



*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

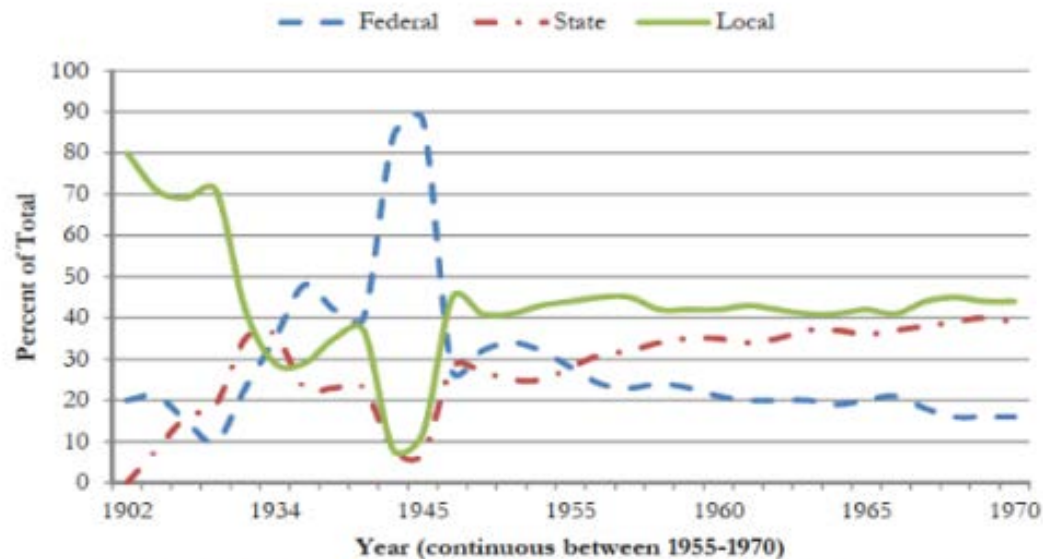


Figure 1: U.S. Public Expenditures on Infrastructure, 1900–1970 (Pors, 2014, 31).

Markets for Water Rights, Water Quality, and Ecosystem Services

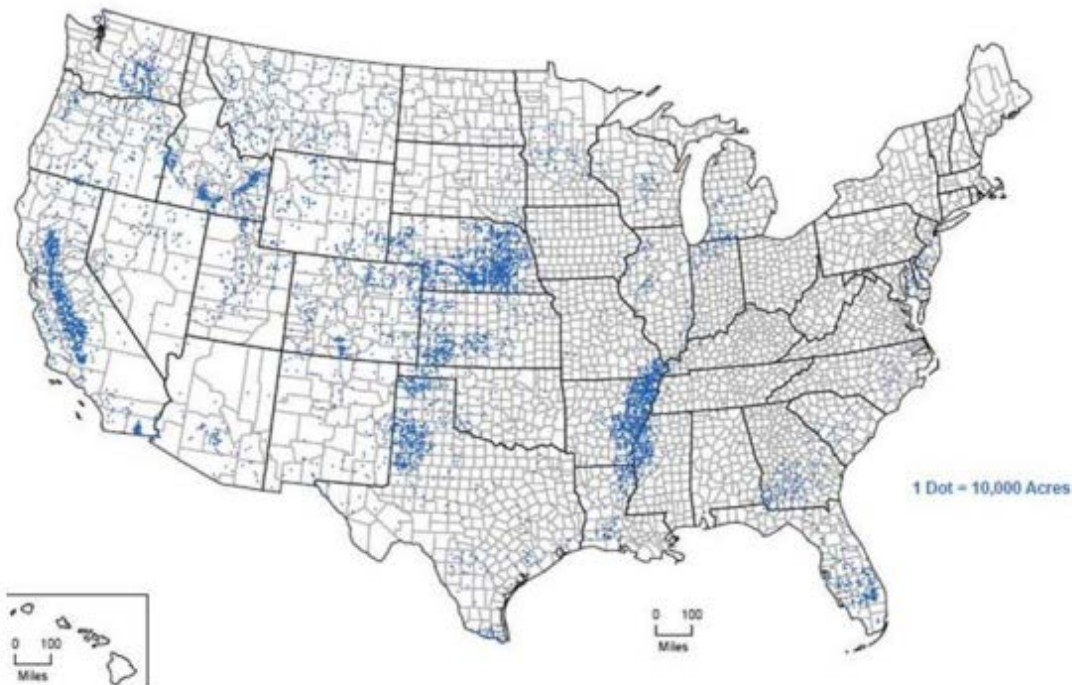


Figure 3: Large groundwater irrigation projects in the United States. Source: NRCS.

A Capital Conflux – New Roles for Philanthropy, NGOs and Corporations

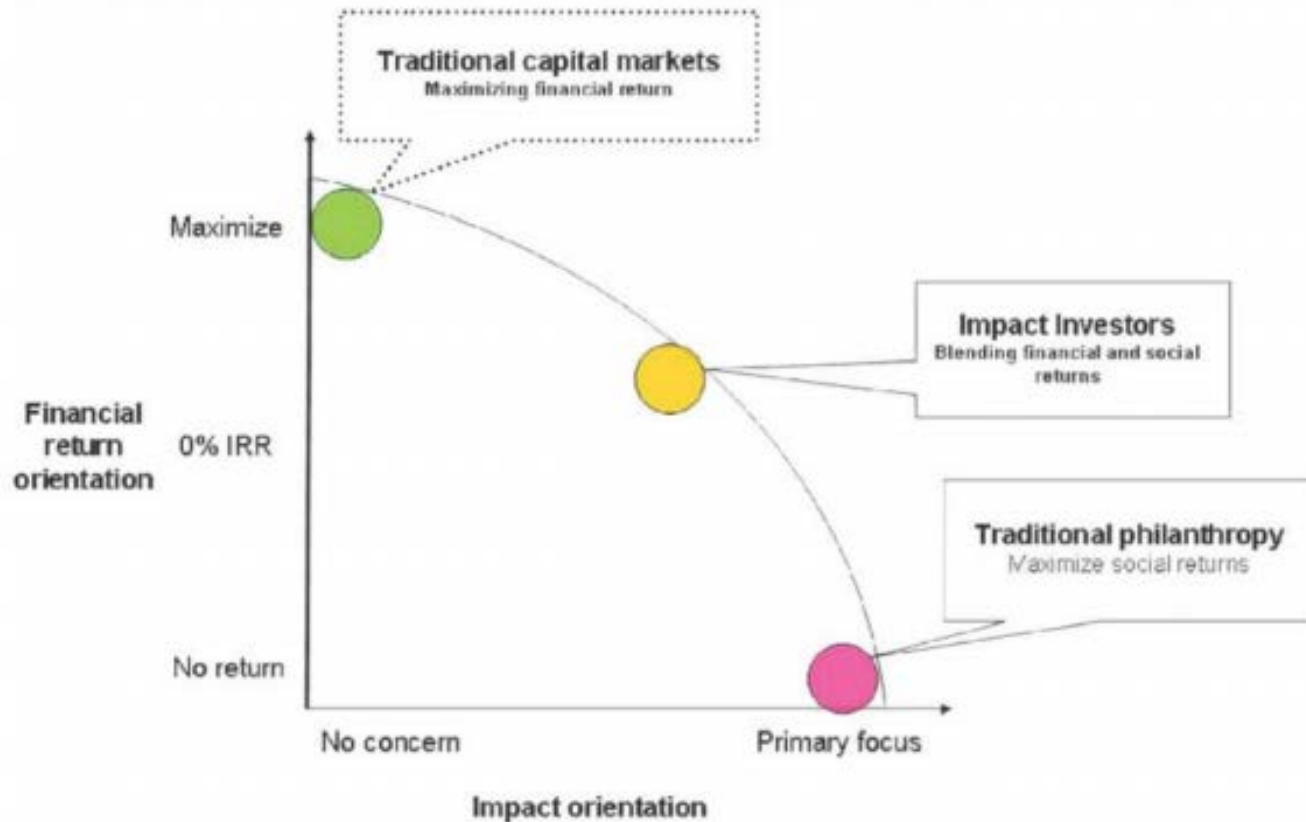


Figure 6: Intersection of impact and financial return

Impact Investing in Technology

(B) Trends in nondefense R&D

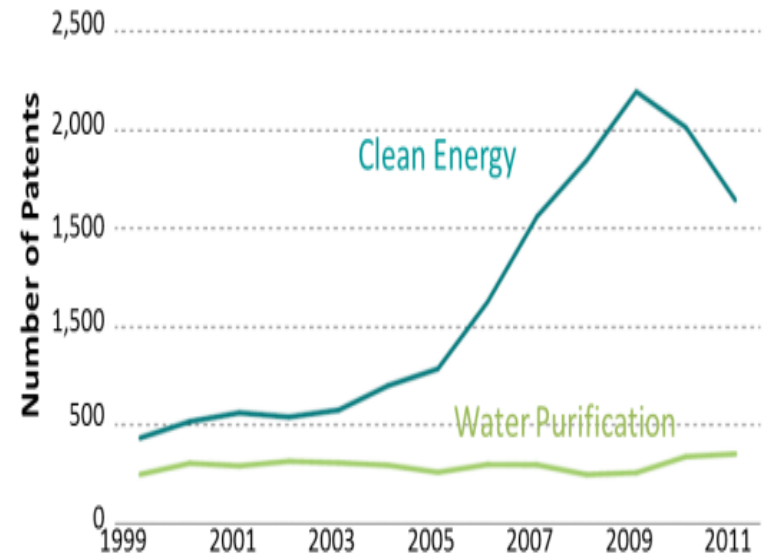
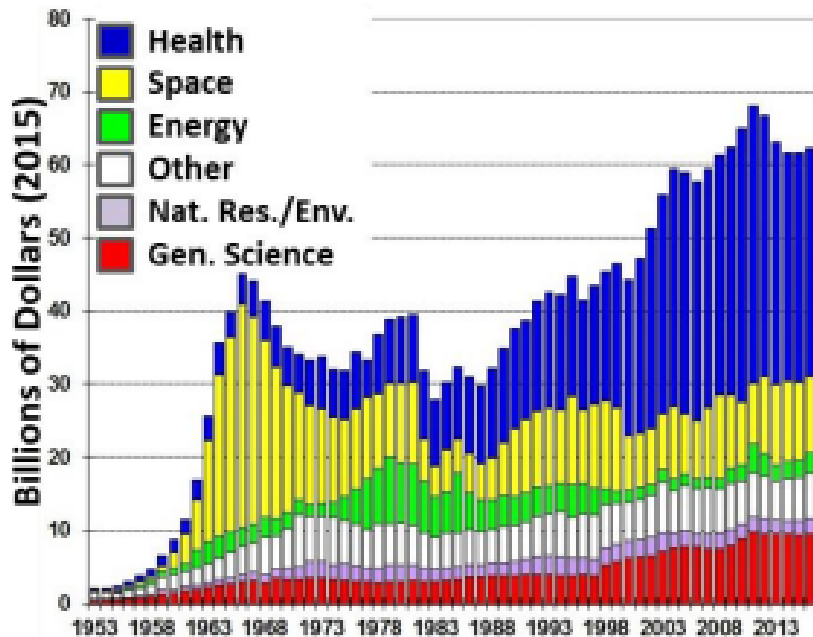


Figure 5: Number of patents filed in clean energy and water purification. Source: Ajami et al. 2014.

Evaluating Water Risk & Investment Impact

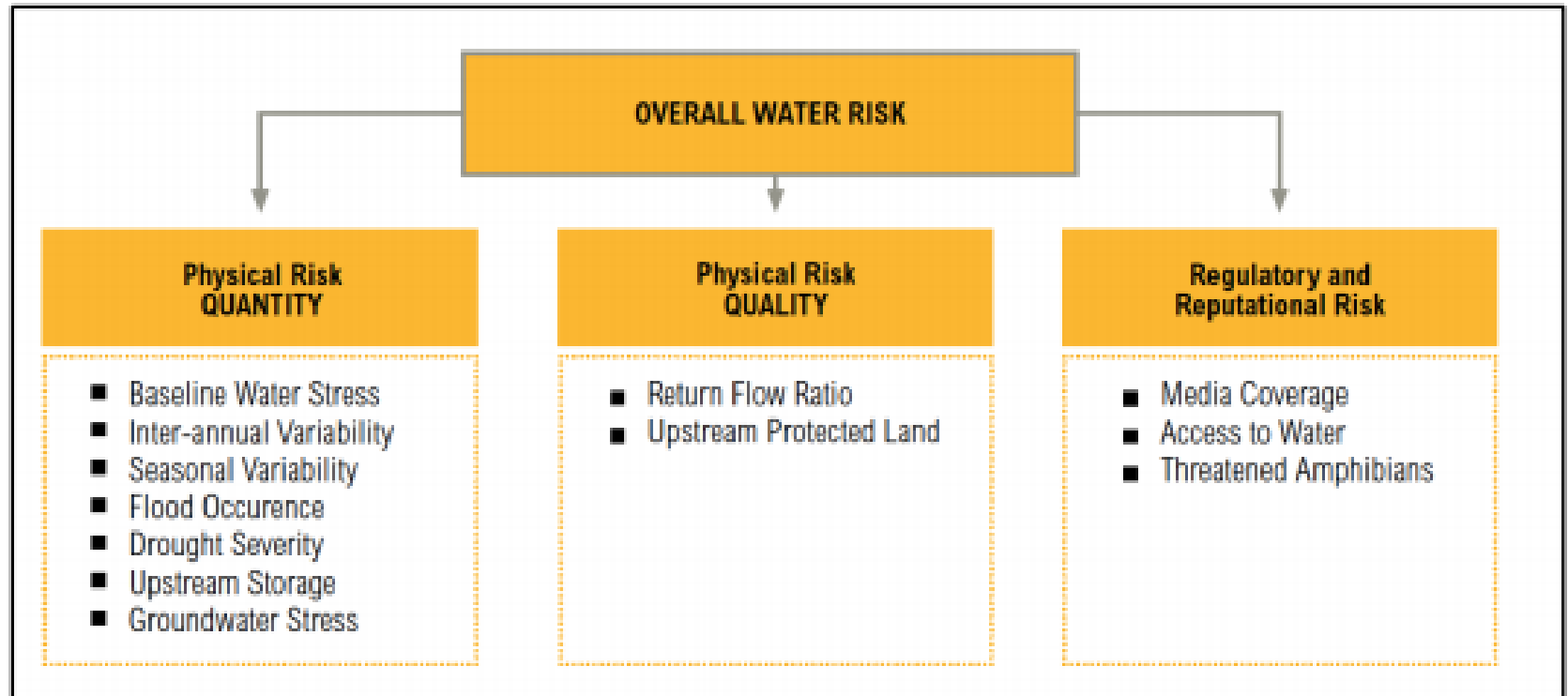


Figure 8: Aqueduct's Water Risk Framework. Source: Reig et al. (2013)

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

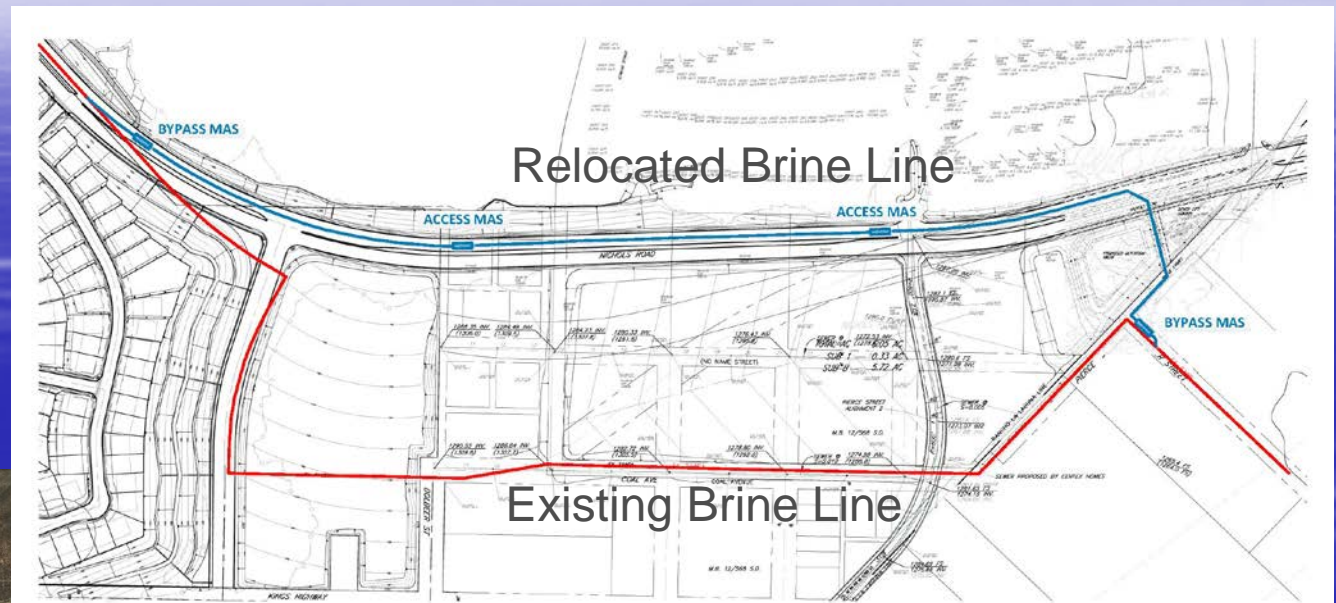
- 1.) The rise of big data and new measurement technologies can transform the way that water is managed in the coming decades.
- 2.) However, water data must be synthesized more rapidly than government agencies' current pace of analysis.
- 3.) A national water data policy is needed that standardizes 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

- Schedule

- Notice to Proceed

Mar 2016

- Substantial Completion

Sep 2016

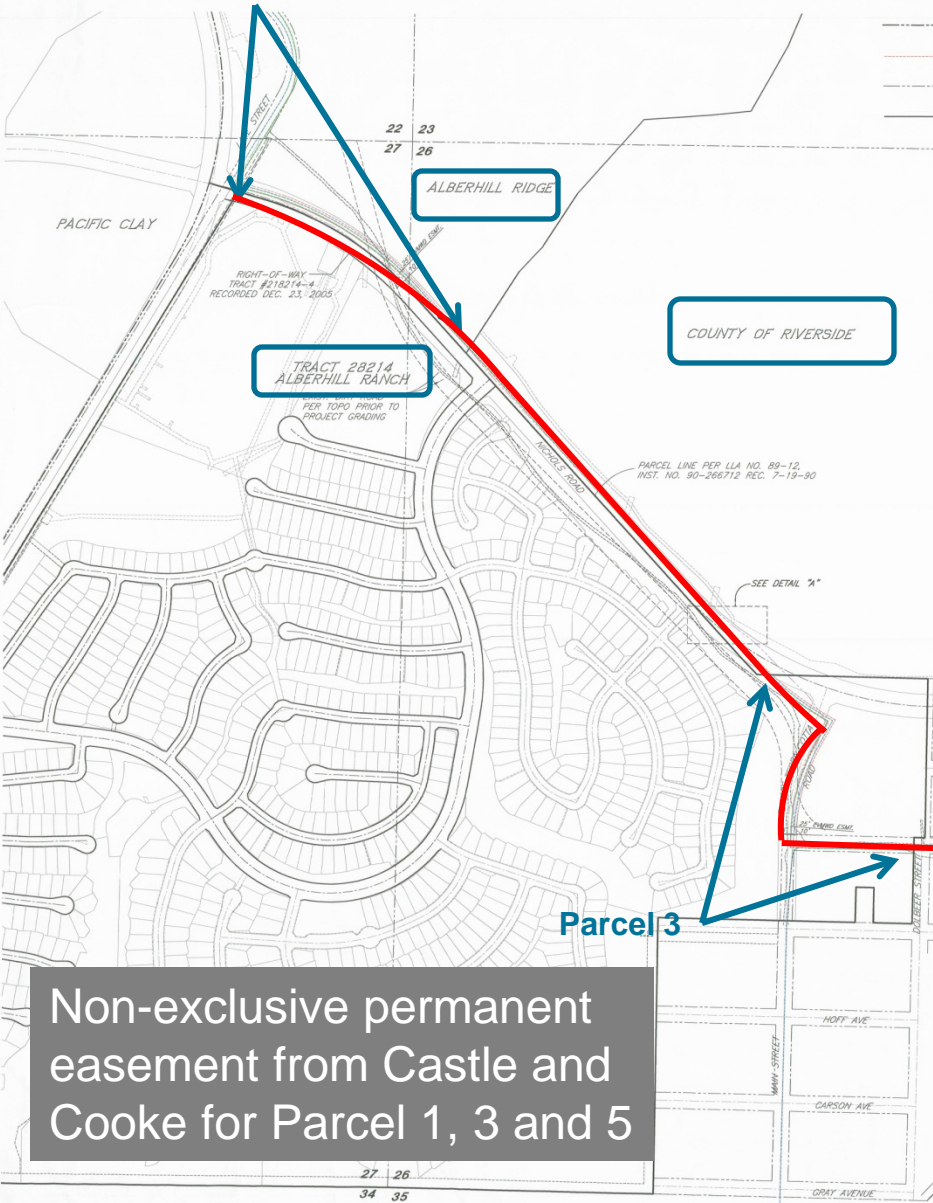
- Abandon use of Easement

Jan 2017



Questions?

Parcel 1



TRACT 30836
ALBERHILL ESTATES

CASTLE & COOKE

Non-exclusive permanent
easement from Castle and
Cooke for Parcel 1, 3 and 5

Reach V Brine Line

Brine Line Protection UPRR Track Relocation

Item 7.A.

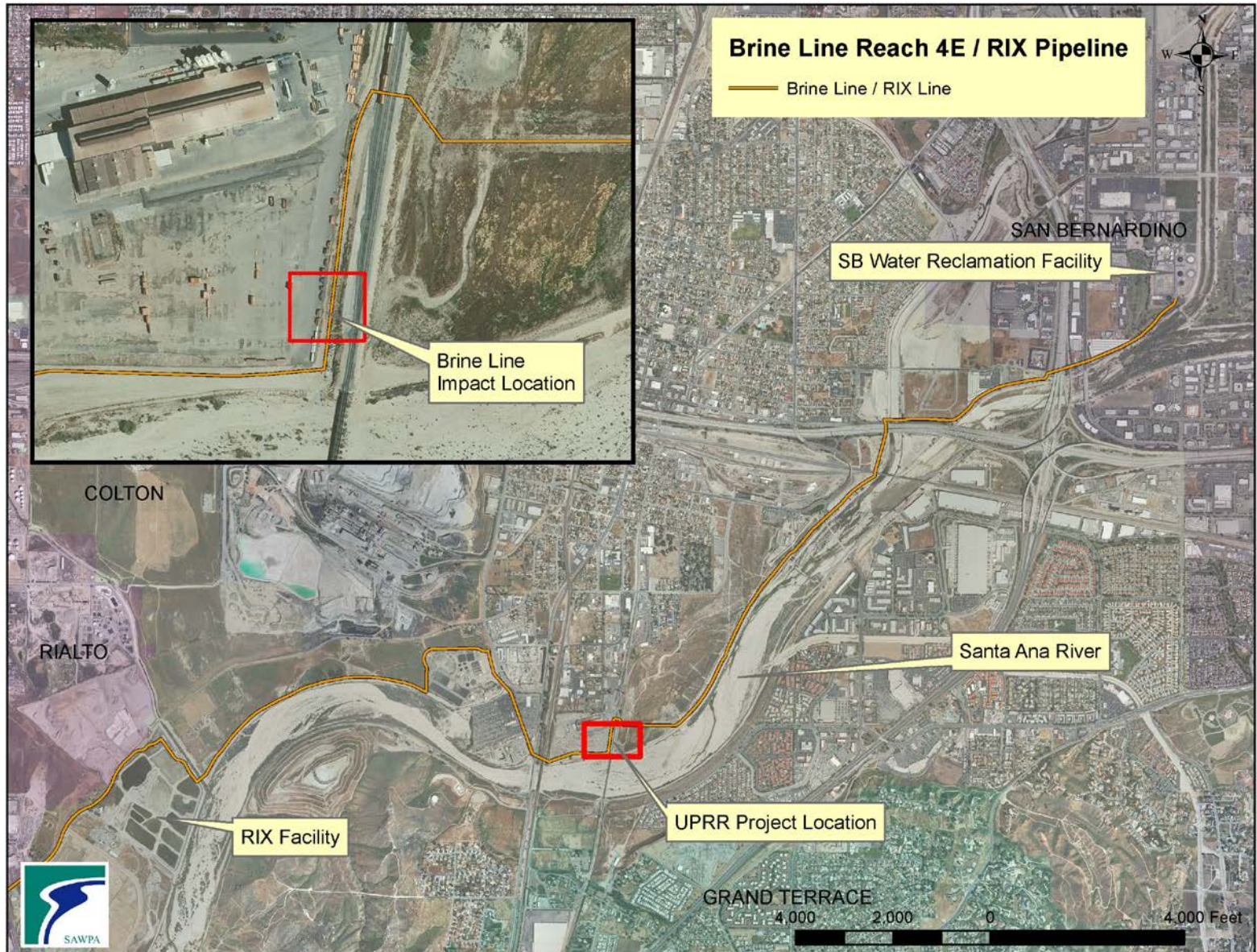
June 7, 2016

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.

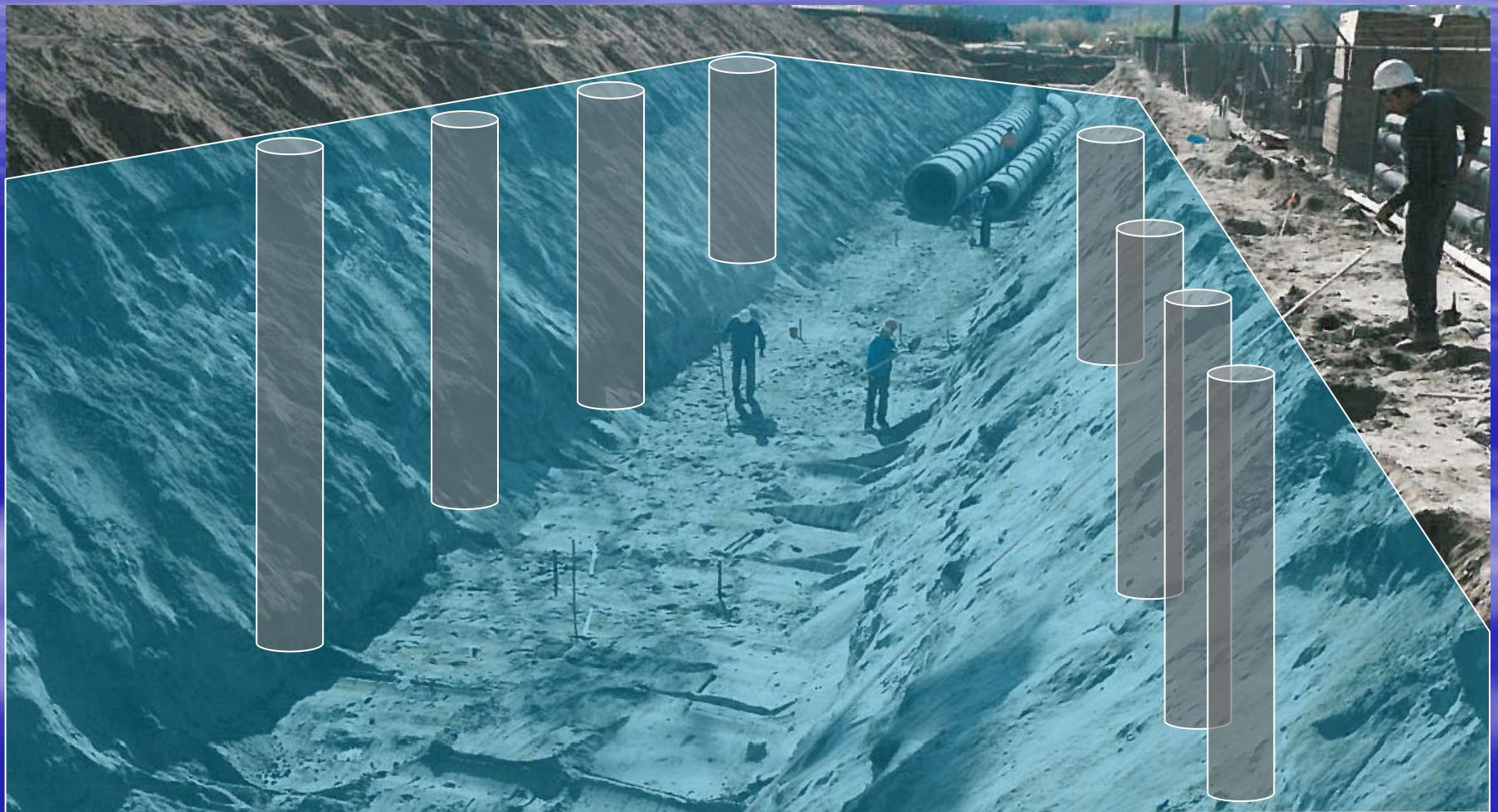
Brine Line Reach IV-E Protection



Brine Line Reach IV-E Construction



Brine Line Reach IV-E Protection



Brine Line Reach IV-E Protection



Brine Line Reach IV-E Protection



Brine Line Reach IV-E Protection

Cost

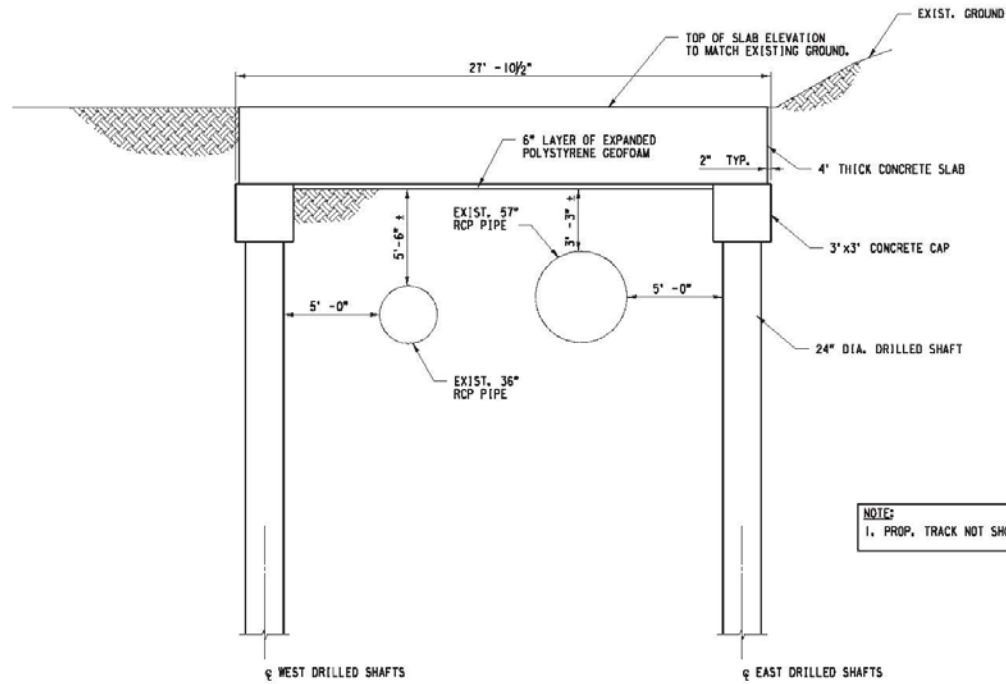
Task	Cost (US\$)
Engineering	50,574.71
Construction	615,703.83
TOTAL	666,278.54
SAWPA Share (39%)	259,848.64

Brine Line Reach IV-E Protection

Recommendation to SAWPA Commission

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Questions?



NOTE:
 1. PROP. TRACK NOT SHOWN FOR CLARITY.



N

Washington St

St. La Catalina Dr

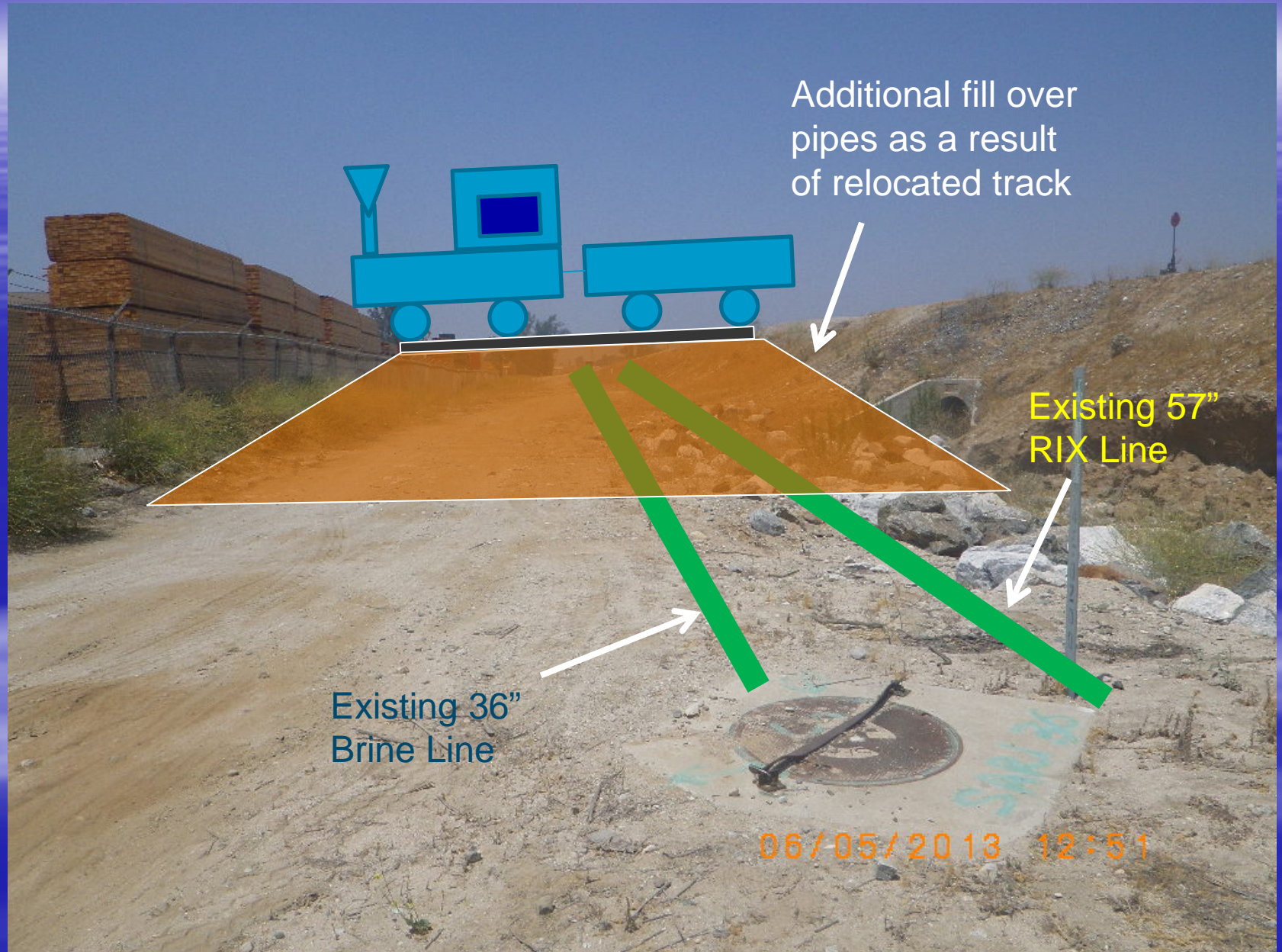
Google earth

© 2014 Google

1995

Imagery Date: 4/27/2014 lat 34.049595° lon -117.325284° elev 912 ft eye alt 2796 ft

Brine Line Reach IV-E UP Property



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]

Brine Line Reach IV-E Protection

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Questions?