

Public Facilities, Utilities & Services

Issues & Trends

CIVIC BUILDINGS

City of Longview maintains and/or utilizes a number of other capital facilities and buildings in order to perform the necessary administrative functions of the City. The City is responsible for the maintenance and operation of approximately 274,270 square feet of buildings. An inventory of city-owned facilities is listed below.

Facility	Location	Size (sq. ft.)
Longview City Hall	1525 Commerce Avenue	32,000
Street, Traffic, Transit & Fleet Divisions	254 Oregon Way	9,318
Transit Center	1135 12 th Avenue	900
Utilities Operations Division	1460 Industrial Way	24,768
Utilities Operations Expansion	1440 Industrial Way	3,570
Regional Water Treatment Plant	101 Fishers Lane	12,000
Stormwater Division Office	Adjacent City Hall	756
Sign Masters	Adjacent City Hall	4,000
Cowlitz County Chaplaincy	Adjacent City Hall	1,725
Longview Police Department	1351 Hudson Street	34,000
Highlands Police Satellite Office	201 30 th Avenue	2,211
Longview Fire Department – Station 81	740 Commerce	14,868
Longview Fire Department – Station 82	2355 38 th Avenue	4,800
Longview Public Library	1600 Louisiana Street	33,000
Columbia Theatre for the Performing Arts	1231 Vandercook	18,000
Parks Division	706 30 th Avenue	3,700
	Auto parking garage	5,400
	Garage	462
Recreation Office	2920 Douglas Street	4,516
Mint Valley Golf Course & Facilities Maintenance	4002 Pennsylvania Pro Shop	3,716
	Warehouse/Maintenance	4,500
	Golf Cart Storage Shed	2,420
	2 nd Golf Cart Storage Shed	2,880
Mint Valley Racquet & Fitness Complex	4004 Pennsylvania	33,920
Senior Center	1111 Commerce	4,500
McClelland Arts Center	951 Delaware	11,000
Women's Club Building	835 21 st Avenue	3,800
Elk's Memorial Building	2121 Kessler	2,010
Mint Farm Regional Water Plant	1155 Weber Avenue	35 acres
TOTAL SQUARE FOOTAGE	(does not include MF RTP property)	274,270

Short-term improvements outlined in the city's current Capital Improvements Plan include:

- **New Transit Administration/Operations Center** – RiverCities Transit operates out of the Longview City Shop, located at 254 Oregon Way. The facility is approximately 8,000 sf and houses all transit administrative staff, driver break rooms and contracted Paratransit Services staff. The fleet maintenance functions that support the entire city are also housed here. RiverCities has outgrown this facility and is in need of a replacement, estimated to cost approximately \$10 million. This project is listed as a capital improvement for 2019 construction.
- **Downtown Transit Transfer Center** – Reconfigure site layout to improve bus circulation and parking, improve safety of pedestrians, remove enclosed shelters that attract over-night usage and review options for expanding the existing facility. (\$ unknown)
- **Library Remodel/Modernization** – Design for a modernization remodel to the Longview Public Library to upgrade and modernize electrical/technological capabilities and to create flexible spaces to meet the many different needs of the community. The design will be used to estimate costs and develop a funding strategy. (\$50,000)
- **Police Station Remodel** – Remodel to the Police Station to accommodate both the 2016 current organizational structure and projected growth in the next 10-20 years (\$900,000)
- **Utilities Operations Center Upgrades** – Pave bulk storage area; construct materials/equipment storage shed; demolish 1440 Industrial Way building, construct addition to existing Operations Center building. (\$500,000)
- **Decommissioning Fishers Lane Treatment Plant** – Salvage and demolish abandoned Fishers Lane treatment plant and prepare property for future use or sale (\$800,000)
- **West Longview Lagoons Revitalization** - Plan, design, and construct improvements to use abandoned sewer treatment plant site for other purposes (\$3,171,000)
- **Beech Street Box Culvert Replacement (21st to 28th)** – Replace deteriorated box culvert in street median. Incorporate open drainage greenway and low impact development streetscape feature elements of the Highlands Neighborhood Revitalization Plan, if feasible (\$2,800,000)

Other facility decisions that will be made during the next 20 years include:

- Construction of Fire Station #83 on 36,609 square foot parcel recently purchased on 2790 Ocean Beach Highway
- Combined public safety building housing the Police and Fire Departments to address lack of parking and lack of ancillary police facilities (e.g., women's locker room), and lack of Fire Department space. (from 2006 Comprehensive Plan)
- A satellite sub-station potentially in West Longview or downtown, depending on the location of a combined public safety building. (from 2006 Comprehensive Plan)

The city is continuously implementing technology installations and upgrades to improve service delivery efficiencies and to provide offer convenience and security to its customers. Short-term improvements include:

- **Encryption Software for Information Technology** - Protect transmitted information in accordance with regulatory requirements

- **Laser Fiche Records Management Module for Information Technology** - Improve records management, manage digital content and eliminate paper
- **Meritage Software Add-On for Community Development** - Offers a mobile addition to the Meritage permit software
- **Performance Management Software for Finance** - Acquisition and development of Performance Management Software
- **Scheduling Software for Police Department** - Provide hosted scheduling software to replace antiquated paper system
- **Water/Sewer Wiring for Technology Equipment** - Update wiring to handle technology in the Water Department building
- **TRIMS Software Replacement for Parks** – Replace TRIMS tree and asset management software with Lucity
- **Trimble Unit for Parks (GPS Tree Sites)** - Purchase of GPS location tool for tracking trees in the urban forest
- **SCADA System Additional Sites** - Install telemetry and computer controls at additional sites to remotely monitor and control potable water facilities, pump stations and storm water facilities.
- **Implement Maintenance Management System** - Implement Lucity maintenance stormwater management system

PARKS AND OPEN SPACE

Longview's Parks & Recreation Department is organized into five branches:

1. Recreation Services
2. Park Services
3. Urban Forestry
4. Mint Valley Golf Course
5. Mint Valley Racquet Club & Fitness Complex

Parks and recreation facilities serving the residents of Longview include City and County facilities. The City of Longview maintains over 435 acres of park and open space land that offer active and passive recreational opportunities to residents and preserve natural areas of the community. Facilities owned and operated by Longview include 3,600 feet of shoreline access, 48 acres of surface water, and 5.6 miles of trails. Most of the existing trail miles are located around Lake Sacajawea. (from 2006 Comprehensive Plan)

PARK LEVEL OF SERVICE STANDARDS (LOS)

Based on current City of Longview Parks and Recreation "Level of Service" (LOS) Standards, the City currently has a deficiency of neighborhood parkland, community parkland, and trail mileage. This deficiency will continue to increase as population growth occurs. Geographically, West Longview and the northern area in the hills tend to be underserved by neighborhood parks. In the future, Longview should pursue acquisition of undeveloped parcels in areas where development is likely to occur in order to protect natural areas and environmentally sensitive sites and serve as the location for future parks

PARK LEVEL OF SERVICE				
Class	Level of Service	Existing Demand (2010)	Projected Demand (2022)	Current Supply
		36,648	>41,505*	
I (Neighborhood Play Lot)	No numerical standard	-	-	2.5 acres
II (Neighborhood Park)	7 acres/1,000 population	257 acres	291 acres	84 acres
III (Neighborhood Passive Area)	No numerical standard	-	-	159
IV (Community Park)	3 acres/1,000 population	110 acres	125 acres	107 acres
V (Regional Park)	No numerical standard	-	-	-
VI (Special Use Facilities)	No numerical standard	-	-	-
VII (Trails)	1 mile/1,000 population	37 miles	42 miles	12 miles
* Based on annual increase rate of 1% stated in the City of Longview Comprehensive Plan 2-6				

and recreation facilities.

Source: City of Longview 2016 Draft Park and Recreation Comprehensive Plan

As indicated in the analysis of neighborhood parks, there is a current deficiency of 173 acres and a projected deficiency of 207 acres by 2022 if no further acquisition of park land is pursued. A new Parks & Recreation Comprehensive Plan is being developed in 2016.

Park improvements recommended in the draft plan include the following:

Park	Cost Estimate
7th Avenue Park	\$1,140,000
<ul style="list-style-type: none"> • Shelter Upgrade • Field Lighting • Artificial Turf 	
Altrusa Park	\$65,000
<ul style="list-style-type: none"> • Water Tap • Irrigation for Sports Field 	
Archie Anderson Park	\$305,000
<ul style="list-style-type: none"> • Asphalt access to Highlands Trail • Playground Replacement • Restroom Replacement • Water Main Line Replacement • Solar Park Lighting 	
Bailey Park	\$105,000
<ul style="list-style-type: none"> • Playground Replacement • Water Tap 	
Cloney Park	\$160,000
<ul style="list-style-type: none"> • Playground Replacement • Trail Upgrade • Shelter Replacement • Resurface Skate Bowl • Drainage for BMX park 	
Community Gardens	\$75,000
<ul style="list-style-type: none"> • Irrigation System • Road Enhancement 	
Gerhart Gardens Park	\$3,185,000
<ul style="list-style-type: none"> • Restroom Replacement • Parking Lot Resurfacing • Fish Cleaning Station • River Dredging* • Boat Ramp Installation* • RV Park Construction* 	
John Null Park	\$105,000
<ul style="list-style-type: none"> • Tennis Court Resurface • Tennis Light & Control Upgrade • Picnic Shelter Installation 	
Lake Sacajawea Park	\$745,000
<ul style="list-style-type: none"> • Remove & Replace Bathrooms • Upgrade Shelters 	

<ul style="list-style-type: none"> • Playground Replacement – Elks • Upgrade Irrigation Equipment • Reconstruct Docks • Erosion Control* • Replace Well Pump • Upgrade Information Signs • Picnic Table Replacement • Path Drainage • Development of Rental Space 	
Mark Hoehne Park	\$125,000
<ul style="list-style-type: none"> • Bridge to Access Park • Water Tap • Sport Field Development • Solar Park Lighting 	
R.A. Long Park	\$150,000
<ul style="list-style-type: none"> • Sidewalk Repair & Replacement • Electric Service Upgrade • Irrigation Upgrade • Holiday Lighting Upgrades 	
Ralph Kellogg Park	\$90,000
<ul style="list-style-type: none"> • Playground Replacement 	
Rotary Park	\$60,000
<ul style="list-style-type: none"> • Tennis Court Resurface • Solar Park Lighting 	
Roy Morse Park	\$899,000
<ul style="list-style-type: none"> • Restroom Facility Upgrade • Fence Extension & Heightening • Field Lighting • Artificial Turf • Covered Picnic Shelter • Shade Safety Screen • Disc Golf Extension 	
Vandercook Park	\$72,000
<ul style="list-style-type: none"> • Tennis Court Resurface • Sidewalk Repair & Replacement • Shuffleboard Court Upgrade 	
Victoria Freeman Park	\$125,000
<ul style="list-style-type: none"> • Playground Replacement • Shelter Replacement 	
General Improvements – All Parks	\$775,000
<ul style="list-style-type: none"> • Water Meter Reduction • Install Trails at Parks • All Park Branded Signage • Playground Drainage • Diking District Trail Installation • Additional Holiday Displays 	

Source: City of Longview 2016 Draft Park and Recreation Comprehensive Plan
***No cost estimate provided**

New parks and/or facilities recommended in the draft plan include:

- **Cowlitz River Property/3rd Avenue Park** - This site is a 2.3-acre undeveloped property fronting the Cowlitz River. The adopted master plan includes developing the site as a trail head with river overlook areas and picnic tables. This should be developed as a Neighborhood Park and Passive Area. Estimated cost: \$120,000
- **Regency Park** - This 7.8-acre site is currently maintained by the Parks Department, but is not being used for park services, as it is undeveloped. There is a park deficiency in this area; therefore, the site should be developed to include play structures, open areas, and nature amenities due to the type of land use. It would be classified as a Neighborhood Park and Passive Area. Estimated cost: \$120,000

The draft plan also recommends upgrades and modernization to these facilities:

- | | |
|--|-------------|
| • Elks Memorial Building | \$ 185,500 |
| • McClelland Center | \$ 130,000 |
| • Mint Valley Golf Course | \$3,183,500 |
| • Parks Maintenance Facility on Douglas Street | \$ 40,000 |
| • Recreation/Admin. Building at Cloney Park | \$ 188,000 |
| • Senior Center on Commerce Avenue | \$ 156,500 |
| • Women's Club Building | \$ 211,000 |

Trail improvements are proposed at:

- Altrusa Park Trail - Expand trail as development continues during land development phases. Explore ways to connect to future diking trails. Erosion control on berms adjacent to trail
- Cloney Park Trail – Continue trail maintenance/upgrades when necessary.
- Highlands Trail - Explore ways to expand mileage to allow for additional non-vehicular options of transportation throughout the Highlands neighborhood; Explore options to work with Bonneville Power and railways to connect to diking trails and Gerhardt Gardens Park.
- Lake Sacajawea Trail - Explore options to prevent low area degradation, water retention and erosion control. Redesign/redevelopment of Hemlock Walking Path area. Continue support for funding rock maintenance paths.
- Pacific Way Trails – Explore options to open the Mint Valley Golf Course section that acts as a barrier to connectivity for both sides of the trail. Work with diking districts to connect future trails.
- R.A. Long Park Trails – Install historical information panels. Repair sidewalks.
- Vandercook Park Trail – Repair sidewalks.

New trails are proposed for:

- Diking District Trails - The City has a history of partnering with the diking district and other public utility groups to aid in the addition of publicly used trails. The Parks and Recreation Department already agrees to help maintain the Altrusa Trail and Pacific Way Trail which reside on top of dikes within the district. As the City continues to grow, less land is available for purchase or installation of trails. Because of the trail deficiency within the City, it would be most advantageous to partner with the diking district to provide access to the land owned by the district. A proposed trail that would encircle the City has been discussed as an option. There are approximately six major sections where linkage to the loop would have to be created; this includes the already constructed section adjacent to the Mint Valley Golf Course currently closed for public access. It is understood that the City and the Diking District are not the only two stakeholders; individual home owners, businesses, and other entities would have to be in agreement and involved to coordinate a project of this nature. The City could help provide maintenance to the trails and in turn the diking district could provide the land. With the lack of trail mileage, this partnership seems the most advantageous in supporting the health of our community, allowing for additional recreation tourism and helping to create quality of place.
- South Cowlitz River Trail - The goal of the proposed South Cowlitz River Trail is to connect Longview and Kelso on both sides of the Cowlitz River, with the Castle Rock-to-Lexington Loop Trail to the north and continuing south to Gerhart Gardens Park. The trail will substantially be located on public lands where public access can easily be guaranteed, and on some sections access can be achieved through various agreements or easements, or through purchase from willing sellers. Where feasible, the trail is planned to run along the Cowlitz River, offering terrific views overlooking the water. Because some sections of the riverbank are privately owned or have insufficient shoreline, the plan shows alternate routes creating interesting diversity in scenery and topography.

A 2015 citizen survey revealed some strong preferences for consideration of improvements and upgrades to the city's parks system:

- By far, the most visited park by respondents is Lake Sacajawea (91%). Roy Morse Park was second, with a close race for third with John Null Park having only 8 more responses than 7th Avenue Park.
- The top three reasons that respondents use the park system; enjoying being outdoors in nature, to walk trails and paths, and to play on playgrounds.
- 84.4% of respondents rate natural open space in the community important or very important
- 74% would rate the physical condition of the parks as good to excellent, while 23% would say fair/satisfactory, and 3% would say the condition is poor.
- When asked what they would most like the city to choose as potential park improvements the top three priorities were 1) Upgrades to Park Restrooms, 2) Walking/Biking Trails, 3) Playgrounds
- Respondents were asked to report what their level of support would be for potential projects that the department could make. The most supported improvement was upgrading or installing park restrooms (90%), then as a close tie for second, most support improvements to upgrade existing neighborhood parks (84.8) and developing multipurpose bike/walking trails (84.1%).

- When asked what the reason would be for seldom or never using City Parks, 76% of answerers said the question did not apply because they use the parks, but the top reason for 7.5% (30 respondents) was that they felt unsafe. Eleven responders specifically wrote in that the bathrooms (lack of, upkeep, maintenance) were the reasons they did not use the City parks.
- The top three underserved neighborhoods chosen by surveyors, Highlands (27%), Downtown (28%), and West Longview (23%), coincide with neighborhoods that the City has identified as areas of deficiency.
- If given the choice to specify the exact park respondent's tax dollars could improve, the top three would be Lake Sacajawea (60%), Roy Morse Park (21%), and 7th Avenue Park (15%).

EDUCATION

PUBLIC SCHOOLS

LONGVIEW SCHOOL DISTRICT NO. 122

The Longview School District No. 122 serves most school age Longview residents. The Longview School District includes eight elementary schools, three middle schools and two high schools, along with administration, maintenance and operations facilities. With the exception of one elementary school (Robert Gray), all of these facilities are located within the Longview city limits.

The Longview School District has approximately 6,800 students and 857 employees. Maximum capacity of the existing school facilities is estimated at 7,600 students. Under Initiative 1351, which seeks to lower classroom size, the school district's capacity is 6,476. These figures do not include pre-school enrollment or capacity. The Broadway School offers pre-school education and has a capacity of 195 students.

The Longview School District utilizes maximum class size ratios (students per class) as a Level of Service (LOS) indicator. The class size ratios are shown in Table 7-5. These are targets for current year and most likely into future unless state funding is identified to hit the Initiative 1351 targets

CURRENT MAXIMUM CLASS SIZE RATIOS	
School/Grade	Class Size Ratio (Students:Class)
Kindergarten	19:1
1 st Grade	20:1
2 nd Grade	21:1
3 rd Grade	23:1
4 th Grade	25:1
5 th Grade	26:1
6 th – 8 th Grade	27:1
9 th – 12 th Grade	27:1

Source: Longview School District

The district established a Facility Advisory Committee that is currently working on a Facility Master Plan to address facility needs for the next 5-15 years. The Construction Services Group, which is part of ESD 112, has been assisting the committee. A draft Facilities Plan is anticipated for presentation to the school board by the fall of 2016.

Over the past 10 years, there has been a decline in enrollment of students due to an aging population, which brings declines in birth rates, and an unstable job market that dampens migration into the region.

Student Population Projections

Before the 2016 facilities plan was developed, the district engaged in demographic analysis to project the number of students anticipated over the life of the plan. Five different population projection methods were evaluated. These five approaches were used to select a “best estimate” of student population growth, which is shown below as the most likely growth scenario, along with a lower and higher student estimate to create “bookends” for the population estimate, as population projections are sensitive to a number of factors.

Year	15 - 16	16 - 17	17 - 18	18 - 19	19 - 20	20 - 21
Lower Estimate	6,442	6,409	6,319	6,233	6,159	6,088
Best Estimate	6,505	6,510	6,478	6,448	6,429	6,417
Higher Estimate	6,569	6,612	6,636	6,662	6,699	6,745

Source: Longview School District

Impacts of Initiative 1351 (I-1351)

In 2009, the Legislature created the Quality Education Council. The purpose of the 13-member council was to develop recommendations for the implementation of a new definition of basic education and for the financing necessary to support it. The QEC’s plan, which the Supreme Court endorses, fully funds basic education by 2018 in three phases:

- Phase I: Full state funding of transportation; maintenance, supplies and operating costs; full-day kindergarten; and lower class size in grades K–3 (maximum 17 students per teacher)
- Phase II: Full state funding of the salaries of current educational staff
- Phase III: State funding for enhanced levels of educational staff and enhanced salaries

On January 5, 2012, the state Supreme Court issued *McCleary v. State of Washington*. In essence, the Court ruled that Washington was not adequately funding basic education. The *McCleary* decision endorses the approach outlined by the QEC, as highlighted above, and requires a legislative plan to achieve significant progress by 2018. In November 2014, voters approved initiative 1351, which mirrored many of these concerns. The focus of the initiative was to reduce the number of students per class in grades K-12 via legislative funding of annual investments that would lower class sizes and increase school staffing in order to provide every student with the opportunities to receive a high quality basic education. The initiative was also intended to improve student performance and graduation rates.

For building capacity, Longview School District has used the I-1351 class size limits. Below are the estimates of building capacity, both with and without the impacts of I-1351. It is clear that the capacity of the district’s elementary schools is most impacted by Initiative 1351.

Initial Findings - Capacity

Elementary Schools

- Projected to be **96%** utilized by 2021 assuming current class size standards.
- Projected to be **126%** utilized by 2021 if I-1351 fully implemented.

Middle Schools

- Projected be **64%** utilized by 2021 assuming current class size standards.
- Projected to be **69%** utilized by 2021 if I-1351 fully implemented.

High Schools

- Projected be **89%** utilized by 2021 assuming current class size standards.
- Projected to be **98%** utilized if I-1351 fully implemented.

Initial Findings – Physical Condition

Physical Condition Assessment includes foundation, walls, roof, HVAC, electrical, plumbing, etc. Each system sub-score is “weighed” according to its proportional value to the building as a whole. The following schools (all buildings) are in “Poor” condition and approaching the need for complete modernization or replacement:

- Broadway
- Columbia Valley Gardens Elementary
- Discovery High School (alternative high school located on R.A. Long Campus)
- Mark Morris High
- Mint Valley Elementary
- Olympic Elementary

The following schools have selected buildings in “Poor” condition that are approaching the need for complete modernization or replacement:

- Cascade Middle
- Columbia Heights Elementary
- Kessler Elementary

Initial Findings – Functional Adequacy

The following schools have significant elements of “Poor” or “Unsatisfactory” functional adequacy that should be corrected when the buildings are modernized or replaced for physical condition reasons:

- Broadway Elementary
- Columbia Heights Elementary
- Discovery
- Mint Valley Elementary
- Northlake Elementary
- Olympic Elementary
- R.A. Long High

The district’s elementary schools, taken as a whole, need major renovations or replacement, particularly if classroom sizes are lowered to the levels specified in Initiative 1351. Once the Facilities Plan is completed and approved by the School District Board of Directors, a strategy will be developed for addressing the needs at each site. The facilities plan may also identify opportunities where coordination with the city may be appropriate.

LOWER COLUMBIA COLLEGE

The Lower Columbia College campus includes 27 buildings located on 38+ acres. The campus is situated at the intersection of 15th Avenue and Washington Way in Longview, Washington. Lower Columbia College (LCC) is one of the oldest community colleges in the state. The vast majority of LCC students are from the college's official service district, including Cowlitz and Wahkiakum Counties. Although LCC serves many students from Oregon, it is not part of the college's official service district. A small percentage come from elsewhere in Washington State (including Clark County) and out-of-state locations

As of 2013, LCC served 3,363 full-time equivalent (FTE) students, and a total of 7,164 full and part-time students. Of those, 54% are full-time and 46% are part-time. There has been a decline in enrollment from a high of 4,310 students in the 2009-2010 academic year.

Lower Columbia College is bringing baccalaureate degree programs to its local community at minimal cost through the creation of a University Center. To counter one of the lowest bachelor degree attainment rates in the state, LCC has partnered with Eastern Washington University, WSU Vancouver, City University of Seattle, and Concordia University. In 2014, local residents will have access to six high-demand bachelor's degree programs with university faculty and support staff located on the LCC campus. Online offerings at LCC have significantly increased enrollment in online and hybrid courses and programs while teaching all students how to better use digital resources. Nearly 80 courses taught online each quarter allow residents who cannot commute to campus for traditional classes to pursue college goals.

The college sees its program offerings as opportunities to address the following trends:

- Longview is a transportation-centric city, with connections to the port and Interstate 5. There is a great potential for workforce training and employment opportunities with paper mills and shipping companies. A trucking program at LCC would continue to enhance this connection.
- Welding is in high demand by local businesses. The majority of union workers will be retiring. The Longview community will need trained welders and with welders retiring, LCC will be a source for training new workers.
- Digital literacy in Longview and the surrounding area is low. Computer classes of varying degrees, basic to advanced, would be beneficial to many local residents.
- There is a relatively large ex-offender and elderly population in the area in need of computer and vocational skills. Generally weak in math and reading, they look to LCC to improve their education.

RECENT CAPITAL IMPROVEMENTS

The 2005 master plan called for six major capital improvements. Four of the six projects have been completed. The Health/Sciences Building was replaced with a new building to house the physical and natural sciences as well as instructional space for nursing and related allied health programs. The Fine

Arts Building was replaced with a 45,000-square-foot performing arts facility on Maple Street, including a large auditorium space. Several significant upgrades have also been made to the campus gymnasium.

STRATEGIC OPPORTUNITY INITIATIVES

Prior to embarking on a Master Plan for the LCC campus in 2015, the college embarked on a strategic planning effort to identify opportunity areas. These opportunities were informed by current trends in education, which include:

- Personalized learning
- Learning communities/ integrated learning/ collaborative learning
- Technology enhanced learning
- Learning partnerships/connected learning
- Seamless, lifelong learning
- Accessible learning
- Learning signature (alignment and coherence around central learning promises, communication of mission and increased effectiveness/efficiency in use of resources)

The four strategic opportunities of focus identified during this effort were: (1) eLearning, (2) Economic Development, (3) University Center, and (4) International Programs. These opportunities were more fully developed in a strategic plan that outlined the relationship of the Master Plan and facility improvements to these initiatives.

2015 CAPITAL PROGRAM

Lower Columbia College updated its campus Master Plan in 2015, outlining several capital projects the college has planned and programmed as a part of their capital program. The LCC Campus is zoned C-C as part of the Civic Center District per the Longview Zoning Map. Properties in the Civic Center may be used for “offices of professional and business use” as well as public or quasi-public buildings, where quasi-public buildings are defined as: “a building, although privately owned where people congregate in considerable numbers for purposes fairly deemed to promote a public purpose or to serve a public use.” (LMC 19.09.115; 19.39.010).

FACILITIES CONDITION SURVEY

In accordance with State of Washington requirements, the state of all buildings on campus was assessed in 2013 as part of a Facilities Conditions Survey (FCS). The process seeks to identify priorities for repair, upgrade or replacement using a scoring system of 146-730 with projects on the lower end of the scale being deemed in better condition.

Renovating existing buildings at LCC is complicated by the liquefaction risk presented by the site. Due to the increased risk to life safety they pose, such buildings are considered prime candidates for replacement even if the FCS targets them for renovation since the 2013 FCS does not recognize the seismic safety issues related to these buildings. Several instructional buildings on campus including Main, Vocational, Physical Science, and Applied Arts buildings lack automatic fire sprinkler or

suppression systems. All new buildings should be fitted with fully automatic wet pipe sprinkler systems throughout in keeping with current codes.

15-YEAR DEVELOPMENT PLAN

There are three building replacements proposed in Phase 1 of the 15-Year Development Plan: The Vocational Building, Applied Arts and the Science Building. These are proposed to be consolidated into a new facility.

VOCATIONAL & BUSINESS INFORMATION TECHNOLOGY BUILDING

The first phase will be a replacement of the Vocational, Applied Arts, and Science Classroom buildings with one 65,000 GSF building that will house similar vocational and business programs and transitional studies. The replacement structure will be designed not only to serve these LCC programs and the shared assembly of formal and informal learning spaces but it will also have the flexibility to accommodate local workforce training. LCC will partner with the City of Longview to develop workforce training packages to respond to the needs of regional business and industry.

OLD MAIN REPLACEMENT

Phase 2 of the 15-Year Facilities Master Plan will replace the 1950 Old Main building and 1957 addition while preserving the 2003 addition. The replacement structure would also include the 1960 Administration Building. There is also the potential of consolidating other functions in the replacement structure which furthers the goal of multi-purpose facilities that can share infrastructure and consolidate important functions in the center of campus. With appropriate funding in partnership with the universities that would occupy it, a University Center may also be part of this project.

SITE IMPROVEMENTS

The facilities replacement projects proposed in the 15-Year Plan also includes accompanying site improvements to address campus site issues:

- Strengthen the civic presence of the College, especially as it relates to the historic R. A. Long Square.
- The campus is lacking a front door experience on the east side of campus that connects it to the historic downtown.
- Strengthen connection to parking lots so students don't feel like they are entering from the back door.
- Provide fire department access in conjunction with new buildings.
- Improve quality of open space to serve outdoor gathering and informal recreation.

MINOR WORKS

Several smaller projects are planned during the 15-year plan horizon, which do not involve building replacements.

ALAN THOMPSON LIBRARY

This building is not scheduled to be replaced in the 15-Year Plan. The library is an important place for informal interaction for students who are taking many classes online. As e learning and hybrid classes increase there will be more demand for group interactive space and learning support services which are typically provided in the library. It is likely that in the next 15-Years the library will require some investment to keep it relevant and functional.

STUDENT CENTER

LCC's plans for an International Students program will impact the use of space in the Student Center. A kitchen or gathering area for international students to share cultural activities, practice faith and celebrate holidays would ideally be located in the Student Center. A more detailed evaluation of space usage in the Student Center should be undertaken to evaluate if some functions can be relocated to other buildings to free up space for functions that support the international student community.

PARKING FACILITIES

For educational facilities including community colleges, there must be "one parking space for each five students plus one parking space for each full-time employee and each full-time faculty member" located no more than 600' from the building entry. Surveys of existing parking space counts and locations indicate the campus currently meets the required amounts. The total number of current parking spaces, however, does not include a very large buffer of additional spaces beyond the code minimum. Significant growth in either population would yield an increased need for parking from both a practical and code perspective. Although existing parking quantities meet code minimums, the distance of most parking from the academic core is an issue of concern for faculty and staff because of its impacts on safety, convenience, and student satisfaction. As the college has no designated formal entry, visitors entering campus generally choose the closest parking lot in the direction they are travelling. Solutions to circulation issues will involve further input and analysis by both the College and the City to reach long-term solutions.

PEDESTRIAN & TRANSIT NEEDS

Lower Columbia's links to downtown and the commercial core to the northwest could be reinforced with additional, safe pedestrian routes and crosswalks across 15th Ave and Washington Way further to the east. These links should take into account existing bus stops, the dominant pedestrian paths currently in use, and the city's expressed desire to connect the commercial streetscape downtown more closely to the college. The city's initiatives focus on creating better physical connections for automobiles and pedestrians between the two, as well as blending their civic character by adding street trees, landscaping, and additional pedestrian paths similar to those already present along the southern edge of campus.

River Cities Transit serves the LCC campus with 4 direct routes from Longview, Kelso and the surrounding area as well as 1 additional route downtown stopping near campus every half hour and approximately 74 times a day during the week. Through a new transit program with River Cities, all LCC students and faculty with a valid ID are eligible to ride the buses for free.

The frequency and proximity of public transit stops to campus appears to be adequate for student, faculty, and staff needs at present, particularly when considering the free ridership agreement between RCT and LCC. The location of those stops, however – across arterial streets such as 15th and at busy intersections without crosswalks – can disrupt traffic flow on campus and even leave pedestrians exiting public transit vulnerable to being struck by motorists.

LONG RANGE DEVELOPMENT PLAN

The Long Range Development Plan (LRDP) proposes a vision of the campus that builds upon the Facilities Maintenance Plan (FMP) improvements proposed in the 15-Year Plan. At the end of the 15-Year Plan all of the original 1960's buildings with their structural and programmatic deficiencies will have been replaced. The LRDP looks at the long term of 25 – 30 years when programs will evolve and buildings will reach the end of useful life. The Alan Thompson Library and the Don Talley Building were built in 1977 and 1981. They will be 50 years old at the completion of the first two phases of the FMP. They are more substantially built than the original 1950's and 60's buildings and could be substantially upgraded through renovation or could be replaced.

Nationally, libraries are beginning to accommodate student services and related support functions. In the LRDP the current library would either be replaced or may be renovated and expanded to accommodate increased needs. Alterations likely to be needed during the 15 Plan will have to be balanced with the long term vision for the library.

The campus has capacity for long term growth while maintaining a familiar relationship to the historical campus layout. The parking lot west of the new Health and Science building could be a replacement site for the Home and Family Life building or a growth project. Parking would be lost to a building site but could be added on the current Home and Family Life Building site once that building is replaced. Using the parking lot for a building site creates a well-defined collegiate street along the south side of the campus. The open area between the gym and the library may also be a site for a future building. The CEO building, which would be located next to Campus Services, would remove some parking. It can be built sooner if needed, as long as the resulting parking supply meets land use codes at the time of construction.

UTILITIES

WATER SYSTEM

The Mint Farm Regional Treatment Plant (MF RTP) was put into operation in January, 2013 when the City transitioned from the Cowlitz River to a groundwater source for its municipal drinking water supply. The system also serves the Beacon Hill Water & Sewer District (BHWSD).

Between 2005 and 2010, the City realized a 4.2% reduction in Average Day Demand (ADD) and a 17.4% reduction in Maximum Day Demand (MDD) through its leak detection and meter replacement programs, improved data collection, rate increases, and by promoting water conservation measures during peak usage months. The City's current Water System Plan promotes a more modest but realistic 1%- 3% conservation goal.

Approximately 61 percent of the yearly water demand is from residential customers (48.4 percent single-family and 13.3 percent multi-family). Commercial demand accounts for approximately 19 percent of the total annual demand. The southern side of the service area is heavily industrialized. Most of the existing industries obtain process water from on-site wells or the Cowlitz or Columbia rivers but also receive potable water from the City.

The Mint Farm water treatment facility supplies water to both the City and Beacon Hill Water and Sewer District. The treatment process consists of pressure filters using granular media filtration with sodium hypochlorite oxidation for iron and manganese removal. The treatment plant facility consistently produces water which meets or exceeds all state and federal drinking water standards but a 2014 survey found that 82% of water customers are dissatisfied with their water. Survey results prompted a detailed examination of the City's drinking water and a Customer Advisory Committee (CAC) was convened to address aesthetic water quality issues focusing on offensive taste and odors, and white spotting due to moderate hardness and dissolved silica. Based on the CAC's recommendation, the City is currently investigating options to return its source of drinking water to the Cowlitz River using horizontal collector wells in lieu of a traditional surface water intake. Meanwhile, the City is also investigating interim improvements to mitigate taste and odor complaints and continues to optimize its Mint Farm facility. In August of 2015, City Council approved a \$300,000 feasibility study on Ranney wells from the Cowlitz River. That study is underway at the time of this writing.

The City has an intertie with the City of Kelso, and an emergency connection to Weyerhaeuser can be installed quickly, both measures that could potentially be utilized in an emergency event. However, the Weyerhaeuser intertie can only provide non-potable water.

Under a Water Service Area Agreement, water purveyors in the Longview Kelso urban area (Longview, Kelso and Beacon Hill) have a long term "wheeling" arrangement whereby the three agencies can share each other's facilities when necessary. This agreement provides backup resources in case of emergency, natural disaster, and for scheduled maintenance outages. After Mt. St. Helens erupted on May 18, 1980, Longview and Weyerhaeuser installed an emergency line connecting the City to the Weyerhaeuser water system, which comes from the Columbia River, to provide an alternate source of water to the City and the PUD. Additionally, a second water main crossing of the Cowlitz River was constructed with the

new Allen Street Bridge in 2000, increasing capacity and providing redundancy for the water main crossings connecting the Longview and Kelso systems.

The City is currently considering joining the Washington Water/Wastewater Agency response Network (WARN) that allows water and wastewater systems to receive rapid mutual aid and assistance from other systems during an emergency. Utilities sign the WARN standard agreement, which allows them to share resources with other Washington systems that have signed the agreement.

Four interties exist between the City and Beacon Hill Water & Sewer District (BHWSD) to deliver water under the water wheeling agreement. A new two-way intertie has been constructed on Curtis Drive near Sunset Drive. This improvement serves BHWSD's Lone Oak service zone via Longview's Columbia View service zone.

The City operates six booster pump stations, all of which pump to reservoirs. In addition, four groundwater wells at the MFRWTP pump through the treatment plant to the distribution system to fill reservoirs. All pump stations are controlled by reservoir level sensing, which initiates pump operation. There are eight (8) pressure reducing stations located throughout the service area.

The City has eight water storage facility sites. Capacities of the facilities range from 150,000 gallons to 12.0 million gallons. All facilities are covered. The City strives to maintain reservoir levels within 1 to 2 feet of overflow during periods of peak demand.

Longview has 240 miles of pipeline. The majority of the system is cast iron (163 miles) and ductile iron (64 miles) with smaller lengths of asbestos cement (AC), steel, polyvinyl chloride (PVC), and high-density polyethylene (HDPE) pipe.

ACCOMMODATING GROWTH

The Report of Examination completed by Ecology in October 2010 determined that the City's future water needs were projected to reach 13,500 ac-ft./year by the year 2059 which was less than the currently held surface water rights of 14,659 ac-ft./year. The new groundwater permit for MFRTP was issued based on the projected needs of 13,500 ac-ft./year. The City was not required to relinquish their existing municipal surface water rights which are now designated as secondary water rights. The total municipal water withdrawals for the City and BHWSD may not exceed 14,679 ac-ft./year; the sum of the currently held water surface water rights. From a water rights standpoint, the City will continue to be allowed to withdraw municipal water from the Cowlitz River, if necessary, to supplement the new groundwater source provided the combined withdrawals do not exceed 14,679 ac-ft./year. The City perfected its recreational surface water right for lake flushing in September 2008 and no additional water rights will be required for the next 20-year planning period.

The new MFRTP has a finished water capacity of 17.4 million gallons per day (mgd) with a build out capacity of 25.3 million gallons per day (MGD). If current growth trends continue, the plant will have sufficient capacity to meet maximum day demand until after 2032. The MFRTP is designed to allow expansion and addition of two wells and two pressure filters. The current excess capacity and future addition of two wells and pressure filters will provide the City with the ability to attract potential

industrial customers to support the City's economic stability. Long-term options for providing sufficient water in the future to meet the City's 50-year demand forecast include:

- expanding the plant to its build out capacity of 25.3 mgd
- implementing water conservation measures
- increasing treatment plant operating hours to 24 hours per day.

The results of a pump station analysis show that all pump stations have sufficient capacity to meet demand through 2032. The Main Zone's pumping capacity is the capacity of the well pumps at the Mint Farm. The Main Zone's pumps are able to meet both the City's and Beacon Hill demands through 2032.

The Indian Creek service zone requires an additional 39,000 gallons of storage to meet fire flow storage needs. However, there are other operational considerations for the Indian Creek zone. The Longview Country Club and golf course has a high peak demand during periods when they are irrigating and can rapidly deplete the storage supply in the Indian Creek zone. During periods of irrigation, the City and golf course need to coordinate operations so the City is able to provide the necessary level of service to this zone. Analysis shows that even with the additional 84,000 gallons added to the standby storage requirement; the fire flow demand is still the greater demand. It is recommended that the City provide a minimum of 50,000 of additional gallons for storage for the Indian Creek zone. This capital improvement is scheduled for 2017.

The City has continued to make improvements to the distribution system since completion of the 2005 Water System Plan. The City has dedicated \$200,000 or more annually toward replacing undersized distribution mains and intends to budget a similar amount of money annually for the foreseeable in order to continue replacing undersized or failing mains.

Replacement of undersized distribution and transmission mains within potentially high growth portions of the service area may be delayed until the growth actually occurs. This delay will allow cost associated with the required improvements to be shared with the project proponents and thus represents better planning. Implementing improvements before future needs are known precisely may result in undersized utilities.

Summary of System Deficiencies and Recommendations

Location	Deficiency	Planning Period	Recommendation
Treatment:			
	None Identified	6 and 20 Years	
Distribution/ Transmission:			
2-, 4-, and 6-inch transmission mains	Required fire flow cannot be met in portions of the distribution system	6 and 20 Years	Continue annual pipe replacement program to address deteriorating and undersized mains.
Storage:			
	Indian Creek Reservoir	6 and 20 Years	Refer to storage analysis in this section for recommendations.
Pumping:			
	None Identified by model	6 and 20 Years	Refer to pump analysis in this section for recommendations.

Source: 2012 Longview Water System Plan

WATER REUSE

The City encourages water reuse where possible. Several area industrial users have implemented onsite reuse programs that have dramatically reduced their potable water demands. Many industrial users have onsite alternative sources for process water demands. Two of the City's largest customers, Weyerhaeuser and Longview Fibre Paper and Packaging, only utilize City water for potable uses (drinking, eye washes, shower, etc.). Millennium Bulk Terminal is another large customer that only utilizes City water for potable uses. Design of the new Mint Farm Regional Treatment Plant (MFRTP) includes a backwash recovery system whereby approximately 90 percent of the process backwash water will be recycled to the head of the treatment process for reuse. It is estimated that the MFRWTP will conserve around 51.8 million gallons of water in the year 2018 with the backwash recovery system. Other reuse opportunities are evaluated on a case-by-case basis.

CAPITAL IMPROVEMENTS PROGRAM

The City has a total of six possible transmission projects and 10 possible distribution projects listed on the CIP list. The majority of the transmission and distribution CIP projects are development driven. All of the transmission main projects fall into the 20-year planning window and are all dependent upon further development in the identified areas. Table 8-2 summarizes the possible transmission main improvements. The distribution system improvements identified are presented in Table 8-3. Repair and replacement projects were selected based upon maintenance history and relative vulnerability to pipe failure resulting from age and material. These projects include replacement of deteriorated or undersized lines, which were selected based upon storage analysis and hydraulic model results. These projects will expand or improve the water main grid, providing increased flows and pressures to portions of the distribution area shown to be deficient.

Project Number	Planning Window	Improvement Importance	Project Description	Benefit	Pipe Size (inches)	Pipe Length (LF)
T-01	20	Growth Reliability	Replace 1,500 LF of 6-inch dia. pipe with 12-inch-diameter pipe from North 50th Avenue Reservoir to 10-inch-diameter pipe crossing. Project is required only if development occurs.	Provide additional capacity for future development along Clark Creek Road.	12	1,500
T-02	20	Growth Reliability Regulatory	Replace 10,000 LF of 8-inch-diameter pipe with 12-inch-diameter pipe from 12-inch pipe at intersection of Mount Solo Road and Hwy 432 (J-531) along Willow Grove Road to junction with 6-inch-diameter pipe (J-499) on Willow Grove Road.	Improve flow/pressure and allow for future development.	12	10,000
T-03	20	Growth Reliability Regulatory	Install 2,300 LF of 18-inch-diameter pipe from Mount Solo Reservoir to Mount Solo Road. Pipe size to be verified with level of development that occurs.	Improve distribution system reliability in Willow Grove area.	18	2,300
T-04	20	Growth Reliability Regulatory	Replace 4,300 LF of 8-inch-diameter pipe with 12-inch-diameter pipe along Mount Solo Rd from Ocean Beach Hwy. intersection (J-586) to intersection with Hwy. 432/ Industrial Way.	Improve distribution system reliability, flow and pressure in Mount Solo Area.	12	4,300
T-05	20	Growth Reliability Regulatory	Replace 8,300 LF of 6-inch-diameter pipe with 8-inch-diameter pipe from the southern loop of Willow Grove (J-499) to and west along the northern loop of Willow Grove (J-502). Project required if development occurs.	Improve flow/pressure and allow for future development.	8	8,300
T-06	20	Growth Reliability Regulatory	Install 5,400 LF segment and 6,200 LF segment of 8-inch-diameter pipe along northern branch of Willow Grove Road, parallel to Coal Creek Slough. Project required as development occurs.	Create distribution system looping to improve service to Willow Grove.	8	11,600

Source: 2012 Longview Water System Plan

A number of the above 20-year transmission main projects are to address fire flow and system reliability in the Willow Grove / Barlow Point area. This area is situated near the Columbia River and on soils that

could be subject to liquefaction in a seismic event. The City has had some internal discussions with regard to a possible redundant supply for this area; should future development occur. The possibilities discussed include the following:

- Installation of a transmission main west on Highway 4, then crossing the slough to connect to the existing Willow Grove area infrastructure.
- Installation of a groundwater well for an emergency source of supply. Water quality in the area is unknown. Further information would be required.
- Installation of a storage facility with pump station to provide standby storage in the event of a transmission main break.

The above alternatives would only be necessary in the event that further development occurs in the Willow Grove area and would require a more detailed feasibility evaluation before appropriate action could be determined and a corresponding CIP is developed.

Distribution System Improvements

Listed below are recommended improvements to the city's distribution system.

Project Number	Planning Window	Improvement Importance	Project Description	Benefit	Pipe Size (inches)	Pipe Length (LF)
D-01	6	Reliability	Replace deteriorated and undersized mains throughout system.	Improve reliability and provide adequate flow and pressure.	Varies	Varies
D-02	6	Reliability	Replace 3,750 LF of 4- and 6-inch AC pipe with 8-inch-diameter in 33 rd Avenue from Washington Way to Williams.	Improve distribution in this area and address concerns due related to aging pipes.	8	3,750

Project Number	Planning Window	Improvement Importance	Project Description	Benefit	Pipe Size (inches)	Pipe Length (LF)
D-03	6	Reliability Restoration	Reinstall 1,000 LF of 10-inch-diameter pipe to replace intertie between Clark Creek Lane and Clark Creek Road destroyed in 2006 flood.	Restore 2006 level of service to this area. FEMA money available for project.	10	1,000
D-04	6	Reliability Restoration	Install intertie with BHWSO on Curtis Drive. Project done jointly with BHWSO. Includes connection to City wide SCADA system.	Improve reliability and provide for future growth.	8	N/A
D-05	20	Growth Reliability	Replace 3,000 LF of 6-inch diameter pipe with 12-inch-diameter pipe on Pacific Way, east of Coal Creek Road.	Improve pressure and flow to pump stations.	12	3,000
D-06	20	Growth Reliability	Replace 3,000 LF of 6-inch-diameter pipe with 12-inch-diameter pipe on Pacific Way, east of Coal Creek Road. Phase II.	Improve pressure and flow to pump stations.	12	3,000
D-07	20	Growth Reliability	Replace 2,000 LF of 6-inch-diameter pipe with 12-inch-diameter pipe on Clark Creek Road, north of 10-inch pipe crossing. Project required as development occurs.	Provide service to future development. Pipe size to be verified with level of development that occurs.	12	2,000
D-08	20	Growth Reliability	Install 1,400 LF of 8-inch-diameter pipe on Clark Creek Road from end of existing main. Required only if development occurs.	Provide service to future developments.	8	1,400
D-09	20	Growth Reliability	Install 8,000 LF of 8-inch-diameter pipe on Harmony Drive. Required only if development occurs.	Provide service to future developments.	8	8,000
D-10	20	Growth Reliability	Install 4,060 LF of 8-inch-diameter pipe on Moilanen Road from Neimi Reservoir east. Required only if development occurs. Must be completed in conjunction with PS-05.	Provide service to future developments.	8	4,060

Project Number	Planning Window	Improvement Importance	Project Description	Benefit	Pipe Size (inches)	Pipe Length (LF)
D-11	20	Growth Reliability	Install 7,000 LF of 8-inch-diameter pipe on Coal Creek Road/ Ragland Road (combined) within Upper Coal Creek Zone 502. Project will provide service to end of the road. Required only if development occurs.	Provide service to future developments.	8	7,000

Source: 2012 Longview Water System Plan

Booster Pump Stations

The City has a total of six booster pump station projects listed on the CIP; four of which fall within the 6-year planning period. The pumping projects within the 6-year window all relate to station upgrades to improve reliability and extend the service life; it is expected the pumping capacity will remain unchanged. Projects listed for the 20-year planning period must be reassessed based on the level of development that occurs. The booster pump station improvements are summarized below.

Project Number	Planning Window	Importance	Project Description	Benefit	Total Pump (HP)	Generator Capacity (kilowatt)
PS-01	6	Reliability	Upgrade Indian Creek, Columbia View and Neimi Pump stations. Replacement of pumps and suction/discharge piping manifolds to improve hydraulics of pump station at Indian Creek. Includes installation of meter all at pump stations.	Improve reliability of pump station and extend service life. Provide capacity for BHWSD intertie in Columbia View service zone.	TBD	TBD

Project Number	Planning Window	Importance	Project Description	Benefit	Total Pump (HP)	Generator Capacity (kilowatt)
PS-02	6	Reliability Storage	Replace Hillcrest pump station. Includes installation of meter at pump station and lowers pump suction elevation. Includes the demolition of tanks 1 and 2 to allow for construction of a combined pump station for City and BHWSD.	Improve reliability of pump station; allows full use of Hillside Reservoir capacity.	TBD	TBD
PS-03	6	Reliability	Miscellaneous pump station upgrades.	Improve reliability of pump station and extend service life.	TBD	TBD
PS-04	20	System Pressure Growth	Construct booster station adjacent to Trella Reservoir to provide service to future development. Necessary only if development occurs. Pump and pipe sizing to be determined based on development conditions at that time.	Improve pressure and flow. Provide service to future development. Provide required fire flow.	TBD	TBD
PS-05	20	Growth	Construct booster station on Moilanen Road. Required only if development occurs. (To be done in conjunction with LD-08 and storage project. Pump and storage requirements to be sized according to need at time of development.)	Provide service to future development.	TBD	TBD

Source: 2012 Longview Water System Plan

Storage Facilities

There are three projects identified in the CIP to address storage related concerns such as reliability, capacity to meet regulatory and health standards and general improvements. The results of the storage analysis indicate the City needs additional storage in the Indian Creek service zone to provide required fire flow storage. The City may choose to either replace the existing tank with a new 200,000-gallon tank or build a second 50,000-gallon tank adjacent to the existing tank. The existing tank sits on 0.23 acre according to tax records. Existing site and topographic conditions may require the purchase of additional property in order to construct the new storage facility. Preliminary evaluation indicates that it may be possible to site the new facility on the existing site. A more detailed site evaluation would be necessary before a final determination is made with regard to the need for additional property acquisition. For planning purposes, it was assumed the City would elect to replace the existing tank with a new larger tank.

Project Number	Planning Window	Importance	Project Description	Benefit	Volume (gallons)
ST-01	6	Reliability Regulatory	Replace Indian Creek Reservoir with larger reservoir (200,000 gallons) or construct new 50,000-gallon reservoir adjacent to existing to serve Indian Creek service zone. Land acquisition may be necessary for this project.	Provide adequate fire flow/standby storage and operational flexibility for Indian Creek service zone. Rectify storage deficiency identified in this WSP.	50,000 to 200,000
ST-02	6	Reliability Safety	Reservoir Paving and Security upgrades.	Install pavement and upgraded fencing at various reservoir sites to improve access and security.	Not applicable
ST-03	6	Reliability Safety	Reservoir Cathodic Protection.	Provide cathodic protection at reservoirs to prevent degradation of metal walls and appurtenances.	Not applicable
ST-04	6	Improvement Reliability	Demolition of Hillside Reservoirs No. 1 and No. 2 as part of Hillside Pump Station Replacement.	Provide space for construction of new pump station that will allow storage in Hillside Reservoirs to be fully utilized.	Not Applicable

Source: 2012 Longview Water System Plan

Planning, Controls and General System Improvements

There are a number of planning, controls, and general system improvements planned within the 6-year planning window. As discussed in Section 3.6: Telemetry and Controls, upgrades to the City's SCADA system are scheduled to begin in 2012. These upgrades will be system-wide and the capital expenditures spread over a number of years in the 6-year planning window. The City has also planned for the replacement of deteriorating large customer meters to improve system reliability and accounting. This section also includes projects to address deteriorating valves, emergency power upgrades, improved meter reading capabilities and data processing, as well as long-range planning. These projects are presented in **Table 8-6 below**.

Historical Capital Improvement Financing Methods

The City funds improvements through a combination of resources. The City has an equipment depreciation fund to build reserves for replacing equipment. Developer financing is used for capital improvements that are installed by developers as mitigation of impacts to the City water system. Developer financing may include full or partial funding for reservoirs, pump stations, and water mains that serve the particular development. Major capital improvements may be financed by issuance of revenue bonds. Revenue bond debt service is paid from monthly utility rates. Utility Local Improvement

Districts (ULID) are typically used when property owners want to install water mains in an area where there is no service. In these instances, ULID bonds are paid off by assessments levied against all properties benefited by the improvements. Fees are assessed for new water services, based upon meter size. These charges recover the cost of connecting the new customer to the utility and are sometimes referred to as connection charges. Public Works Board Loans - PWTF and DWSRF --have been used in recent history to finance large capital improvement projects related to the MFRWTP project.

The City currently maintains a rate model that is updated at least annually. Additionally, the City plans to pass annual rate increases ranging from 5 percent to 6 percent through 2016 and 2.5 percent in 2017, and has increased the Capital Recovery Fees to help recover previous infrastructure investments from future users. With the completion of the MFRTTP, the City will be able to fund the identified Capital Improvement Program through rates. The City will continue to evaluate rate structure and Capital Recovery Fees on an annual basis to monitor and account for any changes due to growth and development.

SOLID WASTE

Solid waste disposal within Longview has increased by annual average rate of 1.14% since 1997. The disposal tonnage in Longview increased by 2.4% from 2014 to 2015. Longview contracts its recycling collection and sorting services to Waste Control, Inc. Weekly recycling collection is mandatory for all residents. Commercial recycling is not mandatory, but for an additional fee commercial customers may request recycling service for selected commodities.

Since 1997, recycling in Longview has increased by an annual average rate of 4.67%. Longview plans to increase its recycling rate by 1% annually, and add a yard-waste recycling program, if feasible. Over the past number of years, Longview has endured significant contamination within its curbside recycling program, i.e. 40.6% contamination in 2005. As a result, a new public outreach campaign was developed, educating its residents about the proper guidelines for recycling. These efforts have taken positive strides towards reducing recycling contamination, dropping the residual rate by 40% from 2005 to 2015. In addition, the number of tons collected of the curbside recycling material also reduced by approximately 42%, from 4,171 tons in 2005 to 2,421 tons in 2015. The City continues to evaluate the feasibility of implementing a voluntary yard-waste program, but is likely still a few years out before the program is brought back before the City Council for consideration.

Longview has entered into an agreement with Cowlitz County to be involved in a joint City/County Solid Waste Management Plan and has been a participant since adoption of the first plan in 1972 (subsequent updates were in 1984 and 1993). The most recent update to the Solid Waste Management Plan (SWMP) was done in 2011, revising the previous plan in 2007. The current revision of the SWMP reflects changes to the County's capacity to manage solid waste resulting from the acquisition of the Weyerhaeuser Headquarters landfill. The Headquarters landfill was acquired by the County in 2011 and created 44 million cubic yards of new landfill disposal capacity within the county.

Waste Control, Inc. constructed a transfer station to handle solid waste at 1150 3rd Avenue in Longview, which became operational in July 2009. Solid waste throughout Longview is initially collected by Waste Control, Inc., sent to the transfer station, and eventually delivered to the new county landfill on Headquarters Road.

STORMWATER SYSTEM

Longview's stormwater drainage system consists of natural (e.g., rivers, creeks, sloughs) and artificial (e.g., curbs, gutters, pipes, ditches) drainage ways and facilities that hold and convey surface water by gravity flow or pumping. Longview faces a continuing need to maintain and improve the drainage facilities to manage increased runoff. Most runoff in Longview must be pumped to the Cowlitz and Columbia rivers and the underground storm drain systems in some areas are not sized to handle the increased runoff that results from new development that have increased the amount of impervious surfaces.

The Consolidated Diking Improvement District No. 1 (CDID No. 1) is responsible for operating and maintaining the major ditches and pump stations serving Longview. In the early 1980s, CDID No. 1 completed major master planned projects, including new pumps, booster stations, and raising dike heights, which significantly improved storm drainage. In 1995, CDID No. 1 constructed an additional pump station near 3rd Avenue. A continuing drainage capacity issue is the conversion of ditches into culverts. Culverts lower the capacity of ditches to retain stormwater, thereby necessitating greater pumping capacity or increasing flooding potential in the vicinity of the culvert. Culverts should be constructed only when necessary and should be done with the addition of pumping capacity or the provision of reservoir storage elsewhere.

The boundaries of CDID No. 1 encompass the lowlands of Longview and adjacent unincorporated areas but not the upland areas of the watershed, even though they generate storm runoff that must be handled by CDID No. 1. The district is operated with funds from property tax levies within the district. Upland residents, since they are not in the district, pay nothing for CDID No. 1 stormwater management, though they are part of the watershed. As an example, the boundaries of the Lexington Flood Control Zone District were changed in 1981 to incorporate upland areas of that watershed. In 1999, the City adopted a stormwater utility to provide revenue to fund drainage maintenance activities and to manage the City's compliance with pending stormwater regulations. These funds cannot, however, be used to fund CDID No. 1 activities and have not resolved the inequities between lowland and upland residents' burden to pay to manage runoff.

Additionally, segments of the CDID No. 1 drainage ditches have been identified by the Washington State as impaired water bodies, meaning that they have one or more pollutants exceeding State water quality standards. The State is required to conduct a Total Maximum Daily Load (TMDL) study of the impaired ditches to determine the amount of pollutants that the ditches may receive and still meet water quality standards. The TMDL may result in regulations to implement a cleanup plan that may further restrict or control the volume and water quality of runoff, as well as other activities that increase pollutants in the ditches.

The Longview City Council adopted the "Stormwater Runoff and Erosion Control Guidelines for the Longview-Kelso Urban Area" in April 1999 and revised them in August 2009. All construction and disturbance of land must conform to these guidelines (Section 17.80 of the Longview Municipal Code), and may require a review and/or permit.

Since February of 2007, discharges from the City's storm sewers (MS4) has been permitted by the

Western Washington Phase II Municipal Stormwater NPDES Permit. This permit requires some 99 cities and 11 counties statewide, to implement a Stormwater Management Program (SWMP) structured around the following:

- Educating, engaging, and involving the public
- Controlling runoff from development, redevelopment, and stormwater facilities.
- Identify and remove illicit discharges
- Reducing contaminated runoff from municipal operations

Future development will be affected by and will need to address storm drainage issues and requirements based on the specific characteristics and design of the new development. However, this is not expected to prevent growth from occurring.

In recent years, city has taken an innovative approach to reducing the amount of stormwater runoff and the impacts to water quality and the stormwater management system. Examples include Tennant Way improvements and the Downtown Streetscape project, which feature street trees and plantings, rain gardens and pervious pavers.

Green infrastructure techniques use soils and vegetation to infiltrate, evaporate and recycle stormwater runoff. Practices such as green roofs, porous pavement, rain gardens, and vegetated swales can produce a variety of environmental benefits while serving as part of the stormwater management system. While the primary purpose is to effectively retain and absorb rainfall, there are multiple benefits, such as filtering air pollutants, reducing energy demands, mitigating urban heat islands, while also providing aesthetic benefits.

Low Impact Development (LID) is a green infrastructure tool that works to create a hydrologically functional site that mimics predevelopment conditions. This is achieved by using design techniques that infiltrate, filter, evaporate, and store runoff close to its source. Rather than rely on costly large-scale conveyance and treatment systems, LID addresses stormwater through a variety of small, cost-effective landscape features located on-site. LID is a versatile approach that can be applied to new development, urban retrofits, and revitalization projects. ([Green Infrastructure Glossary](#))

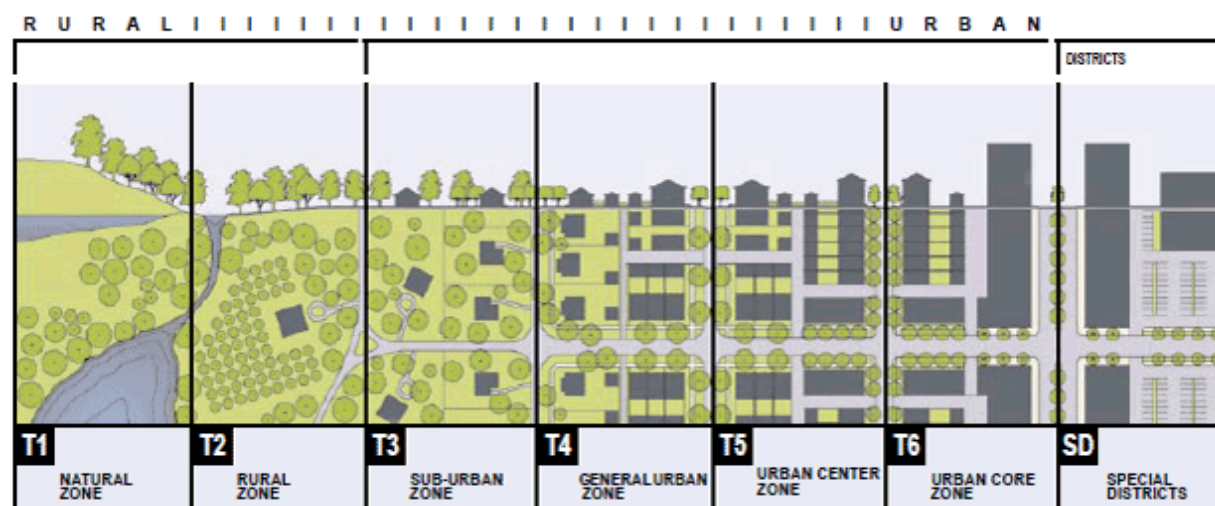
Roadway congestion, urban sprawl, water resource degradation is rooted in land consumptive practices that are often embedded in local codes. Communities are hoping to avoid these outcomes in the future by employing concepts like compact development, redevelopment, green infrastructure, and linking land use to a more varied transportation network. Low Impact Development (LID) should be a natural complement for community planning.

The purpose of the Longview LID program is to use low impact development as a stormwater management and land development strategy applied at the parcel and subdivision scale that emphasizes conservation and use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely mimic pre-development hydrologic functions. This reduces the impacts of development on the natural environment, improves water quality, and reduces demand upon the stormwater management system. LID can save ratepayers from higher investments in costly “gray” infrastructure facilities. This approach supports both redevelopment and new development, both

of which gain increased benefit from the appropriate use of increased density. When LID is deployed within a land use framework of compact development, impervious footprint is reduced while allowing more intense development.

Water resource management occurs at the watershed, sub-basin and parcel level. Land planning occurs at regional, jurisdictional and site levels. More recently, efforts to coordinate shared amenities such as parks, parking, landscaping also occur at the neighborhood level or within small area plans. Stormwater management could also be coordinated at this level with a master drainage plan.

The Congress for New Urbanism has developed the “Transect” which divides the landscape into seven broad categories depending on the degree of land conservation or development, as shown diagram below. Local LID “menus” can be based on local development patterns, receiving waterway needs, and economic development conditions.



Deployment of LID in order to provide development flexibility requires that the result be as effective or more effective than the requirement. This implies some sort of tool or framework to allow this difference to be measured, and which may not include traditional measures of effective stormwater management. Proxy measurements have been developed in some communities to help in this regard.

The city’s ordinances and stormwater manuals were updated in 2009 and 2010 to allow and promote Low Impact Development. The stormwater manual requires certain projects to retain existing resources and mimic natural processes. Designs must either use LID or enhance property value by creating an aesthetic experience focusing on stormwater and communicating the presence, function and impact of the site’s runoff. This “amenity criteria” completes a more holistic, long-term approach to stormwater site management called the Urban Drainage Triangle that is comprised of stormwater quantity, stormwater quality and aesthetics. The city promotes this approach with easy-to-use credits and simplified design criteria for LID best management practices (BMPs) that can be used in lieu of, or to reduce, the local development and redevelopment requirements. LID BMPs include dispersion,

infiltration, innovative LID designs, pervious pavements, rain gardens and planters, quality soils, and new and existing trees.

Longview has also set maximum limits on impervious cover for various types of lots, provided some flexibility in its street standards (width and sidewalks), and changed the building code to encourage native vegetation. The city plans to hire a geo-engineer to determine the feasibility of LID options for each sub-basin and soil type. A review of city codes, plans and specifications is planned to ensure that LID is embedded into the development review process, stormwater manuals, codes and plans.

CITY LIBRARY

The Longview Public Library consists of a 33,000-square-foot building that underwent a much-needed exterior restoration in 2001. The Longview library offers a varied collection of materials and a wide range of services. Resources include an automated circulation system, more than 132,000 books, and over 6,000 magazines and newspapers in the print collection. The non-print collection includes over 30,000 digital books and audiobooks, over 7,000 compact disks and cassettes, over 9,500 BluRays and DVDs, a variety of video-related equipment, microfilm, and other special materials.

The current staffing level is one full-time staff per 2,500 residents in the service population and one part-time staff per 9,000 residents in the service population

Currently, the Longview Library experiences more visits per capita than the national average, yet is staffed by fewer staff per 25,000 than both state and national averages as shown in the table below.

Library Service Comparison			
Indicator	Longview	Washington Average	U.S. Average
Paid FTE Staff per 25,000 persons in service area	9.4	13.4	12.5
Paid FTE Librarian per 25,000 persons in service area	2.4	3.0	5.0
Visits per capita	5.5	6.7	4.4

In 2016, the Library plans to have a building remodel/modernization study done for \$50,000. Other desired but unbudgeted library improvements include the following:

- Add a branch library in the future proposed Highlands Neighborhood Association community center
- Expand patron parking lot
- Remodel/modernize the main branch based on community needs.

PUBLIC SAFETY

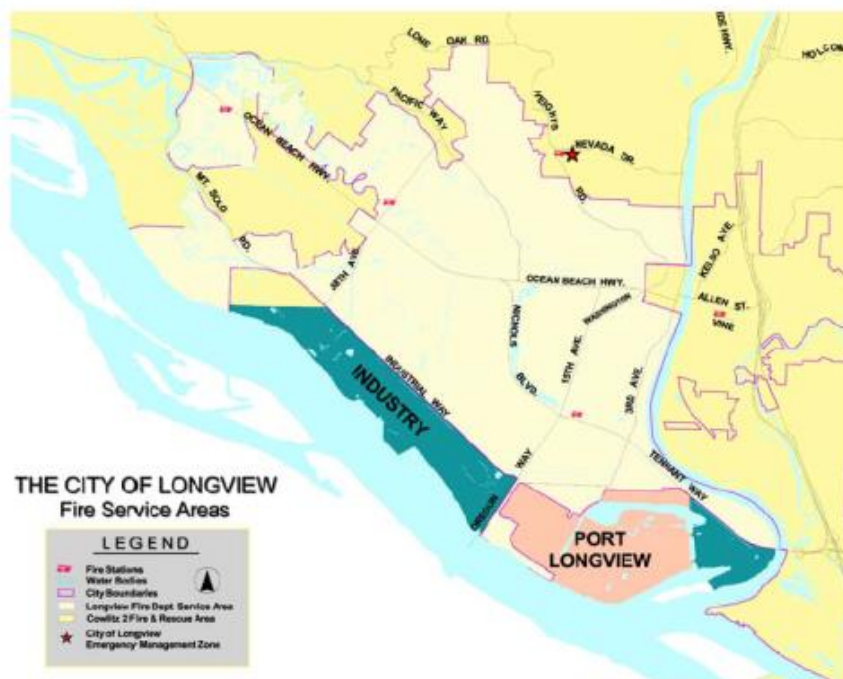
FIRE SUPPRESSION AND EMERGENCY MEDICAL SERVICES PROVIDED BY CITY

Within the City limits, fire and emergency medical services and capital facilities are managed and maintained by the Longview Fire Department. They consist of two fire stations that house support apparatus including engine companies, an aerial ladder truck, an aid company, and a number of other specialty vehicle and equipment.

The main station, Station 81, is located at 740 Commerce Avenue and was built in 1975. A minimum of six line firefighters and one battalion chief are on duty 24 hours a day, seven days a week. The Fire Marshal also works part-time out of this facility and part-time at the Community Development Department, located at City Hall.

The second station, Station 82, is located at 2355 38th Avenue and was built in 1979. The 38th Avenue station is a minimum three-person engine/aid company and houses Engine 82, which responds primarily to emergency calls in the west end of Longview. All crews from both stations backup each other; however, the station closest to the call is dispatched to achieve the quickest response time possible. Calls for structural fires require all units from both stations to respond in order to staff and perform all on-scene rescue and fire control measures. An ambulance is housed at Station 82 and when staffing levels permit it is staffed with a minimum of two personnel.

Figure 7-1. Fire Suppression and Emergency Medical Service Boundaries



City of Longview Comprehensive Plan
December 2006

Source: City of Longview GIS

The Cowlitz County 911 Center currently dispatches emergency calls. Longview's average response time to fire and emergency medical calls in 2015 was 6 minutes, 8 seconds, in response to 4,600 calls for service. In 2015, the Longview Fire Department responded to emergency calls in 5 minutes 24 seconds or less 68% of the time. The trend in fire and emergency medical calls since 1990-2009 has increased at a rate of 6% per year, however, starting in 2010 LFD discontinued response to non-emergent medical incidents. Since that time LFD's call volume has been increasing along similar increases compared to population. During the 1990-2009, the population growth in Longview was less than 1% per year. Possible causes for the increase in the number of calls rising faster than population growth may include an increase in calls for emergencies involving the abuse of controlled substances and an increasing portion of the local population who use the pre-hospital system and emergency response as their primary healthcare services. This phenomenon was part of the reason that LFD adjusted response to only emergent EMS incidents. Growth in new construction throughout the City is expected to increase demand for fire prevention services, including review of new building permits, onsite inspections for code compliance during the construction phase, and continued annual site prevention inspections.

The Longview Fire Department has a mutual aid agreement in effect with all Cowlitz County fire agencies in order to provide overlapping emergency response. The Fire Department also contracts with 14 entities outside of the city limits to provide fire protection service at industrial sites such as Weyerhaeuser, Kapstone, EGT, Specialty Minerals, and Equachlor. In conjunction with these efforts, the Longview Fire Department provides Confined Space Rescue Services and has frequent interaction with other fire agencies, especially Cowlitz 2 Fire & Rescue as they are partners in our agreements with the industrial sites.

The department staff consists of forty-three (43) firefighters, six (6) interns, three (3) battalion chiefs, a fire marshal, an administrative assistant, and a fire chief. Thirty-seven (37) of the departments personal are emergency medical technicians and eight are Paramedic trained.

LEVEL OF SERVICE (LOS) STANDARDS

Washington State House Bill 1756 requires cities and towns to adopt specific levels of fire service protections, with the level of service to be decided by each municipal government. This legislation was passed just prior to adoption of the 2006 Comprehensive Plan.

The City of Longview has adopted a Standard of Cover (or LOS level of service) that indicates a response time of 6 minutes or less 90% of the time for the first arriving unit to arrive. Currently, the response time for emergent incidents in West Longview is an average of 5 mins. 51 secs. and 61.57% of the time, less than 6 minutes.

PLANNED IMPROVEMENTS

The City of Longview is intending to enter into an annexation agreement with Cowlitz 2 Fire & Rescue and Cowlitz County regarding the current Planning Area Boundary. As a result of these discussions, a joint station outlined in the 2006 Comprehensive Plan is not currently planned.

Since 2006, auxiliary power has been added to Station 81 and Training Room/Office Accommodations are 75% at that station. Roof exhausts have not been completed for either Station 81 or 82.

The Fire Department is continuing to develop plans for a new station on the city's west side, in addition to existing Stations 81 and 82. The City of Longview owns two parcels of land adjacent just to the east of Lowe's; 2782 and 2790 Ocean Beach Highway. The city will develop a site development plan with construction following over the short term.

POLICE

This section to be developed.