

# The Willamette Falls Canal & Locks

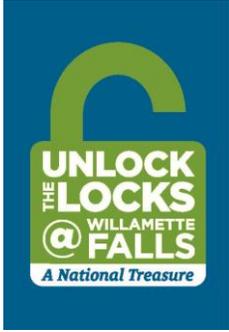
A memo for the Willamette Falls  
Locks State Task Force

Presented on January 12, 2016

By the Willamette Falls Locks Working Group

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January 12, 2016

Dear Willamette Falls Locks State Task Force:

On behalf of the Willamette Falls Locks Working Group, thank you for joining the State Task Force established by Senate Bill 131.

**The Willamette Falls Locks Working Group**

Clackamas County  
Metro Regional Government  
City of Milwaukie  
City of Oregon City  
City of West Linn  
City of Wilsonville  
eNRG Kayaking  
Portland General Electric  
Wilsonville Concrete Products  
National Trust for Historic Preservation  
One Willamette River Coalition

The Willamette Falls Locks are an important historic and navigational resource to the entire Willamette Valley. Located in Clackamas County, within the City of West Linn, the Locks unite the upper and lower Willamette River. At one time, it served as an important commercial resource for Oregon by transporting wheat, paper, passengers, and nearly 1.5 million commercial tons of timber per year from the upper Willamette River to national and global destinations downstream. Though the timber economy in Oregon has changed dramatically, we still believe the Willamette Falls Locks remains an important tool to Oregon's infrastructure. The Locks also unite the upper and lower sections of the newly designated State Willamette Falls Heritage Area, which encompasses the center of activity for Native Americans west of the Cascade Mountains and the origin of American civilization west of the Rockies.

Senate Bill 131 requires you to compile valuable information, consider means of facilitating the repair and reopening the facility, develop a plan for sustainable operations, and consider governance models for the lease or transfer of the Locks. In this process, we hope you take time to consider not only the historical and recreation interests that currently exist, but also to visualize the true resource the Willamette Falls Locks can become, such as supporting navigation around a beautiful waterfall that is otherwise impassible and encouraging a transportation alternative to inspire new commercial use through a predictable and dependable locks facility.

Please find this briefing booklet as a resource to help you achieve your first goal of compiling valuable information. The Willamette Falls Locks Working Group stands ready to support you as an acting agent to support the Locks "repair and reopen" efforts while you fulfill the requests set in motion by SB 131. We look forward to your findings and your renewed partnership.

Sincerely,

Tootie Smith, Commissioner  
Clackamas County  
Chair

Annette Mattson  
Portland General Electric  
Co-Chair

# Executive Summary

The Willamette Falls Locks Working Group (WFLWG) is a recently formed coalition of local partners whose primary goal is to see the Willamette Falls Locks repaired and reopened. Facilitated by Clackamas County, the WFLWG includes local governments, businesses, and non-profit organizations invested in the historic value and sustainable future of a working locks system.

The Willamette Falls Locks opened on January 1, 1873, linking the upper and lower Willamette River. It was the first multi-lift navigational locks in the United States, and remained the oldest continuously operating multi-lock system in the nation until its closure in 2011 by the U.S. Army Corps of Engineers (USACE). The State of Oregon contributed \$200,000 (or 1/3<sup>rd</sup> of the cost) in 1872 toward this private endeavor in recognition of the economic benefits that would be produced. In 1915, the Corps of Engineers brought the Locks into public ownership to relieve the users of monopolistic tolls. Once again, the State of Oregon contributed \$300,000 to match the Corps' \$300,000 to deepen and update the Locks, in addition to the \$375,000 which the Corps paid to purchase the Locks.

Advocacy efforts continue to seek the repair and reopening of the Locks, but the USACE is constrained by laws and regulations, bureaucratic prioritization, and limited federal funding to reach this goal. The USACE, which prioritizes “navigation” projects based on commercial tonnage, places a low priority on the Locks compared to other facilities in the region, including Bonneville Dam, the John Day Locks, and dredging the Columbia River for large vessel traffic. Without a clear future identifying commercial development along the Willamette River that would produce the tonnage through the Locks to justify federal spending against larger facilities in the region, the USACE is seeking to dispose of the Locks either by means of permanent closure or transfer of ownership.

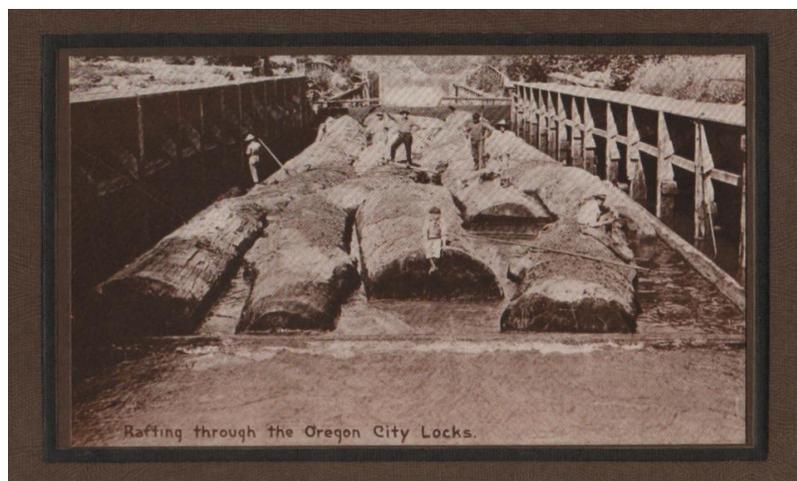


Photo courtesy of Willamette Falls Heritage Foundation

The pattern of closures over the past decade has reinforced this premise. The coalition of advocates supporting the Locks has been successful in raising state and local funds to take advantage of special federal appropriations to repair and intermittently operate the Locks,

including a total of \$2.37 million in American Recovery & Reinvestment Act (ARRA) funds in 2009. But deferred maintenance has resulted in further deterioration and closure.

This situation is common throughout the USACE system. The large dams, locks and shipping channels essential for the movement of freight on the inland waterway system of the Columbia/Snake Rivers and Mississippi/Missouri/Ohio Rivers and the maintenance dredging for the large ports (including the Port of Portland) are prioritized at the expense of small harbors (such as those on the Oregon Coast) and locks that no longer serve essential freight tonnage.

Since 2002, local advocates led by Willamette Falls Heritage Foundation (WFHF) have worked to see the Locks repaired and reopened. As a partnership of stakeholders, One Willamette River Coalition (OWRC) furthered the cause by successfully lobbying for ARRA funds for inspections and repairs, and fundraising for engineering, economic, and transfer studies. In 2012, the National Trust for Historic Preservation (NTHP) selected the Locks as one of their first National Treasure projects, bringing new resources and expertise to the cause. The NTHP pursued a National Historic Preservation Act (NHPA) Section 106 assessment, and in 2012, hired Hooley & Naito LLC to propel advocacy efforts to new heights.

Recently, the USACE applied for federal funding to pursue a pilot study that would result in a “Final Disposition Report (FDR)”. The WFLWG agrees the FDR will produce enough information to assess the costs for repair and viable options for the future use of the Locks, including:

- An updated engineering assessment of the condition of the Canal and Locks system;
- A cost estimate to complete essential repairs needed for the immediate reopening of the Locks;
- A schedule and cost for planned rehabilitation projects into the future;
- A cost estimate and economic impact assessment of permanent closure and decommissioning;
- An analysis of economic benefits of repair, reopening and continued operation;
- An evaluation of alternative ownership and operating models;
- An evaluation of environmental, economic, social (NEPA), cultural and historic (NHPA Section 106) impacts of all undertakings such as repair, reopening and continued operation vs. decommissioning and disposal as surplus property;
- An assessment of the title condition of the property;
- An assessment of the toxic chemical clean-up requirements in the canal; and
- A definition of the continued regulatory requirements that will govern the operation of the canal and locks.

The creation of the State Task Force by Oregon SB 131 is an encouraging achievement that seeks to increase state partnership in the efforts to find a future use of the Locks that utilizes its important navigational service and historical value to Oregon and the Willamette River Valley.

The following information includes relevant history and actions of the WFLWG and advocacy partners, the current status of the Locks and a historical timeline of major events and advocacy efforts of the Locks.

# History of the Willamette Falls Locks Working Group

**Mission Statement:** The mission of the Willamette Falls Locks Working Group is to lead efforts with the United States Army Corps of Engineers to repair and reopen the Locks to full operation status for river travel.

**Makeup:** *Chair:* Tootie Smith, Clackamas County Commissioner  
*Co-Chair:* Annette Mattson, Portland General Electric

*Members:*

Commissioner Tootie Smith, Clackamas County  
Commissioner Martha Schrader, Clackamas County  
Councilor Carlotta Collette, Metro  
Councilor Karin Power, Milwaukie  
Commissioner Carol Pauli, Oregon City  
Mayor Russ Axelrod, West Linn  
Mayor Tim Knapp, Wilsonville  
Sam Drevo, eNRG Kayaking  
Annette Mattson, Portland General Electric  
Dave Bernert, Wilsonville Concrete  
Sandy Carter, One Willamette River Coalition (OWRC):  
Peggy Sigler, National Trust for Historic Preservation (NTHP)  
Danielle Cowan, Clackamas County Tourism & Cultural Affairs

*Advocacy Partners:*

Michelle Giguere, Summit Strategies  
Darlene Hooley and Lisa Naito, Hooley & Naito LLC

*Support Staff to the Working Group:*

Trent Wilson, Clackamas County  
Andy Cotugno, Metro

*Supporting Clackamas County Departments:*

Don Krupp and Nancy Newton, County Administration  
Gary Barth, Business & Community Services  
Gary Schmidt, Public & Government Affairs  
Barbara Cartmill, Transportation & Development

**Timeline:**

***November 2014***

Clackamas County adopts resolution supporting repair and reopening of the Willamette Falls Locks. In addition, Clackamas County agrees to facilitate a Working Group of other resolution signatories and interested stakeholders in the Locks.

***January 2015***

The first meeting for the Willamette Falls Locks Working Group (WFLWG).

Senator Wyden submits letter to USACE requesting Locks needs. (Letter included in appendix)

Congressman Schrader tours Locks with the USACE and NTHP.

***February 2015***

WFLWG establishes its mission statement: to lead local efforts with the United States Army Corps of Engineers (USACE) to repair and reopen the Locks to full operational status for river travel.

In light of State Senate Bill 131, the WFLWG agrees to work on local advocacy, smaller projects and serve as point of contact with the USACE.

The WFLWG agrees to work in-addition to, but not in conflict with, the State Task Force goals, set by SB 131. The WFLWG agrees to share work materials with Task Force and support the goals of SB 131.

***May 2015***

USACE responds to request by the WFLWG regarding the future options of the Locks.

USACE offers to partner with the County to produce a Final Disposition Report (FDR), also referred to as a Conditions Assessment Report, in order to conclude disposition studies and produce enough information to attract a potential transferee and/or detail future options for the Locks.

The USACE proposal to pursue a FDR includes a 50/50 cost-share that would total \$550,000. USACE representatives believe the following studies would fit within that cost structure: Section 106 and NEPA studies of repair and ownership scenarios, study of the ship canal toxins, environmental conditions study, engineering study, title conditions assessment involved in transfer, and a cost/benefit analysis of closure vs. repair.

August 2015

USACE requests funding for a pilot project to secure the Final Disposition Report. Request does not include cooperative cost-share agreement. Project is accepted by USACE headquarters, but not funded in the FY 2015.

Senator Wyden hosts a public roundtable with Locks stakeholders and USACE Portland District leaders. Roundtable also included stakeholders from the Willamette Falls Legacy Project and Willamette Falls Heritage Area Coalition.

December 2015

Oregon Delegation sends letter to President Obama and the Office of Management and Budget requesting support for funding for the USACE proposed Final Disposition Report. (Letter included in appendix)



Photo courtesy of Sandy Carter, One Willamette River Coalition

# Current Status of the Willamette Falls Locks

## USACE Point of Contact

Louis Landre, Project Manager, Willamette Falls Locks, Portland District

## Non-operational Status:

In December 2011, the USACE closed the Locks indefinitely, establishing a “non-operational status.” The closure was due to excessive corrosion of the Locks’ gate anchors (or gudgeon arms) and a fear of the risk to life and property due to operational failure.

## Closure Studies

Prior to any undertaking at a National Register-listed federal facility, including closure, federal agencies are required to perform historical (Section 106 of the National Historic Preservation Act) and environmental (NEPA: National Environmental Policy Act) studies to assess the adverse effects and potential avoidance, minimization, and mitigation for the facility. The Locks were closed under Dam Safety Action Class (DSAC-1) status for safety reasons prior to conducting Section 106 and NEPA studies, and without following appropriate NHPA and NEPA emergency protocol.



Photo courtesy of Sandy Carter, One Willamette River Coalition

**Section 106:** The National Historic Preservation Act Section 106 process, with the participation of many consulting parties, is nearing its final stages at the time of this report, requiring a final production of a Memorandum of Agreement (MOA) defining agreed-upon mitigation actions between the USACE, State Historic Preservation Office (SHPO), and Advisory Council on Historic Preservation (ACHP). USACE staff has identified the Section 106 MOA as essential to helping USACE and partners generate specific federal funding requests aimed at accomplishing goals established in the MOA.

**NEPA:** USACE has received funding for the NEPA study of the December 2011 closure, and expects to begin early stages of outreach by the end of 2015. USACE and ACHP guidelines recommend concurrent NEPA and Section 106 assessments be conducted.

**Partners with Resolutions Supporting the Repair and Reopening of the Locks**

**Cities**

Canby  
Eugene  
Independence  
Milwaukie  
Oregon City  
Portland  
Salem  
West Linn  
Wilsonville

**Counties**

Clackamas County  
Linn County  
Marion County  
Multnomah  
Polk County

**Regional Governments/Other**

Association of Oregon Counties  
Columbia River Yachting Association  
Confederated Tribes of Grand Ronde  
Metro Regional Government  
Willamette Falls Heritage Area Coalition  
Willamette Falls Heritage Foundation

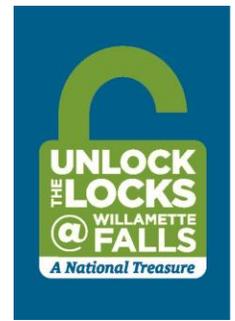
**Active Business Partners**

eNRG Kayaking  
Wilsonville Concrete Products  
Portland General Electric



Photo courtesy of Sandy Carter, One Willamette River Coalition

## ADVOCACY TIMELINE of the WILLAMETTE FALLS CANAL & LOCKS EFFORTS to KEEP the LOCKS REPAIRED & OPEN



*The Locks opened January 1, 1873 to expedite the settlement and commerce of the 200-mile long Willamette Valley. Gates are based upon a leaf-lock design by Leonardo da Vinci; wickets in the gates create waterfall effect, unlike newer locks with buried fill valves. The canal, made of stone, timber, concrete and steel, is 2,500 feet long and 40 feet wide with four connecting lift locks, each 210 feet in length, plus a guard lock and the canal basin. Material was towed by steam tugs for hand-fitting and layup without mortar by European masons and Chinese laborers. Local native tribal members also worked on Locks construction. Early sternwheeler steamships were designed to fit in the lock chambers. This was the first significant navigational improvement on the Columbia/Snake drainage. The US Army Corps of Engineers (USACE or Corps) purchased the Locks in 1915.*

- ◆ **1974** Listed on the National Register of Historic Places by the Corps, bringing the protective mandates of the National Historic Preservation Act (NHPA) on federal stewardship.
- ◆ **1991** Designated as a State Historic Civil Engineering Landmark by the American Society of Civil Engineers.
- ◆ **1993** The 'Spruce Goose', Howard Hugh's 'Flying Boat', transported through the Locks en route to Evergreen Aviation Museum in McMinnville, Oregon.
- ◆ **1999** Willamette River named an American Heritage River.
- ◆ **2002** Willamette Falls Heritage Foundation (WFHF) organized by volunteers to advocate for Willamette Falls Locks and falls-area industrial heritage structures and stories.
- ◆ **2004-2010, 2013, 2014** Six WFHF-sponsored Lock Fests staged, to advocate for preservation and future funding of maintenance and operations, and to introduce the public to the Locks.
- ◆ **2004** Congresswoman Darlene Hooley hosted a flotilla to illustrate the importance of one continuous river.
- ◆ **2005** USACE moved Locks to "caretaker-status" which provided minimal maintenance:
  - Congresswoman Hooley convened Willamette River United Conference to promote keeping the Locks open, and secured earmarks for summer operations;
  - Gov. Kulongowski designated the Locks as an Oregon Solutions project; Verne Duncan, convener;
  - River designated as Willamette River Water Trail.
- ◆ **2006, 2007** Locks opened May-Sept; WFHF advocacy, funding from ODOT, industry, and Clackamas County.
- ◆ **2007** WFHF funded update of National Register nomination with hopes of achieving National Historic Landmark status; NHL bid unsuccessful.
  - WFHF raised \$50k for INCA engineering study.
  - Travel Oregon spent \$27k on media outreach for the Locks; named WFHF Locks' advocacy affiliate One Willamette River Coalition (OWRC).
  - Corps closed Locks until Hydraulic Structural Steel (HSS) study could be done.
- ◆ **2009** HSS study began with \$511k Corps funding and \$118k ODOT funds.
  - Thanks to local advocacy by WFHF and OWRC, the Locks received \$1.8mil federal stimulus money (ARRA) and additional \$570k from partners to complete HSS, inspect and repair all gates – total of \$2.37mil for inspection and repairs.
  - OWRC raised \$29k to study potential transfer of the Locks to a local entity conducted by the Center for Economic Development and Research (CEDER), non-profit arm of Pacific Northwest Waterways Assoc.
  - Oregon Solutions deemed the project successful and turned it over to OWRC and Clackamas County

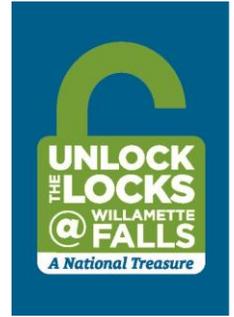
- ◆ **2010** Congressional earmark funding for seasonal operations.
- ◆ **2011** Limited subsequent lockages under a Caretaker Status budget; special commercial needs served once a month while exercising the gates.
  - USACE study by INCA/CH2MHill completed a Facilities Evaluation Report noting mechanical and electrical deficiencies, seepage, stability and deteriorating gudgeon anchors. According to Corps' engineers, gudgeon inspection requires hands-on inspection of possible fracture of critical components for loss-of-life risks. All gudgeons on gates 2, 3 & 4 were "red tagged" due to corrosion or inability to see/inspect. Outside engineers insist that the gudgeon arms can be simply, thoroughly and inexpensively tested or repaired.
  - Corps dam safety engineers determined the Locks as DSAC-1 "high risk of life-threatening injuries". [See DSAC-1 explanation page]
  - NOVEMBER: Transferred to "non-operational" status by the Corps of Engineers and closed to all river traffic. Public access to the Locks, grounds and museum also closed.
- ◆ **2012** River selected as the National Water Trail System's Willamette River Water Trail.
  - Locks selected as National Treasure by National Trust for Historic Preservation (NTHP).
  - Locks listed on "Most Endangered List" by Historic Preservation League of Oregon (now Restore Oregon).
  - Willamette River received the Theiss International Riverprize, worlds' most prestigious environmental award, via Meyer Memorial Trust in recognition of environmental river restoration.
  - ODOT's Director stated that the Locks are important as redundant transportation in a Cascadia event.
- ◆ **2013** Thanks to negotiations by local stakeholders, USACE meet policy requirements and two unmanned lockages of the Canby Ferry by Marine Industrial Construction to get the ferry downstream for necessary retrofitting and inspections; Clackamas County estimates that transit via the Locks saved them \$487,000 cost.
  - OWRC raised \$67k to fund an economic potential report by ECONorthwest citing pent-up recreational demand, and potential growing commercial use once the Locks are dependably and consistently open.
- ◆ **2014** Mandated National Historic Preservation Act (NHPA) Section 106 assessment was begun belatedly by USACE for 2011 closure at the request of the NTHP. Corps acknowledged adverse effects caused by closure, began mitigation discussions with stakeholders. Development of an MOA is in negotiation (still 12/2015) with the State Historic Preservation Office (SHPO), Advisory Council on Historic Preservation (ACHP), NTHP, OWRC, and 20+ stakeholders.
  - NTHP hired Hooley&Natio LLC as Locks champions.
  - Resolutions to repair and reopen the Locks passed unanimously by Clackamas County, Metro, cities of West Linn, Oregon City and Wilsonville.
  - Corps spent \$10k to clear debris from the headgate; Wilsonville Concrete offered to do it for free.
- ◆ **2015** Association of Oregon Counties; the cities of Portland, Eugene, Independence, Salem, Milwaukie, Canby; Linn, Polk, Marion, and Multnomah counties; and Confederated Tribes of Grand Ronde, WFHF, Columbia River Yachting Association and industry partners passed Resolutions to repair and reopen the Locks.
  - JANUARY Congressman Schrader hosted a tour of the Locks for USACE Portland District leaders, NTHP staff and other dignitaries.
  - 160 people attended a Locks: Past, Present and Future presentation at McMenamins.
  - MARCH: Clackamas County Commissioners convened a regularly-meeting Working Group of potential partner agencies, stakeholders and advocates.
  - USACE has requested funds to belatedly start mandated National Environmental Protection Act (NEPA) assessment. (ACHP and internal Corps policies recommend NEPA and Sec106 be done simultaneously.)

- MAY: \$60,835 contributed by local stakeholders to support continued advocacy efforts for 2015.
- SJM Bill 10 passed urging Congress to support reopening Locks and Heritage Area designation
- Sen Devlin and co-signers introduced SB131 to create a state Locks Task Force, which Governor Brown signed into law. Oregon Solutions will staff the Task Force and former Governor Barbara Roberts has agreed to be convener. The first meeting is Jan 12, 2016.
- More than ten presentations on the Locks efforts to local organizations.
- AUGUST: Senator Wyden hosted a town hall with USACE Portland District Colonel Aguilar and District Engineer, Kevin Brice, and a roomful of stakeholders representing all three Falls projects.
- USACE Portland District applied and selected third for an internal pilot project to do disposition studies.
- DECEMBER: Members of Oregon's Federal Delegation (Wyden, Merkley, Schrader, Bonamici, DeFazio and Blumenauer) sent a joint letter to President Obama stating support for repairing and reopening the Locks, and asking for funding for a disposition study.
- Corps will request FY17 funds for a disposition study to look at status quo, deauthorization, reauthorization, and for a long-term-disposition investigation including consideration of USACE operation, lease to third party, or transfer of ownership to third party.

*Since 1975, this is the oldest and smallest operational navigation canal and locks used for commerce. It is also smallest and oldest operational **by-pass** canal in US, with continuous use for nearly 140 years. The structure still boasts a high degree of integrity over time, with adaptations that mirror the evolution of technology, function and repairs since construction. Our work continues. We are hopeful that the Willamette Falls Locks will again be open for commercial, recreation and tourism travel. [www.savingplaces.org](http://www.savingplaces.org) [www.willamettefalls.org](http://www.willamettefalls.org)*

Updated 1.4.2016 SC

## HISTORICAL TIMELINE of the WILLAMETTE FALLS CANAL & LOCKS



- ◆ **1850** Construction of the first horse drawn portage around the Falls in Oregon City as the Willamette Valley began to shift from subsistence farming to an export agriculture industry.
- ◆ **1862** Construction of a short railroad portage by the “People’s Transportation Company” around the Falls in Oregon City.
- ◆ **1868** The Willamette Transportation and Locks Company was created to build a canal and locks to connect the upper and lower Willamette River. The goals of the company were to aid and cheapen navigation by allowing ships loaded with wheat in Eugene to travel all the way to Portland or Astoria, thereby reducing shipping times, expanding competition and reducing freight costs.
- ◆ **1870** The Oregon Legislature allotted \$200,000 to the Willamette Falls Canal and Locks Company for construction of the Locks, making an approximate one-third contribution. Bernard Goldsmith, Portland Mayor, businessman, and partner in the Willamette Falls Canal and Locks Company, privately invested an additional \$200,000, the final third, to see the Locks completed.
- ◆ **1871** The People’s Transportation Company, seeing the end to their monopoly of providing overland portage, was sold to the investor building the Oregon Steam Navigation Company.
- ◆ **1872** Blocks of basalt from the quarry at Stone (now Carver) were rafted down the Clackamas River and towed back up to the Falls by steam-tugs. Contracted East Coast engineers and blacksmiths designed and forged the hardware and tie-off rings and European stonemasons hand-fitted the rock for the walls of the canal excavated from bedrock by Chinese, Native American and white laborers.
- ◆ **1873** Construction of the locks completed. The little steamboat Maria Wilkins, loaded with Governors and other VIPs, locked through the Canal just before the deadline on January 1, marking the first significant navigational improvement on the Columbia-Snake river system and immediately cutting freight rates by 50%.
  - Steam-powered sternwheelers tailored to fit the Lock chambers and navigate the mud and shallows were built at shipyards above and below the falls. People transport was also an important service.
- ◆ **1871-81** Opening the locks in 1873 pulled 25,000 tons of freight off the portage railroad in the first year of operations, but the arrival of the first railroad to serve the Valley in 1871 caused freight to begin a shift from the river to rail. By 1904, agricultural river traffic was reduced dramatically, leaving the transport of logs, pulp and paper as the predominant remaining products. Giant Oregon log rafts made their way to Asia.
- ◆ **1892** Portland Railway Light and Power (PRL&P) --the predecessor of Portland General Electric (PGE)-- sent power from Station A on the east side of Willamette Falls to Portland and lit up Oregon City and West Linn. PGE purchased the Canal and Locks from the Oregon Railroad and Navigation Company in recognition of the value of the Willamette Falls for electric generation at Station B, on the canal.
- ◆ **1899** The Army began negotiations with PRL&P to buy the locks. Major Fisk felt that by obtaining the locks and offering toll-free passage, trade monopolies would be broken, opening resources from the fertile Willamette Valley to the rest of the world. The Corps was willing to pay \$456,000 while PGE’s price was \$1.2 million.
- ◆ **1912** The USACE drew up designs for a competing Canal and Locks on the Oregon City side of Willamette Falls that would have destroyed most of the buildings and industry on the current Blue Heron site.

- ◆ **1915** The USACE bought the Canal and Locks for \$375,000 from PRL&P, thereby providing free passage around the Falls. Thousands gather in a parade to witness the transfer of the locks from private to public ownership. In 1912-13, the Oregon Legislature and the US government each appropriated \$300,000 for additional improvements to the Locks.
- ◆ **1930s** Locks became a bottleneck on the Willamette clogged with giant old-growth log rafts that had to be disassembled to get through the 210 x 40' chambers, so the USACE proposed replacing the four-tandem lock system with a huge, 47'-lift, single-chamber lock. The work authorized by the 1938 Flood Control Act, but funding never appropriated. Design issues couldn't be solved and WWII was on the horizon.
- ◆ **1941** The original wooden lock gates were replaced with steel miter gates and hydraulic machinery replaced the original hand-cranked to operate the locks.
- ◆ **1943** More than 2.2 million tons of commerce passed through the locks.
- ◆ **1964** Average annual number of lockages was 8,100 and average annual commercial tonnage locked around the Falls was 1,100,000. Low-priority recreational and passenger-carrying boats locked through last.
- ◆ **1974** At 100 years old, Willamette Falls Canal and Locks listed on the National Register of Historic Places.
- ◆ **1985** Willamette River Greenway and Willamette River Trail created by Oregon State Parks.
- ◆ **1989** 1.4 million tons of commerce passed through the locks. US Forest Service put a third of NW timber sales on hold. Four forests in Oregon halted timber sales.
- ◆ **1990** The US Fish and Wildlife Service listed the Northern Spotted Owl and National Marine Fisheries listed the winter Chinook salmon as threatened under the Endangered Species Act.
- ◆ **1991** Locks designated as State Historic Civil Landmark by the History and Heritage Committee of the American Society of Civil Engineers.
- ◆ **1992** Forest Service stopped planning timber sales.
- ◆ **1994** 200,000 tons of commerce passed through the locks (85% drop from 1989 levels).
- ◆ **1997** West Linn Paper Company analyzed their transportation needs, concluding that moving material by truck would provide substantial cost savings and ceased using barges.
- ◆ **1999** 893 recorded tons of commerce passed through the locks (over 99.9% drop from 1989 levels); Willamette designated as American Heritage River.
- ◆ **2000** Total vessels counted locking through: 1,478 (230 of them commercial vessels).
- ◆ **2002** Annual appropriation curtailed from \$1.3 million to \$175K; started seasonal operations (May thru October) due to reduced usage and economic benefits.
- ◆ **2004** Lawmakers at first did not authorize the Corps to operate the locks; Caretaker status discussed. Congress at the last minute earmarked \$420,000 for seasonal operations.
- ◆ **2005** "\$0" in President's Budget. Congress added back \$210K; seasonal operations were maintained. Willamette River designated as Willamette River Water Trail.

- ◆ **2006-08** First year Locks received “Caretaker” funding: \$65K. Seasonal operations resulted from partnership with federal ISTEA grant for historic transportation facilities and funds from ODOT and Clackamas County. Total vessels locking through in 2006 were 537 (144 commercial); 2007 was 667 (118 commercial); and 2008 was 6 (Five commercial).
- ◆ **2008** Locks closed for Hydraulic Structural Steel Inspection of the gates.
- ◆ **2009** Gates inspected and repaired with \$511,000 from USACE and \$118,000 from ODOT plus \$2.37 million through the American Recovery and Reinvestment Act of 2009 (stimulus money).
- ◆ **2010** Last year for congressional earmarks, which helped fund seasonal operations. Total vessels locked through: 492 (107 commercial). USACE initiated Facility Evaluation Report and National Register listing was updated by WFHF-funded consultant.
- ◆ **2011** Facility Evaluation Report identified three significant issues: seepage, seismic, and safety issues around Gudgeon Anchor assemblies. Locks closed in December under emergency authority to protect life and property. Total vessels locking through: 64 (58 commercial). Locks moved to “non-operational” status. Grounds and museum also closed to the public.
- ◆ **2012** Willamette River National Water Trail designated by US Dept. of Interior Sec. Salazar. Closed Locks prevent passage between upper river communities and Portland. The trail stretches from Creswell to the Columbia River.
- ◆ **2013** USACE allowed two unmanned lockages to move the Canby Ferry to a downstream dry-dock (Jan. 2013) for inspection, retrofitting, and back to its location upstream (July 2013).
- ◆ **2014** USACE initiated a stakeholder consultation process under Section 106 of the National Historic Preservation Act (NHPA) with the State Historic Preservation Office and the National Advisory Council on Historic Preservation to address adverse effects on this property listed on the National Register of Historic Places. First stakeholder meeting took place in February.
- ◆ **2015** Present status:
  - Corps continues to receive Caretaker funding while locks remain in “non-operational” status.
  - Corps requested federal funding for a pilot divestiture study.
  - NHPA Section 106 process concluded that there are adverse effects and drafted a mitigation Memorandum of Agreement defining the steps necessary to repair and reopen the Locks, including possible transfer to a non-Corps entity.

#### ◆ **2016 and the Future**

Multiple efforts are underway to recognize and honor the historic and cultural significance of the area. In addition to repair and reopening of the Locks to commercial and recreational travel, the Willamette Falls Legacy Project (former Blue Heron Paper Mill) is undergoing redevelopment with the restoration of public access to the Falls for the first time in over a century. To effectively implement an historic and cultural marketing strategy while preserving and promoting significant historic resources, the Oregon Heritage Commission designated the area as a State Heritage Area in 2015, and the US Department of Interior’s National Park Service is considering the designation of a National Heritage Area.

## Appendix of Relevant Publications:

- A 2015: Willamette Falls Heritage, Locks and Legacy Fact Sheet**
- B 2015: Index of Willamette Falls Locks Documents**  
Compiled as part of the NTHP National Treasure Project
- C 2015: Letter from Senator Wyden to the US Army Corps of Engineers**
- D 2015: Letter from Oregon Delegation to President Obama**
- E 2015: Resolutions of Support**  
Includes a list of current resolutions submissions and an example as provided by Clackamas County
- F 2014: Willamette Locks Economic Potential Report by ECONorthwest**  
Establishes three scenarios of future use conditional on the repair and reopening of the Locks, including: recreational use, commercial use, or a combination of both. Report also includes single ownership in addition to four operating models allowed under Oregon statutes.
- G 2013: Unlock the Locks Newsletter**  
Published by WFHF and NTHP Oregon Field Office
- H 2012: NTHP Willamette Falls Locks National Treasure two-page handout**
- I 2012: Rediscover a United Willamette River**  
Summary of proposed upper-port study scope
- J 2011: One Willamette River Coalition Report**
- K 2009: Oregon Solutions Declaration of Cooperation for the Willamette Falls Locks**  
Identifies successes since the 2006 Declaration of Cooperation and outlines “next steps to ensure future Locks operations”
- L 2009: Nomination of the Locks to the National Register of Historical Places (and associated biography)**  
Includes 2009 and 1974 nomination
- M 2008: The Willamette Falls Locks: A Case Study Analysis of Potential Transfer Issues by Center for Economic Development Education and Research (CEDER)**  
Establishes case examples of navigational lock transfers from the USACE to states and other entities and details expectations and commitments by potential transfer parties specific to Willamette Falls. Provides a road map for the transfer process.

- N     2007: Challenge Partnership Agreement between the USACE and Clackamas County for support for the operation of the Willamette Falls Locks**  
Establishes contractual relationship between the USACE and Clackamas County to have seasonal and temporary operations and usage of the Locks available to recreational, educational, and commercial lockage. Applies only to 2007.
  
- O     2005: Willamette Falls Locks Economic Impact Analysis**  
Prepared for Clackamas County Tourism Development Council and Oregon Tourism Commission
  
- P     1998: Willamette Falls Locks Brochure**
  
- Q             USACE Briefing on Willamette Falls Locks**