AGRICULTURAL REUSE COMMITTEE FOCUS

Melanie Holmer
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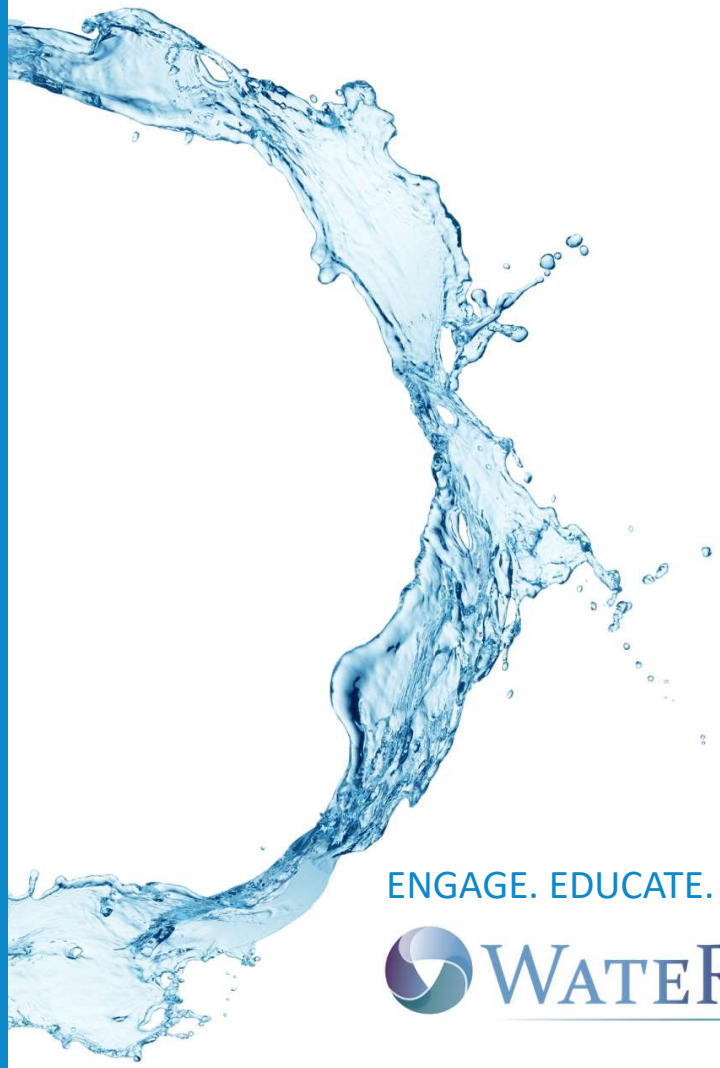
WRCA Central Valley/Sierra Foothills Chapter Trustee
Co-Chair WRCA Ag Reuse Standing Committee

August 16, 2024



ENGAGE. EDUCATE. ADVOCATE.

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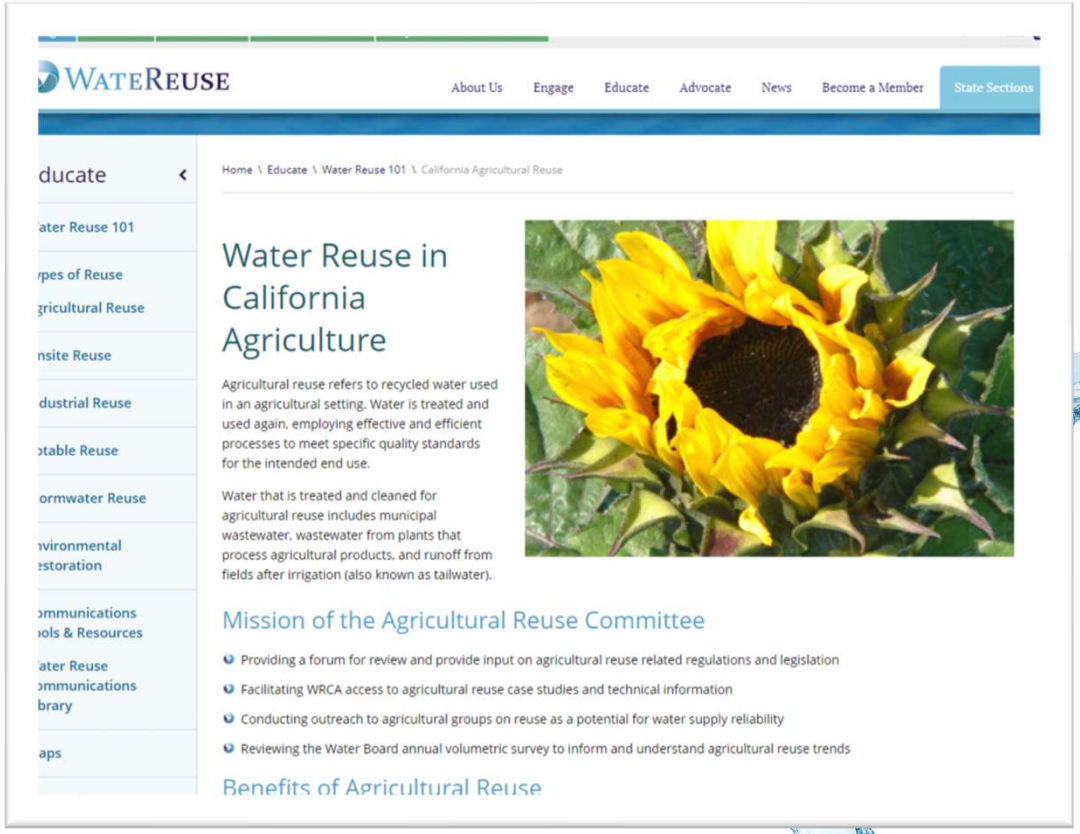
WRCA Ag Reuse Standing Committee

- Co-Chairs: Shannon Cotulla (Town of Windsor) and Melanie Holmer (Jacobs)
- Members across the state
- Quarterly virtual meetings, some focused subcommittee meetings



Mission of the Agricultural Reuse Committee

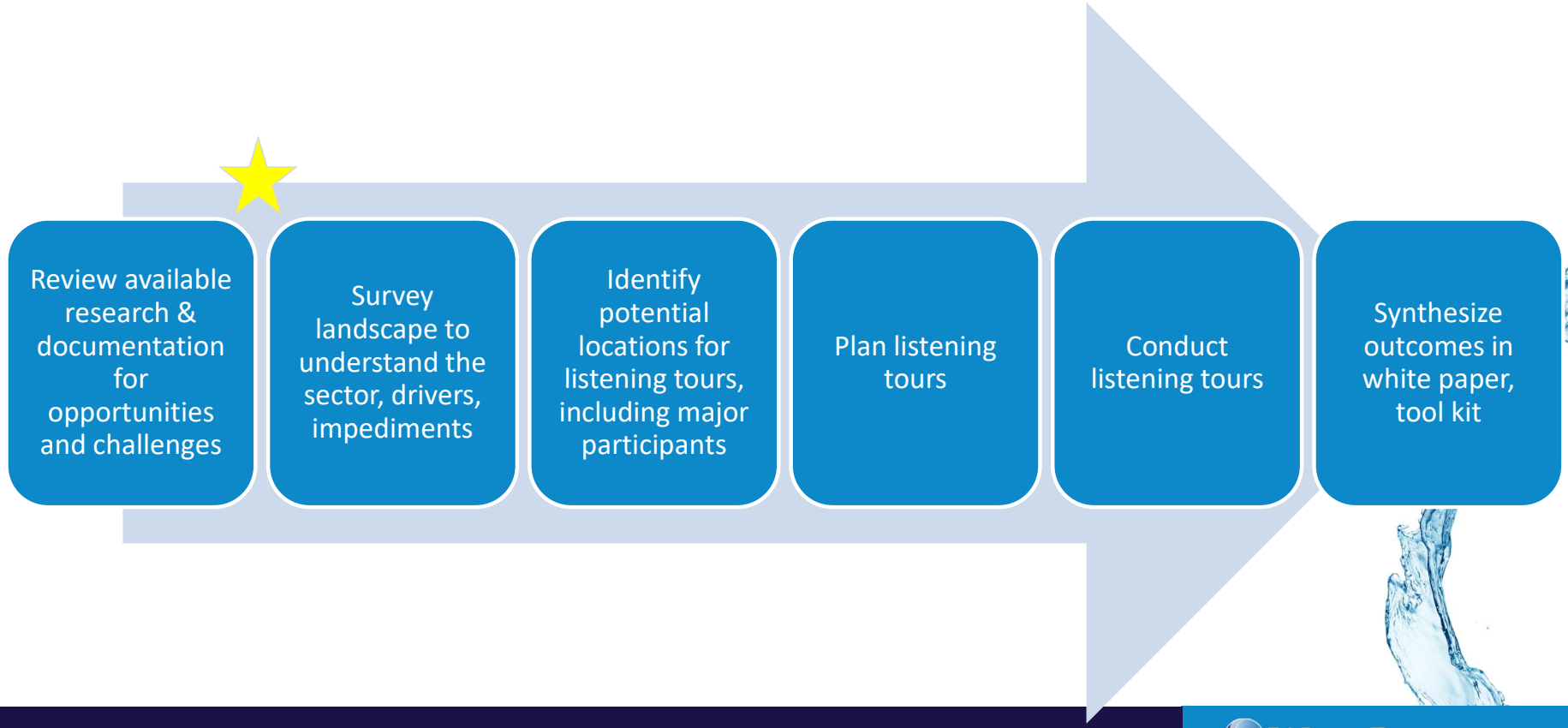
- Providing a forum for review and provide input on agricultural reuse related regulations and legislation
- Facilitating WRCA access to agricultural reuse case studies and technical information
- Conducting outreach to agricultural groups on reuse as a potential for water supply reliability
- Reviewing the Water Board annual volumetric survey to inform and understand agricultural reuse trends

Renewed Focus for Ag Reuse Committee

Hold California Ag Reuse Engagement Forums to understand barriers to ag reuse and identify solutions, a tool kit to assist utilities and ag customers in developing ag reuse solutions.

- Capture current regional efforts for recycled water use by Ag
- What are the Ag community's experience and concerns with recycle water
  - What has worked and what has not worked
- What opportunities exist for expanding or developing recycled water use by Ag
- What obstacles exist: infrastructure, cost, regulatory, political, perception, etc.

Approach


Review available research & documentation for opportunities and challenges
Survey landscape to understand the sector, drivers, impediments
Identify potential locations for listening tours, including major participants
Plan listening tours
Conduct listening tours
Synthesize outcomes in white paper, tool kit

Review available research and documentation

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Data Sources: Where is the Effluent?

- Reuse Survey Data (2009, 2015): Ag Reuse
  - Conducted via phone calls and in-person meetings
- Volumetric Annual Report (VAR)
  - Collected annually beginning in 2019, superseded the reuse survey approach
  - Requires Title 22 Engineering Report and permitting for inclusion
  - Database

Key Takeaways from WRF 4962: Identifying the Amount of Wastewater That Is Available and Feasible to Recycle in California (Based on 2019 VAR data)

- Highest volume of ag reuse in Central Valley (5S and 5F).
- Highest volume of unused effluent in LA and SF Regions (2 and 4)

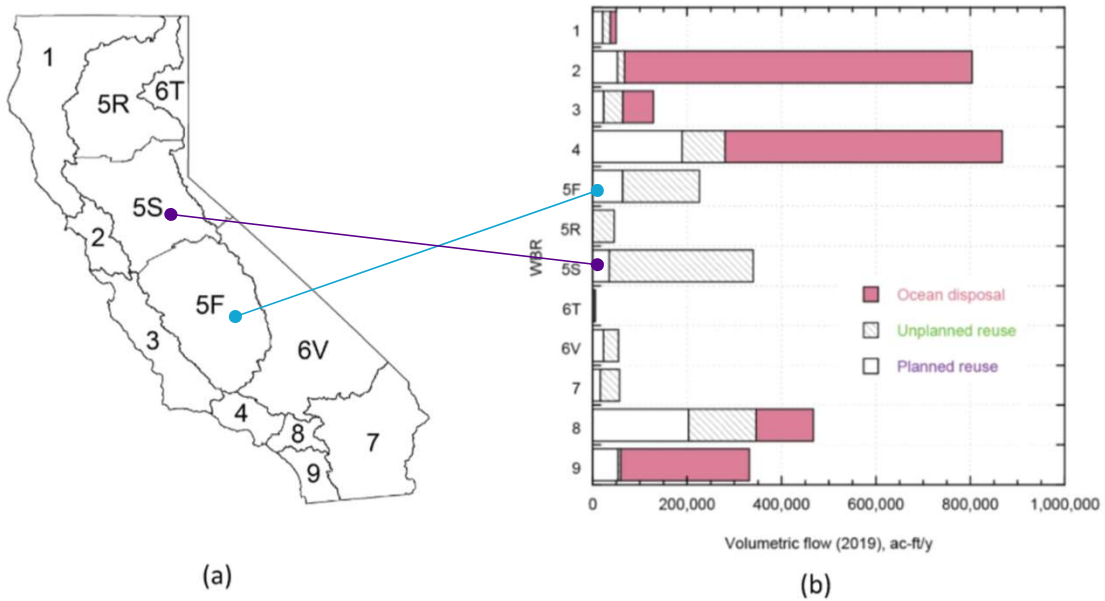


Figure 2-3. Summary of effluent flow in California.

(a) overview map of Water Board Regions (WBRs) including: North Coast (Region 1), San Francisco Bay (Region 2), Central Coast (Region 3), Los Angeles (Region 4), Central Valley/Fresno (Region 5F), Central Valley/Redding (Region 5R), Central Valley/Sacramento (Region 5S), Lahontan/Tahoe (Region 6T), Lahontan/Victorville (Region 6V), Colorado River Basin (Region 7), Santa Ana (Region 8), and San Diego (Region 9); and (b) 2019 volumetric effluent flows for water reuse, unplanned/non-Title 22 reuse, and disposal by WBR.

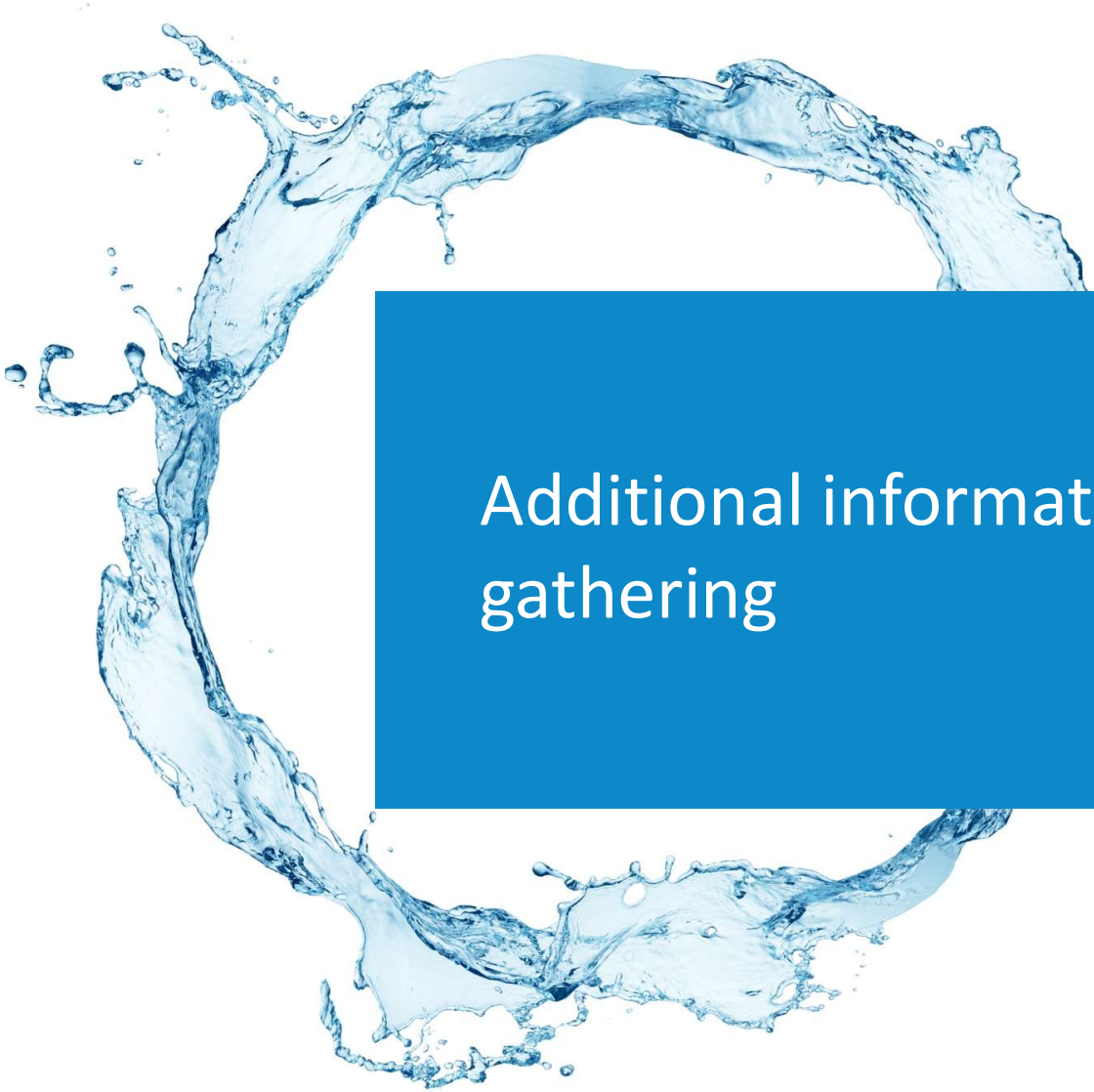
Summarize impediments in CA for Ag Reuse from WRF 4775 and/or WRF 4956

- Overly conservative or confusing regulations
- Negative perceptions around public health risks
- Water Quality challenges
- Seasonality of demand
- Declines in Influent Wastewater Flows
- Economic and Financial Impediments
- Technological impediments
- Agronomic Water Quality Concerns
- Institutional Settings

Table 2-1. Summary of Regulations, Guidelines, and Standards Relevant to Agricultural Water Reuse.

Regulation, Guideline, or Standard	What is it?	Developed by	Who it applies to?
2012 EPA Water Reuse Guidelines	Compendium of resources on water reuse, including best practice guidance on state regulations	USEPA and other stakeholders	N/A - General guidelines, for reference only
NPDES Permitting Programs	State-level implementation of federal Clean Water Act requirements	Federal and state environmental protection agencies	Facilities discharging to waters of the United States (includes many wastewater treatment facilities)
State Recycled Water Regulations/Guidelines	State regulations on recycled/reclaimed water quality and use	Typically, state environmental protection agencies	Water agencies treating and supplying recycled water
State anti-degradation policies impacting groundwater/ land application regulations	State regulations to limit degradation of surface and/or groundwater resources[1]	Typically, state environmental protection agencies	Land-based activities (such as the application of recycled water) that have the potential to impact surface and/or groundwater resources
Food Safety Modernization Act - Produce Safety Rule (FSMA - PSR)	2011 federal legislation creating/updating microbial water quality standards for all waters[2] used in agricultural production and processing	Federal legislation, rulemaking led by FDA	Agricultural producers and processors using water for the production of food crops consumed raw
Leafy Greens Marketing Agreement (LGMA)	Industry driven food safety standards and audits overseeing the production of leafy greens in CA and AZ	Industry consortium developed based on food safety best practices	Growers and processors of leafy greens in AZ and CA

1. Federal Clean Water Act anti-degradation policies typically do not generally apply to groundwater, but some states have supplemental regulations and permitting programs aimed at protecting groundwater quality. Some include requirements impacting the use of recycled water for irrigation.
2. FSMA-PSR regulations apply across all sources of water used in the production and processing of all food crops consumed raw. This includes recycled water, but also all other water sources used (e.g., surface water, canal water, groundwater).



Additional information gathering

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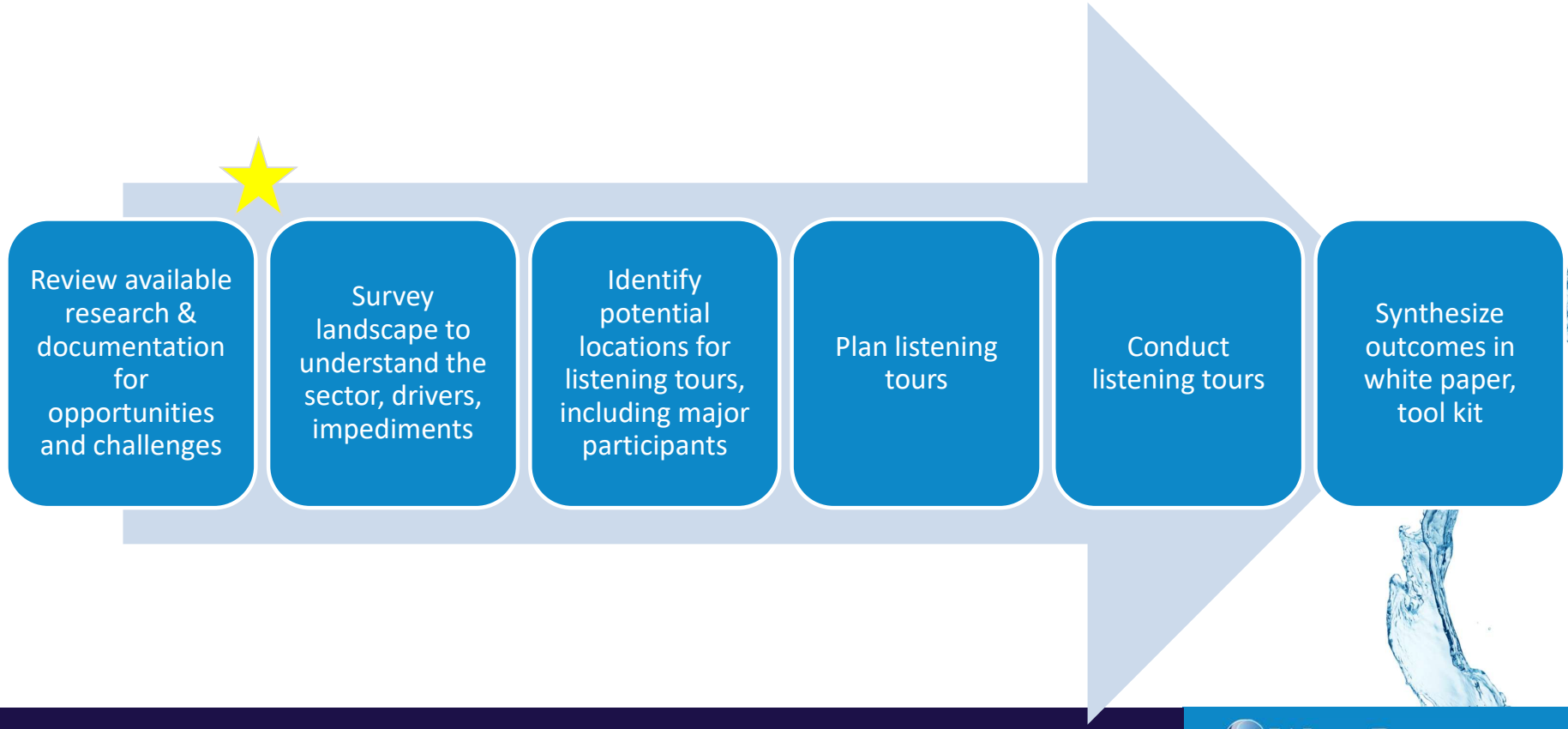
Additional information gathering

- Survey the landscape
  - Develop targeted survey questions to better understand the sector for users
  - Focus on drivers vs. impediments
- Analyze the findings
- Develop short-list of participants to conduct listening sessions in representative areas from survey participants

Approach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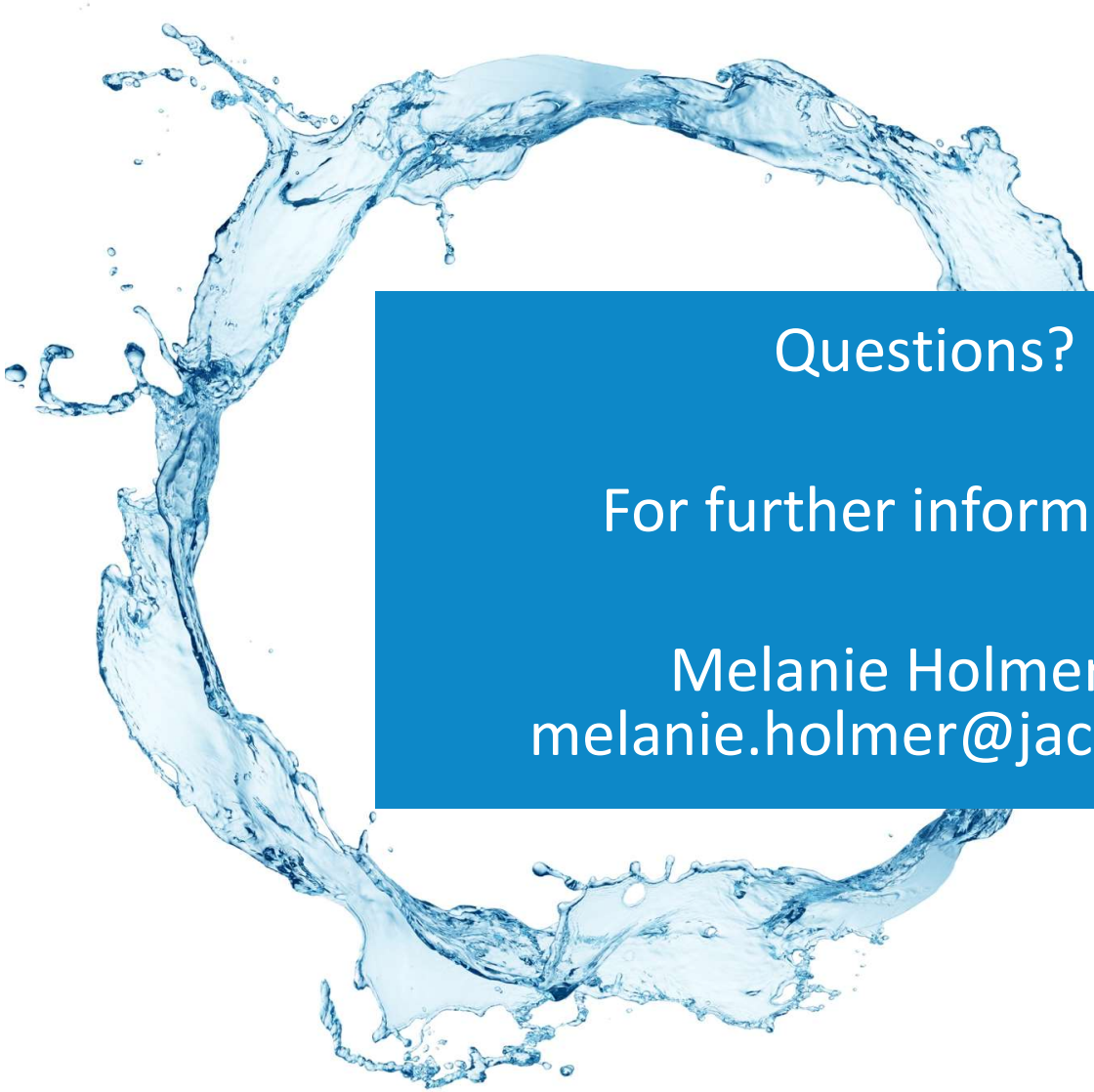
Next steps

- Do you have any thoughts on potential participants for the listening session, case studies, examples of where it has worked?
- Interested in the Ag Reuse Committee? Questions? Email melanie.holmer@jacobs.com



Questions?

For further information:

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