STAFF REPORT NO. 128-15

TO: Mayor and City Council
FROM: Eric Holmes, City Manager
DATE: 9/14/2015

Subject: Final construction acceptance and release of retainage for the Ellsworth Water Treatment Plant (WTP) Filter Media Replacement project.

Key Points:
- Replaced 20-year old filter media in four treatment filters restoring performance and improving efficiency.
- The filter media had an estimated life of 10 years when it was installed. Good maintenance practices extended the recommended life by two times.
- Upon removal of the filter media, the condition of the internal components within the filter vessel required additional repair work that could not be identified prior to removal of the media.

Objective: To accept the construction improvements and to facilitate the release of the contractor’s retainage for the Ellsworth WTP Filter Media Replacement project.

Present Situation: Stellar J Corporation of Woodland, Washington, has completed renovating the four treatment filters and reaction tank at the 20-year old Ellsworth WTP. The large filter tanks (12 feet in diameter by 34 feet long) each hold approximately 300 cubic yards of sands, gravel and anthracite used to remove iron and manganese. This project replaced the filter media and has restored treatment efficiency and filter “run times”. In addition, the interior piping was removed and cleaned, returning the inaccessible piping buried under the media to like-new condition.

The work was completed satisfactorily in accordance with the plans and specifications. Contract costs are summarized below.

<table>
<thead>
<tr>
<th>TOTAL CONTRACT COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor, Equipment and Material</td>
</tr>
<tr>
<td>Sales Tax</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Retainage</td>
</tr>
</tbody>
</table>

The original contract amount, including sales tax, was $377,045.38. The final project cost was 85% higher than the original contracted amount.

Upon removal of the 20-year old media, areas of the tanks and components within the tanks that were previously inaccessible became visible for inspection. During inspection of the tanks, it became clear that the interior coating was failing, leading to corrosion of the tank walls. Coating
replacement was required in order to ensure the structural integrity of the tanks would not be compromised before the next filter media replacement. The City directed the contractor to sandblast and recoat the interior of the tanks and to install a cathodic protection system to reduce future corrosion. In addition, interior piping was removed and cleaned by the contractor to ensure the filter process would function efficiently.

After the repairs and media replacement, the tanks have been in constant operation since June 11, 2015. They are operating with increased filter “run times” while removing iron and manganese to low levels. The Ellsworth WTP and sources are critical to meet consumer demands especially during the summer months. Ellsworth WTP produced 14% of the total system production in July 2015.

**Advantages:**
1. Increases water system reliability and efficiency.
2. Lowers operating costs as new media requires fewer filter cleanings, which consume water, power and operator time.
3. Provides refurbishment to the 20-year old iron and manganese treatment removal system.
4. Completes the City’s contractual and statutory process for accepting the project.
5. Formal project acceptance facilitates release of the Contractor’s retainage bond.

**Disadvantages:** None.

**Budget Impact:** None. The funds for this project have been budgeted in the 2015-16 Water Department Capital Budget.

**Prior Council Review:**
- The project was approved in the 2015-16 Water Capital Improvement Budget.
- The project was included in the CIP update workshops July 7, 2014 and July 13, 2015
- The contract was approved by Council on January 5, 2015.

**Action Requested:** On September 14, 2015, accept the facilities as constructed by Stellar J Corporation of Woodland, WA, and authorize release of the retainage in the amount of $32,201.51, subject to receipt of all documentation required by law.