2016 Conservation Finance and Impact Investing in US Water
May 18 – May 22
The Aspen Institute is an educational and policy studies organization based in Washington, DC. Mission is to foster leadership based on enduring values and provide a nonpartisan venue for dealing with critical issues.
Funding and Financing Water: Past, Present, Future

Figure 1: U.S. Public Expenditures on Infrastructure, 1900–1970 (Pors, 2014, 31).
Markets for Water Rights, Water Quality, and Ecosystem Services

Figure 3: Large groundwater irrigation projects in the United States. Source: NRCS.
A Capital Conflux – New Roles for Philanthropy, NGOs and Corporations

**Figure 6:** Intersection of impact and financial return
Impact Investing in Technology

Figure 5: Number of patents filed in clean energy and water purification. Source: Ajami et al. 2014.
Evaluating Water Risk & Investment Impact

**Figure 8:** Aqueduct’s Water Risk Framework. Source: Reig et al. (2013)
Opportunities on the Horizon & Key Takeaways

• The 21st Century has brought a dramatic shift in how water and the economy intersect.

• Public funds have atrophied and infrastructure has an uncertain fiscal and operating future.

• A growing recognition that private and philanthropic capital can be used to address investment needs, deliver alternative benefits.

• New approaches such as green ecosystem services are rapidly developing.
2015

1.) The rise of big data and new measurement technologies can transform the way that water is managed in the coming decades.

2.) However, water data must be synthesized more rapidly than government agencies' current pace of analysis.

3.) A national water data policy is needed that standardizes data integration and storage for more effective water management across sectors.

4.) Overcoming privacy constraints would help to maximize the potential of water data.

5.) Accurate assessments of water risk require better matched data sources and data analytics at the individual site level.
Reach 5 Rehabilitation and Improvement Project – Phase 2 (Nichols Road Relocation)

Item 6.E
Receive and File

June 7, 2016
Project Description and Layout

- Abandon 5,700 ft of 30” PVC Pipe
- Install 5,100 ft of 32” HDPE Pipe
- 4 MAS
- 2 Mainline Valves
Schedule

- Notice to Proceed: Mar 2016
- Substantial Completion: Sep 2016
- Abandon use of Easement: Jan 2017
Questions?
Non-exclusive permanent easement from Castle and Cooke for Parcel 1, 3 and 5
Brine Line Protection
UPRR Track Relocation

Item 7.A.
June 7, 2016
Brine Line Reach IV-E Protection

Recommendation to SAWPA Commission

- Approve the transfer of $259,848.64 from Brine Line Reserves to the Brine Line Operating Budget to pay Union Pacific’s final invoice #90062492.
Brine Line Reach IV-E Protection
Brine Line Reach IV-E Construction

UP track proposed for relocation
Brine Line Reach IV-E Protection
Brine Line Reach IV-E Protection
## Brine Line Reach IV-E Protection

### Cost

<table>
<thead>
<tr>
<th>Task</th>
<th>Cost (US$)</th>
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<tbody>
<tr>
<td>Engineering</td>
<td>50,574.71</td>
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<tr>
<td>Construction</td>
<td>615,703.83</td>
</tr>
<tr>
<td>TOTAL</td>
<td>666,278.54</td>
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<tr>
<td>SAWPA Share (39%)</td>
<td>259,848.64</td>
</tr>
</tbody>
</table>
Recommendation to SAWPA Commission

- Approve the transfer of $259,848.64 from Brine Line Reserves to the Brine Line Operating Budget to pay Union Pacific final invoice #90062492.
Questions?
NOTE:
1. PROP. TRACk NOT SHOWN FOR CLARITY.
Brine Line Reach IV-E UP Property

Additional fill over pipes as a result of relocated track

Existing 36” Brine Line

Existing 57” RIX Line
Multi-jurisdictional Local Hazard Mitigation Plan

Item 7.B.
June 7, 2016
Local Hazard Mitigation Plan

Recommendation to SAWPA Commission

- Direct the General Manager to submit a Letter of Commitment as a participating jurisdiction in Riverside County Operational Area Multi-Jurisdictional Hazard Mitigation Planning and a Notice of Intent to Participate in the San Bernardino County Local Hazard Mitigation Plan update process.
Local Hazard Mitigation Plan

- Local Hazard Mitigation Plan – FEMA Condition for federal disaster mitigation funds
- Lead Agencies are Riverside County Emergency Management Department and San Bernardino County Office of Emergency Services.
- Brine Line risks and vulnerabilities are identified and strategies developed to prevent/minimize damage
- SAWPA Commission will require adoption of final plans [planned for late 2016/ early 2017]
Recommendation to SAWPA Commission

- Direct the General Manager to submit a Letter of Commitment as a participating jurisdiction in Riverside County Operational Area Multi-Jurisdictional Hazard Mitigation Planning and a Notice of Intent to Participate in the San Bernardino County Local Hazard Mitigation Plan update process.

Brine Line Reach IV-E Protection
Questions?