THE MILL RACE RESTORATION PROJECT

University of Oregon
Environmental Studies
Service Learning Program

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Our project was completed through the Environmental Studies Department Service Learning Program (SLP) throughout the 2003-2004 academic year. Our group consisted of four undergraduate students and one graduate student project manager. Our team worked with the City of Springfield to provide education and outreach support for the City’s Mill Race Restoration Project. The City of Springfield and Springfield Utility Board (SUB) were the partners for this project.

Our group developed several methods for educating the public and informing them of the goals of the restoration project and the positive role that the public can play in improving Mill Race water quality.

In Fall 2003, the Mill Race team began gathering information about the Mill Race, including information on the history of the Mill Race, current water quality issues, impacts on fish & wildlife, and the plans for restoration. The team produced a Mill Race Restoration Project web page under the Service Learning Program website, which was updated throughout the year. It provided information about the Mill Race history and the reasons why the Restoration Project is necessary. The website included several different diagrams, maps, and photos in order to give people a better understanding of the Restoration Project.

The Mill Race team started most of their education work in Winter 2004. The team produced an informative 8-page brochure which is suitable for mass mailing, and is designed to be mailed to all residents in Springfield. The team created four educational posters to be used in future public meetings and presentations. The topics for these posters included: the history of the Mill Race, the impact of the Mill Race on Water Quality, the upcoming changes with the restoration project, and the long-term vision for the Mill Race. The team also produced four interpretive site posters designed to be placed at points of interest along the Mill Race. Topics for these posters were: the bioswale, the riparian zone, salmon, and erosion at the inlet. The bioswale poster is designed be posted next to the Agnes Stewart Middle School, and the riparian zone poster is intended for the new LTD bus station in Springfield. The salmon poster is designed for the outlet, and the erosion at the inlet poster is designed for the inlet to the Mill Race.

In Spring term, the Mill Race team gave five presentations about the Mill Race Restoration Project at public schools in Springfield—four at Agnes Stewart Middle School and one at Springfield High School -- during science classes. The Mill Race team
also developed an additional four interpretive site posters that covered four topics: the history of the early mills, groundwater, irrigation & agriculture, and the old swimming hole.

The team also organized a clean-up day partnering with the Agnes Stewart Middle School. The middle school students helped to restore the riparian zone along Jasper Slough which is a tributary to the Mill Race. The students planted trees donated by the City, they picked up trash, they cut down non-native plants, and they made drawings and measured routes along the area.
2.1 BACKGROUND

The Mill Race flows from the Middle Fork of the Willamette River, just
downstream of Clearwater Park, through the southern part of Springfield, and rejoins
the Main Stem of the Willamette downstream near Island Park. The Mill Race supplies
water to Springfield Utility Board (SUB) and provides fire protection for McKenzie
Forest Products. The two diversions that come off the Mill Race are called Gorrie and
Quarry Creeks. Gorrie Creek is very important to SUB because it flows into a large
percolation basin which recharges the groundwater at one of SUB’s well fields. This well
field provides municipal water for the City. The Mill Race also receives runoff from a
small tributary called Jasper Slough.

For over 150 years, the Springfield Mill Race has been an important part of
Springfield history. Due to its historical significance, the Mill Race is eligible for listing
in the National Register of Historic Places.

During the late 1800s and early 1900s, millraces were built across the Pacific
Northwest to support the growing timber industry. Like many others, Springfield’s Mill
Race was used to provide power and to store logs destined for local mills. The Mill Race
is a valuable resource for Springfield, having been used for many purposes throughout
its 152 year existence, including water power, recreation, irrigation, flood and fire
control. The Mill Race still plays an important role in the groundwater system that
provides municipal water to the citizens of Springfield. In addition, it provides important habitat for a variety of fish and wildlife.

The Mill Race channel is 3.5-miles long, and it was created in 1852 by Elias Briggs, the founder of Springfield, by connecting a series of abandoned stream channels. Briggs dug the canal, with his brother Isaac’s help, using an ox-plow and shovels in order to provide power for the first grist and saw mills in the area. A sawmill was constructed in 1853 and a flour mill built the following year.

In 1902, Booth-Kelly Lumber Company built a new mill and the current Mill Pond. A dam about 15 feet high with a fish ladder holds back the Mill Pond. In 1959, Georgia-Pacific bought out Booth-Kelly and acquired the lumber mill and the Mill Race. In 1985, Georgia Pacific donated approximately two-thirds of the Mill Race, Mill Pond, and 76 acres of the old Booth-Kelly property to the City of Springfield. The City agreed to control flows in the system to prevent flooding and to maintain water supply for the fire protection at McKenzie Forest Products.
## A BRIEF TIMELINE

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>1852</td>
<td>Elias Briggs began digging the Mill Race with his brother.</td>
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<tr>
<td>1853</td>
<td>The Briggs and Driggs company built Springfield’s first gristmill and sawmill, both powered by the water in the Mill Race.</td>
</tr>
<tr>
<td>1901</td>
<td>Electricity arrived in Springfield.</td>
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<tr>
<td>1902</td>
<td>Booth-Kelly built a lumber mill. Following this, they built the Mill Pond for easy storage and moving of logs to be cut into lumber.</td>
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<tr>
<td>1911</td>
<td>The Booth-Kelly Mill burned and was rebuilt.</td>
</tr>
<tr>
<td>1949</td>
<td>Weyerhaeuser opened their Springfield Mill.</td>
</tr>
<tr>
<td>1959</td>
<td>Georgia-Pacific bought out Booth-Kelly and acquired the lumber mill and the Mill Race.</td>
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<tr>
<td>1985</td>
<td>Georgia-Pacific gives 2/3 of the Mill Race and the Mill Pond to the City of Springfield, including 76 acres of the old Booth Kelly mill.</td>
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<tr>
<td>1993</td>
<td>A group of concerned citizens and Government agencies attempted to begin restoring the Mill Race, but funding was not available.</td>
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<tr>
<td>1998</td>
<td>The City of Springfield requested that the USACE investigate the potential for habitat restoration.</td>
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<tr>
<td>2005</td>
<td>Restoration is scheduled to begin.</td>
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2.2 ISSUES

Since the 1850's, the Mill Race has been used by local industries and as a drainage channel for the city's runoff. It has supported industries including a quarry, a flourmill, and a sawmill.

The Mill Race water level is low in the summer due to the conditions at the inlet and sedimentation along the Mill Race channel. The low volume of water in the Mill Race is quickly warmed in the summer time, and this results in high temperatures and low dissolved oxygen content in the water. This is especially problematic at the Mill Pond where the flow of water is slowest. Lack of riparian vegetation along the Mill Race also causes high water temperatures because there is not enough shading on the water. The high temperatures and low dissolved oxygen levels negatively affect fish such as salmon and trout that require low temperatures and high dissolved oxygen.

Springfield’s drinking water comes mainly from groundwater obtained from public water supply wells operated by the Springfield Utility Board (SUB). One of SUB’s wellfields is located between the Mill Race and the Middle Fork of the Willamette River. Low summer flows in the Mill Race present a problem for keeping the aquifer recharged at this important wellfield.

Another issue with the Mill Race is a lack of public awareness. Many people do not know that the Mill Race is such an important resource for Springfield. The City believes that public awareness is a key to success with the restoration project. Therefore, the SLP Mill Race team worked to provide public education and outreach support for the City of Springfield to inform the public about the issues surrounding the Mill Race.
2.3 Project Partners

The City of Springfield

The City of Springfield is planning to begin the Mill Race Restoration Project in 2005 pending on funding from the Corps of Engineers. The City directed the tasks for the SLP project, they provided guidance for the mailing, and they selected the locations and topics for the posters. The city also donated equipment and native trees for use during the clean-up day at Agnes Stewart Middle School.

Springfield Utility Board (SUB)

The Springfield Utility Board provides water and electric utility serving Springfield, Oregon. The Mill Race Restoration Project is important to SUB because water from the Mill Race flows into the groundwater system that recharges one of SUB’s wells. Low water levels in the Mill Race can affect the drinking water supply. Therefore, the Mill Race Team helped SUB by informing people about the importance of protecting the Mill Race water to sustain the quality of their drinking water.

United State of Army Corp of Engineers (USACE)

The Army Corps of Engineers is a federal organization. They plan, design, build and operate water resources and other civil works projects throughout the United States. The Mill Race team did not work with USACE directly, but we used a USACE report for a large part of our research. USACE is working with the City of Springfield to provide constructional and financial support for the Mill Race Restoration Project.
3.1 Presentations at Springfield Schools

3.1.1 Goals
The goal of the school presentations was to inform public school children in Springfield about the Mill Race and the Restoration Project in a fun and interactive way. We felt that if they are aware of the problems at the Mill Race and the restoration efforts they will be more likely to be concerned and to get involved both now and in the future.

3.1.2 Implementation
The Mill Race team presented at five classes, four to 7th grade science classes at Agnes Stewart Middle School and once to a high school science class at Springfield High School. Our project manager made contact with the instructors of these classes, set up presentation times, and received input from the instructors on what the content and level of detail of the presentations should be.

One of the team members then created the PowerPoint slides for the presentation and we began to rehearse. We previewed the presentation to City of Springfield staff and made their suggested changes. We made minor adjustments after presenting to the first class. We also added a few more detailed slides for the high school presentation. Overall, we tried to make the slides interesting and fun to try to keep the students’ attention. We made the slides very colorful and added lots of animations.

3.1.3 Feedback
Feedback for these presentations was very positive. Each class reacted differently, with some students being much more enthusiastic and interactive than others. The instructors of the classes we presented to were very supportive and appreciative of our efforts. Our Service Learning director, Steve Mital, and Ed Black from the City of Springfield each attended one presentation and each had many positive comments on the slides, content, and overall presentation.
3.2 Educational Posters

3.2.1 Goals
A primary goal of creating educational posters for the Mill Race was to spread information about the Mill Race restoration project to the public. The posters were designed to be used in future public meetings and presentations. They covered four themes: the history of the Mill Race, water quality issues, upcoming changes, and long-term visions. The history poster provided the timeline of the history of the Mill Race and information on why the Mill Race was created. The water quality poster had a simple diagram to describe a relationship of the Mill Race and the Springfield public water supply. The upcoming changes poster explained the four big changes of the Mill Race: creating a new inlet, removing the dam from the Mill Pond, restoring native vegetation, and removing non-native vegetation. The long-term vision poster gave some ideas of what people can enjoy at the Mill Race after the project is finished.

3.2.2 Implementation
Each team member was assigned different theme to work on. The Mill Race team designed the posters individually by using Microsoft PowerPoint and gathered information from the City of Springfield, Springfield Utility Board, the Springfield Museum, and web resources. It took approximately three months to design the educational posters. The Mill Race team revised each poster twice with input from the City of Springfield.

3.2.3 Results
The posters will be printed out in 30 X 48 inches paper, and they will be used for school and public presentations.
3.3 Interpretive Site Posters

3.3.1 Goals

A goal of creating interpretive site posters is to provide visitors with some information about sites of interest along the Mill Race. The posters cover eight themes, and will be posted at eight different key points along the Mill Race. The first set of posters was done in April, and covers: the bioswale, the riparian zone, the inlet, and the outlet. The bioswale poster will be posted next to the Agnes Stewart Middle School, and the riparian zone poster will be placed at the new LTD bus station in Springfield. The inlet and the outlet posters will be posted in their respective locations in regards to the Mill Race.

The second set of posters was created in May, and they cover the following topics: the old swimming hole, irrigation and agriculture, the early mills, and the relationship of the Mill Race to wells and groundwater. The swimming hole poster is designed for the old swimming hole location where 28th street crosses the Mill Race. This was a popular spot for recreation in the Early 1900s. The early mills poster is designed for the Booth-Kelley crane shed. The irrigation & agriculture poster is designed for anywhere along the agricultural area of the Mill Race. The groundwater poster is designed to be placed near SUB’s wellfield.

3.3.2 Implementation

Every team member learned to use the Adobe Photoshop program to create graphics for the interpretive site posters. Creating original graphics was an excellent way to describe each theme for the project. The graphics were imported into PowerPoint and were then converted into pdf’s.

3.3.3 Results

Each poster will be printed out in 30 X 48 inches paper, and they will be posted along the millrace.
3.4  **Term Presentations**

3.4.1  **Goals**  
At the end of each term, the Mill Race team gave a PowerPoint presentation in order to update the audiences and the sponsors on the progress of the Mill Race team’s work. The Mill Race Restoration team gathered a lot of useful information from different sources and combined the information into a clear and easy-to-understand PowerPoint presentation. After each presentation, the Mill Race team had a “Question and Answer” period in order to clarify peoples’ understanding of our project.

3.2.2  **Implementation**  
Each team member was responsible for developing a few slides for the presentation. The presentations included the overview of the history, partners of this project, water quality issues and the upcoming changes of the Mill Race. Also, we would introduce the products such as the posters and brochures that we had produced. One of the Mill Race team members was responsible for organizing and compiling the slides. The PowerPoint presentations were at the end of each term. Each presentation was approximately fifteen minutes long with a five-minute “Question and Answer” section.

3.2.2  **Feedback**  
After the presentations, the Mill Race Team received positive feedback from our audiences. In the fall term presentation, the Service Learning Program project coordinator, Steve Mital, stated that the Mill Race team did a very good presentation, however, he suggested the team needed to fix some technical problems and to get more practice in order to make the presentation proceed in a smoother way. In the Spring term presentation, based on the knowledge and experience the team gained in the previous presentation, the Mill Race team’s presentation was much improved. Mr. Black, from the City of Springfield, said he was very satisfied with our presentation. Also, Steve Mital said that the Mill Race team improved a lot and we gave a very detailed and thorough presentation. He also said the presentation would be more informative if the team can add more slides about the details of the maps and water quality issues. The Spring Presentation was well received and Nancy Moreno from the Springfield Utility Board was in attendance.
4.0 OUTREACH

4.1 Mailing

4.1.1 Goals
The main goals for this mailing are public education and outreach. The brochure will provide a way for the City of Springfield to reach its citizens with the concept and details of the Mill Race Restoration project in hopes of generating interest and public participation in the project.

4.1.2 Implementation
The contents of the brochure were originally separated into four sections. Each member of our team was responsible for the text and graphics included in their section. The compilation, layout, and editing of the brochure were then completed primarily be one team member and our project manager. After a series of editing sessions with the City staff, the brochure was deemed satisfactory.

4.1.3 Contents
The contents of our brochure include the following sections:

- Brief introduction to the Mill Race, including its importance a historical community landmark.
- Description of upcoming changes included in the planned restoration project.
- Explanation of why these changes are necessary.
- Reasons why the citizens of Springfield should be concerned about and involved in the restoration efforts.
- Interesting facts about the Mill Race.
- Recreational and educational opportunities that will be available upon completion of the restoration project.
- Economic significance of the Mill Race and its restoration.
- Water quality.
- Who is involved in the project?
- Ways the citizens of Springfield can learn more about the project and get involved in restoration efforts.
4.1.4 **Distribution**

The brochure was formatted using PowerPoint. It is designed to be two 17” x 11” pages folded together to create 8 pages. Distribution was originally intended for the spring of 2004, however, due to changes in the City of Springfield’s planning schedule, mailing of the brochure has been postponed until a later date.

4.1.4 **Feedback**

Feedback on this part of the project has been limited, as the brochure has not yet been distributed to the public. However the Mill Race team has received positive feedback from City of Springfield staff and fellow Service Learning Program participants.
4.2 Organizing Volunteer Clean-up Day

4.2.1 Goals
The goal of the Clean-up Day was to get citizens involved and to generate interest in the Mill Race Restoration Project.

4.2.2 Implementation
The Clean-up Day was originally intended to be a two-day event to help create a Friends of the Mill Race group. However, this was later changed to a one-day event with students from Agnes Stewart Middle School when the Friends of the Mill Race idea was dropped by the City. The Mill Race Team worked with Carrie Patterson to coordinate a restoration day along Jasper Slough behind the Middle School. The area was very overgrown with blackberries, and the school would like to turn the area into a usable area for outdoor education and to restore riparian habitat. The project manager and two high school students went to the area a week before the clean-up day and cleared out large areas of blackberry vines using weed-whackers loaned by the City of Springfield. The City also donated about 15 native plants for the project, and they loaned shovels for use during the clean up day.

On May 21st the Mill Race Team worked with three classes of 7th graders to plant trees, remove invasive species, and to clean up trash. There were 7 adults including the Mill Race Team, Carrie Patterson, and Tom Madison. This allowed for good supervision of the students. The students were the same ones that received our Mill Race presentation and they were very enthusiastic about getting involved.

3.4.3 Results
Large areas of blackberries were removed including two paths to get down to the water to enable the classes to do water quality testing. A path was also cleared along the
fence. Roughly 15 native plants were planted, including: Western Red Cedars, Douglas Firs, willows, wild roses, and dogwoods. The students were a great help in cleaning up the area and restoring the riparian habitat. Hopefully this will have helped with their education and will generate lasting interest in the Mill Race restoration project.
4.3  Mill Race Website

4.3.1  Goals

1. **Provide easy access to educate the public about the Mill Race Restoration Project.**

   The Mill Race website was established to inform people about the goals of the restoration project in order to let people get a better understanding about the Mill Race Restoration Project. The website also provides easy access about the Mill Race history so as to provide some background knowledge of the Springfield Mill Race. People can also find information of how water from the Mill Race affects the Springfield’s drinking water quality. Besides the background information, the website also informs the public about the upcoming changes around the Mill Race and promotes a vision for the future of the Mill Race after the restoration project.

   The SLP team has done a lot of different projects in order to promote the Mill Race Restoration Project and the website introduces the Mill Race team education and outreach support in order to arouse public’s attention and encourage public and students participation. The website also includes several useful and important links to let interested groups find additional information.

4.3.2  Methodology

The website is divided into eight pages.

1. The goals of the Mill Race restoration team education and outreach project.
2. History of the Mill Race
3. Springfield water quality issues
4. Mill Race upcoming changes
5. Long term vision of the Mill Race
6. Useful links
7. Contact the Mill Race team
8. Service Learning Program (SLP)

4.3.3  Implementation

The Mill Race team used the website design software, Dreamweaver, to develop this website. The team started gathering information about the Mill Race in September
2003. Our information sources are mainly from newspaper articles, websites, books and journals. Each team member developed a page and then the Mill Race team organized and combined all the pages together. The team also updated the website periodically throughout the year.

4.3.4 Results

The website provides some useful information about the Mill Race. People can get a better understanding about the Mill Race’s past, present and future with respect to the importance of having the Mill Race restoration project. The City of Springfield will be provided with a CD containing all the files in the website for their future reference.
5.0 Recommendations

5.1 Recommendations for future clean-up events

1. **Confirm sponsorship.**
   Meet with the sponsors and make sure their goals and expectations are in alignment with yours.

2. **Be informed.**
   Educate yourself as much as possible about the area that you are focusing on cleaning up. Learn about the native habitat.

3. **Tap into your resources.**
   Interview everyone you can about the best way to go about your project. Learn the best times to work with plants, with the wildlife, the weather and the pre-clean-up labor team (removal of blackberries, non-native species, preparation of soil, etc.)

4. **Be very clear about the time, place and length of time that will be spent on the project so there is no confusion.**

5. **Invite people in a casual, friendly and fun way.**
   If they come of their own accord, as opposed to a feeling of obligation from coercion, they will bring something invaluable to the project.

6. **Tell as many people as possible, including the media.**
   The attention will pique the interest of the public so even if they don’t volunteer, they’ll be aware of what you are doing.

7. **Provide educational and informative presentations months in advance for potential volunteers.**

8. **Advertise and inspire by being an example.**
   When you share how much the project matters to you and what experiences you have had in the past, people will be interested in your real life stories and successes.

9. **Bring goodies.** Round up a few volunteers to bake cookies and bring water jugs.

10. **Have fun doing it.**
   This is a great opportunity for the community to work together to make a difference. Having fun will inspire others and keep people motivated for future volunteer days.
5.2  **Recommendations for Organizing a Friends of the Mill Race Group**

5.2.1  **Methodology**

The first step of creating a “Friends of the Mill Race” community group to participate in the Mill Race restoration is to confirm the sponsorship that would support the group. The sponsor for this project would be the City of Springfield.

Secondly, it is necessary to consider why the group needs to exist and what we would hope to accomplish. The answer to this two-part question is that the group needs to exist to ensure that there will be community involvement and pride in the restoration project so that in the future the group will maintain the improvements and keep awareness up in the community for future fundraising and volunteer work. The “Friends of the Mill Race” would focus on the accomplishment of LONG-TERM maintenance and outreach over the years following the restoration project. Once construction is finished, the group will serve as representatives of the Mill Race in the future, keeping citizens involved and informed so that future generations can enjoy the benefits of the Mill Race.

The third step is to mail out an informational brochure, inviting the citizens of Springfield to participate in the group. It is important to provide clear, concise information, with adequate explanation of the goals so that it is clear what the group is out to achieve.

5.2.2  **Implementation**

Advertising with posters, radio spots and flyers at local businesses is important to alert people to the restoration project and the “Friends of the Mill Race” group.

A public meeting is also important. If it is properly advertised, it can draw citizens. This is a great opportunity to inform them of the restoration project and have them there to physically sign up to join the “Friends of the Mill Race” group.

At this time, it would be beneficial to create a contact list and set up a regular meeting date to get the meetings underway.

Once the initial steps have been taken and meetings are underway, it is time to be active and remain active in the community on behalf of the Springfield Mill Race.
For over 150 years the Springfield Mill Race has been an important part of Springfield’s history.

The **Mill Race of the Past** powered early industries and provided plentiful swimming and fishing opportunities.

Unfortunately, **Today’s Mill Race** is struggling with periodic low flows that result in poor water quality and unfavorable fish habitat.

Over the past several years, the City of Springfield has worked with community partners to develop a plan for the **Future of the Mill Race**.

The City’s plan to **Restore the Mill Race** is designed to benefit everyone. It will help protect the City’s drinking water supply, improve water quality, restore habitat, provide new recreation areas, and help to revitalize downtown businesses.

*Look inside* to see how a **Vision** is turning into **Action** to restore this important piece of **Springfield’s Heritage**.
What’s Happening?

Planned renovations for improving water quality and fish and wildlife habitat:

Creating a new inlet to the Mill Race upstream from the existing inlet. This will enhance water flow through the Mill Race and improve habitat for numerous aquatic, riparian, and wetland species.

Removal of the Mill Pond dam. This will provide better water flow along the course of the Mill Race and allow safe use of this aquatic habitat by many species, including our native Spring Chinook salmon and Western Pond Turtle.

Restoration of riparian and wetland habitat and removal of invasive plants. After removing invasive species, such as blackberries and reed canary grass, native plants will be planted along the Mill Race banks and new wetlands will be established by creating small seasonal ponds at the former Mill Pond site. These changes will encourage re-population of native wildlife.

The Mill Race and its surroundings contain significant habitat for the ecological health of our area.

Threatened species- The local area is home to a total of 26 plant and animal species listed as “Endangered,” “Threatened,” or “Species of Concern” under the Endangered Species Act. The Mill Race itself provides important habitat for the threatened Spring Chinook salmon.

Threatened habitat- As land next to our rivers becomes more developed, the value of places like Springfield’s Mill Race becomes increasingly important. Restoring Springfield’s Mill Race will preserve important habitat for future generations.
Restoration of the Mill Race is designed to improve the quality of life in Springfield by adding recreational and educational opportunities such as hiking, picnicking, wildlife viewing, and nature study.

The local community has put a great deal of effort into planning the recreational and educational development of the Mill Race.

Citizens are invited to participate in the restoration project to gain a better understanding of the process and to take pride in the restoration of this historic area. Ultimately, it will be the people of the Springfield community who benefit from the restoration of the Mill Race.

Recreational and Educational features of the restoration project:

Parking, trails, and restrooms that will serve the public by creating better access to the Mill Race.

Informational signs and interpretive kiosks will invite the public to learn about the ecological, cultural, and historical significance that the Mill Race represents.

Viewing areas will provide the public with opportunities to observe wetland, riparian, and aquatic habitats without disturbing the flora and fauna of the area.
Did You Know?

For over 150 years the Springfield Mill Race has been an important part of Springfield’s history. The Mill Race currently provides water for several important local uses, most notably the Springfield Utility Board for the municipal water supply, and McKenzie Forest Products for fire protection.

The Mill Race’s place in Springfield’s history:

The 3.5 mile-long stream was created in 1852 by Elias Briggs, who hand-dug connections of natural channels existing throughout the area. Briggs was one of the founding fathers of Springfield. The Mill Race provided power to the first gristmill and sawmill in the area.

Throughout its history, the Mill Race served as a popular place to gather for picnics, canoeing, fishing, and swimming. For a time, there was even a diving board and changing room at the corner of Mill and 29th.

Approximately 2/3 of the Mill Race, 2/3 of the Mill Pond, and 76 acres of the old Booth-Kelly Mill were donated to the City of Springfield by Georgia-Pacific in 1985.

Since the Mill Race connects the Willamette River and the Middle Fork of the Willamette, fish were once abundant in the Mill Race. Fishing was a popular activity along the banks of the Mill Race and it is said that at one point the salmon runs were so healthy that a person could catch fish by spearing them from the bank.
Economic Significance

The Mill Race is currently an untapped resource near the downtown area of Springfield. Restoration of the Mill Race will help spark renewed interest in the area. A variety of businesses will be encouraged to take advantage of this new opportunity for the benefit and enjoyment of the local community and visitors. A restored Mill Race will give a boost to the downtown area and will help to revitalize the local economy.

The citizens of Springfield have expressed an interest in several City improvements to accompany a restored Mill Race. Ideas have included:

- Restoration of a working flourmill near the Mill Race
- Canoe and bicycle rentals
- A farmers’ market in the Booth Kelly Shed
- A museum
- Public access to the Mill Pond wetlands with parking areas
Water Quality

Effects on Drinking Water and Wildlife Habitat

Portions of the Mill Race currently has poor water quality for several reasons:

The inlet to the Mill Race is on the Middle Fork of the Willamette River. Due to natural erosion, water levels and velocity have decreased.

Low water flows increase water temperatures and reduce oxygen levels needed for fish.

Storm water runoff from nearby industries, agriculture, and urban areas can impair the water quality of the Mill Race.

Increasing the flow of water in the Mill Race will reduce water temperatures and will increase oxygen necessary for healthy fish populations. Reestablishing riparian and wetland vegetation will filter the water entering the Mill Race and improve water quality. Since water in the Mill Race recharges the groundwater for a portion of the City’s drinking wells, improving water quality in the Mill Race benefits both fish and people.
The U.S. Army Corps of Engineers and the City of Springfield are partnering to provide most of the construction and financial support for physical changes to the Mill Race.

The first phase of construction will continue over the next two years. Future phases of improvements will be made in the coming years as funding becomes available.

How Can You get Involved?

Please check the box next to activities you are interested in. Cut out and mail this card and we will send you additional information.

Name: ________________________
Address:_______________________
______________________________
Phone:________________________
Email:________________________

Mail to: City of Springfield, Public Works
225 5th Street
Springfield, OR 97477

I am interested in:

☐ Cleaning up the Mill Race or removing invasive vegetation
☐ Joining the new “Friends of the Mill Race” group
☐ Contributing money or services
6.2 Educational Posters

**Springfield Mill Race History**

The Springfield Mill Race is an important historic feature that played a significant role in the industrialization of the area. Its history is marked by a series of mill races, each with its own unique character and significance. The mill race was once a vital part of the Springfield community, providing power to the mills and driving the local economy. Today, the mill race is a reminder of the area's industrial past and a testament to the ingenuity and hard work of those who lived and worked along its banks.

**Upcoming Changes to the Mill Race**

The Springfield Mill Race is undergoing a major transformation. Changes to the mill race are designed to improve water quality, enhance habitat diversity, and promote recreational use. The project includes the construction of a new fish pass, the installation of restored wetlands, and the creation of new trails for public use. These changes will help to ensure that the mill race remains a vital part of the community's identity and provides a unique space for residents and visitors to enjoy.
THE MILL RACE & YOUR WATER

During the winter months, the Mill Race can become ice-covered, limiting the use of some sections of the river. For these months, the Mill Race serves as a valuable water resource. Cold weather and ice formation can cause water levels to fluctuate, sometimes causing flooding in areas downstream. To prevent this, water is released from the Mill Pond to maintain a consistent water level in the Mill Race. This helps to protect property and infrastructure downstream. During the colder months, the Mill Race is not accessible for recreational use.

*Urban Releaf*

The Mill Race is a key component of the City’s stormwater management system. The Mill Race collects runoff from the surrounding areas, reducing the amount of stormwater that enters the river system. This helps to improve water quality and reduce the risk of flooding in the downstream areas. The Mill Race also serves as a valuable habitat for local wildlife, including fish, birds, and amphibians. By maintaining the Mill Race, the City is able to protect this important natural resource for future generations.

*Well Water*

Wells are an important water source in the area. They provide a consistent supply of water for homes, businesses, and other establishments. The quality of well water is generally high, but it is important to monitor it regularly to ensure it remains safe for use. Well water can be affected by contamination from nearby sources, such as agricultural and industrial activities. Regular testing and maintenance are essential to maintain the quality of well water.

GROUNDWATER

WATER TABLE

OUTLET to RIVER

MILL POND

 Drinking Water

WELL

GROUNDBWATER

LONG TERM VISION FOR THE MILL RACE

**Conceptual Drawing for a Restored Mill Race**

Ideas for improvements along the Mill Race include a sidewalk path and benches along the riverbank. This would provide an accessible route for outdoor recreation while also enhancing the aesthetic appeal of the area. The restored Mill Race would serve as a valuable resource for local residents and visitors, promoting physical activity and enjoying the natural beauty of the river.

**Conceptual Drawing of Waterfront Park**

A waterfront park along the Mill Race would offer a range of amenities, including picnic areas, playgrounds, and potentially even a small boat dock. This would provide a place for residents to relax and enjoy the river while also supporting local businesses and tourism.

**Conceptual Drawing of a Mill Race Greenway**

A greenway along the Mill Race would connect the downtown area to other parts of the city, promoting green transportation options and providing a scenic route for pedestrians and cyclists. This would help to reduce traffic congestion and promote a healthier lifestyle for local residents.

*Designed by Yo Tanaka*
6.3 Interpretive Site Posters

WHAT IS A BIOSWALE?

Water enters the bioswale from the City's stormwater collection system.

Part of the water from this bioswale drains into Jasper Slough which flows into the Mill Race.

Part of the water drains through the bottom into the groundwater.

A bioswale is a natural way of using plants to remove pollution from runoff water.

A New Inlet for the Mill Race

Why a New Inlet?

The proposed site for the new inlet is on the left side of the Mill Race, where the water is shallow. This location will allow for easy access to the river and the inlets, making it ideal for educational purposes.

How Has the River Changed Over Time?

The river has dinner from left to right over time, and this has been documented in historical records. The changes have been caused by human activities, such as damming and channelization of the river.

Will the New Inlet Have the Same Problem?

The new inlet will be designed to minimize the impact on the existing river. The area around the new inlet will be landscaped to create a natural look that blends with the surroundings.

Springfield Mill Race
Restoration
The Springfield Mill Race provides irrigation water to property owners on the Mill Race. Landowners pump water from the Mill Race to meet their needs, including the needs of livestock, farm-size pumps. The Mill Race is also an important component of the area's ecosystem, providing food and habitat for various species of fish and wildlife. The Mill Race has been restored and is now a popular spot for fishing, picnics, and other recreational activities. The restored Mill Race provides a valuable resource for the local community, supporting agriculture and providing opportunities for recreation and education.
Springfield’s Early Mills

Springfield’s industrial past features a variety of early factories and mills. The mill race, a network of interconnected water channels, played a pivotal role in the town’s economic development. It allowed for the efficient transport of water to power the mills and factories. The race was originally used to powering gristmills, sawmills, and textile factories. The raceway was enhanced over time with the addition of sluices and channels, further increasing its efficiency.

In 1907, the village saw the construction of the first dam to control flooding and regulate water flow. This dam, along with additional improvements, provided a more consistent and reliable water supply for the mills.

Over time, the race and mills evolved and adapted to new technologies and demands. The demise of the mills in Springfield coincided with the rise of the automobile industry, which had a significant impact on the town’s economy.

Today, the mill race and its story are preserved through various educational programs and events. The Springfield Mill Race Restoration works to maintain and enhance the area, ensuring its historical significance is preserved for future generations.

THE OLD SWIMMING HOLE

Springfield, known for its industrial past, also had a rich swimming history. The old swimming hole, located near the mill race, was a popular spot for locals to cool off during the summer months. The hole was deep and clear, providing a refreshing escape from the heat.

Over time, the hole was frequented by swimmers and children alike. It was a place of fun and laughter, with stories of close calls and near-misses still told today.

Today, a monument has been erected to commemorate the old swimming hole. It serves as a reminder of Springfield’s past and the importance of preserving our history.

Springfield Mill Race Restoration
6.5 Final Work Plan

**January 2004**

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**Springfield Mill Race Restoration**
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