Making the Right Choices for Your Utility:

Incorporating Community Priorities into Investment Decision-Making

Augmented Alternatives Analysis Method

September 21, 2022

Today's Speakers:

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OPENING POLL

Please indicate the sector that you work in:

- Utility
- State or local government
- Federal government
- Consultant
- Water Association/Organization
- Other

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POLL QUESTION

Are you planning on using federal or state funds for an infrastructure project in the next two years? :

- YES
- NO

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Augmented Alternatives Analysis…What is it?

- **An infrastructure planning process that augments traditional alternatives analyses by:**
  - **Proactively engaging the community to understand their priorities and elevate their awareness of utility needs.**
  - **Addressing and quantifying some environmental, economic, and social benefits and costs associated with these long-term infrastructure investments.**
  - **Selecting the most cost-effective project alternative when there are multiple drivers or sources of water pollution, which make project decision-making more complex**

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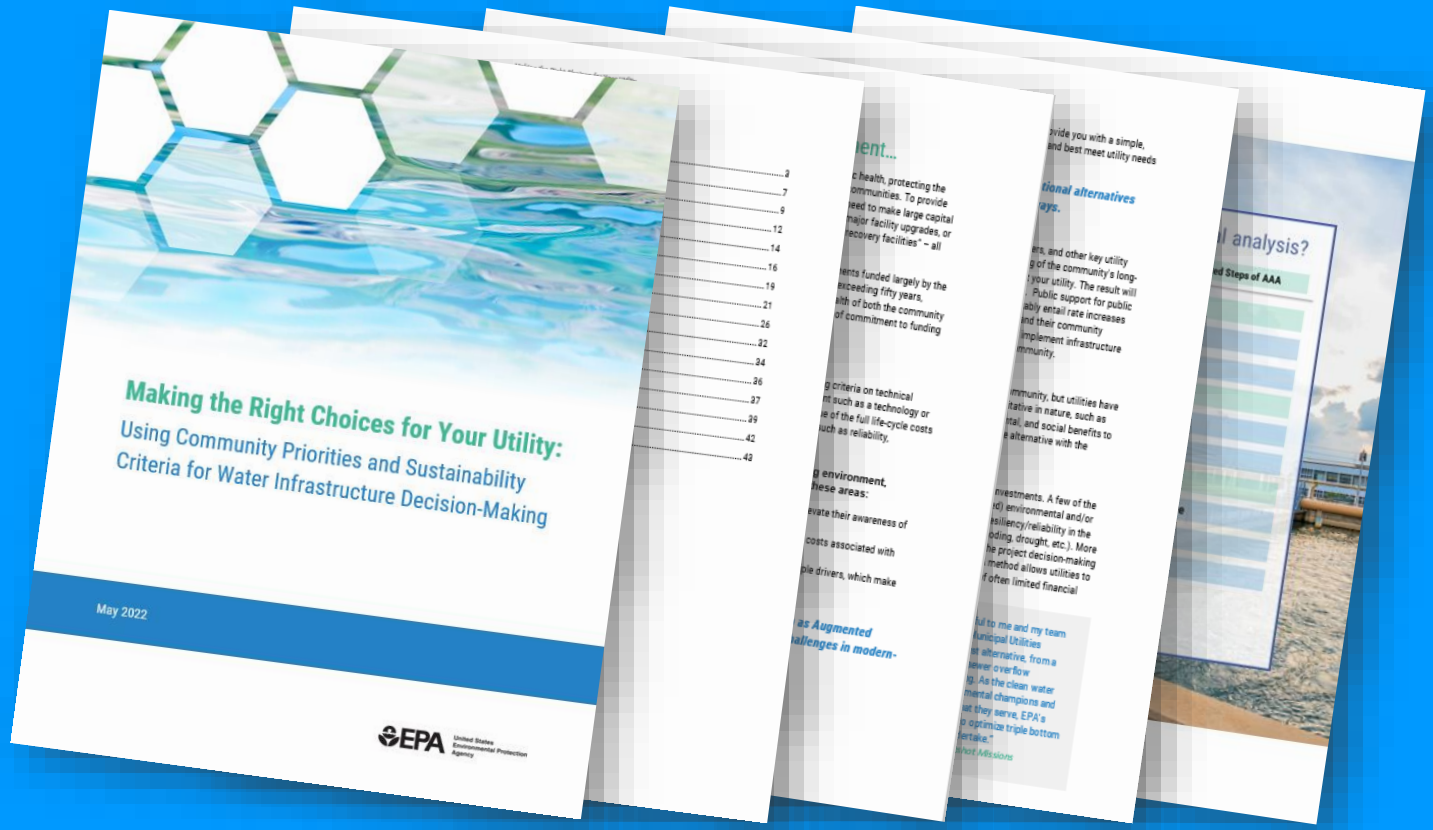
NEW! EPA's AAA Guide – Revised May 2022



To view, search online for EPA's "Planning For Sustainability" webpage

Key Attributes of the AAA Process

1. Act as an ANCHOR INSTITUTION in the community by engaging the community, facilitating meaningful community engagement
2. Helps to quantify “qualitative” criteria to compare multi-benefits
3. Addresses financial constraints of utilities through a staff-driven, community influenced prioritization process
4. Works well with EPA’s Integrated Planning Framework (and other planning tools)

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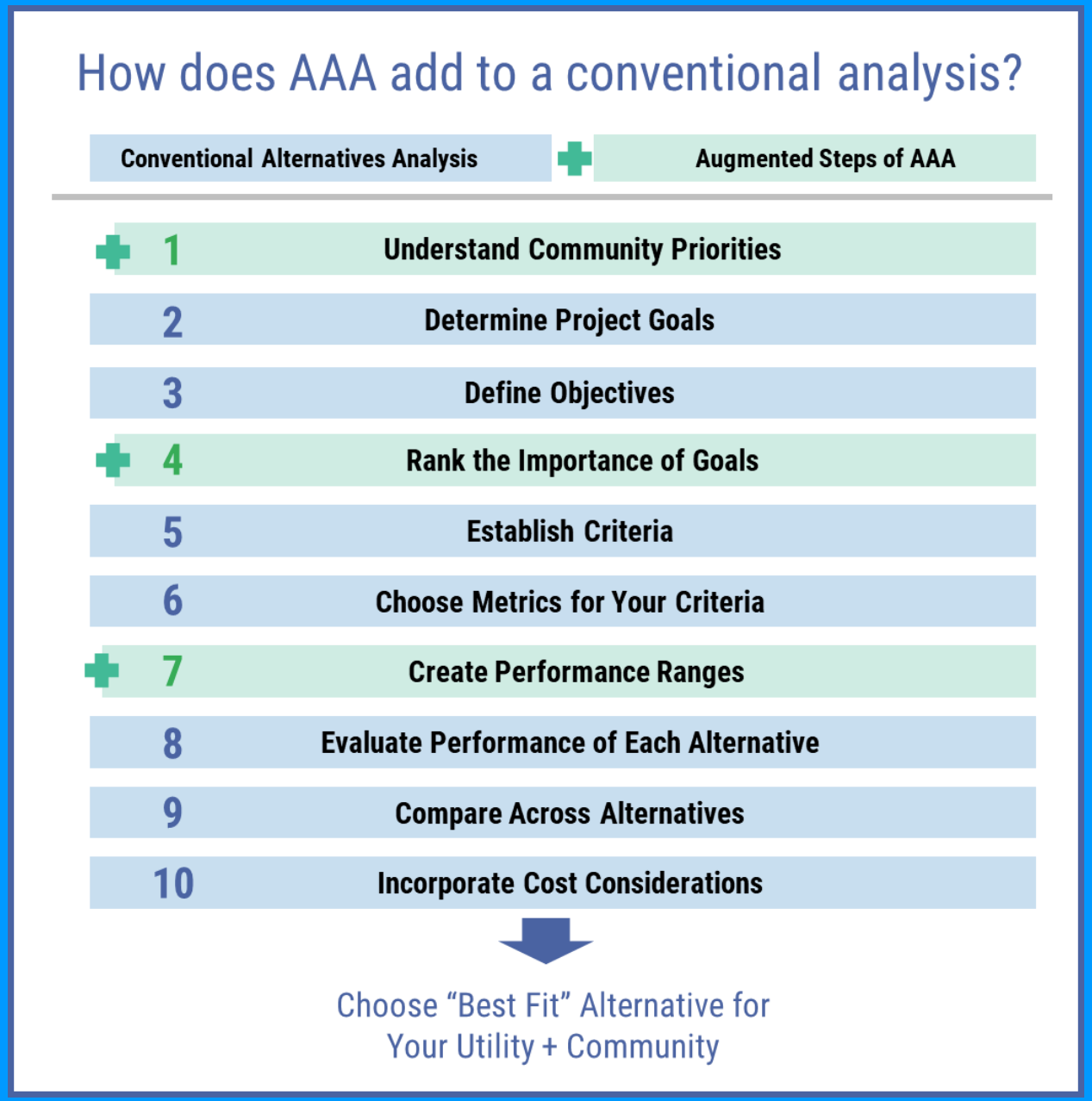
Augmented Alternatives Analysis

10 Steps At A Glance



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- **Camden County Municipal Utilities Authority**
  - Large City
  - Water Resource Recovery Utility
- **City of Saco Water Resource Recovery Department**
  - Small Town
  - Water Resource Recovery Utility
- **High Line Canal Conservancy**
  - Non-profit
  - Works with 11 jurisdictions and water districts

EPA conducted three Pilot Projects

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Saco Water Resource Recovery Department

Saco, ME

4.2 MGD Capacity

Last Major Upgrade in 2010-11

46.6” of Rain in 2020

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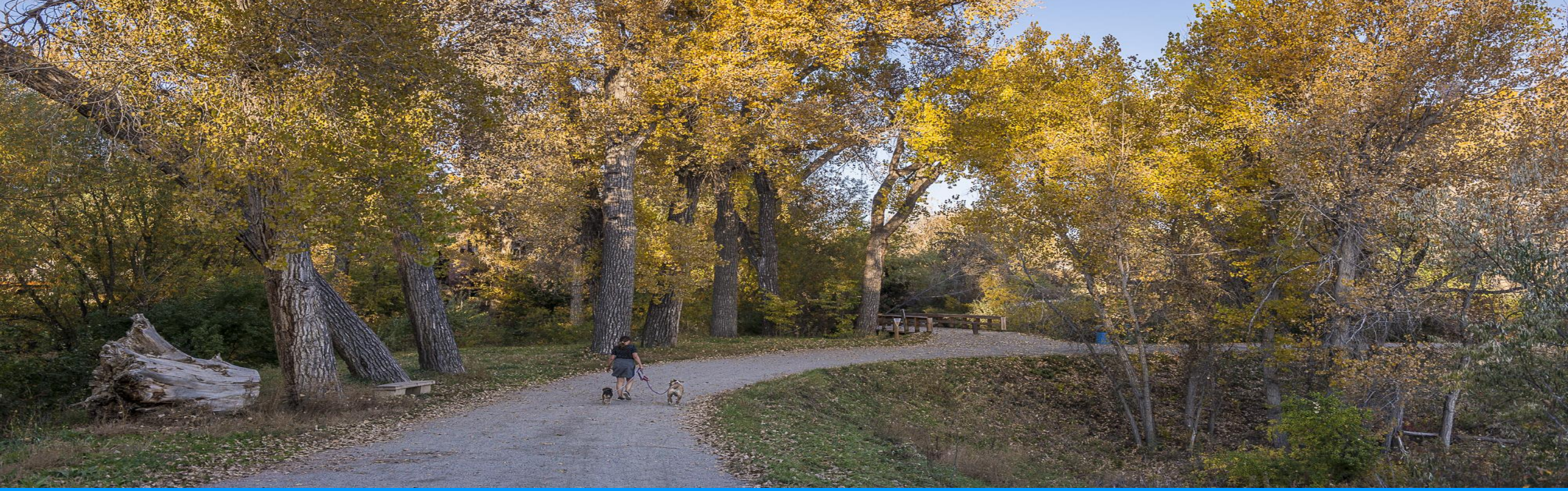

The Highline Canal Conservancy

Denver, CO

71 Miles of Canal

11 jurisdictions

2014: Conservancy was formed

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What's Next?

Stay tuned for :

- Fillable worksheets that take you through the process
- Webinars and workshops
- Pilot project(s) for small and rural community

POLL QUESTION

Is your community below the national median household income level of $67,000? Or are their neighborhoods within your community that may be below that level?

- YES
- NO

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Thank You!!

For questions, please contact me:

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Using EPA's AAA process to IMPLEMENT STORMWATER MANAGEMENT IN AN EFFECTIVE AND EQUITABLE MANNER

Andrew Kricun, P.E.

Managing Director, Moonshot Missions

September 21, 2022

Localized AND COMBINED SEWAGE Flooding in Camden, NJ from a 1-inch rain event





COMBINED SEWER SYSTEMS

- State of the art in the late 19th century, anachronistic with the advent of the automobile and subsequent paving of cities and towns
- Equitable solutions must:
  - ➢ Eliminate combined sewage flooding.
  - ➢ Minimize combined sewage overflows.
  - ➢ Address these issues while changing an affordable, equitable rate.

Equitable implementation of combined sewage system solutions

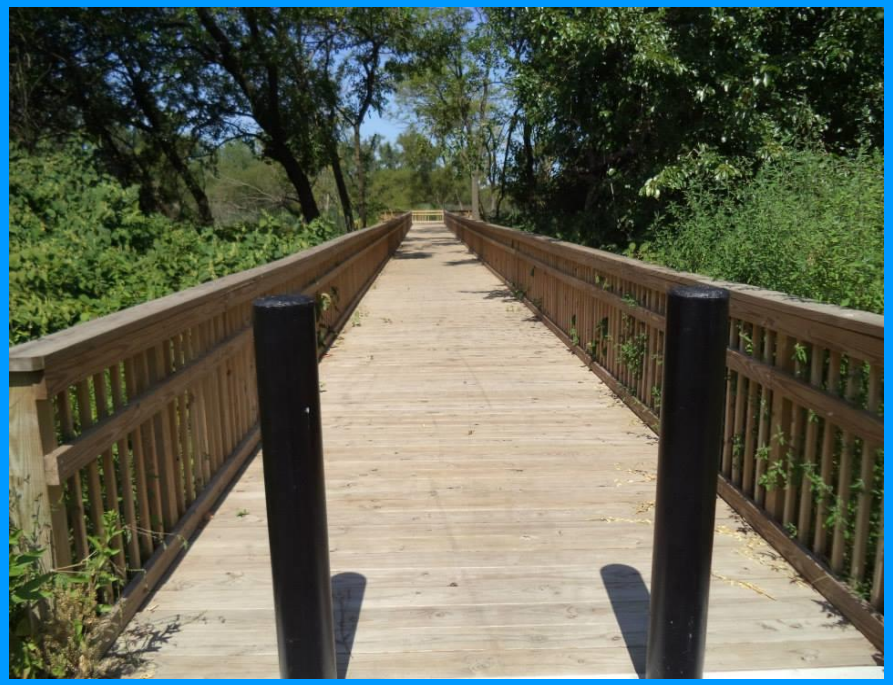
I. Optimize existing combined sewer system capacity
   i. green infrastructure to capture stormwater and reduce the volume of flow entering the sewer system.
   ii. Optimizing maintenance to maximize sewer storage capacity.

II. Increase combined sewer system capacity
   i. Judicious sewer separation, where possible.
   ii. Judicious replacement with larger capacity pipes, where possible.

III. Expand Receiving wastewater treatment plant
   i. Remove volumetric bottlenecks
   ii. Increase pumping to storage capacity
   iii. Secondary treatment bypass, where possible

Baldwin's Run Stream Daylighting Project- *Before*

Baldwin's Run Stream Daylighting Project- *After*



POWER CORPS CAMDEN

EQUITABLE FUNDING OF COMBINED SEWER SYSTEM SOLUTIONS

A. Minimize reserve required from all ratepayers through:
   - ➢ Operational Cost Efficiencies
   - ➢ Obtain grant and low interest loan funding
     - WIFIF
     - SPF
     - Open space grant funding
B. Obtain revenue equitably
   - ➢ implementation of a stormwater fee for impervious surfaces

Stormwater fees-an essential component of an equitable CSO strategy

1) Stormwater can average approximately 40% of total volume received in a combined sewer system in a typical year.
2) 1 gallon of sewage + 1 gallon of stormwater = 2 gallons of sewage
3) If no one pays, then everyone pays
4) Inequitable apportioning is more disadvantageous to low-income households

Conclusion: It is essential to charge for impervious surface in a combined sewer system, in order to be equitable to low-income households

SUMMARY

Equitable Combined Sewer Solutions Includes:

1. Elimination of combined sewage flooding and overflow
2. Triple bottom line solutions, such as green infrastructure
3. Maximizing funding to reduce total revenue requirements
4. Stormwater fee to apportion revenue requirements fairly and equitably

POLL QUESTION

Are you Interested in using AAA in your community for your infrastructure projects?

- YES
- NO

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QUESTIONS?

Thanks for Listening!

If you would like more information, please contact:

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