,800	\$1,130,272	\$1,175,521	\$1,754,850	\$1,825,050	\$1,897,950	\$1,973,850
S-16	\$10,211,000	\$444,080	\$461,843	\$480,332	\$499,547	\$519,531	\$540,283	\$561,889
S-58	\$424,000	\$1,040,000	\$1,000,480	\$112,490	\$116,990	\$121,670	\$126,530	\$131,590
S-32	\$1,949,000	\$137,280	\$142,771	\$148,487	\$154,427	\$160,604	\$167,020	\$173,699
Total cost/yr		\$2,708,160	\$2,735,366	\$1,916,830	\$2,525,814	\$2,626,855	\$2,731,783	\$2,841,028
2011-2017 Total		\$18,085,836						
CIP M&O		\$0	\$0	\$0	\$0	\$0	\$0	\$0
Supporting Revenue		\$2,708,160	\$2,735,366	\$1,916,830	\$2,525,814	\$2,626,855	\$2,731,783	\$2,841,028
LTE/FTE								
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
LTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0

The programs in this proposal are all included in the adopted 2009-2015 CIP. As part of the 2009-10 budget update, Council approved initiation of a program to assess the condition and replace sewer pipes in Lakes Washington and Lake Sammamish. Revenue has been collected since then for this purpose; S-58 includes continued implementation of that program.

This proposal assumes 4% inflation per year for 2011-17, consistent with City Budget Office recommendations based on a review of relevant cost indices.



2011-2012 Budget Proposal

Section 4: Cost Savings/Innovation/Partnerships/Collaboration

Cost Savings: The annual budget for each project has been reduced by 8% for inflation that was anticipated in 2009-10, but which did not occur. The approximate total inflationary savings is \$932,000. Inflationary savings do not include new CIP years of 2016 and 2017.

Partnerships/Collaboration:

- All sewers under Bellevue streets scheduled for resurfacing are video-inspected up to two years ahead of Transportation's planned street work, to assure the ten to twenty sewer repairs annually that require street cutting and patching (S-24) are completed cost-effectively ahead of resurfacing. Utilities works with jurisdictions outside Bellevue where we provide sewer service (Medina, Clyde Hill, Hunts Pt., Yarrow Pt., Beaux Arts, Issaquah, and King Co.) to coordinate with any planned street work.
- Utilities is collaborating with Parks to design and construct a new sewer main under Meydenbauer Beach Park. (S-58)

Efficiencies/Innovations:

- Utilities partners with Transportation to combine asphalt pavement restoration into a single large contract for lower bids.
- Sewer pipe deficiencies are prioritized for repair based on the probability and consequence of failure. Prioritizing repairs enables us to use limited budget resources most cost-effectively.
- New technologies for pipe repair or relining are continually evaluated and incorporated when cost effective.

Cost Avoidance:

- Timely replacement of wastewater infrastructure reduces potential for catastrophic failure, which leads to damage claims.
- The annual program budget proposals are established to minimize the total life-cycle cost of ownership. Underfunding any of the programs will increase the total cost over time.
- Utility bid results during the recessionary economy have been significantly below engineering estimates. Deferring these programs to future budget cycles would likely result in higher bid costs, and higher utility rates.

Section 5: Budget Proposal Description

This proposal will fund replacement of sewer infrastructure as it approaches the end of its functional life, or rehabilitation of facilities to maximize service life. Bellevue's wastewater system is comprised of over 650 miles of pipe and 36 pump stations which reliably remove 11 million gallons of sewage every day (on average) from homes and businesses, and convey it safely to King Co. Metro's regional system for treatment and disposal. System replacement value is estimated at \$1.3 Billion, or almost \$10,000 for each of 135,000+ customers served. Most of the system is more than halfway through its useful life. Ongoing inspection of pipe condition reveals that many pipes require significant repair, or will soon need to be replaced. Increasing failures and claims experience provides further evidence (see 140.03NA_Attach2). These are long term renewal and replacement programs for major sewer system components. Each is right-sized for sustainable wastewater system management, as recommended by Asset Management Program analysis.

See attachment 140.03NA_Attach1_Project_Breakdown for a breakdown of projects funded under this proposal.

Section 6: Mandates and Contractual Agreements

- Utilities Financial Policies (adopted by Council) require Utilities capital investment for implementation of short and long term capital projects, including asset replacement.

2011-2012 Budget Proposal

- **WAC 173-240-060** The Washington Depts. of Ecology and Health require sewer system operators to minimize overflows to surface water bodies. Repeated overflows can lead to enforcement action or state-mandated capital projects.
- Bellevue's NPDES Permit (Western Washington Phase II Municipal Stormwater Permit) requires Bellevue to reduce the discharge of pollutants to surface water to the maximum extent practicable.

Section 7: Proposal Justification/Evidence

A. Factors/Purchasing strategies addressed by this proposal - for the PRIMARY outcome

Factors 1, 3, and 5 are addressed by this proposal: A reliable wastewater system efficiently and reliably removes sewage from homes and businesses. Minimizing wastewater system failures means reduced environmental damage that results from failures, such as sewage backups and pollution to surface waters. (Water Resources) Lakes, streams, and wetlands are protected by minimizing sewer system failures that could pollute them (Nature Space). Sewage overflows present human health and environmental hazards that threaten a community, and result in beach closures. Timely replacement or rehabilitation of aging sewer infrastructure minimizes this hazard (Conservation).

Purchasing Strategies in the Healthy and Sustainable Environment outcome: These programs replace aging wastewater infrastructure to ensure the continued removal of wastewater in an environmentally sensitive and sustainable way by minimizing the cost of service over the life of assets, while maintaining expected service delivery. They are right-sized to assure we don't prematurely replace assets that should be repaired and maintained. It is proactive system management, rather than responding after systems fail. It looks to the future, including a 75-year forecast of resources needed for system replacement, considering inter-generational cost equity, and precluding sharp rate increases. It reduces the chance of failure and minimizes the likelihood of large damage claims. Maximizing asset component life means efficient system replacement, avoiding wasting materials.

B. Factors/Purchasing strategies addressed by this proposal - for the OTHER outcome(s)

Quality Neighborhoods and Safe Communities require reliable, safe, and affordable basic support services including wastewater removal. A high quality infrastructure with reliable service delivery supports Bellevue's Economic Growth and Competitiveness.

Citywide purchasing strategies addressed by this proposal:

- Deliver best value and consider long- and short-term financial impacts: Life cycle cost analyses that consider triple bottom line costs and benefits (economic, environmental, and social) are used to evaluate project alternatives. The best value, not only in pure economic terms but also in terms of the environment and 'quality of life,' is readily identified. Specifically, life cycle cost analyses are used to assess project alternatives. Life cycle includes design, construction, operations and maintenance, risk, and decommissioning costs.
- Provide efficiency gains or cost savings: Less expensive sewer pipeline repair techniques are being evaluated for feasibility. (E.g. root saws that can travel up stubs from the sewer main line and the use of herbicides to retard root growth.)
- Leverage collaboration or partnerships: See Section 4, Partnerships and Collaboration.
- Innovative and Creative strategies and methods are evaluated for cost-effective sewer infrastructure replacement. (e.g. non-traditional alternatives such as grinder pumps or vacuum wastewater systems are being considered for lakeline replacement)
- The asset management program Utilities uses to identify and prioritize wastewater infrastructure rehabilitation and replacement programs and projects is a US EPA best practice.

2011-2012 Budget Proposal

- Life cycle cost analyses are used to assess project alternatives, to identify the most cost-effective alternative, and eliminate low value-added project elements.
- Environmental stewardship is promoted by reducing the likelihood of sewage spills that would damage the environment.

C. Short- and long-term benefits of this proposal:

In the short term, these programs reduce the likelihood of catastrophic system failures, damage claims to the city, and sharp rate increases caused by reaction to system failures rather than proactive system management. In the long term, timely replacement or repair of wastewater facilities keeps customer rates as low as practical by managing the system at the lowest life-cycle cost, while maintaining service levels and meeting regulatory requirements.

D. Performance metrics/benchmarks and targets for this proposal:

See attachment 140.03NA_Attach1_Project_Breakdown for a breakdown of the metrics, benchmarks and targets for each project.

E. Describe why the level of service being proposed is the appropriate level:

The proposed annual investment for each program in this proposal was developed based on Asset Management Program recommendations to minimize the life-cycle cost of ownership/operation of the wastewater utility system, and to assure we don't prematurely replace assets that should be repaired and maintained. Underfunding any of the programs will increase the total cost over time. As noted, funding of pipe repair and replacement (on land and in-lake) and pump station rehabilitation programs will likely require increased investment in future budget cycles, based on observed data and analysis.

Section 8: Provide Description of Supporting Revenue

Activities are supported by utility rates.

Section 9: Consequences of Not Funding the Proposal

A. Consequence of not funding the proposal at all:

1. **Legal:** Aging sewer infrastructure would fail with increasing frequency, potentially catastrophically, resulting in damage to property and the environment, and leading to damage claims and lawsuits. Potential for violation of Bellevue's NPDES municipal stormwater permit.
2. **Customer Impact:** See individual program descriptions, above.
3. **Investment/Costs already incurred:** NA (ongoing programs). For S-58, design of the Meydenbauer Sewer Lakeline has already started.
4. **Other:** A summary of significant consequences of deferred wastewater system replacement or repair:
 - Increased likelihood of sewage overflow into private and public facilities, or polluting streams, lakes, beaches, and other sensitive areas;
 - Increase in sudden failures requiring emergency response and repair at a higher total cost;
 - Increased risk of regulatory action;
 - Increased risk of claims and associated poor perception of customer service; and
 - Increased operations and maintenance costs.

In summary, funding less than the cost of system repair and replacement as recommended to minimize the life-cycle cost of system ownership and operation will cost more over time. It is truly "Pay me now or pay me more, later."

B. Consequence of funding at a lower level: See alternate proposal 140.03NB.



2011-2012 Proposal

Section 1: Proposal Descriptors

Proposal Title: Replacement of Aging Storm Infrastructure		Proposal Number: 140.04NA
Outcome: Healthy and Sustainable Environment		Proposal Type: Existing Service
Staff Contact: Pamela Maloney x4625		One-Time/On-Going: Both
Fund: Storm CIP	Attachments: Yes	Enter CIP Plan #: D-59, D-64, D-65, D-92, D-103
List Parent/Dependent Proposal(s): Proposal 140.01NA "Capital Project Delivery" includes the FTE/ LTEs who manage the design and construction of Utility CIP projects.		

Section 2: Executive Summary

This proposal funds replacement or rehabilitation of aging stormwater system infrastructure. Bellevue's stormwater system is comprised of regional detention facilities, pipes and culverts, as well as open streams that convey stormwater runoff to eventual outfall into Lake Washington or Lake Sammamish. The constructed portions of the system must be managed to prevent failures that cause flooding, erosion and traffic disruption, and to protect nature spaces (streams, lakes and wetlands) as much as practicable from high velocity, erosive flows and detrimental pollution. Replacement of infrastructure prior to failure is key to preventing storm damage to public and private properties and environmental protection.

Section 3: Required Resources

CIP Expenditure	Projected Spending Thru							
	2010	2011	2012	2013	2014	2015	2016	2017
D-64	\$7,840,000	\$777,920	\$809,037	\$841,425	\$875,085	\$910,092	\$946,444	\$984,293
D-103	\$106,000	\$416,000	\$2,704,000	\$2,812,250	\$0	\$0	\$0	\$0
D-59	\$1,436,000	\$127,920	\$136,282	\$143,987	\$152,087	\$161,821	\$168,285	\$175,015
D-92	\$379,000	\$732,000	\$0	\$0	\$0	\$0	\$0	\$0
D-65	\$125,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Total Cost/yr		\$2,083,840	\$3,679,318	\$3,827,662	\$1,057,172	\$1,101,913	\$1,144,729	\$1,189,308
2011-2017 Total		\$14,083,943						
CIP M&O		\$0	\$0	\$0	\$0	\$0	\$0	\$0
Supporting Revenue		\$2,083,840	\$3,679,318	\$3,827,662	\$1,057,172	\$1,101,913	\$1,144,729	\$1,189,308
LTE/FTE								
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
LTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0

The programs in this proposal are all included in the adopted 2009-2015 CIP. As part of the 2009-10 budget update, Council approved a project to replace a major culvert on Coal Creek. Revenue has been collected since then for this purpose; D-103 reflects continued implementation of that project.

This proposal assumes 4% inflation per year for 2011-17, consistent with City Budget Office recommendations based on a review of relevant cost indices.

Section 4: Cost Savings/Innovation/Partnerships/Collaboration

Cost Avoidance: Timely replacement of stormwater utility infrastructure reduces the potential for catastrophic failure, which can lead to damage claims and street damage. The annual project budget proposals are established to minimize the total life-cycle cost of ownership. Underfunding any of the programs will increase the total cost over time.

2011-2012 Proposal

Cost Savings:

- The annual budget for each project has been reduced by 8% for inflation that was anticipated in 2009-10, but which did not occur. The approximate total inflationary savings is \$887,000. Inflation savings do not include new CIP years of 2016 and 2017.
- **D-92** will require ~\$250,000 less rate revenue than originally budgeted, due to award of a 2011 Washington Department of Ecology (DOE) Stormwater Retrofit Grant. This onetime savings will mean lower future rate increases to fund future stormwater projects, such as **D-103**.

Partnerships/Collaboration: **D-64** involves coordination with Transportation to assure any storm defects which require open street cuts to repair are completed prior to street paving. **D-103** also involves collaboration with Transportation; the new bridge that will replace an existing culvert will become a part of the City's arterial system. **D-65** involves collaboration across multiple city departments, particularly PCD and Transportation, for NEP implementation.

Efficiencies/Innovations: Utilities partners with Transportation to combine asphalt pavement restoration into a single large contract for lower bids.

Section 5: Budget Proposal Description

This proposal funds replacement or rehabilitation of aging stormwater system infrastructure. Bellevue's stormwater system is comprised of regional detention facilities, pipes and culverts, as well as open streams that convey stormwater runoff to eventual outfall into Lake Washington or Lake Sammamish. The constructed portions of the system must be managed to prevent failures that cause flooding, erosion and traffic disruption, and to protect nature spaces (streams, lakes and wetlands) as much as practicable from high velocity, erosive stormwater runoff, and detrimental water quality pollutants. Replacement of infrastructure prior to failure is key to preventing storm water damage to public facilities and private properties and for environmental protection.

See attachment 140.04NA_Attach1_Proposal_Breakdown for a breakdown of projects funded under this proposal.

Section 6: Mandates and Contractual Agreements

- Utilities Financial Policies (adopted by Council) require Utilities capital investment for implementation of short and long term capital projects, including asset replacement.
- Bellevue's NPDES Permit (Western Washington Phase II Municipal Stormwater Permit) requires Bellevue to reduce the discharge of pollutants to surface water to the maximum extent practicable.

Section 7: Proposal Justification/Evidence

A. Factors/Purchasing strategies addressed by this proposal - for the PRIMARY outcome

Factors 1, 3, and 5 are addressed by this proposal. A reliable stormwater system controls stormwater runoff from rain and storm events, to minimize flood and erosion damage to public and private property, and the environment. Minimizing stormwater system failures reduces environmental damage that results from failures, such as high flow volumes that erode streams and wash out riparian habitat. (*Water Resources*) Lakes, streams and wetlands are protected by minimizing storm system failures that cause damage. (*Nature Space*) Flooding presents safety and environmental hazards that threaten a community. Timely replacement or rehabilitation of aging stormwater infrastructure minimizes this hazard. (*Conservation*)

Purchasing Strategies in the Healthy and Sustainable Environment outcome: These programs replace aging stormwater infrastructure to ensure the controlled removal of storm runoff in an environmentally sensitive and sustainable way by minimizing the cost of service over the life of assets, while maintaining expected service delivery. They are right-sized to assure we don't prematurely replace assets that should be repaired and maintained. It is proactive system management, rather than responding after systems fail. It looks to the future,

2011-2012 Proposal

including a 75-year forecast of resources needed for system replacement, considering inter-generational cost equity, and precluding sharp rate increases. It reduces the chance of failure and minimizes the likelihood of large damage claims. Maximizing asset component life means efficient system replacement, avoiding wasting materials.

B. Factors/Purchasing strategies addressed by this proposal - for the OTHER outcome(s)

Quality Neighborhoods and Safe Communities require reliable, safe, and affordable basic support services including control of stormwater runoff resulting in protection from flooding. A high quality infrastructure with reliable service delivery supports Bellevue's Economic Growth and Competitiveness.

Citywide purchasing strategies addressed by this proposal:

- Provide best value, and consider long- and short-term financial impacts. Life cycle cost analyses that consider triple bottom line costs and benefits (economic, environmental and social) are used to evaluate project alternatives. The best value, not only in pure economic terms but also in terms of the environment and 'quality of life,' is readily identified. Specifically, life cycle cost analyses are used to assess project alternatives. Life cycle includes design, construction, operations and maintenance, risk, and decommissioning costs.
- Provide efficiency gains or cost savings; use innovation and creative strategies. Less expensive storm pipe repair techniques and new technologies are continually evaluated for feasibility.
- Leverage collaboration or partnerships. See Section 4, Partnerships and Collaboration.
- Best practices. The asset management program that identifies and prioritizes stormwater infrastructure rehab and replacement programs and projects is a U.S. EPA best practice.
- Life cycle cost analyses are used to assess project alternatives, to identify the most cost-effective alternative, and eliminate low value-added project elements.
- Environmental stewardship is promoted by reducing the likelihood of storm system failures that could damage the environment.

C. Short- and long-term benefits of this proposal:

In the short term, these programs reduce the likelihood of catastrophic system failures, damage claims to the city, and sharp rate increases to fund reaction to system failures rather than proactively system management with planned replacement. In the long term, timely replacement or repair of stormwater facility assets keeps customer rate as low as practical by managing the system at the least life-cycle cost, while maintaining service levels and meeting regulatory requirements.

D. Performance metrics/benchmarks and targets for this proposal:

See attachment 140.04NA_Attach1 for a breakdown of the metrics, benchmarks and targets for each project.

E. Describe why the level of service being proposed is the appropriate level:

The proposed annual investment for each ongoing CIP program in this proposal was developed based on Asset Management Program recommendations, to minimize the life-cycle cost of ownership/operation of the stormwater utility system. For each ongoing program with a proposed investment exceeding \$1,000,000 during the 2011-17 CIP, an alternate proposal was developed. One-time projects are not scalable.

Section 8: Provide Description of Supporting Revenue

Activities are supported by utility rates.

Offsetting Revenue: Bellevue received a 2011 Washington Department of Ecology (DOE) Stormwater Retrofit Grant of up to \$490,000 toward construction of D-92.

2011-2012 Proposal

Section 9: Consequences of Not Funding the Proposal

A. Consequence of not funding the proposal at all

1. Legal: Aging storm infrastructure would fail with increasing frequency, potentially catastrophically, resulting in damage to property and the environment, traffic disruption, and leading to damage suits and claims. Potential for violation of Bellevue's NPDES municipal stormwater permit.
2. Customer Impact: See individual program/project descriptions, above.
3. Investment/Costs already incurred: N/A (ongoing programs). For D-103, predesign work and consultations with resource agencies have begun. For D-92, design of the pond retrofit is nearly complete.
4. Other: A summary of significant consequences of deferred stormwater system (pipes, culverts, ditches, detention ponds, or other components) replacement or repair:
 - increased potential for flooding of private and public facilities, traffic disruption, and downstream damage to streams, lakes, and other sensitive areas;
 - increase in sudden failures requiring emergency response and repair at a higher total cost
 - increased risk of claims and associated poor perception of customer service
 - increased risk of regulatory action ; and
 - increased O&M resource to maintain facilities that have exceeded their service lives.

In summary, funding less than the full cost of system repair and replacement as recommended means the life-cycle cost of system ownership and operation will cost more over time. It is truly a case of "Pay me now or pay me more, later."

B. Consequence of funding at a lower level: See 140.04NB Replacement of Aging Storm Infrastructure-Alternate



2011-2012 Budget Proposal

Section 1: Proposal Descriptors

Proposal Title: Utility Capacity for Growth		Proposal Number: 140.05NN
Outcome: Healthy and Sustainable Environment		Proposal Type: Enhancing an Existing Service
Staff Contact: Pamela Maloney, x4625		One-Time/On-Going: Both
Fund: Multiple	Attachments: Yes	Enter CIP Plan #: W-68, W-103, W-104, S-30, S-52, S-53, S-54, S-60, S-61
List Parent/Dependent Proposal(s): Proposal 140.01NA, Capital Project Delivery includes the FTE/ LTEs who manage the design and construction of Utility CIP projects.		

Section 2: Executive Summary

This proposal will fund construction of additional utility system capacity so that development and re-development projects are not delayed. Planned population growth of residents and workers in downtown, the Bel-Red Corridor, and the Wilburton area will require more drinking water storage and water supply facilities, sewer pump station capacity, and added water and sewer pipe capacity to meet state minimum requirements. Existing facilities are at or near capacity to serve the current population. The cost of growth-driven projects will be recovered through connection charges to benefited properties.

Section 3: Required Resources

CIP Expenditure	Projected Spending Thru							
	2010	2011	2012	2013	2014	2015	2016	2017
S-53	\$0	\$0	\$4,326,400	\$5,062,050	\$0	\$0	\$0	\$0
W-103	\$0	\$0	\$270,400	\$281,225	\$2,339,800	\$2,433,400	\$632,650	\$0
S-60	\$0	\$0	\$1,676,480	\$1,743,595	\$1,754,850	\$0	\$0	\$0
S-61	\$0	\$104,000	\$0	\$0	\$1,052,910	\$2,920,080	\$0	\$0
W-104	\$0	\$0	\$0	\$0	\$0	\$0	\$632,650	\$2,302,825
S-54	\$541,000	\$1,431,040	\$1,488,282	\$0	\$0	\$0	\$0	\$0
S-30	\$8,152,000	\$369,200	\$383,968	\$399,340	\$415,315	\$431,929	\$449,182	\$467,145
S-52	\$532,243	\$1,054,560	\$1,182,189	\$0	\$0	\$0	\$0	\$0
W-68	\$2,727,000	\$218,400	\$227,136	\$236,229	\$245,679	\$255,507	\$265,713	\$276,339
Total cost/yr:		\$3,177,200	\$9,554,855	\$7,722,439	\$5,808,554	\$6,040,916	\$1,980,195	\$3,046,309
2011-2017 Total		\$37,330,465						
CIP M&O					\$101,781	\$97,585	\$112,612	\$117,115
Supporting Revenue		\$3,177,200	\$9,554,855	\$7,722,439	\$5,808,554	\$6,040,916	\$1,980,195	\$3,046,309
LTE/FTE								
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
LTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0

- Council approved water and sewer rate increases to pay for W-103, W-104, S-52, S-53, S-54, and S-60 when they approved the 2009-10 budget. Revenue has been collected since then toward construction of those projects.
- S-61 is a NEW project proposal. All other projects are existing and are included in the adopted 2009-2015 CIP.
- 4% inflation per year is assumed for 2011-17, per City Budget Office based on a review of relevant cost indices.



2011-2012 Budget Proposal

- Project W-104 will require an additional estimated \$2.4 million in 2018 to complete the project; all other one time projects are fully budgeted within this CIP window.

Section 4: Cost Savings/Innovation/Partnerships/Collaboration

Cost Savings: The budget for each existing project has been reduced by 8% for inflation that was anticipated in 2009-10, but which did not occur. The inflationary savings total approximately \$1,739,000. Inflation savings do not include the new CIP years of 2016 and 2017, nor do they reflect project accelerations or delays, which affect project costs.

W-68 reflects a one time savings of \$490,000, because requests for water extension have been less than anticipated.

Partnerships/Collaboration:

- W-103 and S-61 may involve collaboration with Parks, if Parks owns property at locations suitable for a new reservoir or for relocation of the Midlakes sewer pump station.
- W-104 will involve collaboration with Cascade Water Alliance, regarding regional water supply lines to Bellevue.
- S-52, S-53, and S-61 will involve collaboration with Sound Transit to avoid constructing facilities at locations which would conflict with planned light rail alignment.
- S-54 involves a cooperative inter-agency agreement with King Co. Metro (Council approved in 2010).
- All projects that affect streets will involve collaboration with Transportation Dept. to coordinate any planned street work, assuring utility work is completed prior to surface road improvements.

Efficiencies/Innovations: The collaborations listed above ensure cost efficiencies by coordinating planned work. Utilities will continue to partner with Transportation to combine similar types of asphalt pavement restoration into a single contract, typically resulting in lower bids. For W-103, city-owned sites will be evaluated first for construction of a new water reservoir, to reduce property acquisition costs and may provide opportunities for shared facilities.

Cost Avoidance: Constructing these projects as proposed will take advantage of the current excellent bid climate.

Section 5: Budget Proposal Description

Planned growth in (primarily) downtown, the Bel-Red Corridor, and Wilburton will need additional water facilities to assure a reliable, safe supply of drinking water for daily use and to meet emergencies, and sufficient sewer capacity to safely convey sewage from homes and businesses. Since insufficient water and sewer system capacity (storage, supply, and conveyance) can result in development moratoriums imposed by the Washington State Department of Health or Ecology, they must be built *before* development occurs. Although the City fronts the cost for construction of new facilities, CIP costs associated with growth are allocated to benefitted properties in proportion to the benefit received, and must be paid at the time of development or redevelopment. Revenue collected from connection charges pays for future utility system replacement, helping to keep utility rates lower in the future.

See attachment 140.05NN_Attach1_Project_Breakdown for a breakdown of projects funded under this proposal.

Section 6: Mandates and Contractual Agreements

- Insufficient water and sewer system capacity (storage, supply, and conveyance) can result in development moratoriums imposed by the Washington State Department of Health or Ecology.
- Minimum water storage volume and supply availability are established by state law: **WAC 246-290-222(6)**
- Sewer system conveyance/pumping capacity to preclude overflows is regulated by state law: **WAC 172-240-060(i)**

2011-2012 Budget Proposal

- “Interagency Agreement between King Co. (Wastewater Treatment Division) and the City of Bellevue for Utility Pipeline Work in Conjunction with the Bellevue Influent Trunk Improvements Project and the West Central Business District Trunk Improvement Project”; Council authorized 3/15/2010; Agreement executed 3/29/2010

Section 7: Proposal Justification/Evidence

A. Factors/Purchasing strategies addressed by this proposal - for the PRIMARY outcome

These projects are all future-focused, necessary to meet the water and wastewater needs of planned population and employment growth without detrimental impact to the environment. The need for each was identified during comprehensive planning efforts and targeted studies for proposed changes in land use.

Factors 1 and 3, Water Resources and Nature Space. This proposal ensures a safe, reliable supply of drinking water to and removal of wastewater from homes and businesses as Bellevue grows. Lakes, streams, and wetlands will be protected from sewage overflows, failing wells and failing septic systems, *avoiding pollution*. New reservoirs and pump stations are energy efficient per Factor 5, Conservation. Building utility capacity in time for planned growth is *proactive*, allowing time for alternatives analyses that consider life-cycle costs and consider costs and benefits using triple bottom line principles (environmental, fiscal, and social).

B. Factors/Purchasing strategies addressed by this proposal - for the OTHER outcome(s): Reliable drinking water service and wastewater removal are necessary for public health, integral to Quality Neighborhoods and Safe Communities. The water system capacity provided by these projects will ensure our continued ability to respond to fire and water supply emergencies, for Safe Communities. Economic growth and thriving business districts rely on robust utility systems, and cannot tolerate state-imposed development moratoriums. City Policy UT-4 states “System capacity will not determine land use.” Bellevue’s continued Economic Growth and Competitiveness is assured by constructing these facilities in time to avoid delaying proposed development activity.

Citywide purchasing strategies addressed by this proposal:

- Proactive planning and pre-design to right-size the added capacity and building it ‘just in time’ is a cost effective approach that minimizes financial impacts in the short term; recovery of the investment from benefited properties keeps utility rates lower in the long term, providing best value.
- Collaboration with Cascade, King Co. Metro, Transportation, and Parks results in lower construction and ownership costs, and may provide opportunities for multi-purpose uses of public property.
- Life-cycle cost analysis of alternatives that incorporates triple bottom line principles for each project is a best practice.

C. Short- and long-term benefits of this proposal: In the short term, utility capacity will be available without delaying development and redevelopment projects. In the long term, recovering the cost of projects from benefited properties will reduce future rate increases to pay for utility system replacement.

D. Performance metrics/benchmarks and targets for this proposal:

- # of development proposals delayed due to insufficient utility system capacity: Target = 0 (0 in 2009).
- # of sewage overflows due to insufficient system capacity: Target = 0 (0 in 2009).

E. Describe why the level of service being proposed is the appropriate level: The proposed service level will build facilities that meet state minimum requirements for water and wastewater systems, constructed in time to prevent costly delays of development or redevelopment projects.

Section 8: Provide Description of Supporting Revenue

Utility capacity improvement projects are initially constructed from utility rate revenue. Costs associated with growth are subsequently recovered through connection charges, proportional to the benefit received, collected when properties develop or redevelop. Portions of projects associated with improving system reliability or replacing aging facilities are not recovered through connection charges.

2011-2012 Budget Proposal

Section 9: Consequences of Not Funding the Proposal

A. Consequence of not funding the proposal at all

1. Legal: Insufficient water and sewer system capacity (storage, supply, and conveyance) can result in development moratoriums imposed by the Washington State Department of Health or Ecology. There would be cost consequences to Bellevue (lost revenue) if development was halted awaiting utility capacity projects.
2. Customer Impact:
 - Development projects would be denied until water and sewer system capacity meeting state law was available.
 - W-68 and S-30: Failing wells lead to health concerns and failing septic systems can lead to polluted surface waters. Either situation can prevent citizens from using/occupying their property. If water or sewer system availability is not affordable, redevelopment (such as subdividing or home additions) might not occur.
 - Insufficient sewer system capacity results in overflows that pollute surface waters and result in restricted access to streams or beaches.
 - Insufficient water system capacity results in insufficient water for daily and seasonal peak demands, while providing sufficient water for emergencies such as fires or supply outages, meaning mandatory water use restrictions.
3. Investment/Costs already incurred: Some projects have incurred design costs. See “Required Resource” table
4. Other: N/A

- B. Consequence of funding at a lower level:** The one-time projects in this proposal are not scalable. They are based on engineering estimates of the cost to provide water and sewer system capacity that meets state law. Deferring project construction would risk development moratoriums if state minimum requirements (e.g. for storage, or to preclude overflows) were not met. Postponing projects would also risk missing the current excellent bid climate, meaning projects would cost more.

W-68 and S-30 are the only ongoing programs in this proposal. The proposed level of funding allows for a minimal level of City support to water and wastewater extensions, often just one project every several years. Therefore, no alternate proposal is provided.



2011-2012 Budget Proposal

Section 1: Proposal Descriptors

Proposal Title: WSDOT-Required Utility Relocations		Proposal Number: 140.07NN
Outcome: Healthy and Sustainable Environment		Proposal Type: Existing Service
Staff Contact: Pamela Maloney, x4625		One-Time/On-Going: One-Time
Fund: Multiple	Attachments: Yes	Enter CIP Plan #: W-101, W-102, S-55, S-56
List Parent/Dependent Proposal(s): Proposal 140.01NA, Capital Project Delivery includes the FTE/LTEs who manage the design and construction of Utility CIP projects.		

Section 2: Executive Summary

The water and wastewater pipes that are buried under or hung on overpasses over I-405 and SR-520 are critical links that provide water and sewer services to our customers. Bellevue is legally obligated to relocate or modify our utility facilities within highway rights-of-way, to accommodate the WSDOT I-405/SR520 Braids and WSDOT 520 Bridge Expansion projects.

Section 3: Required Resources

CIP Expenditure	Projected Spending Thru							
	2010	2011	2012	2013	2014	2015	2016	2017
S-56	\$0	\$0	\$0	\$281,225	\$292,475	\$304,175	\$316,325	\$328,975
W-102	\$0	\$0	\$0	\$140,613	\$146,238	\$152,088	\$158,163	\$164,488
S-55	\$276,000	\$5,000	\$5,000	\$5,000	\$0	\$0	\$0	\$0
W-101	\$212,000	\$40,000	\$40,000	\$40,000	\$0	\$0	\$0	\$0
Total Costs/yr		\$45,000	\$45,000	\$466,838	\$438,713	\$456,263	\$474,488	\$493,463
2011-2017 Total	\$2,419,763							
CIP M&O		\$0	\$0	\$0	\$0	\$0	\$0	\$0
Supporting Revenue		\$45,000	\$45,000	\$466,838	\$438,713	\$456,263	\$474,488	\$493,463
LTE/FTE								
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
LTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0

All projects in this proposal are included in the adopted 2009-2015 CIP. The Council approved rate increases to pay for all of the projects in this proposal, as part of the 2009-10 budget. Revenue has been collected for these projects since then.

This proposal assumes 4% inflation per year for 2011-17, consistent with City Budget Office recommendations based on a review of relevant cost indices.

Section 4: Cost Savings/Innovation/Partnerships/Collaboration

Cost Savings: WSDOT's design / build contractor proposed a design that requires significantly less relocation of Bellevue utilities than anticipated. Consequently, proposed budgets for S-55 and W-101, the WSDOT Braids projects, reflect cost savings of \$441,000 and \$231,000, respectively.



2011-2012 Budget Proposal

Partnerships/Collaboration: The projects identified in this proposal require collaboration with the Washington State Department of Transportation (WSDOT). By working cooperatively with WSDOT during their pre-design and design/build phases, Bellevue will complete these required projects at the lowest possible cost, and the roadwork will be completed as quickly as possible.

Efficiencies/Innovations: WSDOT is using a design/build contracting strategy to save time and cost. Bellevue is working with WSDOT to ensure that we pay a fair cost for construction of these utility relocations, which will be built by WSDOT contractors.

Section 5: Budget Proposal Description

This proposal is for funding to relocate water and sewer facilities within WSDOT right-of-way to accommodate two state highway projects: the WSDOT I-405/SR520 Braids, and the WSDOT 520 Bridge Expansion. Once the designs have been approved by Bellevue and cost agreements negotiated, Bellevue will pay WSDOT the funds to relocate water and sewer facilities. Specifically, the proposal includes:

CIP #	Description	Project Timing	Est. Total Project Cost	Cost 2011-17
S-56	WSDOT 520 Bridge Expansion: Relocate up to 7 wastewater pipes	2013-2020	\$2,591,180	\$1,523,175
W-102	WSDOT 520 Bridge Expansion: Relocate up to 5 water pipes	2013-2020	\$1,295,590	\$ 761,588
S-55	WSDOT I-405/SR520 Braids: Relocate up to 4 wastewater pipes	2009-2013	\$ 291,000	\$ 15,000
W-101	WSDOT I-405/SR520 Braids: Relocate up to 4 water pipes	2009-2013	\$ 332,000	\$ 120,000
Total Proposal Cost:			\$4,509,770	\$2,419,763

There are only a very few locations where our utility systems can cross the highways that separate major portions of the utility service areas, as shown on attachment 140.07NN_Attach1_WSDOT_Utility_Relocations. The water pipes to be relocated include major transmission mains up to 16" inches in diameter, which bring water from Cascade's regional supply lines to the areas of Bellevue west of I-405, and 8-inch to 12-inch pipes which are the sole sources of water supply to Hunts Point, Yarrow Point, and Medina, north of SR 520. Wastewater pipes to be relocated include gravity and pressurized mains up to 12-inches in diameter, which are all critical to the collection of sewage from homes for conveyance to King Co. Metro's regional sewer collection and treatment system.

Section 6: Mandates and Contractual Agreements

Bellevue is legally obligated by state permits and agreements to relocate or modify our utility facilities within highway rights-of-way, to accommodate state highway projects.

Section 7: Proposal Justification/Evidence

A. Factors/Purchasing strategies addressed by this proposal - for the PRIMARY outcome:

Factors 1 and 3, Water Resources and Nature Space are addressed, as well as drinking water and wastewater removal. This proposal ensures a continued supply of clean drinking water, reliably available and in sufficient quantity for homes and businesses in Bellevue west of I-405, and for the Points Communities. It also ensures continued safe and reliable safe wastewater removal for the same customers. Lakes, streams, and wetlands will be protected from sewer overflows by continuing to provide wastewater service to our customers.



2011-2012 Budget Proposal

B. Factors/Purchasing strategies addressed by this proposal - for the OTHER outcome(s):

Other factors addressed by this proposal:

Reliable water and wastewater systems are necessary for public health, which is integral to Quality Neighborhoods and Safe Communities. Water conveyed by these pipes will ensure our continued ability to respond to fire emergencies, helping to ensure Safe Communities. Economic growth and thriving business districts critical to Economic Growth and Competitiveness rely on robust utility systems. The WSDOT projects that make these utility relocations necessary will Improve Mobility by improving the transportation systems that bring people to and from Bellevue.

Citywide purchasing strategies addressed by this proposal:

Provide best value in meeting community needs, provide for cost savings, and leverage collaboration with external organizations are included. By working cooperatively with WSDOT during their pre-design and design/build phases, Bellevue will complete these required projects at the lowest possible cost.

C. Short- and long-term benefits of this proposal:

Short-term benefits: This project is necessary to continue to provide a reliable, safe supply of clean drinking water to Bellevue’s citizens and the customers we serve in Hunts Point, Yarrow Point, and Medina (the Points Communities), and to continue removing sewage from their homes and businesses.

Long Term benefits: This project will replace critical older water and wastewater pipes with new pipes, which will ensure we can continue to provide reliable utility service decades into the future.

D. Performance metrics/benchmarks and targets for this proposal:

Performance Measures: Not applicable

E. Describe why the level of service being proposed is the appropriate level:

The funding levels proposed for each project are based on engineering estimates of the cost to relocate Bellevue Utility facilities that interfere with the highway projects. The actual amount paid will depend on negotiated agreements (negotiations currently underway) between Bellevue and WSDOT.

Section 8: Provide Description of Supporting Revenue

Activities are supported by utility rates.

Section 9: Consequences of Not Funding the Proposal

A. Consequence of not funding the proposal at all:

1. **Legal:** Bellevue would be out of compliance with the WSDOT agreements that allow Bellevue’s water and wastewater facilities to cross over or under the freeways.
2. **Customer Impact:** If this proposal is not funded, WSDOT would remove but not replace Bellevue utility facilities within highway rights-of-way, to construct the highway improvements. The critical water and sewer pipes connecting utility systems east and west of I-405, and north and south of SR520 would be severed. Utility customers in the Points Communities would no longer have drinking water service; some would not have sewer service. We could not supply sufficient water to areas west of I-405 to fill drinking water reservoirs or to fight fires.
3. **Investment/Costs already incurred:** \$276,000 for S-55 and \$212,000 for W-101 was appropriated in 2009-10 for the WSDOT I-405/SR-520 Braids project currently underway.
4. **Other:** N/A

B. Consequence of funding at a lower level: This proposal is for one-time projects. It is not scalable.



2011-2012 Budget Proposal

Section 1: Proposal Descriptors

Proposal Title: Environmental Preservation		Proposal Number: 140.08NA
Outcome: Healthy and Sustainable Environment		Proposal Type: Existing Service
Staff Contact: Pamela Maloney, x4625		One-Time/On-Going: Both
Fund: Multiple	Attachments: Yes	Enter CIP Plan #: S-59, D-74, D-81, D-86, D-94, D-95, D-100, D-101, D-104
List Parent/Dependent Proposal(s): Proposal 140.01NA "Capital Project Delivery" includes the FTE/LTEs who manage the design and construction of Utility CIP projects.		

Section 2: Executive Summary

This proposal is for Utility CIP projects with environmental preservation or restoration as a primary goal. It includes on-going programs and one-time projects intended to restore stream health and environmental habitat, or prevent pollution of stream and habitat resources. These projects guard against impacts from City operations or repair environmental damage on public lands or lands with public responsibilities.

Section 3: Required Resources

CIP Expenditure	Projected Spending Thru							
	2010	2011	2012	2013	2014	2015	2016	2017
D-104	\$669,061	\$700,455	\$855,424	\$1,083,801	\$1,296,259	\$1,523,409	\$1,763,751	\$2,122,074
D-94	\$3,581,000	\$822,360	\$841,454	\$861,329	\$881,984	\$903,465	\$925,773	\$948,998
D-86	\$2,336,000	\$347,360	\$365,581	\$383,591	\$402,446	\$423,412	\$445,386	\$468,460
D-81	\$2,003,000	\$281,840	\$298,522	\$317,222	\$335,761	\$356,493	\$378,325	\$401,350
S-59	\$0	\$0	\$0	\$0	\$193,034	\$200,756	\$208,775	\$217,124
D-95	\$580,000	\$5,000	\$5,000	\$5,000	\$5,000	\$0	\$0	\$0
D-100	\$767,000	\$8,000	\$8,000	\$8,000	\$8,000	\$0	\$0	\$0
D-101	\$795,000	\$5,000	\$5,000	\$5,000	\$4,000	\$0	\$0	\$0
D-74	\$650,000	\$5,000	\$0	\$0	\$0	\$0	\$0	\$0
Total costs/yr		\$2,175,015	\$2,378,981	\$2,663,943	\$3,126,484	\$3,407,535	\$3,722,009	\$4,158,006
2011-2017 Total		\$21,631,971						
CIP M&O						\$1,825	\$1,898	\$3,948
Supporting Revenue		\$2,175,015	\$2,378,981	\$2,663,943	\$3,126,484	\$3,407,535	\$3,722,009	\$4,158,006
LTE/FTE								
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
LTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0

The programs in this proposal are all included in the adopted 2009-2015 CIP; no project scope changes are proposed. Council approved rate increases to pay for D-104 and S-59 as part of the 2009-10 budget. Projects D-74, D-95, D-100, and D-101 are one-time projects for improvements in Coal Creek, and are substantially complete.

2011-2012 Budget Proposal

This proposal assumes 4% inflation per year for 2011-17, consistent with City Budget Office recommendations based on a review of relevant cost indices, except that projects that are substantially complete and projects with budgets set by legal mandate or Council directive do not include an inflationary adjustment. (D-74, D-95, D-100, and D-104).

Total resources required for the projects in this proposal in 2011-2017: \$21,631,971.

Section 4: Cost Savings/Innovation/Partnerships/Collaboration

Cost Savings: The budget for several projects in this proposal (exceptions noted above) has been reduced by 8% for inflation that was anticipated in 2009-2010, but which did not occur. The inflationary savings total approximately \$574,000. Inflationary savings do not include new CIP years 2016 and 2017.

Partnerships/Collaboration: *Internal:* Parks Department (D-101 and D 104); *External:* King County Flood Control Zone District (KCFZD) (D-94); various granting agencies (esp.D-81 and 86); and King County (D-95, D-100, D-101).

Efficiencies/Innovations: Each ongoing program uses criteria specific to the program objective to prioritize projects within it. Specific project designs are selected after evaluating alternative designs and considering financial, environmental, and social costs and benefits (triple-bottom line), which incorporates life cycle cost analysis of the alternatives.

Cost Avoidance: Steady progress toward stream restoration projects that benefit salmon reduce the likelihood of third-party lawsuits under the Endangered Species Act.

Section 5: Budget Proposal Description

This proposal is for Utility CIP projects with environmental preservation or restoration as the primary goal. It includes programs and projects intended to restore stream health and environmental habitat, or prevent pollution of those resources. These projects guard against impacts from city operations or repair environmental damage on public lands or lands with public responsibilities (e.g. easements, and past project sites).

See attachment 140.08NA_Attach1_Project_Breakdown for a breakdown of projects funded under this proposal.

Section 6: Mandates and Contractual Agreements

- Council directive for the **Mobility and Infrastructure Initiative**, December 2008 (D-104) Oct 2004
- Court-ordered **Coal Creek Settlement Agreement** (D-95, D-100, D-101) August, 2004
- **RCW 75.020 and WAC 22-110-070** require retrofit of existing fish passage blockages. (D-81)
- **WAC 173-24—060** regarding sewage overflow requirements (S-59)
- **Western Washington Phase II Municipal Stormwater Permit** (issued Jan 17, 2007; modified June 17, 2009) regulating surface water quality. (aka NPDES permit) (S-59)
- Plant monitoring is required by **Bellevue's Critical Areas Ordinance**, the Washington Department of Fish and Wildlife's Hydraulic Project Approval, and the Corps 404 permit. (D-74,D-95, and D-100)

Section 7: Proposal Justification/Evidence

A. Factors/Purchasing strategies addressed by this proposal - for the PRIMARY outcome:

How will this Proposal achieve a Healthy and Sustainable Environment (HSE)?

This proposal supports a Healthy and Sustainable Environment with project-specific objectives to restore or preserve Bellevue's surface waters. Ongoing investment and effort is necessary to maintain water quality and habitat for streams in an urban environment. These projects protect water quality by reducing the potential for

2011-2012 Budget Proposal

sewer overflows to sensitive surface waters, reducing sediment that chokes stream habitat, restoring degraded stream reaches, and removing barriers that prevent fish from accessing healthy stream habitat.

Factors in the Healthy and Sustainable Environment outcome:

- Factor 1: Water Resources. S-59, D-74, D-86, D-94, D-95, D-100, and D-101 will result in reduced pollutants (sewage spills and sediment transport) to Bellevue's water resources.
- Factor 3: Nature Space. S-59, D-81, and D-104 in particular will support preservation of lakes, streams, and wetlands for the enjoyment of Bellevue citizens.
- Factor 5: Conservation. S-59, D-74, D-81, D-86, D-95, D-100, D-101, and D-104 will preserve and restore streams and surface waters that provide critical habitat for salmon, other fish and riparian animals, and plants. D-94 provides flood control and D-104 will provide recreational benefits.

Purchasing Strategies in the Healthy and Sustainable Environment outcome:

- S-59 is a proactive measure to enhance Bellevue's ability to prevent sewer overflows during power outages.
- D-94 will ensure that storm and surface water runoff is controlled to minimize the impacts of flooding and erosion.
- D-74, D-81, D-86, D-95, D-100, D-101, and D-104 will manage, maintain, and restore Bellevue's streams to ensure their continued viability to support salmon and other species.
- D-104 will create new green spaces by restoring streams that currently flow through pipes.

B. Factors/Purchasing strategies addressed by this proposal - for the OTHER outcome(s):

S-59 results in a Safer Community by reducing the chance of sewage overflow into Bellevue's streams and lakes, which contaminates stream water quality and can result in beach closures to protect public health. D-104 directly supports Improved Mobility in Bellevue by making improvements to streams in the BelRed Corridor in conjunction with planned street improvements of Bellevue's MII, and supports Economic Growth and Competitiveness by funding stream restoration that will enhance and encourage redevelopment of high quality attractive residential and commercial urban areas.

Citywide purchasing strategies addressed by this proposal: This proposal leverages resources from KCFZD to provide Bellevue citizens reduced flooding and better environmental outcomes for their ratepayer dollars. All Utility CIP designs undergo alternatives analysis using triple bottom line principles (financial, environmental and social costs and benefits) and total life cycle cost considerations (best practices), to assure best value in design and efficient resource investment for the long term. This proposal is focused on protection and stewardship of environmental resources.

C. Short- and long-term benefits of this proposal:

Each project results in immediate short term benefits: making streams accessible to salmon, reducing and removing habitat-choking and flood-causing sediment, and reducing flooding at homes and businesses, or which blocks roads. Even more important, this proposal will lead to long term, measurable, and sustainable improvement of water quality and valuable habitat of Bellevue's surface waters.

D. Performance metrics/benchmarks and targets for this proposal:

See attachment 140.08NA_Attach1_Project_Breakdown for a breakdown of the metrics, benchmarks and targets for each project.

2011-2012 Budget Proposal

E. Describe why the level of service being proposed is the appropriate level: See descriptions for D-81, D-86, D-94, and D-104, for the rationale for annual budget for ongoing programs. One-time projects are not scalable.

Section 8: Provide Description of Supporting Revenue

Activities are supported primarily by utility rates. Projects mandated by the Coal Creek Settlement agreement include King Co. funding. King Co Flood Control Zone District provides revenue for specific projects within the Flood Control Program. Grant revenue is pursued as opportunities arise.

Section 9: Consequences of Not Funding the Proposal

A. Consequence of not funding the proposal at all (See specific programs for specific consequences of each)

1. **Legal:**
 - Increased likelihood of third-party lawsuits for non-compliance with state requirements or court order;
 - Potential fines by Washington Department of Fisheries;
 - Risk of mandated capital projects by the Washington Departments of Ecology or Health; and
 - State resource agencies less likely to issue permits to Bellevue if we don't fulfill permit obligations.
2. **Customer Impact:**
 - Reduced amenities in BelRed Corridor to attract redevelopment;
 - Salmon would never be able to access almost two miles of restored habitat in Goff Creek or West Tributary;
 - Bellevue citizens would have increasingly reduced opportunity to enjoy fish and other riparian species in the 70+ miles of open streams that meander through their neighborhoods;
 - Higher utility rates resulting from state agency fines and for mandated corrective actions; and
 - Continued flooding and access restrictions at known locations affecting homes and businesses.
3. **Investment/Costs already incurred:** D-74, D-95, D-100, and D-101 are substantially complete. Although not yet built, most of the budget for D-101 Lower Coal Creek Sediment Pond budget was appropriated in 2009-10. Property has been purchased; design is complete; we have applied for state resource agency permits. Construction may be deferred until 2011 depending on dates of permit approvals.
4. **Other:** N/A

B. Consequence of funding at a lower level:

D-81, D-86, D-94 and D-104 are ongoing programs; an alternate for reduced funding is provided in Proposal 140.08NB. S-59, D-95, D-100, D-101, and D-74 are one-time projects and are not scalable.



2011-2012 Budget Proposal

Section 1: Proposal Descriptors

Proposal Title: Utility Improvements for New NE 15th Multi Modal Corridor – Segment 1		Proposal Number: 140.54DN
Outcome: Healthy and Sustainable Environment		Proposal Type: New Service
Staff Contact: Randy Thompson, x6919		One-Time/On-Going: One-Time
Fund: Water and Sewer CIP	Attachments: No	Enter CIP Plan #: W-105 (new) and S-62 (new)
List Parent/Dependent Proposal(s): 130.52NN R-163 NE 15 th St Multi-Modal Corridor Segment 1 – 116 th Ave at NE 12 th ST to 124 th Ave NE		

Section 2: Executive Summary

This proposal is for design of new water and sewer pipes under the new NE 15th Multi Modal Corridor - Segment 1, between 116th Ave. NE and 124th St. NE, where needed to provide utility service for redevelopment of adjacent properties consistent with the Bel-Red Corridor Final Report. This proposal is required as a result of Transportation’s proposal 130.52NN, R-163 NE 15th St Multi-Modal Corridor Segment 1 – 116th Ave at NE 12th ST to 124th Ave NE, and was therefore developed to approximately match that proposal’s scope.

Section 3: Required Resources

CIP Expenditure	Projected Spending Thru 2010	2011	2012	2013	2014	2015	2016	2017
S-62	\$0	\$0	\$323,615	\$0	\$0	\$0	\$0	\$0
W-105	\$0	\$0	\$205,937	\$0	\$0	\$0	\$0	\$0
Total Costs/yr		\$0	\$529,552	\$0	\$0	\$0	\$0	\$0
2011-2017 Total		\$529,552						
CIP M&O		\$0	\$0	\$0	\$0	\$0	\$0	\$0
Supporting Revenue		\$0	\$529,552	\$0	\$0	\$0	\$0	\$0
LTE/FTE								
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
LTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0

Section 4: Cost Savings/Innovation/Partnerships/Collaboration

This proposal involves close collaboration between Transportation and Utilities to assure the design and construction of utility facilities is done in coordination with street design and construction. Selection of a consultant or team of consultants for coordinated road and utility design may result in lower design costs.



2011-2012 Budget Proposal

Section 5: Budget Proposal Description

Water and Sewer pipes will be needed to provide utility services to properties adjacent to the new NE 15th Multi Modal Corridor, and to improve water supply capacity for anticipated growth throughout the Bel-Red Corridor. This project will eventually design and construct approximately 1.5 miles of 16-inch water pipe, and approximately 1.3 miles of 8-inch and 12-inch sewer pipe in the new NE 15th/16th Street right-of-way. Utility design and construction will be coordinated with corridor design and construction, so that utilities are in place and do not conflict with surface design of street/path/bikeway/light rail.

Specific improvements included in this proposal: Design of water and sewer facilities needed in the NE 15th St Multi Modal Corridor – Segment 1, between 116th Ave. NE and 124th Ave. NE.

Construction of water and sewer pipes in Segment 1 is not included in the proposed budget. Preliminary, planning-level construction cost estimates for Segment 1 water and sewer pipes are: \$762,000 water; and \$1,197,000 sewer, based on the rough estimate of length of new pipe that will be constructed.

Design and construction of water and sewer pipes in the remaining NE 15th St Multi Modal Corridor segments, between 124th Ave NE and 140th Ave NE, are not included in the proposed budget. Preliminary, planning-level construction cost estimates for these remaining segments are: \$2.240 million water; \$3.520 million sewer, based on the rough estimate of length of new pipe that will be constructed.

Section 6: Mandates and Contractual Agreements

None.

Section 7: Proposal Justification/Evidence (may insert charts, graphs, tables, etc.)

A. Factors/Purchasing strategies addressed by this proposal - for the PRIMARY outcome:

Factor 1: Existing and Future Infrastructure: Design of utility facilities concurrent with design of the street corridor supports *thoughtful planning and integration* of the infrastructure that will be needed to meet the City's vision for the Bel-Red Corridor. Much as the surface improvements will provide the 'backbone' for mobility through the redeveloping residential/commercial district, the large diameter water pipe will provide the primary water pipes for moving water from the regional supply station through the corridor. The sewer pipes will be sized to convey anticipated sewage from the high density residential and other planned land uses.

Factor 2: Traffic Flow: Design of utility facilities concurrent with the road design supports coordinated construction of utilities with the surface improvements, so that *traffic disruptions are minimized*.

The proposal addresses these Outcome Strategies for Improved Mobility: The water and sewer infrastructure will be designed with sufficient capacity to *accommodate future population demand*, based on land use. New water and sewer pipes are expected to last 125 years, on average, so pipes sized for ultimate capacity will be constructed. Utility facilities designed to deliver safe, reliable utility service are part of the *Built Environment, and promote and support the economic vitality of the City*.

B. Factors/Purchasing strategies addressed by this proposal - for the OTHER outcome(s):

Factors for other Outcomes: This proposal supports a *Healthy and Sustainable Environment* by designing facilities that will deliver clean drinking water to and safely remove wastewater from residents and businesses along and near the multi-modal corridor. (*Water resources and clean living environment*). Well designed utility facilities minimize the opportunities for water or sewer pipe failures, protecting the streams, wetlands, and lakes in the BelRed Corridor from pollution and erosion. (*Nature space*). Designing sufficient utility capacity for the planned population is *proactive* and results in *least life cycle cost* for pipelines, which last 125 years. Water

2011-2012 Budget Proposal

and wastewater services are *basic human needs (Innovative, Vibrant and Caring Community)*, and integral to *public health and safety (Quality and Safe Neighborhoods)*.

This proposal responds to these City-wide Purchasing Strategies:

- Design of utilities concurrent with the road improvements assures *close collaboration between Utilities and Transportation*, as well as *Sound Transit* for coordination with light rail construction plans. It provides *best value for the community* by identifying and resolving potential design conflict issues. Selection of a consultant or team of consultants for coordinated road and utility design may result in lower design costs. (Reduced *short term financial impacts*)
- The design will assure *right-sized utilities* that will provide water and wastewater services appropriate for the planned land use, and results in *lowest life-cycle cost* by building capacity appropriate to the expected 125+ year life of the facilities (*long term financial benefits*), which is a sound *resource management* strategy.

C. Short- and long-term benefits of this proposal:

In the short term, this proposal will assure design of utility facilities is complete so utility facilities are ready for construction when resources to build the corridor are secured and approved. The design will provide the basis for an improved construction cost estimate, so appropriate utility rates are collected to pay for it. In the long term, this proposal will assure utilities that are foundational to eventual construction of the primary mobility corridor through the Bel-Red Corridor.

D. Performance metrics/benchmarks and targets for this proposal: None are proposed.

E. Describe why the level of service being proposed is the appropriate level:

The proposal is intended to design utility facilities concurrent with design of planned street, bikeway, pedestrian and light rail improvements. Budget to construct the facilities has not been included, since road construction has not been proposed.

Section 8: Provide a Description of Supporting Revenue

This proposal is supported by utility rates. The utility investment associated with redevelopment of the Bel-Red Corridor will be recouped via connection charges collected from benefited properties when they redevelop.

Section 9: Consequences of Not Funding the Proposal

A. Consequence of not funding the proposal at all:

1. **Legal:** None
2. **Customer Impact:**
 - Construction of multi-modal surface improvements will be delayed awaiting water and sewer facility design; or
 - (if design is not done prior to corridor construction) Newly paved surfaces will need to be dug up to allow construction of water and sewer facilities; and
 - Development/redevelopment projects may be delayed awaiting availability of water and sewer service.
3. **Investment/Costs already incurred:** None
4. **Other:** None

B. Consequence of funding at a lower level:

Utility facilities could not be designed for the full extent of the planned NE 15th multi-modal corridor.



2011-2012 Budget Proposal

Section 1: Proposal Descriptors

Proposal Title: Utility Facilities for NE 4 th Street Extension		Proposal Number: 140.55DN
Outcome: Healthy and Sustainable Environment		Proposal Type: New Service
Staff Contact: Randy Thompson, x6919		One-Time/On-Going: One-Time
Fund: Water CIP	Attachments: No	Enter CIP Plan #: W-106 (new)
List Parent/Dependent Proposal(s): 130.50NN, R-160 NE 4 th Street Extension – 116 th to 120 th Avenues NE		

Section 2: Executive Summary

This proposal is for design and construction of approximately 1400 feet of new 12-inch or 16-inch watermain within the new NE 4th right-of-way, to improve Bellevue’s water system’s ability to deliver water to the downtown area, and to improve water system redundancy/reliability. This proposal is required as a result of Transportation’s proposal 130.50NN, R-160 NE 4th Street Extension – 116th to 120th Avenues NE.

Section 3: Required Resources

CIP Expenditure	Projected Spending Thru							
	2010	2011	2012	2013	2014	2015	2016	2017
W-106	\$0	\$91,520	\$190,362	\$197,976	\$0	\$0	\$0	\$0
Total Costs/yr		\$91,520	\$190,362	\$197,976	\$0	\$0	\$0	\$0
2011-2017 Total	\$479,858							
CIP M&O				\$1,496	\$1,556	\$1,618	\$1,683	\$1,750
Supporting Revenue		\$91,520	\$190,362	\$197,976	\$0	\$0	\$0	\$0
LTE/FTE								
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0

Section 4: Cost Savings/Innovation/Partnerships/Collaboration

This proposal involves close collaboration between Transportation and Utilities to assure the design and construction of utility facilities is done in coordination with street design and construction. Selection of a consultant or team of consultants for coordinated road and utility design may result in lower design costs.

Section 5: Budget Proposal Description

This proposal will construct approximately 1400 feet of new 12-inch or 16-inch watermain within the new NE 4th right-of-way, to improve Bellevue’s water system’s ability to deliver water to approximately 20% of the utility’s residential customers and the downtown area, and to improve water system redundancy/reliability. There are only limited opportunities for pipelines to cross the BNRR and I-405 that run through Bellevue. This project provides an opportunity to strengthen water system links, so that water can be delivered more easily to downtown Bellevue, and to add redundancy in case any one of the mains that cross the railroad or highway need to be taken out of service. Utility construction will be coordinated with street construction, so that utilities are in place prior to final street surfacing.

2011-2012 Budget Proposal

Section 6: Mandates and Contractual Agreements

None.

Section 7: Proposal Justification/Evidence (may insert charts, graphs, tables, etc.)

A. **Factors/Purchasing strategies addressed by this proposal - for the PRIMARY outcome:**

Factor 1: Existing and Future Infrastructure. Design and construction of utility facilities concurrent with design and construction of NE 4th supports *thoughtful planning and integration* of the infrastructure that will be needed to meet the City's vision for downtown and the Wilburton Area. Much as the new street will provide improved mobility through Wilburton and to/from downtown, the large diameter water pipe will provide improved reliability of water movement through Wilburton and into downtown.

Factor 2: Traffic Flow. Design and construction of utility facilities concurrent with road design and construction supports coordinated of utilities and surface improvements, so that *traffic disruptions are minimized*.

The proposal addresses these Outcome Strategies for Improved Mobility: The water infrastructure will be designed with sufficient capacity to *accommodate future population demand*, based on land use. New water pipes are expected to last 125 years, on average, so pipes sized for ultimate capacity will be constructed. Utility facilities designed to deliver safe, reliable utility service are part of the *Built Environment*, and *promote and support the economic vitality of the City*.

B. **Factors/Purchasing strategies addressed by this proposal - for the OTHER outcome(s):**

Factors for other Outcomes: This proposal supports a *Healthy and Sustainable Environment* by designing facilities that will improve reliable delivery of clean drinking water to residents and businesses in Wilburton and downtown. (*Water resources and clean living environment*). Well designed utility facilities minimize the opportunities for water pipe failures, protecting streams, wetlands, and lakes from pollution and erosion. (*Nature space*). Designing sufficient utility capacity for the planned population is *proactive* and results in *least life cycle cost* for pipelines, which last 125 years. Water service is a *basic human need* (*Innovative, Vibrant and Caring Community*), and integral to *public health and safety* (*Quality and Safe Neighborhoods*.)

This proposal responds to these City-wide Purchasing Strategies:

- Design of utilities concurrent with the road improvements assures *close collaboration between Utilities and Transportation*. It provides *best value for the community* by identifying and resolving potential design conflict issues. Selection of a consultant or team of consultants for coordinated road and utility design may result in lower design costs. (*Reduced short term financial impacts*)
- The design will assure *right-sized utilities* that will provide water service appropriate for the planned land use, and results in *lowest life-cycle cost* by building capacity appropriate to the expected 125+year life of the facilities (*long term financial benefits*), which is a sound *resource management* strategy.

C. **Short- and long-term benefits of this proposal:**

In the short term, this proposal will assure design and construction of utility facilities is coordinated and accomplished efficiently. In the long term, this proposal is will assure utilities that are foundational to reliably meeting the future water needs of the Wilburton area and downtown.

D. **Performance metrics/benchmarks and targets for this proposal:**

None are proposed.



2011-2012 Budget Proposal

E. Describe why the level of service being proposed is the appropriate level:

The proposal is intended to design and construct utility facilities concurrent with design and construction of planned street improvements.

Section 8: Provide a Description of Supporting Revenue

Project is supported by utility rates.

Section 9: Consequences of Not Funding the Proposal

A. Consequence of not funding the proposal at all:

1. **Legal:** None
2. **Customer Impact:**
 - Construction of street improvements will be delayed awaiting water and sewer facility design; or
 - (if design is not done prior to street construction) Newly paved surfaces will need to be dug up to allow construction of water and sewer facilities.
3. **Investment/Costs already incurred:** None
4. **Other:** None

B. Consequence of funding at a lower level:

The proposed water pipe cannot be designed and constructed at a lower cost. A smaller pipe could be installed with minimal savings but would either need to be replaced in the future with a larger pipe or augmented with a second pipe constructed at a later date resulting in higher overall costs and traffic disruption during construction.



2011-2012 Budget Proposal

Section 1: Proposal Descriptors

Proposal Title: Utility Facilities for 120 th Ave NE Improvements – Segment 2		Proposal Number: 140.56DN
Outcome: Healthy and Sustainable Environment		Proposal Type: New Service
Staff Contact: Randy Thompson, x6919		One-Time/On-Going: One-Time
Fund: Sewer CIP	Attachments: No	Enter CIP Plan #: S-63 (new)
List Parent/Dependent Proposal(s): 130.53NN R-164 120th Avenue NE (Segment 2 and 3)/NE 8th Street to Northup Way		

Section 2: Executive Summary

This proposal is for design of approximately 700 feet of 8-inch and 12-inch sewer pipe in 120th Ave NE – Segment 2, between NE 8th St and NE 12th St, in conjunction with street improvements, and where needed to provide sewer service for redevelopment of adjacent properties consistent with the Bel-Red Corridor Final Report. This proposal is required as a result of Transportation’s proposal 130.52NN, R-164 120th Avenue Segment 2 – NE 8th Street to NE 12th Street, and was therefore developed to approximately match that proposal’s scope.

Section 3: Required Resources

CIP	Projected Spending Thru	2011	2012	2013	2014	2015	2016	2017
Expenditure	2010							
S-63	\$0	\$41,600	\$43,264	\$0	\$0	\$0	\$0	\$0
Total Cost/yr		\$41,600	\$43,264	\$0	\$0	\$0	\$0	\$0
2011-2017 Total		\$84,864						
CIP M&O		\$0	\$0	\$0	\$0	\$0	\$0	\$0
Supporting Revenue		\$41,600	\$43,264	\$0	\$0	\$0	\$0	\$0
LTE/FTE								
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
LTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0

Section 4: Cost Savings/Innovation/Partnerships/Collaboration

This proposal involves close collaboration between Transportation and Utilities to assure the design and construction of utility facilities is done in coordination with street design and construction. Selection of a consultant or team of consultants for coordinated road and utility design may result in lower design costs.

2011-2012 Budget Proposal

Section 5: Budget Proposal Description

Much of 120th Avenue NE is currently without sewer facilities. Commercial and residential development along the street will require sewer facilities be constructed in the street, to obtain sewer service. Some existing pipes may need to be upsized to provide sufficient capacity. Utility construction will be coordinated with street construction, so that utilities are in place prior to final street surfacing.

Specific improvements included in this proposal: Design of sewer facilities needed in 120th Ave NE – Segment 2, between NE 8th St and NE 12th St. Construction of sewer pipes in Segment 2 is not included in the proposed budget. Preliminary, planning-level construction cost estimate for Segment 2 sewer pipes is \$0.32 million, based on the rough estimate of length of new pipe that will be constructed.

Section 6: Mandates and Contractual Agreements

None

Section 7: Proposal Justification/Evidence (may insert charts, graphs, tables, etc.)

A. Factors/Purchasing strategies addressed by this proposal - for the PRIMARY outcome:

Factor 1: Existing and Future Infrastructure: Design of utility facilities concurrent with design of the street corridor supports *thoughtful planning and integration* of the infrastructure that will be needed to meet the City's vision for the Bel-Red Corridor. Much as the surface improvements will provide for mobility needs through the redeveloping residential/commercial district, the sewer pipes will provide needed sewer service through this portion of the corridor. The sewer pipes will be sized to convey anticipated sewage from the planned land uses.

Factor 2: Traffic Flow: Design of utility facilities concurrent with the road design supports coordinated construction of utilities with the surface improvements, so that *traffic disruptions are minimized*. The proposal addresses these Outcome Strategies for Improved Mobility: The sewer infrastructure will be designed with sufficient capacity to *accommodate future population demand*, based on land use. New sewer pipes are expected to last 125 years, on average, so pipes sized for ultimate capacity will be constructed. Utility facilities designed to deliver safe, reliable utility service are part of the *Built Environment, and promote and support the economic vitality of the City*.

B. Factors/Purchasing strategies addressed by this proposal - for the OTHER outcome(s):

This proposal supports a *Healthy and Sustainable Environment* by designing facilities that will safely remove wastewater from residents and businesses along and near 120th Ave NE. (*Water resources and clean living environment*). Well designed utility facilities minimize the opportunities for sewer pipe failures, protecting streams, wetlands, and lakes in the Bel-Red Corridor from pollution and erosion. (*Nature space*). Designing sufficient utility capacity for the planned population is *proactive* and results in *least life cycle cost* for pipelines, which last 125 years. Wastewater service is a *basic human need (Innovative, Vibrant and Caring Community)*, and integral to *public health and safety (Quality and Safe Neighborhoods)*.

This proposal responds to these City-wide Purchasing Strategies:

- Design of utilities concurrent with the road improvements assures *close collaboration between Utilities and Transportation*, as well as *Sound Transit* for coordination with light rail construction plans. It provides *best value for the community* by identifying and resolving potential design conflict issues. Selection of a consultant or team of consultants for coordinated road and utility design may result in lower design costs. (*Reduced short term financial impacts*)



2011-2012 Budget Proposal

The design will assure *right-sized utilities* that will provide wastewater services appropriate for the planned land use, and results in *lowest life-cycle cost* by building capacity appropriate to the expected 125+year life of the facilities (*long term financial benefits*), which is a sound *resource management* strategy.

C. Short- and long-term benefits of this proposal:

In the short term, this proposal will assure design of utility facilities is complete so utility facilities are ready for construction when resources to build the street improvements are secured and approved. The design will provide the basis for an improved construction cost estimate, so appropriate utility rates are collected to pay for it. In the long term, this proposal will assure utilities that are foundational to eventual construction of the primary mobility corridor through the Bel-Red Corridor.

D. Performance metrics/benchmarks and targets for this proposal:

None are proposed.

E. Describe why the level of service being proposed is the appropriate level:

The proposal is intended to design utility facilities concurrent with design of planned street and light rail improvements. Budget to construct the facilities has not been included, since road construction has not been proposed.

Section 8: Provide a Description of Supporting Revenue

Projects are supported by utility rates. The utility investment associated with redevelopment of the Bel-Red Corridor will be recouped via connection charges collected from benefited properties, at the time of redevelopment.

Section 9: Consequences of Not Funding the Proposal

A. Consequence of not funding the proposal at all:

1. **Legal:** None
2. **Customer Impact:**
 - Construction of multi-modal surface improvements will be delayed awaiting water and sewer facility design; or
 - (if design is not done prior to corridor construction) Newly paved surfaces will need to be dug up to allow construction of water and sewer facilities; and
 - Development/redevelopment projects may be delayed awaiting availability of sewer service.
3. **Investment/Costs already incurred:** None
4. **Other:** None

B. Consequence of funding at a lower level:

Utility facilities could not be designed for the full extent of the planned street improvements.



2011-2012 Budget Proposal

Section 1: Proposal Descriptors

Proposal Title: Utility Facilities for 120 th Ave NE Improvements – Segment 3		Proposal Number: 140.57DN
Outcome: Healthy and Sustainable Environment		Proposal Type: New Service
Staff Contact: Randy Thompson, x6919		One-Time/On-Going: One-Time
Fund: Sewer CIP	Attachments: No	Enter CIP Plan #: S-63 (new)
List Parent/Dependent Proposal(s): 130.53NN, 120th Avenue NE (Segment 2 and 3)/NE 8th Street to Northup Way		

Section 2: Executive Summary

This proposal is for design of approximately 2100 feet of 8-inch and 12-inch sewer pipe in 120th Ave NE – Segment 3, between NE 8th St and Northup Way, in conjunction with street improvements, and where needed to provide sewer service for redevelopment of adjacent properties consistent with the Bel-Red Corridor Final Report. This proposal is required as a result of Transportation’s proposal 130.91NN, 120th Avenue NE Improvements Segment 3 – NE 12th to Northup Way, and was therefore developed to approximately match that proposal’s scope.

Section 3: Required Resources

CIP Expenditure	Projected Spending Thru									
	2010	2011	2012	2013	2014	2015	2016	2017		
S-65	\$0	\$114,400	\$118,976							
Total Costs/yr		\$114,400	\$118,976	\$0	\$0	\$0	\$0	\$0	\$0	
2011-2017 Total		\$233,376								
CIP M&O		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Supporting Revenue										
		\$114,400	\$118,976	\$0	\$0	\$0	\$0	\$0	\$0	
LTE/FTE										
FTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
LTE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Section 4: Cost Savings/Innovation/Partnerships/Collaboration

This proposal involves close collaboration between Transportation and Utilities to assure the design and construction of utility facilities is done in coordination with street design and construction. Selection of a consultant or team of consultants for coordinated road and utility design may result in lower design costs.

2011-2012 Budget Proposal

Section 5: Budget Proposal Description

Much of 120th Avenue NE is currently without sewer facilities. Commercial and residential development along the street will require sewer facilities be constructed in the street, to obtain sewer service. Some existing pipes may need to be upsized to provide sufficient capacity. Utility construction will be coordinated with street construction, so that utilities are in place prior to final street surfacing.

Specific improvements included in this proposal: Design of sewer facilities needed in 120th Ave NE – Segment 3, between NE 8th St and Northup Way. Construction of sewer pipes in Segment 3 is not included in the proposed budget. Preliminary, planning-level construction cost estimate for Segment 3 sewer pipes is \$0.88 million, based on the rough estimate of length of new pipe that will be constructed.

Section 6: Mandates and Contractual Agreements

None

Section 7: Proposal Justification/Evidence (may insert charts, graphs, tables, etc.)

A. Factors/Purchasing strategies addressed by this proposal - for the PRIMARY outcome:

Factor 1: Existing and Future Infrastructure: Design of utility facilities concurrent with design of the street corridor supports *thoughtful planning and integration* of the infrastructure that will be needed to meet the City's vision for the Bel-Red Corridor. Much as the surface improvements will provide for mobility needs through the redeveloping residential/commercial district, the sewer pipes will provide needed sewer service through this portion of the corridor. The sewer pipes will be sized to convey anticipated sewage from the planned land uses.

Factor 2: Traffic Flow: Design of utility facilities concurrent with the road design supports coordinated construction of utilities with the surface improvements, so that *traffic disruptions are minimized*. The proposal addresses these Outcome Strategies for Improved Mobility: The sewer infrastructure will be designed with sufficient capacity to *accommodate future population demand*, based on land use. New sewer pipes are expected to last 125 years, on average, so pipes sized for ultimate capacity will be constructed. Utility facilities designed to deliver safe, reliable utility service are part of the *Built Environment, and promote and support the economic vitality of the City*.

B. Factors/Purchasing strategies addressed by this proposal - for the OTHER outcome(s):

This proposal supports a *Healthy and Sustainable Environment* by designing facilities that will safely remove wastewater from residents and businesses along and near 120th Ave NE. (*Water resources and clean living environment*). Well designed utility facilities minimize the opportunities for sewer pipe failures, protecting streams, wetlands, and lakes in the Bel-Red Corridor from pollution and erosion. (*Nature space*). Designing sufficient utility capacity for the planned population is *proactive* and results in *least life cycle cost* for pipelines, which last 125 years. Wastewater service is a *basic human need (Innovative, Vibrant & Caring Community)*, and integral to *public health and safety (Quality and Safe Neighborhoods)*.

This proposal responds to these City-wide Purchasing Strategies:

- Design of utilities concurrent with the road improvements assures *close collaboration between Utilities and Transportation*, as well as *Sound Transit* for coordination with light rail construction plans. It provides *best value for the community* by identifying and resolving potential design conflict issues. Selection of a consultant or team of consultants for coordinated road and utility design may result in lower design costs. (*Reduced short term financial impacts*)

The design will assure *right-sized utilities* that will provide wastewater services appropriate for the planned land use, and results in *lowest life-cycle cost* by building capacity appropriate to the expected 125+year life of the facilities (*long term financial benefits*), which is a sound *resource management* strategy.

2011-2012 Budget Proposal

C. Short- and long-term benefits of this proposal:

In the short term, this proposal will assure design of utility facilities is complete so utility facilities are ready for construction when resources to build the street improvements are secured and approved. The design will provide the basis for an improved construction cost estimate, so appropriate utility rates are collected to pay for it. In the long term, this proposal will assure utilities that are foundational to eventual construction of the primary mobility corridor through the Bel-Red Corridor.

D. Performance metrics/benchmarks and targets for this proposal:

None are proposed.

E. Describe why the level of service being proposed is the appropriate level:

The proposal is intended to design utility facilities concurrent with design of planned street and light rail improvements. Budget to construct the facilities has not been included, since road construction has not been proposed.

Section 8: Provide a Description of Supporting Revenue

Projects are supported by utility rates. The utility investment associated with redevelopment of the Bel-Red Corridor will be recouped via connection charges collected from benefited properties, at the time of redevelopment.

Section 9: Consequences of Not Funding the Proposal

A. Consequence of not funding the proposal at all:

1. **Legal:** None
2. **Customer Impact:**
 - Construction of multi-modal surface improvements will be delayed awaiting water and sewer facility design; or
 - (if design is not done prior to corridor construction) Newly paved surfaces will need to be dug up to allow construction of water and sewer facilities; and
 - Development/redevelopment projects may be delayed awaiting availability of sewer service.
3. **Investment/Costs already incurred:** None
4. **Other:** None

B. Consequence of funding at a lower level:

Utility facilities could not be designed for the full extent of the planned street improvements.